INDEPENDENT PRICING AND REGULATORY TRIBUNAL

REVIEW OF WATER PRICES FOR THE SYDNEY CATCHMENT AUTHORITY
Tribunal Members

Dr Michael Keating AC - Chairman
Mr James Cox
Ms Sibylle Krieger Held at the offices of IPART
Level 8, 1 Market Street, Sydney, NSW 2000

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WELCOME AND INTRODUCTION

THE CHAIRMAN: I would like to begin by welcoming you to this public hearing conducted by the Independent Regulatory and Pricing Tribunal into water prices for the Sydney Catchment Authority (SCA) in the period commencing from 1 July 2009.

I should begin by introducing ourselves. I am Michael Keating. I am the chairman of the Tribunal. I am joined on this review by my fellow Tribunal members. They are Sibylle Krieger, on my right, and Mr Jim Cox, on my left. Jim, of course, as I suspect everyone here knows, is the chief executive officer of the Tribunal.

It does not seem that long ago that we conducted a review of the SCA's prices. That review was conducted during the 2004 financial year and the pricing determination made at that time covered the period from 1 October 2005 to 30 June 2009.

This present investigation being conducted by the Tribunal will cover a period commencing from 1 July 2009. The Tribunal has not yet decided on the length of the determination period and we are open to suggestions in this regard.

I note that the SCA and several other stakeholders have suggested that the determination be for three years. That, of course, would mean that the determination would expire on 30 June 2012, which would be in line with Sydney Water's current price path.

In that case, the SCA and Sydney Water determinations which were reviewed in 2005 would come back together again. The reason they separated, if you like, was that given the investment made in desalination and other factors, Sydney Water's price was reopened last year. They therefore got in a year early and got out of the line with the SCA. While we have not made up our minds, there is a fairly obvious reason why it would be desirable to review the SCA and Sydney Water at the same time in the future.

At the time of that previous determination back in 2005, New South Wales was in the midst of a very serious drought. As someone who does not live in Sydney, we are still in a serious drought in my area, but it is perhaps

less so in Sydney. Anyway, the expenditure program of the SCA was heavily influenced by the need at that time to secure Sydney's water supply and to make investments to cater for a growing population as part of the Government's metropolitan water plan.

At the time of the 2005 determination, it was envisaged that the SCA would invest in extensive works on the Shoalhaven transfer scheme to augment Sydney's supply of water in that way, and provision was also made for more work on the Prospect Reservoir and the construction of the Fish River water supply scheme pipeline to increase supply in the Blue Mountains.

At the 2005 determination, IPART changed the balance of the fixed and volumetric components of the SCA's charges to Sydney Water by increasing the relative size of usage or volumetric charge compared with the fixed charge. This was done, I believe, at the request of the SCA at that time, and the intention was to set the SCA volumetric charge with reference to the SCA's long run marginal cost and that would send a pricing signal to Sydney Water to help it achieve the Government's demand management objectives.

Since the 2005 determination, the New South Wales Government has decided not to proceed with raising the dam wall at Tallowa and that has changed the scope and timing of the Shoalhaven transfer scheme. However, in response to the Government's metropolitan water plan, the SCA has invested in several projects that were not forecast at the last price review, including the development of groundwater sources.

In recent times, the available water supply in Sydney has increased. In fact, I understand that dam storages are at about 65 per cent of capacity - up from about 36 per cent in January 2007. The Government has also decided to construct a desalination plant. The plant's current capacity of 91 gigalitres per annum equates to approximately 18 per cent of the SCA's supply to Sydney Water in 2006-2007. Nevertheless, despite this improved situation, the issue of the security of water supplies will no doubt feature in this inquiry.

As part of this investigation, the Tribunal released an issues paper back in July this year which set out the key aspects of the review process. The issues paper

outlined some of the matters the Tribunal considers important to this review, its general approach to price setting, the matters that IPART's Act says that it must take into account in conducting a price review, and a draft timetable for the review.

In the issues paper, the Tribunal called for submissions from the SCA, its customers and other stakeholders.

I want to record now that we are appreciative of those who have taken the time to make a submission. Some of the organisations that have made submissions to the review will be presenting a case to this hearing today. Of course, all the submissions received will be carefully considered by the Tribunal in developing its findings and recommendations.

The Tribunal considers this to be a very important investigation. Prices should provide the SCA with sufficient revenue to undertake prudent investment and carry out its catchment management and water supply functions and responsibilities efficiently. At the same time, the Tribunal is conscious that any changes in the SCA's bulk water costs to Sydney Water as a result of this determination will necessarily be passed through to Sydney Water's customers through their fixed charge. Any changes to prices that are paid by local councils are also likely to flow through to end consumers.

An important issue for this review, which has been raised by several stakeholders and by the SCA itself, is whether the structure of the SCA's charges should be changed. As I have already hinted, the Tribunal's usual approach to setting water prices has been to set the volumetric charge with reference to an estimate of the marginal cost of supply. When we set the volumetric charge in this way, it then signals to consumers the costs imposed or avoided if they increase or reduce their water consumption.

For this review, the Tribunal will need to look at the structure of prices and the appropriate level of SCA's volumetric charges to Sydney Water and to the local councils. In doing so, it will need to consider the signalling effect of the SCA's prices, including the role these prices play in signalling the need for future supply

augmentation, on the one hand, and the incentives that they provide to the SCA's customers to invest in water conservation measures and to obtain water from the least cost combination of supply sources available, on the other hand.

The Tribunal will also need to consider the scope for bulk water purchasers and their customers to respond to these price signals, taking into account factors such as the desalination plant and its operating regime and the potential for the development of alternative sources of supply under the Water Industry Competition Act.

In this context, I also note that, over recent years, a lot has been said about scarcity pricing, where the price of water above what is sometimes termed a "lifeline allowance" or a "basic allowance" is allowed to vary and to balance supply with demand. It has been suggested, admittedly by economists, that this type of approach would obviate the need for water restrictions. The Tribunal would be interested in hearing the views on scarcity pricing or a pricing regime where price levels vary with available supplies within the SCA's dam system.

On the other hand, some of you may take the view that we are not facing scarcity and that the need for scarcity pricing in those circumstances is very much reduced.

To sum up, this hearing is a very important part of a broader price review process. It provides an opportunity for the Tribunal to hear from the SCA, its customers and other key stakeholders. It provides an opportunity for us in particular, and perhaps some of the other stakeholders, to question some of the propositions that have been put forward.

The submission made by the SCA together with the other submissions and consultants' reports that were commissioned are available to the public through the Tribunal's website.

I would now like to say a few words about the process for the conduct of this hearing. You should have available to you a timetable which indicates the order in which organisations will be presenting before the Tribunal. For each organisation appearing, a presentation time has been allowed. We will try to stick to that. This will be followed by a period of questions, which will be more

difficult to stick to - I do not want to cut good questions off, of course. I would ask the presenters at least to stick to the allotted time.

Assisting the Tribunal today are three Tribunal secretariat members: Colin Reid, who is seated immediately on the right; Amanda Chadwick, who is the program manager; and Matt Edgerton, who is the senior analyst for this program. They will be asking the questions mainly with a bit of interruption from the Tribunal where necessary.

At the conclusion of all the scheduled presentations, I will make time available for members of the public to express their views and opinions on the proposals that have been put forward before us by the SCA and by others here at this hearing.

We will now commence with the representatives from the SCA. I would ask each of the presenters when they come forward to state, for the record, their names, the organisation which they represent and their position in the organisation then make your presentation. Thank you very much. Over to the SCA.

SYDNEY CATCHMENT AUTHORITY

MR BULLEN: Thank you. My name is Michael Bullen. I am chief executive of the Sydney Catchment Authority and assisting me here today are:

MR RASIAH: Kumar Rasiah, principal economist.

MS GREENAWAY: Simone Greenaway, general manager corporate strategy and government.

MR BULLEN: We will start with our overview. I wish to spend a little bit of time running through the SCA's area of operations to ensure people are clear on our responsibilities. The water supply system that we manage covers five catchments, the Warragamba, Upper Nepean, Woronora, Blue Mountains and the Shoalhaven. The catchments extend over 16,000 square kilometres and the SCA also buys water from the Fish River scheme - up to 3,600 megalitres per annum.

In total, the SCA manages 15 major water supply storages or 21 prescribed dams under the Dam Safety Act.

Those storages have a combined capacity of 2,608,730 megalitres, and the yield of the catchments is currently estimated at around 570 gigalitres per year. To put that into context, last year the SCA supplied about 479 gigalitres to Sydney Water and its other customers.

There are 3,700 square kilometres of inner catchment lands that are proclaimed as special areas and the activities that occur on those lands are subject to the SCA's direct regulatory control. Most of the land in the Warragamba special area is owned and managed under the National Parks and Wildlife Act. Similarly for the Shoalhaven, only 16 square kilometres of the total 5,750 square kilometre catchment, or about 0.3 of a per cent, is declared as a special area.

As people are aware, a range of land uses exists between the Warragamba and Shoalhaven catchments, including residential areas, urban centres, small-lot rural subdivisions and a range of intensive agricultural industries such as livestock, vegetable growing and poultry farming. There is also coalmining, forestry, and there are the public roads and utility easements throughout the catchments.

Our approach to protecting raw drinking water quality in the catchments is based on preventing risks to that drinking water quality by minimising the impacts of new development and current activities on raw drinking water quality, improving water quality during specific events, and repairing impacts on water quality from erosion, river degradation and land clearing.

To very quickly touch on the water supply network, the Warragamba catchment is the second largest catchment. It includes the regional centres of Goulburn, Moss Vale, Mittagong and Lithgow. Warragamba Dam forms Lake Burragorang, a 75-square kilometre lake with 354 kilometres of foreshore. That is the largest urban supply concrete dam in Australia and it is capable of holding just over 2 million megalitres of water - almost four times the capacity of Sydney Harbour.

Warragamba Dam currently supplies over 80 per cent of Sydney's drinking water needs. It is delivered by pipelines to the Prospect water filtration plant and during extreme drought, the Warragamba Dam deep water pumping

station, commissioned in this current pricing determination, can be used to boost these supplies. On the way to Prospect, water is drawn off for supply to the Warragamba and Orchard Hills water filtration plants, Penrith, Emu Plains and the Lower Blue Mountains are supplied from that plant.

The Upper Nepean catchment, which is 900 square kilometres, includes Cataract, Cordeaux, Avon and Nepean dams - all the metropolitan dams.

The Woronora catchment covers an area of approximately 75 square kilometres that drains to Woronora Dam with a total operating storage of just under 72,000 megalitres. The water supplies from this dam are treated at the Woronora water filtration plant for distribution to Sydney Water's customers.

The Shoalhaven system comprises three major storages: Tallowa Dam, Fitzroy Falls Reservoir and Wingecarribee Reservoir, which is within the Warragamba catchment. Tallow Dam, on the confluence of the Shoalhaven and Kangaroo Rivers, has an operating storage of 35,300 megalitres from a 5,750 square kilometre catchment area.

The Blue Mountains water supplies are harvested from five water storages: Medlow Dam, Greaves Creek Dam and Cascade Dams. They have a total catchment of 12 square kilometres and operating storage capacities of approximately 2,790 megalitres. Supplies in the Upper Blue Mountains can be supplemented and are supplemented from an entitlement in Lake Oberon under the Fish River water supply agreement.

The last storage is Prospect, which has capacity for 33,000 megalitres and can be drawn on to supplement the Warragamba pipeline and Upper Canal flows or as an emergency supply. A new raw water pumping station provides enhanced access to water in the reservoir in the event of a prolonged need and Sydney's water supply can be sourced wholly from the reservoir for a number of weeks, if necessary, which is part of the flexibility and the variability of the supply.

Turning to the history of the organisation, I'm sure people are aware that the SCA was established after the 1998 water quality incident and the 1998 Sydney Water

inquiry. The inquiry considered the future directions for the management of the drinking water catchments, and the inquiry's recommendations included establishing appropriate management and regulatory structures to ensure that the catchments are not compromised.

We are charged with the tasks of ensuring the catchments are managed to supply high-quality bulk water, optimise water quality, protect the environment and minimise risk to public health from the water supply.

To touch on some of the challenges that we've had over the last three years, the challenges facing the Sydney Catchment Authority have changed since its establishment due to the impacts of drought, the introduction of a competitive environment for water supply and an increase in operating costs with increased transfers from the Shoalhaven.

As a result of the period of intense drought, there has been a growing acceptance in the water sector of the importance of diversification in water supply sources to ensure security of supply in times of scarcity. This diversification will lead to improved reliability of water services, and by 2010 Sydney Water will have a 250 megalitre per day desalination plant which may impact on the demand for the SCA's water services.

As part of the review of the metropolitan water plan, the operating rules for the desalination plant and the supply arrangements will be considered.

The Shoalhaven scheme has been used during the drought to supplement supply. Transfers from the Shoalhaven have provided a significant drought buffer, and at the height of the drought storages would have been around 13 per cent had they not been buffered by an additional 20 per cent from the Shoalhaven system.

The transfers have a significant cost for energy usage and the SCA's operating costs have significantly increased. During the drought, our water sales have been down by 12 per cent and pumping costs over the four-year price period have been close to $35m.

The overall impact on the SCA's financial performance has meant reduced returns to Government and a return on

assets of around 5 per cent compared to IPART's target of 6.5 per cent under the previous determination.

Level 3 water restrictions were introduced in June 2005 and have had a significant impact on demand, and, as people will be aware, the Minister for Water announced a moratorium on pumping from the Shoalhaven on 7 November 2009. We can touch on that a little bit later during the course of the presentation.

How has the SCA responded to the challenges and what are some of the issues that we need to address going forward? Firstly, we have a statutory framework that is established through our Act, the regulations and the operating licence. Through our corporate responses we have a risk management framework and an asset strategy, a water quality risk management framework and a five-year corporate plan bringing all of these elements together.

Under the corporate plan, we have four key result areas. Firstly, high-quality water supply where our raw water deliveries meet the agreed quantity and quality specifications; that dams and delivery systems are safe, efficient and well operated and maintained; that the water supply system operates successfully during droughts, floods, fires and other incidents; and that water supply planning and asset investment keeps pace with current and future requirements.

As an example of that, from August 2007 until towards the end of 2007 there was the first major outbreak of a blue/green algal bloom on Warragamba Dam, and even though that bloom was there, we successfully managed to deliver water within standard to Sydney Water by the variability and the flexibility we have in the system by being able to draw water from below where the algal zone was.

The second key result area is around sustainable catchments. Objectives there are: reduced environmental degradation to make sure we improve water quality; reduced priority pollutants entering the system; reduced environmental impacts of our operations; and that development and activities comply with sustaining the catchments, the regional plan for the drinking water catchments of Sydney and adjacent regional areas. We need to make sure that our lands are managed to contemporary standards and that there is an improved awareness within

the community about how they can contribute to protecting water quality.

The next key result area is in the area of strategic partnerships. We work closely with local governments to implement sustaining the catchments, the regional plan for the drinking water catchments. We also work with the catchment management authorities, local government and catchment communities to implement a healthy catchments program. By working closely with the catchment management authorities we are able to ensure that we obtain a greater benefit for the funding that we provide through the catchment management authorities and leverage into greater results.

We work with other government agencies to review and deliver under the metropolitan water plan, and we work closely with the Department of Environment and Climate Change to manage the special areas of water quality and biodiversity.

Our business objectives, as a key result area, are that people are safe at the Sydney Catchment Authority; that we have the right people with the right skills at the right time; that we have a rigorous risk-management framework; that our tools, systems and knowledge keep pace with our business; that we manage to meet a statement of financial framework that is agreed on an annual basis with Treasury; and that the community are confident about how we make our business decisions.

Our risk management framework. Firstly, what this chart provides is how we identify and address strategic risks at the corporate level. We have broken that down into three categories: what are our water quality risks; what are the risks to infrastructure and the reliability of supply; and what are our business risks? It has been developed under Australian Standard 4360 and provides an overarching methodology to ensure consistent risk assessment and management.

It provides some examples of the risk assessment tools used at the operating level of the organisation consistent with that standard. Our risk management framework is regularly monitored and reviewed by the board's asset risk committee to ensure that it remains contemporary and is addressing the business risks.

The SCA faces a number of commercial business and operating risks that have the potential to impact on our performance, and our responses to those issues include the identification of various policy and other drivers for risk management, including the risk management policy, our framework, formal water quality risk assessments and prioritising systems and a wider range of operational risk management tools for various functional areas within the organisation.

One of the critical areas that the organisation is charged with is how we improve the health of the catchment as it relates to water quality. We've been working over the last three to four years on how we can get some rigour and some process around those interventions in the catchment. This framework provides the process that we are currently working through to develop our healthy catchments program as the ultimate outcome.

Firstly, starting from the top, we consider the relevant legislation, our operating licence and our corporate strategies. We then use inputs from spatial information such as landscape, land use - such as forestry, mining activities, grazing and so on - the latest science and research about the potential risks from those land uses, and up-to-date catchment information from our offices and information collected from the catchment.

That has been fed into a catchment decision support system that we have been working on over the last few years and is now able to be used to inform our prioritisation process as to where our interventions should occur.

That prioritisation process picks up the outputs from the catchment decision support system and deals with how they may be considered in terms of Government priorities; what the risk analysis is in relation to how they may impact on water within the storages; what our existing programs are - because obviously over the last 10 years we have had a number of existing programs - and how we might shift from where we are now to where we need to be in the future; what some of the Government planning initiatives are - for example, around the southwest growth sector and how that might impact on our authorities; and who has ultimate responsibility for the particular issue that needs to be addressed. Is it an SCA responsibility or is it a

regulatory requirement that is best managed through councils or through the Department of Environment and Climate Change?

What are the opportunities around partnership? Can we work with local government, can we work with catchment management authorities to deliver these interventions? Then, it also picks up, as I said, up-to-date catchment knowledge. All of those factors are considered to develop our healthy catchments program.

If you like, the healthy catchments program consists of two sides: the planning side, which is about the regulatory planning, local environment plans and our activities under the EP&A Act; and then the catchment interventions around education, compliance, programs such as our riparian management assistance program, any incentives we may wish to throw in there in relation to applications from interest groups around particular projects, and then land management within the SCA land itself.

Those programs will then be developed and evaluation methodologies will be designed for those programs, which will then be reported as a requirement of our operating licence in our annual catchment activities report, and obviously that loop is closed in terms of feeding back in terms of the development of subsequent new programs.

An example of that program is the accelerated sewerage program which leverages both SCA, council and the Department of Water and Energy, country, town and water supply and sewerage program funding. A total of $102m will be invested on sewerage treatment plant upgrades in the catchment as a result of the SCA's $37.7m investment to accelerate the works under the accelerated sewerage plan.

To touch on some of our current price path achievements, as has been indicated, the operating environment has changed considerably over the past four years. There were some Government decisions around the cessation of the raising of Tallowa Dam in the Shoalhaven system, but, that being said, there have been a number of projects that we have delivered on over the last project's pricing path, such as the deep water access projects at Warragamba and Nepean Dams.

These were delivered on time and on budget in 2006. They were delivered in partnership with the Department of Commerce and received the 2007 Premier's Gold Award in recognition of their innovation and importance to New South Wales. The projects have increased available storage by 199 gigalitres and system yield by nearly 40 gigalitres per year.

The Prospect raw water pumping station: we successfully commissioned and completed the Prospect raw water pumping station, which provides back-up supply of up to 30 days should supply from the other dams be interrupted. The pumping station was a key recommendation of the 1998 Sydney Water inquiry. It was completed on time and on budget and, during a period of elevated turbidity in mid-2007, the new pumping station was used for the first time to supply water to Prospect water filtration plant.

Major works to Warragamba Dam. In this last price period we continued the major works as part of a $240m upgrade program over 10 years to ensure that the dam can be effectively and efficiently operated well into the future. We replaced 12 major valves with eight modern equivalents, which was completed in 2006 ahead of schedule, and we are currently undertaking a major electrical upgrade due for completion this year as well as beginning an upgrade of the drums, crests and radial gates.

We commenced construction in March 2008 to upgrade Tallowa Dam to allow for new environmental flow releases and for native fish passage. This $26m contract will enable the environmental flows and fish passage at Tallowa Dam on the Shoalhaven River. The project will improve downstream river health by improving the quantity and quality of the environmental flows and will allow native fish passage. The works, which will be finished in mid-2009, will see Tallowa Dam as the first dam in New South Wales to have both fish passage and variable environmental flows.

We also continued works to allow the release of the environmental flows in the Upper Nepean River, to be completed by July 2010. We completed the infrastructure project to allow for the release of variable environmental flows from Avon Dam into the Upper Nepean River system, and works to allow for the environmental flow releases from the

other Upper Nepean dams - Cataract, Cordeaux and Nepean - and the two major weirs - Pheasants Nest and Broughtons Pass - will be completed by the end of 2009.

With the Department of Water and Energy the SCA is undertaking a major project to modify 13 weirs downstream of the Nepean River to allow the passage of the new environmental flows and fish past these barriers. Work will be completed by the end of 2009.

Lastly, we finalised the development of sustaining the catchments in the regional plan. From 1 January 2007 the SCA began implementation of this plan. The regional plan was required under the SCA's legislation and is a key tool in the ongoing management of catchment water quality. The SCA played a major role in the plan's development and has undertaken a comprehensive implementation strategy including engagement in an education program with catchment councils and other key stakeholders as part of those works.

To the pricing submission that is currently before us. When we were working through how we might approach this pricing submission there were a number of key objectives that we needed to consider, given the challenges that we have faced over the last four years and what were some of the challenges confronting us in the future. The first one is that as a government trading enterprise there is an expectation that the SCA will provide an appropriate return to Government, both as a return on its assets and as a dividend payment.

The second issue associated with that is the ability for us to maintain a satisfactory credit rating to ensure that our borrowing costs do not increase above what should be considered as a reasonable level.

The next issue that is appropriate around that is how long should the pricing determination period be for?

The next review of the metropolitan water plan is to be undertaken and completed for 2010, so it was felt that we needed to make sure that, firstly, our price period reflected that review of the metropolitan water plan, but enabled that plan to be finalised and in sufficient time to be in front of us before our next pricing submission had to be submitted to IPART. As well as that, the benefits of aligning with Sydney Water's pricing period was also an

advantage in relation to that.

The next issue is how are we going to maintain and manage our operating expenditure in a changing environment.

Firstly, with the commissioning of the desalination plant over the next price period, that is going to have an impact on the SCA's revenue stream over that particular period, and, therefore, we were very cognisant of how we might need to manage our operating expenditure with potential changes in revenues over that operating period.

The second aspect around that is if we do not look at how we can manage our operating expenditure with that changed environment, there is likely to be a significant flow-on impact to our customers and ultimately Sydney Water and other local council customers. We have attempted to identify some efficiencies and some program areas that we may be able to manage over the next three-year period to minimise that impact while still providing the returns to Government that are required as a government trading enterprise.

The other issue is in relation to an appropriate level of capital expenditure over the price period. As people are aware, a mini-budget process has been undertaken and the work that the SCA undertook in preparing its pricing submission stood the organisation in good stead in relation to the questions that were asked during that mini-budget process.

The budget in May 2008 included forward capital expenditure of about $300 million, but through a rigorous review of the timing and the level of capital expenditure proposed under our price path, we were able to reduce that down to $147m, or close to $150m, in the forthcoming price period.

The final issue is, having spent nearly $35m over the last price period with pumping water from the Shoalhaven, what is an appropriate way to manage, if you like, an unknowable cost going forward into the next price period, both unknowable in terms of likely energy costs, given the carbon pollution reduction scheme, but also unknowable in terms of likely quantities that we may have to pump from the Shoalhaven scheme.

So our submission was developed with those key challenges and key objectives in mind, picking up the sales and demand projections from the Sydney Water price determination as adopted by IPART and picking up when the desalination plant would commence, with the initial operation period for June 2013.

The other aspect around the desalination plant and the review of the metropolitan water plan is, as part of the review of the metropolitan water plan 2010, the operational rules around the desalination plant will be determined and considered.

That also fits with the three-year pricing period that we have proposed, because it allows the new rules to kick in for our subsequent pricing determination.

Our operating expenditure has been reduced to $80m per annum in real terms, and our revenue from our fixed charge compared to our volumetric charge has been increased to 80 per cent of revenue, and we can touch on that later if necessary.

As I said, we have identified a realistic capital program, concentrating on requirements around the metropolitan water plan, dam safety requirements and refurbishment and maintenance associated with our assets.

We have sought to obtain a return on assets of 7.5 per cent, which matches that of Sydney Water's recent determination and, as I have said, a three-year price path.

Our submission also includes a price pass-through of $17.7m for the finalisation of the accelerated sewerage program; and the Shoalhaven pumping costs, if and as required, would be a price pass-through.

The mechanism by which that could work is not that it would be based on a monthly or quarterly process through Sydney Water. Given that our price is a pass-through to Sydney Water, there is no reason why that arrangement couldn't be done on an annual basis, as the price path flows through the year.

Where have we been in terms of the current price determination? What you can see there is our IPART-allowed expenditure and what our actual expenditure was in terms of

return as a contribution, and then what those returns have been due to the allowance for the pumping and the lower sales. So the black lines about a quarter of the way down the charts are the impact of that. So our returns have been close to 4 or 5 per cent. Hopefully, with management and a reduced expectation of pumping from the Shoalhaven this financial year, it will allow us to get back up towards that 6 per cent mark.

As indicated, the future water supply has picked up the demand figures from Sydney Water and other customers in relation to 2008 and 2009, as well as for the three years of the price period, plus the fourth year as specified in the Sydney Water pricing determination.

Our planned expenditure includes operating expenditure of $86m this year plus the accelerated sewerage program in 2009-2010, and has been maintained at $80m over the life of the price path.

Our capital programming is much reduced from the activities that we have had over the last three or four years of the metropolitan water plan and, as I said, totals about $147m over the three-year price period.

Our capital expenditure is broken down in terms of the various drivers for the business for capital expenditure. Some of those are in relation to business efficiencies such as IT, introduction of remote access and management of the water supply system, some discretionary standards around maintenance requirements, mandatory standards around dam safety, and then new mandatory standards around safety and other aspects. The final category is in relation to Government programs as required.

Our planned capital program: under the metropolitan water plan for the future price path there is total expenditure of around $18m, which is finalisation of the works on Tallowa Dam, the Upper Nepean environmental flow works, and then preparation around what modifications may be necessary to Warragamba Dam to commence the environmental flow releases that the Government will be deciding in 2015.

The Warragamba Dam spillway: the project was commenced in 1998 and the major work on the new spillway has been completed. The remaining expenditure relates to

the gate upgrades, site restoration plus the construction of the operational building and visitor centre.

The new building is completed now, with staff occupying the building, and the contract has been let for the upgrade of the dam spillway gates with completion forecast in 2010, 2011.

The Upper Canal upgrades: there was significant infrastructure predicted in our initial submission, but that has been rescheduled and pushed back further into our forward capital program.

Prospect Reservoir upgrades: this relates to upstream embankment stabilisation, the issue being that as water is drawn down from the Prospect raw water pumping station there is the risk that there may be some subsidence and collapse of the walls and storage capacity of the dam, and we need to undertake investigation around that.

The Shoalhaven system capital relates to pipe relining, safety around Wingecarribee Dam as a result of the Wingecarribee swamp collapsing into the upper reaches of the dam, work on Bendeela Camping Ground and electrical systems within the Shoalhaven system.

The general upgrades relate to ongoing work, maintenance around pipeline painting, and other activities associated with keeping those assets up-to-date.

The item for land is in relation to security fencing and security around special areas and control of access to our infrastructure. The major aspect in relation to buildings is in relation to the Penrith office block and Warragamba, and then the item for plant and equipment includes IT and our vehicle and other plant.

In relation to our revenue building block over the life of the price path, our revenue is projected to be around the $200m mark over the life of the pricing period with, as I said, our operating expenditure being $97m, including the accelerated sewerage program in 2009-2010 and $80m the year after. Depreciation makes up about $21m to $22m, and our return on assets is about $95m to $97m in relation to building up our revenue.

Moving to what the ultimate outcome of our pricing

submission proposes, what are the charges in prices to Sydney Water? As people can see, there is a shift in the component between fixed and variable which has been highlighted. For those prices in 2009-2010 there is an additional $17m cost in relation to the accelerated sewerage program. That needs to be factored in there.

I asked at the start, what does our pricing outcome mean in terms of the impact on Sydney Water's customers and local government? What we have done is worked out the impact as a result of the pass-through mechanism in Sydney Water's price determination compared with the annual customer bill from the information contained in Sydney Water's price determination. What we have been able to manage through the building up of our proposal over the next few years has been to keep the increase attributable to the SCA to less than 2 per cent as an impact to Sydney Water's retail customers.

Looking at the prices to the councils, who are our other customers, it is proposed that there be no fixed charges, unlike the two-part tariff to Sydney Water. The increase in 2008-2009 over the life of the price path is proposed to be CPI only. Just to give some context, the value of sales of water to Wingecarribee Shire Council and Shoalhaven are approximately $800,000 and $16,000 respectively.

Summing up on where we have come with our pricing submission, over the current price path, we have delivered key infrastructure projects to secure supply over the drought and in the longer term. We have been able to supply high quality raw water to our customers. We have been able to deliver effective asset management, catchment management and land-use planning.

Our proposal for the proposed future price is to provide a 7.5 per cent return on assets and resultant dividends to Government; to achieve and look for significant operating efficiencies; to contain the impact on Sydney Water's customers to be less than 2 per cent, and councils to be CPI, thus enabling to us deliver on critical water supply and catchment works as part of that process, thank you.

THE CHAIRMAN: Thank you very much. That was a very comprehensive overview. We have a few questions. We are

mostly concentrating on the prices.

MS CHADWICK: The SCA, in its submission, has included efficiencies in its forecasts for operating expenditure of approximately 7 per cent. How was this level of efficiency determined and what are your plans for achieving it, and what do you believe are the implications of these efficiencies for the SCA's legislative and other obligations?

MR BULLEN: Coming into the organisation in the middle of this year as I did, there were a number of inefficiencies in the way that the organisation operated and there are some changes that will result as a result of government policy over the next little while.

Dealing with the first one, as an example of inefficiencies within the organisation, at Penrith, the organisation was scattered and split between three different offices. One major office had the majority of the staff, with two other offices on either side of busy roads. We are moving to our new office out at Penrith and that presents an opportunity for us to consolidate our administrative functions rather than having them split between a number of offices. As well as that, we are also looking at how we might consolidate support for the executive and senior managers of the organisation rather than having individual officers assigned to each executive member.

The second aspect around that is that the metropolitan water plan team that we have had in place over the last three or four years is due to finish work at the end of 2009 - so in the first six months of the next price path. We are looking at how we might stage the reduction in those staffing levels of the metropolitan water plan team so that we will have the minimal number for the commencement of the next price path.

Another aspect is in relation to our accommodation and other costs. We have significant office accommodation costs associated with operating offices at Warragamba, Penrith, Campbelltown, Burrawang and at Goulburn. I think that there are opportunities for efficiencies around reduction in our office and accommodation costs.

As part of that process as well, a new general manager

corporate services commenced about 12 months before I started. She has been working very hard to improve our business systems and our processes within the organisation. As part of that, there are opportunities around improving efficiencies around procurement and our HR systems that currently require a lot of manual manipulation to obtain reports and processes. Over the next six to nine months, we will start to reap the benefits of that.

I would also add that, currently within the organisation, we have about 30 to 40 positions that are occupied by the temporary or agency hire employees. There is an opportunity there, with the refinement of systems, with the introduction of changed systems and processes and efficiencies, to reduce the number of staff, the EFT equivalent we have in the organisation by not employing those temporary and agency hire staff.

MS CHADWICK: The second aspect of that question was about the implications of those efficiencies for your legislative and other obligations. The Total Environment Centre has, in its submission, raised some concerns about the implications for catchment management of one of those efficiency programs. I guess the broader question is: how does that relate to the delivery of the legislative objective?

MR BULLEN: To my mind, if we are able to look for efficiencies in our back office functions in terms of our business and corporate systems, that would enable us to spend either the equivalent amount or an increased amount on our catchment activities whilst still reducing our operating expenditure over the life of the program.

The other point around that is how we might undertake those catchment interventions and catchment activities in a smarter and more appropriate way. An example of that is at the moment , through our catchment management program, we fund activities with the Hawkesbury-Nepean and the Southern Rivers Catchment Management Authority. That money, through the linkages with the Natural Heritage Trust is able to be leveraged on a 2:1 basis, for example.

We have another major program, which is a riparian management assistance program. Over the last few years, we have concentrated on doing that internally with our own staff within our own period of operation. The reasons for

that were really to ensure, firstly, that the program was up and running, well established, and, secondly, that we were delivering on our objectives.

Now that that program is in place and we have been able to get some successful projects on the ground in our priority catchments, I think there is an opportunity to look at whether that program could not also be done in partnership with Hawkesbury-Nepean and the Southern Rivers CMA. So there is an opportunity from, if you like, a similar level of investment from the SCA to be leveraged into considerably greater money with the Natural Heritage Trust and to be able to deliver two or three times the amount of money and works on the ground than we are able do as a single organisation.

That is an example of some of the things we are trying to look at while reducing our efficiencies and maintaining and improving our catchment activities.

MR EDGERTON: I have a few questions relating to your price structure. Firstly, the SCA's submission notes that the proposed volumetric charge to Sydney Water reflects your short run marginal costs over the next regulatory period. Why does the SCA propose that the volumetric charge should be set with reference to its short run marginal costs rather than its long run marginal costs?

MR RASIAH: In coming up with that type of structure, we looked at a range of issues. As you can imagine, it is a very difficult issue to resolve. We were mindful of all of the issues that Michael has raised in terms of the price path going forward over the next three years, if you like. We are also fully alive to the work that has been done on long run marginal cost, of course, in terms of the traditional pricing outcomes. But there are some references in your working paper on water scarcity; for example, that over the next three years, we may not be in the same situation with the desalination plant coming on and there may be, even going further forward, some level of capacity as opposed to scarcity.

For example, the Grafton and Compass reference in the working paper says that at times like that, you can look at capacity based pricing, which is the short run marginal cost approach, if you like, as opposed to demand base pricing. That was another factor that came into the

thinking.

There was a range of issues, really, that led us to come up with the 80 per cent fixed, 20 per cent variable, one of those being its alignment with the short run marginal cost approach, but over the next three years. Then having trialled that and seen the outcomes, we would look forward to what the situation brings over the next price path.

MR EDGERTON: On the subject of long run marginal cost, and just to flesh out your answer a little more, what supply augmentation projects are expected to be required of the SCA over the foreseeable future, for example, over the next 10 to 20 years, and what is the latest information available on the timing and costs of these augmentation projects?

MR BULLEN: As you would be aware, that is part of the process around the review of the metropolitan water plan. As part of the current metropolitan water plan, the SCA was required to consider options and report back to the Government around two major significant capital expenditure projects. The first one is in relation to the Upper Canal and what options there were around replacement and so on of the Upper Canal. The Upper Canal project in itself is not a supply augmentation project because it does not actually increase supply; it just significantly improves the risk around the water quality.

The second project related to the Shoalhaven transfers. The latest information that we have in terms of our supply and demand modelling is that the need to invest in any further augmentation from the Shoalhaven scheme around tunnels to replace the run of river arrangements is not predicted until about 2020 plus. Our initial cost options around that are approximately $500m in terms of capital expenditure. As I said, that is where that process is currently at. Any decisions around both the commencement of that project and so on are matters for the Government.

MR EDGERTON: Also on that issue of price structure, I would like to get your response or thoughts on a number of pricing options that were raised in our issues paper. Firstly, one option raised in our issues paper was for the SCA to charge Sydney Water a fixed price for a given

maximum quantity of water with any consumption by Sydney Water above this amount charged to volumetric price, set, for example, with reference to the long run marginal cost. There could be a variety of ways to set the fixed volume of water. For example, it could be set with reference to sustainable yield or established volume to supply. What are your thoughts on the merits of such a pricing structure and how it could be applied in practice?

MR RASIAH: You would have to look at the levels that are proposed, but one of the options in fact in the issues paper was, for example, a fully fixed price, a fully fixed charge with the commensurate issues that are raised with that.

To the extent that that approach, over the next three years, I suppose, allowed 80 per cent of revenue to come within that fixed band, that would be, if you like, moving in the same direction as we have proposed, but it would very much depend on where the levels are set in terms of our revenue outcomes over the next three years really.

MR EDGERTON: Just following up on that, another option raised in our issues paper was scarcity pricing whereby the level of the volumetric charge to Sydney Water would vary depending on available supplies within your dams. What do you see as the merits of that proposal and how could that be applied in practice?

MR RASIAH: I think we would agree pretty much with your findings in the issues paper in terms of the pros and cons. While it may be more economically efficient because water is allocated to its highest values, over the next price path, given the construction of the desalination plant coming on line - the chairman alluded to the circumstances in terms of supply and demand maybe not being as restrictive as previously - we would not see the need for that in the short term at least and, at this point in time, we would be looking at moving in that direction.

THE CHAIRMAN: Have you finished this line of questioning?

MR EDGERTON: I have.

THE CHAIRMAN: I would like to pursue it a bit further and then I think my colleague Jim Cox might want to pursue it also.

The starting point from my point of view is why 80:20? Not so long ago, we proposed 35:65 and we basically moved in that direction. Now we are going backwards - we are going in the reverse direction. On the face of it, there are some potential negatives with that 80:20. We went to 35:65 for some good reasons. In particular, Sydney Water - they will speak for themselves, no doubt, of course - see it as potentially an exercise in risk shifting.

The other concern might be that if Sydney Water's costs are largely fixed, then they have an incentive to sell as much of it as they can. They are going to pay for it whether they sell it or not. The best thing they can do is sell it, so it does not actually encourage the sort of demand management initiatives the Government is favouring.

Given those sorts of thoughts, 80:20 does not seem like a terrific idea at first blush. As has just been pointed out by Mr Rasiah, it would be possible potentially to get something in the order of 80:20 if you came at it in a different way; that is to say, there is a guaranteed quantum that Sydney Water can quantify, so you might as well put a fixed cost on that given that they are going to want to buy it. Whether that is 80 or whether it might be only 75, there is a substantial bulk which you can be very confident they will want to buy. That is another way of referring to the sustainable yield, the presumption that your water or the bulk of your water is always cheaper than anyone else's.

That is, if you like, a long-winded way of saying that you have a bit of a job to do to persuade us to embrace 80:20, whereas you might have a bit less of a job to do to persuade us to get something approximating the same answer, but coming at it in a different way. I wonder if you would like to comment on that.

MR RASIAH: In summary, Michael highlighted the issues before in terms of trying to come up with this, over the coming period, where the desalination plant is coming on line and the risk, if you like, to the SCA in terms of its revenues. This is what we experienced in the previous price path where the 65:35 was mooted going forward after IPART had its price review at the time, which was essentially focused on step pricing and that approach. IPART decided not to proceed along those lines yet

indicated that some move towards a high volumetric component would send the appropriate signal.

It was in response to IPART's indications that the SCA proposed to trial that over that last price path. The outcome has been that, because of the difficulty in forecasting demand and the price being locked in for that period based on the demand, there has been a high degree of revenue volatility resulting in the revenue outcome for the SCA being about 4.5 or 5 per cent compared with where the target was.

That was one of the factors that we looked at: just to look at the coming three years when there is continuing uncertainty, as we would see it, in terms of what the SCA's sales might be over those next three years. That was one factor. But the other side of it was that we also did intend in the short term to look at the capacity situation and indeed still, unlike, say, having a fully fixed charge at 20 per cent, include some signal to Sydney Water in the short term.

THE CHAIRMAN: I guess from our point of view, there is a question of how much risk there is and then how it should be shared between the SCA and Sydney Water.

MR RASIAH: Given the pass-through mechanism that exists where any revenue excess above the revenue that IPART has set in the pass-through formula passes straight through to customers, on fixed-charge customers, the risk to Sydney Water you will see over this period may not be as high.

THE CHAIRMAN: I see.

MR BULLEN: That being said, Mr Chairman, with regard to your suggestion around approaching that problem in a different way, it is probably worth considering and having some discussions as to our thoughts relating to that suggestion.

MR COX: Listening to your answers, the sort of impression I get is that you think the 80 fixed, 20 usage component is right for this coming three years because, essentially, there is a lot of water in the dams, the implication being it may not be right in other times and it may not be right in the future. That is my first thought.

The second thought that occurs to me is that the water that the Sydney Catchment Authority has in its dam is much more valuable on a per unit basis when dams are at a fairly low level of storage than when they are full and perhaps an ideal pricing system could reflect that as well.

I wonder if you have any thoughts on such a system. Is that one that we should be moving towards in the longer term? It seems to me we do not want to be flitting from one price structure to the next in every price determination period. There ought to be some logical structure behind it. I would be interested in your thoughts on that.

MR BULLEN: I will get Kumar to discuss the pricing implications. By way of context, because we are dealing with the metropolitan water plan and the operating rules around desalination and supply from the various storages, that will be a critical factor in subsequent pricing determinations.

Ultimately, the Government, I would imagine, is proposing to make decisions around certain supply levels to enable the consumers of Sydney to use water to a certain amount, and we will be seeking to maintain a situation where storages do not approach the low levels that they had reached during the last review.

That being said, how those new operating rules translate into appropriate pricing arrangements is something that I think we will need to evolve over the next three years. For example, if the desalination plant is running at a high level and we have a wet period, which we have had in the past - who knows what may happen in the future - then there is a reasonable opportunity cost of water going over the spillway down the river. That is an opportunity cost in terms of water supply to the people of Sydney, but it also has an environmental benefit in terms of environmental flows and benefits to the river.

How those issues interact at an appropriate pricing structure for the SCA and Sydney Water is something that I think will emerge over the next three years, or there is an opportunity for it to emerge over the next three years as those rules are determined

MR COX: But you would like to feel that the rules and the

pricing were in harmony.

MR BULLEN: Yes.

THE CHAIRMAN: I suppose you can have the situation where the rules are set and the prices are brought into line with the economy. There is another way of looking at it, which is that if you get the right price structure, it puts less pressure on regulatory rules because you create a set of incentives. To my mind, you need to consider both the rules and the prices together, not sequentially.

MR BULLEN: Which is correct, and that opportunity is present over the next price path. As the operating rules for the system are developed, there is an opportunity for those to be considered in terms of future price determinations for both the SCA and Sydney Water, and, if you like, for backward adjustments or an iterative process to occur at that stage with the review of the 2010 metropolitan water plan and subsequent reviews.

MS KRIEGER: The 80:20 split that you are proposing that will significantly decrease the volumetric charge for water. What implications do you think that has in the emergence of competition for the supply of bulk water?

MR RASIAH: I think in line with what Mr Cox referred to, we were looking at it in terms of the immediate price path. It really is linked in very much with what Michael said about how the operating rules work for the desalination plant in the longer term, so there will be implications for competition there as well. Currently, the institutional arrangements are that we supply 99 per cent of our water to Sydney Water; so, in that context, that is how we came at the 80:20 rule. Longer term, I think that is something we will have to look at further, as the Water Industry Competition Act comes on and competition emerges, if you like.

THE CHAIRMAN: Strictly the Act is here now. It is not three years time; it is now.

MS CHADWICK: In terms of the other aspects of the price structure the other customers of the SCA are the local councils - Shoalhaven Council, Wingecarribee Council and, in the future, Goulburn Council. The SCA proposes that prices to these councils increase by CPI. The councils are

currently charged the volumetric charge only, and that has been steadily tracking towards the volumetric charge that Sydney Water pays over the current regulatory period. The question is: what is the basis for the SCA's proposal that the councils' prices increase by CPI rather than also being adjusted over this period and how do these charges relate to the cost of servicing these councils?

MR RASIAH: In terms of the prices going forward for the councils, we have sought to minimise the impact on our customers. Again that is why we have held the prices, if you like, for the 2008-2009 levels at CPI, given that we are proposing this restructure of the tariff. But we are also wanting to, in the longer term, avoid price shocks to the customers should the tariff structure change. That is one of the factors.

In terms of the cost, I guess we have looked at an overall whole-of-system cost in delivering water because there is, I suppose, a resource opportunity cost in terms of the water. That is one of the factors why we have maintained that same tariff going forward.

MS CHADWICK: Did you consider changing the structure of the councils' prices to be reflective of the structure changes that you are suggesting to Sydney Water?

MR RASIAH: Again, I think the issue there was that the councils don't pay a fixed charge, so it is hard to look at a two-part tariff in that sense. The councils have not been charged a fixed charge historically coming forward, for various reasons, so that option was not available, if you like.

THE CHAIRMAN: I am sorry, I may have missed a point, but in the previous determination - and I suspect even earlier than that - we were invited by the SCA to move to a situation where the volumetric charge to councils actually increased faster than it did for the Sydney customers, if we put it that way, so that they would come into line. The implication seemed to be that whoever you were, you bought the water at the same price. That seemed to have a certain logic. But now we are being invited to reverse that. Is that a fair comment?

MR RASIAH: At this point in time, we are only looking to hold the prices steady.

THE CHAIRMAN: But you are asking us to increase the prices to Sydney customers, at the end of the day, by 3 per cent. Whereas you are asking us not to increase the prices to local councils by more than the CPI. So it is, if you like, a reversal of what we were trying to do previously.

MR RASIAH: I think the approach was to, if you like, over the three-year period where there is that uncertainty about how the tariff might look going forward, not create disruption, if you like, in terms of the prices --

THE CHAIRMAN: You're going to do it to the city customers but not to the Goulburn customers or Southern Highlands customers. I am just trying to understand why the sauce for the goose isn't the same as the sauce for the gander.

MR BULLEN: In terms of our overall supply arrangements, they are a very minor component of our revenue stream.

THE CHAIRMAN: But, still, they were a minor component three years ago when we were asked to bring them into line, or move towards bringing them into line.

MR BULLEN: Okay.

MR REID: Could I ask two questions. First of all, you have requested a 7.5 per cent rate of return but, at the same time, for a pass-through of the Shoalhaven cost and for the make-up, if you like, of the charges to Sydney Water to change to 80 per cent fixed and 20 per cent usage.

That would appear to, if you like, achieve revenue sufficiency for Sydney Catchment Authority, but certainly not expose Sydney Catchment Authority to some of the commercial risks, et cetera, that would normally be associated with a 7.5 per cent rate of return - more close to almost a risk free rate, if you like. I am just wondering, in the context of your proposals, how you justify the 7.5 per cent rate of return.

MR RASIAH: I think that was picked up in the context of the current determination to Sydney Water and based on the volumetric risk that we have run in the past, and, going forward, that we maintain the comparable outcome, if you like, in terms of the water industry as a whole, bearing in

mind that when we had the 6.5 per cent on the previous price path the achievement was considerably under that, around the 5 per cent mark.

MR REID: Just in relation, then, to the price structure and the incentive issue, it relates to the question, obviously, of the potential impact on competition, but there is also the impact, of course, on demand management and aspects such as leakage control by Sydney Water. If they're based largely on a fixed charge, what incentives does that create for them to adopt demand management approaches and, in particular, for example, greater leakage control?

MR RASIAH: I think, moving forward, prices are going up in that sense, and so, to the extent that there will be price increases coming in the pipeline, there will still continue to be that incentive for Sydney Water to look at options for leakage control and demand management, so we would still be maintaining 20 per cent, if you like, from the volumetric charge; it is not a totally fixed charge either. There will be some signals there as well.

MR BULLEN: The other aspect around demand management is that it is considered in the context of the metropolitan water plan and the overall supply system and demand arrangements, including the current restrictions regime and then any future long-term water conservation measures and the introduction of schemes such as BASIX and recycling. So those opportunities are still there within the metropolitan water plan framework, without necessarily being solely reliant on demand and pricing signals.

MR EDGERTON: I have a question in regard to your proposal of a cost pass-through mechanism for Shoalhaven pumping costs. Given the recent announcement of a three-year moratorium on pumping from the Shoalhaven, are you still proposing a pass-through mechanism for these costs?

MR BULLEN: What the minister announced is that there would be, as you said, a three-year moratorium on Shoalhaven pumping. What was also indicated in that announcement was that the Government was able to make that decision because of the current levels of storage. The minister also indicated, on a follow-up questioning process, that if storages dropped due to, if you like, a repetition of 2004 inflows, then the Government would

reconsider that decision as required, but the issue is really how we manage supply over the next three years.

I suppose from the SCA's perspective, we would like to structure that Shoalhaven pumping cost as a pass-through, given the unpredictability of the amount of pumping that is required and, secondly, the unpredictability of the energy costs that may be required as a result of that pumping.

It is certainly possible through our supply modelling to arrive at a long-term average quantity of water to be pumped from the Shoalhaven system as part of the overall system yield, but, like any of our current storages that are climate-dependent, the actual pumping requirements and levels vary significantly from year to year. I think over the last 12 months - and I stand corrected on this - we pumped 200 gigalitres from the Shoalhaven system, but, on the average, it is probably only 30 gigalitres over a 40-year period. So how that fluctuation can be taken into account based on climate and other factors is difficult.

MR EDGERTON: But given the current situation, current dam levels and the recent announcement, is it possible, rather than having a cost pass-through mechanism, for you to come up with an estimate of likely Shoalhaven pumping requirements over the next price path, so that it is not so much a long-term prediction that is subject to all of those uncertainties, but more a three-year to four-year projection?

MR BULLEN: I will respond, and I hope this is taken in the correct way, that as part of my monthly report to the board over the last little while I have been including a La Nina weather update, and the most recent one said that over the next six to 12 months there is between a 40 and 60 per cent probability that we will have average rainfall.

I suppose what I am outlining there is that, while it is true that there is a moratorium, the context of being able to determine an appropriate level over a three-year period is very difficult.

As part of our ongoing management of the storages we look at current capacity and then model a range of depletions that may occur over subsequent years based on the median inflows, the 2004 inflows and any other combination that we like to look at. How you pick or

choose one of those particular outcomes is extremely difficult, and all we can do is, if you like, make sure that there is a process for decisions to be taken to either turn on or off or up or down appropriate strategies to augment supply.

So I suppose, to sum that up, I think it would still be prudent to include some mechanism for transfer of electricity costs as a result of Shoalhaven in our price determination, given that the process for that to be managed between us and Sydney Water can be achieved through operational arrangements on an annual basis, given the structure of the Sydney Water pricing determination most recently.

THE CHAIRMAN: Just rounding that item off, you have probably worked out that we don't like pass-through mechanisms. They do create extra regulatory work, et cetera.

Having said that, we have accepted that there are occasions when they are the best way to go, and I don't mean to pre-judge this one. I will just leave you with the thought that very often when we have allowed a pass-through it is only when there is a trigger attached: for a small thing we might say, "You absorb it"; it is only when you go beyond that that we have allowed the pass-through. I just leave that thought with you.

In conclusion, then, on this part of our hearing, I would like to thank you very much. You have helped us quite a bit, I think, in understanding the underlying reasoning for some of the propositions that you have put forward. They are not totally uncontested, including from what you have heard this afternoon, but your presentation has been helpful to us and we thank you for that.

MR BULLEN: Thank you.

THE CHAIRMAN: I will ask Sydney Water to come forward.

SYDNEY WATER

MR RAMSEY: Thank you for the invitation to present at this hearing. We don't have a great deal to contribute, but we did respond, as you know, to the Sydney Catchment Authority's submission and, in general, we supported their

submission. We did comment in our response on three specific areas, and I will just expand on those.

As to the pass-through of costs, Sydney Water supports official SCA costs being passed through in bulk water charges. In Sydney Water's price determination, IPART included a pass-through mechanism for this purpose, with increased SCA costs being passed through in the water service charge, and Sydney Water supports that mechanism.

There were two areas where we had disagreements with the submission, and they were areas that have been well covered in the last few moments. The immediate pass-through of Shoalhaven pumping costs was the first. While we have no conceptual difficulty with Shoalhaven pumping costs being passed through to Sydney Water, Sydney Water opposes having minor adjustments to customer prices during the year.

In our submission we have said that such increases would involve high administrative costs to reconfigure billing systems and inform customers. The increase in prices is likely to be too small to send any effective signals to water consumers, and, for example, a $10 m increase in pumping costs would increase the water price by around 2 cents per kilolitre.

Expanding on those comments, changing the price by a few cents would present Sydney Water's customer division with an array of problems and added major costs to the business. It is not just that we think it is difficult; it may not even be physically doable by us.

Under the customer contract, clause 4.9, we are required to notify customers of a price increase before the price increase. This would affect the message on the bill. We would have to have more versions of Water Wrap to cover the price variations; we would have to publish various versions of new prices on the internet and our internal ConnectNet system; we would have to undertake training for back office/contact centre staff every time there was a price increase; and we would incur costs for testing the billing system every time the price changed. Every time the price changes there is a requirement on Sydney Water to change its IT systems, and those require testing and bedding down.

There would be considerable confusion for staff and customers as to which price was current at the time the financial billing adjustments were required. This would add extra costs to the business and, without going on at great length, we don't believe that an intra-year adjustment of prices on a pass-through basis for pumping is a practical solution. We are happy with an annual pass-through, but that is about all.

The other issue where we had some disagreement was the structure of SCA's prices regarding the fixed and variable component, which has been discussed. As a simple person, I would have thought that the structure should follow the average costs. We understand the revenue security issues for the Sydney Catchment Authority, but I would have thought that if they have a component of fixed costs and a component of variable costs, there is much to be said for the prices following those components.

In our submission we have said that Sydney Water currently pays a fixed and a variable charge to the SCA for bulk water. The fixed charge is paid monthly and comprises 35 per cent of total payments to the SCA, and the variable volumetric charge makes up the remaining 65 per cent.

The SCA proposes that the fixed charge should increase to cover 80 per cent of Sydney Water payments and the variable charge to 20 per cent. The Tribunal will need to assess the most appropriate approach to setting bulk water charges based on the SCA's cost structure and other relevant factors such as the price structure of other sources of supply.

We note, however, that the SCA's proposal would transfer significant risk on water sales to Sydney Water. The risk equates to around 15 cents per kilolitre of additional costs to Sydney Water if water sales fall below the level forecast in Sydney Water's determination. Indeed, sales volumes are below forecast at present owing to continued strict water restrictions.

If the Tribunal adopts the SCA's proposed price structure at Sydney Water's next price determination, there would need to be an adjustment made for the extra costs over the course of this determination and recognition of increased risk in future Sydney Water determinations.

In relation to risk, the risk is a risk in terms of the rigidity of our costs. It matters not which component of the revenue the costs are passed through into. For any given level of revenue, more rigid costs are more risky than less rigid costs, and, basically, the proposal makes our costs more rigid in the interests of making their revenue more rigid, and that's a simple way of looking at it. We understand their concerns, but we think that in the price structure if they have an average fixed cost level and an average cost variable level, than that is broadly where it would be appropriate for the fixed and variable components to lie.

We have no difficulty with an 80:20 split if that reflects the correct price adjustment. If that properly reflects their price structure, then we have no difficulty with that concept, although I note that their operating costs are broadly 40 per cent of total revenue, but if that is the case, then it should be what it is, but we note that if it changes Sydney Water's risk profile and reduces Sydney Catchment Authority's risk profile, then there should be some adjustment to reflect that in future determinations.

I think they are the only issues in the submission that we wanted to cover by way of opening remarks, Mr Chairman, and I would be happy to take any comments.

THE CHAIRMAN: Thank you very much.

MS CHADWICK: For pricing policy purposes, the value of the SCA's volumetric charge is the signal that it sends to its customers, including Sydney Water. So how would Sydney Water respond to a change in the price signal in light of the recent developments in the water industry, such as the construction of the desal plant and the potential for entry by the private sector following the Water Industry Competition Act?

MR RAMSEY: We have done absolutely no modelling on that, as you can appreciate. My un-modelled and un-thought-through remarks would be that the demand for water is such and the nature of Sydney Water's business is such that a minor reduction in the variable component would have such a vanishingly small impact on demand that it would be swamped by a whole range of other factors and, in effect, it would have no impact on demand at all.

MS CHADWICK: In terms of those things, will the incremental cost of purchasing water from the desal plant or the prices associated with that charged by the SCA determine the desal's operating regime, and could you give us an update on the likely rules or likely operation of the desal plant?

MR RAMSEY: I wish I could. The operating rules for the desalination plant have yet to be put in place by the Government, and I make the point that they are a matter for the Government, not a matter for Sydney Water on its own. We will obviously have some input to it, but it is a matter for the Government.

We have commissioned work on the appropriate operating rules for the desalination plant. Broadly speaking, I think it is not true to say that it is simply the comparative marginal costs of the two sources of supply. It is, effectively, a measure of cost versus benefit in a wide economic sense. That is, it is the cost to the community of running the desalination plant versus the benefit to the community of having the plant running. That would be our view.

Costs are rather easily defined; benefits perhaps a bit less so. But, to the extent that running a plant, for example, reduced the time that the community spent in water restrictions, that has a value, and that value is offset against the cost of running a desalination plant, in our submission.

So the answer to your question is I can't tell you what the rule is. The rules that we are modelling and have been working with for illustrative purposes are that the plant would switch on at some given level of dam capacities and switch off at some higher level, and below the bottom figure it would run continuously. We are modelling figures of a switch-on at 70 and switch-off at 80 per cent of capacity. And ditto at 80 and 90 and with a model at 30 and 40 per cent capacity, just to see if you get significant measurable changes in benefit at any of those levels. At the moment we have not finished that work, so I am not able to give you any particular input. But the marginal cost of supply between the two sources is likely to have a relatively minor impact on the overall figure.

MS CHADWICK: We look forward to the outcome of your modelling.

MR RAMSEY: So do we. I would stress again, though, that, irrespective of what the models say, at the end of the day, this is a matter for the Government, taking into account the metropolitan water plan, the views of Sydney Water, the views of the Sydney Catchment Authority and a range of other issues.

MR EDGERTON: As I mentioned before, our issues paper for the SCA price review raised a number of alternative price structure options. First of all, there was the option whereby the SCA charged to Sydney Water a fixed price for a given quantity of water - for example, a sustainable yield - with any consumption by Sydney Water above this amount charged at a volumetric price; for example, the long run marginal cost.

Another option was scarcity pricing, whereby the price Sydney Water paid the SCA would depend on the level of water in the dams. What are your views on the merits and potential applicability of these two pricing options?

MR RAMSEY: On the first, I don't think we are particularly sensitive, provided that the take or pay component was set at a level that was geared to Sydney Catchment Authority's fixed costs and appropriately shared the volumetric risks between the two agencies. I don't think I have a particularly violent view about it, off the cuff.

To the extent that Sydney Catchment Authority has fixed costs, those costs need to be covered. They have a revenue requirement associated with that and we are 99 per cent of their business, and some structure that gives them appropriate revenue security is proper and we have no difficulty with it.

In relation to scarcity pricing we have rather more colourful views. I need to be careful to say that these reflect the view of the economic divisions of Sydney Water and are not a considered position of the board.

Basically, there are two issues around scarcity pricing that cause us concern or that we want to tease out. The first is the potential for very substantial volatility

in prices associated with the incidence of rainfall and in circumstances where the elasticity of demand for water is untested but, clearly, very low. You could get very strained price paths indeed if you had scarcity pricing in drought and the price were to collapse.

Perhaps of more concern is the other issue which is: in a world where water is probably the most abundant commodity on the planet, and what we are really talking about is the treatment of that water to potable standards, it is difficult to see why there should be a price, in our submission, higher than the long run marginal cost of supplying unlimited water or the water quantity required if it is possible to provide desalinated water at a long run marginal cost.

For example, if desalinated water at a long run marginal cost is $5 a kilolitre, or whatever the cost is, it is difficult for me to see why the community should be asked to pay more than that in terms of the supply of water. That is assuming that those costs are properly calculated including one or two others.

MR EDGERTON: I have a follow-up question to your point before about the distribution of risk and the potential impacts of an increase in the SCA's fixed charge. In your submission, you indicate that this risk equates to about 15 cents per kilolitre of additional cost to Sydney Water if sales fall below forecast levels. Could you briefly explain how this figure was estimated and also outline whether there are any other potential implications of this transfer of risk that might not have been raised so far?

MR RAMSEY: I will ask Stuart to explain the calculation, but in terms of the distribution, it is abundantly clear that anything that makes Sydney Water's cost structure more rigid than it currently is relative to its revenue income increases the risk, and vice versa. I will ask Stuart to tell you how we got to the 15 cents.

MR WILSON: That figure was based on the data in the SCA's submission. This year we are paying 22.2 cents a kilolitre for bulk water. Under the SCA's proposed prices, we pay 7.5 cents per kilolitre. In each case the balance of the SCA's cost is made up by the fixed charge.

It has been the pattern over the last couple of

determinations that Sydney Water has not sold as much water to its customers as initially predicted at the beginning of the determination, so we undersell. Whenever we undersell a kilolitre of water, under current arrangements we actually save 22 cents in what we pay the SCA. Under the SCA's proposal, we would save only 7.5 cents. So we will lose the full retail price of a kilolitre of water in our market but we will make less corresponding savings on our operating costs.

MR RAMSEY: So if revenue goes down by the first figure, costs go down by the second figure.

MR WILSON:. In our submission, we said we were not necessarily objecting to an 80:20 rule. We were just pointing out the risk implications that had in the transfer of risk, but Alan covered that earlier.

MR REID: An alternative put forward as the usage charge from the Sydney Catchment Authority to the Sydney Water is the marginal cost of water from Sydney Water's desalination plant. Do you have a view on that approach?

MR RAMSEY: Sorry, Colin, I need a little more detail.

MR REID: The usage charge charged by the Sydney Catchment Authority to Sydney Water equates to the margin costs --

MR RAMSEY: To the margin costs of supplying desalinated water?

MR REID: Yes.

MR RAMSEY: Provided this did not result in windfall gains to the Sydney Catchment Authority, at first blush, I don't think I would have any particular problem with it, if Sydney Catchment Authority's revenue requirements were to stay the same, you would have thought that would transfer very significant components of their revenue to a variable charge and away from the fixed charge. They may have views about that, but I don't think we have.

MR WILSON: Certainly over the current price determination, the way the desal is to operate and the need for water from all sources, and requirements under the metropolitan water plan and recycling targets and demand management targets, means that even if we wanted to, we are

not really in a position to react to incentives. We are not going to favour one source over the other.

MR RAMSEY: No. The facts of life are that if the desalination plant is running, that water has to be supplied to customers because there is no effective way of storing it. The storage process is to reduce the outtake from the Sydney Catchment Authority. The water itself has to be consumed. It is not as if we are in a position to, and nor would we want to, in some sense, balance between the two suppliers based on price at a given point in time. The operating rule, as I have said before, in our submission, should have regard to the total costs and benefits to the community of the plan versus the SCA

MR COX: Returning to price structure yet again, if I may, I take the point that you have made that you are constrained by the operating rules and the desal plant and demand management targets. I think particularly for us and particularly for the longer term, we seem to be moving from the situation where Sydney Water had one source of supply, the Sydney Catchment Authority, to a situation where there will be multiple sources. The issue that is well worth considering is how the variable charge of the Catchment Authority should be structured not to be inconsistent with making the best decisions. I would be interested in your thinking on that, either now or when you have had a chance to think about it.

MR RAMSEY: We would like to take that on notice and come back to you with some views. Our working hypothesis to date has been that the operation of the desalination plant will be subject to rules particularly by Government that will not include the marginal cost to Sydney Water, but I will come back to you on that.

THE CHAIRMAN: Could I reinforce what Jim said and, in a sense, repeat what I said earlier. You can rely on rules to determine what happens. The problem is that if the prices are not consistent with the rules, then you risk incentives to break the rules. You are much better off if you have a degree of iteration between the pricing and the rules, so that they are mutually reinforcing, particularly so that prices reinforce the rules and create incentives. It may mean then that the rules have to be less black letter law.

MR RAMSEY: I accept that.

MR WILSON: As Alan said, we will have a think about it, but there is no working model of the bulk water market that we can look to at this point and say, "That is an approach which is easy to implement." The Water Industry Competition Act provides a framework for moving in that direction, but there is no off-the-shelf model we can yet look at to provide definitive answers.

THE CHAIRMAN: I can understand your difficulty that there is no practical experience in actually calibrating it. I don't think I accept that you cannot conceive a model and also anticipate, if you like, the structure of the incentives that we can create. What we cannot say without the appropriate experience is how powerful the incentives will be - things like pricing elasticities, et cetera.

MR RAMSEY: All I can say at this point is that we will come back to it. We will do some work on it and provide some input to the Tribunal.

In terms of seeing the potential to set variable costs for the Sydney Catchment Authority and the marginal cost for the desalination plant, as I say, provided the annual revenue required is being met by the Sydney Catchment Authority, we do not have a problem with that.

THE CHAIRMAN: Thank you very much for your presentation. It was quite helpful to us. I would now like to ask the Wingecarribee Shire Council to come forward.

WINGECARRIBEE SHIRE COUNCIL

MR BREARLEY: Thank you, Mr Chairman. By way of introduction, my name is Michael Brearley, council's director of technical service. I would like to introduce to the panel Councillor Ken Halstead, the Deputy Mayor, Councillor Jim Mauger, chairman of our water and sewerage committee, and Councillor Juliet Arkwright.

Wingecarribee Shire has been victim of a huge price hike over the previous few years. The increase is 224 per cent from $93.90 per megalitre to $210 per megalitre. This is now an investment of $1m per annum for us. This is despite the fact that council has invested $104m to protect Sydney's drinking water catchment.

In fact, the council area is 16.5 per cent of the total Sydney catchment area. If you consider that this area of the catchment is a relatively high rainfall area, the contribution which Wingecarribee makes to the Sydney catchment in terms of water production is quite substantial.

By way of history, Wingecarribee Dam was the original Bowral water supply. In 1975, it was taken over by the previous Metropolitan Water Sewerage and Drainage Board at no cost to the board at the time, as part of the Shoalhaven scheme to transfer water to Sydney.

At that time, council received 1,000 megalitres per annum free in recognition of the riparian entitlement. That entitlement was removed as part of the 2000 IPART determination.

Wingecarribee firmly believes that Wingecarribee Dam collects Wingecarribee water, which we are then forced to buy back from a State Government monopoly.

Council should not have to pay the costs of transferring water to Sydney. It is council's belief that it could meet its own demand from what was the original Wingecarribee Dam. Only a fraction of the Sydney Catchment Authority's costs would relate to the supply of bulk water from Wingecarribee Dam to council. The amount that council takes from the Sydney Catchment Authority is but a small part of the amount which is transferred to Sydney. Council believes it should not have to subsidise the costs of transferring the water from the Shoalhaven system to Sydney.

We also note that the Sydney Catchment Authority has had significant savings over the last price path period by choosing not to raise Tallowa Dam. There are significant price savings there, and we believe they should be passed on to councils.

Already, council's water charges are higher than the State average. Furthermore, with the $104m we have invested in upgrading our sewerage systems for the benefit of the Sydney catchment, that continues to cost us more because the new facilities are much more expensive to run than the older treatment plants. There are higher

electrical costs, higher mechanical costs, higher continual maintenance costs. So the costs to council keep compounding.

In terms of pensioner rebates, the shire has a high percentage of the retiree population and the higher price which we have been charged by the Sydney Catchment Authority over a period of time has to be absorbed twice as council has to fund the pensioner rebates. It is a bit of a double hit for council.

With regard to comparing us with other metropolitan water authorities, we would contend, and I put to you, that it is inequitable to compare Wingecarribee Shire Council with Sydney Water. I have some statistics here to prove it. It is much more expensive to operate our water and sewerage systems because of the higher per capita costs compared with Sydney. In terms of connections per kilometre, council has 25 water connections per kilometre. Sydney has 80. We do not have the economies of scale that Sydney Water and the larger metropolitan water authorities have. We believe it is unjust to compare us with the operating costs of Sydney Water. Our costs per capita are much higher.

Also with the upgrading we now provide very high levels of treatment in our sewage treatment facilities in order to protect Sydney's water supply. That has added additional costs with the upgrade and in the operation of our treatment plants.

When we look at treating our own water to sell to our residents, we have had to install dissolved air flotation and powder activated carbon. This is primarily because the water we purchase from the Sydney Catchment Authority at some times has concerns with regards to blue/green algae, particularly during the summer period, and we need to operate powder activated carbon plants right throughout the summer period at an additional cost of $200,000 per annum.

The costs of operating our water and sewerage business go up, but unfortunately the subsidies go down. In terms of our sewerage upgrading program, there have been changes to the country towns water, sewerage and supply scheme, which was a previous source of funding for upgrading our sewage treatment plants. Those subsidies have increased.

It is recognised that the Sydney Catchment Authority has provided additional funding under the accelerated sewerage fund. Council is very grateful for that additional funding, however, it is well short of the actual costs of constructing a new sewage treatment plant. For instance, we are now upgrading the Bundanoon sewerage scheme at a cost of $18.5m. The Robertson sewerage scheme will cost over $20m. Ten years ago, we were talking half the amount of costs to implement those schemes. It is the council which has had to bear the majority of those additional costs. Whilst we are grateful for the contribution from the Sydney Catchment Authority, it still falls well short of the costs to construct these sewerage projects.

In conclusion, council believes that $1m is far too high a price to pay for water that is run-off from catchments within the Wingecarribee Shire Council area, and council respectfully requests an appropriate reduction in the bulk water price.

Mr Chairman, I would like now to invite the councillors, if they would like to, to add anything to what has been said.

COUNCILLOR HALSTEAD: My name is Ken Halstead. I am currently a councillor. I was formerly shire engineer and town planner at that council, and I am very mindful of town planning obligations. Wingecarribee Shire Council is mindful of its obligation to play its part in risk management strategies including land-use restrictions, which was are quite intensive. They are obviously designed to protect the Warragamba Dam and other dam storages, which comes at a substantial cost. That is, for example, a reduction in the rated income - both general and water.

I most sincerely request that IPART consider the following aspects: the shire comprises approximately 16 per cent of the Warragamba catchment. That has been mentioned by Michael early on. That is something that fascinates me - it is a very large percentage when one really considers it.

Prior to the construction of the Shoalhaven scheme, the shire drew water from the Wingecarribee River. That occurred some years ago whilst I was shire engineer and prior to that.

Whilst I do not have current statistics on the average total inflow to Warragamba Dam from the Wingecarribee Shire, I am confident that it is substantial. My 16-odd years in that council showed me, certainly as shire engineer for the greater part of that, that when it rains in the Wingecarribee, substantial inflow goes into the Warragamba Dam. I have been present at times when we have had excessive flows, for example, down through the Wollondilly River and over the road down there.

Just as an observation in terms of looking at the rate of $93.9 per megalitre, at 6 per cent per annum for five years that would give a figure of about $125.66 per megalitre. At 10 per cent per annum over a five-year period, it would be $151.23 per megalitre.

When one looks at the $210.10, it really is substantial when one takes into account the really restrictive provisions relating to that area. They are quite appropriate; I support them very strongly in terms of having a town planning background, but we do suffer in terms of the development potential that we would otherwise have. A huge percentage of our shire is primary or secondary catchment to the Warragamba Dam and, may I say, part of it also goes into the Nepean catchment. Thank you.

COUNCILLOR MAUGER: My name is Jim Mauger. I make no excuse for being an old farmer in the Robertson area for all my life. I well remember when the Sydney Catchment Authority played no part except in the north-eastern side of our shire. I remember the dams going in and the discussions at the time. I will not be long with this and I will make it light.

It was never envisaged in 1975 that Wingecarribee Shire Council would be asked to pay such a huge sum of up to $1m for the water which we currently are being asked to pay. It is totally out of order and it is an impost on a shire that has to maintain the quality of the water so that it can be sold by other authorities for profit to the population of Sydney.

Whilst I am not a dairy farmer, it is similar to this situation: somewhere, somehow, we are now asked to supply the milking cow, supply the feed, milk the cow and still pay for the milk produced. That is about it.

It is just not on, and I would really like to ask a question: who can tell me who owns the water that falls anywhere in Australia?

THE CHAIRMAN: The Government.

COUNCILLOR MAUGER: Then I pose you the question: who owned it prior to settlement? Which government did you mean?

MR REID: It belongs to --

COUNCILLOR MAUGER: It does not belong to the State Government. That was proved in 1947 or 1948 by Mr Nelson Lemmon, the Minister for Works and Housing, who was responsible for getting the Snowy scheme underway. That was the only reason it got underway; he determined that it would get underway.

How is it that we are stuck now with this system where the State Government is claiming the ownership of that water that falls? Of course, if they do claim the ownership of the water - I have interests in other areas of State in the use of water and we pay dearly for water that we do not have - if what you say is true, it is about time we started getting paid back for the water that we have been billed for out of various government institutions. Sorry about that; I didn't mean to be rude.

MS CHADWICK: I respectfully suggest that this is a discussion that perhaps we could have afterwards in relation to water management.

COUNCILLOR MAUGER: Yes, sorry. Thank you.

COUNCILLOR ARKWRIGHT: My name is Juliet Arkwright. Ladies and gentlemen, I am a newly elected councillor. I speak more just briefly on the lines that I have also been recently elected as chairman of the finance committee. I support what my colleagues are saying. Basically why should we be paying so much money for our own water?

I will make a point, which I suppose is more of a political point but it is a fair enough point as I am an elected representative: in the Wingecarribee Shire, and I suspect all through regional New South Wales, there is an

increasing irritation at the State Government's determination for lower subsidies and grants and to put more and more costings on to local government. That is the point that I will come from for this submission.

To me, this is another example where we are carrying a huge burden, an increasing burden that, quite frankly, we should not be carrying. Despite the Federal Government's generosity of the last few days, it really is not enough to solve the ongoing problems that we will have particularly over water supply.

I guess there is a feeling too, politically, in the regions that the people of Sydney - I was originally born and brought up in Sydney - are very spoiled and very wasteful, that we have supplying them and now, increasingly, we are being asked to pay more and more for that privilege. That is my simple point, thank you.

THE CHAIRMAN: Over to the secretariat.

MR EDGERTON: Has council undertaken any analysis on what impacts SCA's pricing proposal would have on its customers? For example, what is the current average of the typical household annual water bill and what proportion of this bill is attributable to council's bulk water costs of purchasing water from the SCA?

MR BREARLEY: Council has done substantial analysis on it. Regretfully, I do not have those figures with me. I would have to take that question on notice and provide them to you. We have a comprehensive 30-year business plan which analyses and predicts the increase in the bulk water price and it sets a water rate based on the bulk water price, the capital works, the asset maintenance and all the other factors which impact on council's business.

I would need to take that question on notice, but I would be happy to provide that information to you.

MR EDGERTON: I wish to follow up from that question, because in your submission and in your presentation, you mentioned that, because of the nature of your operations in terms of not having high density population, your costs for reticulation are quite high and your sewerage treatment costs are quite high. We were wondering if you had an estimate, a ballpark estimate, of what percentage of your

water price would actually be composed of sourcing bulk water as opposed to treating it and then distributing it.

MR BREARLEY: Certainly, we would have that information. Again I would need to take it on notice. We would be pleased to provide it to you.

THE CHAIRMAN: We would like you to do that.

MR BREARLEY: Yes, absolutely.

MR EDGERTON: I have another follow-up question to that issue of affordability as well. You mentioned that you have a relatively high proportion of pensioners in your district.

MR BREARLEY: Yes.

MR EDGERTON: And you said that you are liable for some of the costs of the pensioner rebates.

MR BREARLEY: Yes.

MR EDGERTON: What proportion of costs are you liable for? Do, for example, the Federal Government or the State Government provide funding to that pensioner rebate scheme?

MR BREARLEY: Again I am sorry, but that is another question I would need to take on notice and get some more information on the pensioner rebate scheme and how that applies and the actual amounts. Yes, we do have that information.

COUNCILLOR MAUGER: Just offhand, in relation to that matter, we get only a proportion of that money back from the Federal or State Government - I think it is the State Government. The gap between us is increasing. We are getting less back from those that provide us with the subsidy as opposed to what we are asked to provide.

MS CHADWICK: You have made a very clear case for your opposition to the SCA proposal, but does the council have an alternative pricing proposal that you would like the Tribunal to consider?

COUNCILLOR HALSTEAD: I have not looked at things in detail, not being an economist. The only comment I can

make is: looking at the basic increase over that period of time, as I already indicated, looking at the general figure of CPI of 6 per cent, or even if you look at 10 per cent, it is substantially less than the figure that has been quoted or that is being proposed. At 6 per cent, it would strike me that would be $125, or thereabouts, per megalitre, or even at 10 per cent - it is quite reasonable these days with the problems we have - that would be $150-odd.

Further than that, I have not looked at it in any detail. Whether the admin staff have looked at it, I am not sure.

MR BREARLEY: I might add to that that whilst we are grateful that the Catchment Authority is only proposing an increase by the CPI from this time onwards, we would contend that we have taken a very big hit over the past five years, so much so that the price being charged to us is far too high.

As to what the appropriate price is, Councillor Halstead indicated that if the increases had been reasonable, a reasonable cost would be in the order of $150 per megalitre and not $220.

THE CHAIRMAN: I would like to thank you for your presentation. Some of the issues raised about imposts more generally are not so much relevant to today, but IPART is actually conducting an inquiry into local government finances at the moment. We do not have split personalities. We will absorb those observations. We will look at those issues when we are doing our review of local government.

I might add this is not the first time that we have heard these observations; it is just that they seem to be fairly general observations. That does not mean that we actually endorse them, but we are considering them.

To clarify matters, I appreciate your views about ownership of water. I think you will find the State Government owns the water. Referring to the Snowy River scheme, the reason why that got up - I say this with some authority having been involved in it - is because the two states concerned, Victoria and New South Wales, agreed at the time to allow the Commonwealth to form a tripartite

body. That, you may recall quite recently, was why the New South Wales Government felt it could sell its shares in the Snowy scheme. The Commonwealth spent all the money to create the scheme. The New South Wales Government, by dint of its ownership in the water, therefore had some shares. Thank you very much again.

I call forward Mr Martin from the Total Environment Centre.

TOTAL ENVIRONMENT CENTRE

MR MARTIN: Thank you for the opportunity for TEC to present our views on the Sydney Catchment Authority crisis.

Probably the first issue of greatest concern to us in this review is to ensure that the Sydney Catchment Authority has an appropriate degree of revenue to enable it to carry out its catchment protection functions. Clearly, that was the original rationale in establishing the Sydney Catchment Authority - it was a recognition following the Sydney Water crisis that there were some deficiencies in the way the catchment had been managed and that it was necessary to have a greater emphasis on that. So that is a key concern for us.

The second is that there be an appropriate resource conservation signal provided to Sydney Water for the water it purchases from the SCA.

The first thing I want to discuss is the Sydney Catchment Authority's capital expenditure requirements. We very much welcome the authority's proposed expenditure on providing for environmental flows through releases from the Upper Nepean dams and obviously, in due course, from Warragamba as well. That is a long-overdue measure to restore some of the health to the degraded Hawkesbury-Nepean system. For a long time, they have not only been deprived of flows but deprived of natural variability in flows, and so those modifications to enable those environmental flow programs to proceed are absolutely essential for the health of the system.

We are also concerned that there has been an impact to the Sydney Catchment Authority in terms of its infrastructure from longwall mining and also to both the quality and quantity of supply of water to the Sydney

Catchment Authority as a result of longwall mining damage to the catchment. So we would urge the Tribunal, in assessing the authority's revenue requirements, to have regard to the authority's need to appropriately monitor and deal with the effects of longwall mining and also to enable the authority to appropriately participate in the planning processes for longwall mining assessments and approvals. It is absolutely essential that the authority be in the position that it can provide the best quality data to those processes.

We have seen in recent years damage to parts of the Upper Canal system and also damage to a number of streams that supply Sydney's drinking water supply. So we are very concerned about the long-term impact of longwall mining on the Sydney Catchment Authority and on Sydney's catchments, and we think that that is an area that will require a very high degree of attention from the authority.

In relation to operational expenditure, I note that one of the questions that was asked of the SCA related to our concerns about its proposed efficiencies in catchment protection and the impact that that may have on those activities. I think it is one thing to identify capacity to do something better; it is another simply to look for an opportunity to do something cheaper, and so we are concerned that the Tribunal identify that the driving force behind any efficiencies that the authority seeks to pursue in terms of catchment protection is performing those activities in a more efficient and better-quality manner, not that the driving force is simply a need to reduce costs which could lead to a compromise in catchment protection functions.

As I said, the Sydney Catchment Authority was created to monitor and protect the catchments, and it is absolutely crucial that its functions in that regard not be compromised. So we urge the Tribunal to apply a very high degree of scrutiny to the Catchment Authority's proposed expenditure in terms of catchment protection.

We also believe that there needs to be some attention to the structure of prices that the Catchment Authority charges Sydney Water. We are concerned that the Catchment Authority is proposing a reduction in the proportion of volumetric prices in favour of an increased charge in fixed prices. We are concerned that that does not send an

appropriate resource conservation signal to Sydney Water. We have for many years sought in general in water pricing a reduction in fixed charges, and we are disturbed that the Catchment Authority is proposing a reversal of that positive trend that has taken place in water pricing over recent years. So we strongly believe that the Tribunal should not approve a reduction in that level of volumetric charge in favour of an 80 per cent fixed charge component.

I understand that that introduces a greater degree of risk to the SCA. I understand why water agencies prefer a high level of fixed charges. Nevertheless, there are measures that are available to manage that risk, including making adjustments to subsequent determinations if the revenue requirement differs substantially from what was originally identified, so we don't support it and we believe that the authority should not approve that.

In the discussion paper the Tribunal identified a range of output measures for the Sydney Catchment Authority to assess its performance. We support those. We think they are a useful mechanism, but we do believe that they are somewhat narrowly focused and we would like to see a range of output measures that relate to catchment protection functions and the success of the authority in preserving the health of the catchments. That, I guess, would be of some assistance in identifying whether efficiencies that the Sydney Catchment Authority seeks to pursue, in terms of its catchment protection, have an adverse impact on the protection of the catchment.

There is a significant issue that needs to be dealt with in terms of price setting, and that is determining the appropriate volume of water sales. Clearly, the operating rules for the desalination plant will have a significant impact on the volume of water that the Sydney Catchment Authority sells.

It is not really germane to this review, but we previously said, and will continue to say, that we think Sydney Water's proposal to operate the desalination plant when storage levels are below 70 or 80 per cent is, frankly, absurd. Given that the desalination plant is the most expensive and environmentally damaging source of water available to Sydney Water, we don't think it makes sense to operate it as anything other than a drought response measure, and I might add that we didn't think it made sense

as a drought response measure either, but, given that we're now going to have it, if you are going to use it, you should only use it as little as you have to.

Nevertheless, whatever operating rules are looked at for the desalination plant, the underlying principle determining appropriate water sales should be that Sydney Water does not exceed the demand management targets that are included in its operating licence.

To that end, if Sydney Water seeks to purchase water from the Sydney Catchment Authority that is in excess of its demand management requirements, we think that that should come with a financial penalty imposed in order to provide a stronger resource conservation signal, and to give Sydney Water an incentive to invest in demand management, as opposed to simply purchasing more water from the SCA.

Again, obviously, the level at which that penalty price or stepped price would be imposed would be ultimately determined by the operating rules for the desalination plant.

One further point is the length of the determination period. We see a somewhat anomalous situation at the moment where Sydney Catchment Authority's and Sydney Water's price paths are out of sync. In the past they have been aligned, and I guess part of the reason that they are no longer aligned is the determination that was made for Sydney Water with the desalination plant recently. We think that there is some logic in realigning the price paths of the two agencies, so, to that end, we would support a three-year determination to bring Sydney Catchment Authority back into sync with the next price path determination for Sydney Water.

The final point that I want to mention is scarcity pricing. We do not see that scarcity pricing is the best approach for the Sydney Catchment Authority. In general, we think - and we note that these comments were made in the Tribunal's issues paper - there is a strong level of public acceptance of water restrictions as a method of managing droughts. We also believe that water restrictions are a more equitable approach, in that the burden of conserving water is shared more equally by everyone in the community and it is not a question of some people being able to

purchase their way out of the obligation of saving water whereas others aren't. We do not believe that scarcity pricing is applicable in the situation.

Those are the main issues. Our chief concern, as I said at the start, is that there is a resource conservation signal continued to be applied to Sydney Water, and that the authority's catchment protection functions are not compromised.

THE CHAIRMAN: Thank you.

MS CHADWICK: You note in your comments the importance of maintaining the resource conservation signal. Sydney Water has indicated today and has previously made very clear statements that its demand is a derived demand and its capacity to respond to such signals is limited. Could you elaborate on your belief as to why Sydney Water is in a position to respond effectively to such signals?

MR MARTIN: I find it hard to grasp the concept of Sydney Water saying that their demand is a derived demand and that they don't have much capacity to respond to it. That's an unfortunate statement given that demand management is a key obligation of water agencies and that Sydney Water has within its operating licence demand management targets which they are supposed to meet.

I guess it is not surprising, given that without restrictions Sydney Water has not once achieved those demand management targets, and it is only because of the effect of water restrictions that we currently have Sydney Water operating within those targets.

Clearly, there is a lot that water agencies can do in terms of reducing demand by investing in demand management, assisting customers to use less water, educating their customers and investing in greater water efficiencies. So I don't accept that that is an issue that is beyond the control of a water agency such as Sydney Water, and our view is that Sydney Water should have very strong signals sent to it that will induce it to invest more strongly in demand management.

MS CHADWICK: Noted.

THE CHAIRMAN: There must come a point within the existing

technology where you use up most of the scope for further water savings. I'm not saying technology is stagnant, but technology tends to move in leaps and pauses, if I can put it that way. Do you have a view that there is still a lot of scope left for further demand management?

MR MARTIN: I think there is a great deal of scope left for further demand management. I agree that logically there will come a point where you are as efficient as you can possibly be in a cost-effective manner. I don't believe we are at that point yet and I suspect that with Sydney Water embarking on the desalination plant we're unlikely to get to that point at any time in the future, because a lot of the drivers and incentives for investment in demand management have essentially been removed. But I do believe that we do have ample opportunity for further demand management.

I think some of the programs that have been used in the past and have been successful have additional scope for achieving efficiencies. There is more scope in terms of the standards that are applied for water efficiency for new homes. There is also the capacity to expand some of those BASIX standards to existing homes in terms of retrofit. There is still existing capacity in terms of the commercial and industrial sectors, and there are certainly continued opportunities in terms of retrofitting of public housing to achieve additional water efficiencies. So I don't think we are at the point yet where you could logically say there is no further capacity for demand management gains.

MR EDGERTON: You mentioned that your submission proposes a stepped price tariff to apply to sales to Sydney Water where a specified volume is exceeded. I was wondering if you could elaborate a little bit more on what that specified volume might be, how it should be determined, and then how the volumetric price should be set above that specified volume.

MR MARTIN: I guess the level at which it should be set is the per capita consumption targets in Sydney Water's operating licence.

Now, Sydney Water's unrestricted demand is a long way from achieving those targets. So our view is, to the extent that Sydney Water needs to purchase water from the Sydney Catchment Authority to sell water to customers that

exceeds its demand management targets, they should be penalised for that.

At the moment we have a perverse incentive to Sydney Water where, if they fail to meet their demand targets, they actually increase their profitability. So our view is that the penalty price should actually seek to tax away that additional revenue, so that would determine the level at which the price should be set - to what extent it is necessary to ensure that Sydney Water doesn't achieve additional revenue.

I might add that it is quite important, in terms of if that is to have any effect at all, that Sydney Water should not be able to pass on the effect of any such penalty price to its customers, otherwise the signal to Sydney Water would be lost.

MS CHADWICK: Equally, if there was no pass-through, the signal to the consumers about the consequences of their consumption would also not be passed through.

MR MARTIN: My argument to that would be that there should be a signal already provided to customers within the volume that Sydney Water is supposed to sell within its demand management targets. In terms of Sydney Water's prices, our argument for stepped pricing is that the first tier price should be set at the level of non-discretionary water use, and that above discretionary water use is the level at which you would apply a second tier, although I note that that is somewhat of an academic discussion now that we have moved away from the stepped pricing approach for Sydney Water.

THE CHAIRMAN: I would like to explore this fixed/variable issue. You have probably noted from the nature of the questioning earlier in the afternoon that we have some concerns about it too. If Sydney Water has a very high fixed charge it increases the incentive for it to sell water, or, at the very least, reduces the incentive to stop leaks, or something.

MR MARTIN: It was certainly a fairly robust question and answer session for an IPART hearing.

THE CHAIRMAN: I suppose the alternative view would be that we've now gone down to 35 per cent fixed charge, and

therefore 65 per cent variable: do you need as much as 65 per cent variable to create a disincentive?

If I can go to the line I pursued earlier, where arguably there is what you would call the base level for your inclining block tariff, if I can put it that way, the amount of water that people are almost bound to buy whatever the circumstances, if we total that all up, and let's suppose that came to 60 per cent of total consumption - this is hypothetical, but it might be of that order, I mean, the sort of inclining block tariffs that we have had in the past have been more than 60 per cent as the base level charge - if we totalled that all up, we agree there is no real discretion about that, that's how we defined this, then what is wrong with a fixed charge equivalent to that amount?

MR MARTIN: I'm not sure I followed all of that, but we certainly share the concerns that the Tribunal indicated in its questions to the Sydney Catchment Authority that it might provide incentive to Sydney Water simply to sell more water.

Our concern is that we want to see the strongest possible incentive to Sydney Water to invest further in demand management, and I don't believe we are yet at the point where Sydney Water can say that there is no opportunity for additional cost-effective investment.

THE CHAIRMAN: No, I appreciate that. Let me restate it. If we work out what you call a non-discretionary component --

MR MARTIN: Yes.

THE CHAIRMAN: -- let's say it comes to 60 per cent of the total water, and if we then said, "The fixed charge will be equivalent to 60 per cent of the water supply", which would mean, for argument's sake, a 40 per cent variable, wouldn't that provide sufficient incentive for Sydney Water to minimise its variable purchases?

MR MARTIN: I am not really sure, to be honest. Again, I am struggling a bit with the question. I probably can't really provide --

THE CHAIRMAN: It has no discretion, by definition, over

the first 60 per cent.

MR MARTIN: Yes.

THE CHAIRMAN: So wherever it has discretion, it is a variable charge.

MR MARTIN: Sure. There might be some logic in that. I'm not sure if we're at the situation where you can make that judgment at this point in time.

THE CHAIRMAN: I suppose I would turn on Sydney and say, "How can you favour a two-part inclining block tariff, because you would have to make exactly that judgment when you set the first tier?"

MR MARTIN: I guess my answer to that is that Sydney Water has obligations in its operating licence that it is required to meet, and there is the capacity for penalties to be imposed if they don't meet it. They have never been applied. And I think part of the reason that Sydney Water has consistently failed to meet those targets is because there is no real sanction for them for failing to do so, and I suspect it changes the equation somewhat if there is a penalty for failing to meet demand management requirements.

MR COX: I want to ask something quite different about your suggestion that there should be output measures for catchment protection. I wonder if you could outline perhaps what you had in mind and perhaps also taking account of the importance of not duplicating measures that are provided elsewhere.

MR MARTIN: We noted that SCA had some proposed additional output measures in its submission, and we would support those. We think that they would provide a useful indication of the effectiveness of the catchment management activities of the SCA. So I guess I think that the first cut at those would be the ones that SCA has proposed in its submission.

MR COX: Thank you.

MS KRIEGER: I just wanted to ask a follow-on question. You cross-referred those output measures to the SCA ones, but this is an area that's really within your interest and

expertise.

MR MARTIN: Sure.

MS KRIEGER: If there is something specific that you could add to that, we would certainly be interested to hear it.

MR MARTIN: I think that SCA has done some very good work in terms of improving the health of the catchment, in terms of controlling exotic species and planting of native species to restore and improve the health of its catchments.

Although I accept that it is somewhat out of its control, the issue of the threat to both the quantity and quality of Sydney's water supply from longwall mining has not received adequate attention, and whilst it is an area that the Sydney Catchment Authority doesn't have any control over once approvals are given, we think they could be doing more in terms of providing a role in terms of an advocacy for the catchments, and so we would like to see some output measures in that respect as well.

MS KRIEGER: Thank you.

MR EDGERTON: I am sorry, but just as a bit of a follow-up to that question: do you see that those sort of output measures should be incorporated into the price determination, or should they be, for example, in the operating licence?

MR MARTIN: I think there is probably some logic to having them in the operating licence, but it would provide a useful measure for the Tribunal to satisfy itself as to whether the Sydney Catchment Authority is adequately performing its catchment protection role, and additionally whether it has sufficient revenue to enable it to perform that role.

THE CHAIRMAN: Thank you again.

MR MARTIN: Thank you.

THE CHAIRMAN: I would now like to call on Mr Tudehope from Jemena.

JEMENA LIMITED

MR TUDEHOPE: Thank you, Mr Chairman, for inviting us to speak today. I am Warwick Tudehope from the regulatory team at Jemena, and with me I have Linda Gyzen, the general manager of AquaNet.

Perhaps before I move on to the substance of our submission I can spend a little time describing what Jemena's interest is in the water industry and in the current review of Sydney Catchment Authority's prices.

Jemena Group is owned by Singapore Power International and includes amongst its assets the New South Wales gas network that was formerly owned by AGL. AquaNet Sydney is a Jemena company, and along with Veolia Water Australia was selected by Sydney Water recently to undertake the Rosehill recycled water scheme, which will deliver high-quality recycled water to industrial and irrigation customers in the Camellia, Smithfield and Rosehill areas of Sydney. The scheme involves the construction of a recycled water plant at Fairfield and a 20 kilometre distribution network, and initially will be delivering about 12 megalitres per day of recycled water to customers in those areas, displacing potable water.

We expect the first water deliveries in the first quarter of 2011. The network will be expanded over time to include areas such as Parramatta, Westmead, Wetherill Park and Liverpool.

Jemena and Veolia have each applied for a network operator's licence under the Water Industry Competition Act to undertake their respective parts of the scheme. Veolia's application covers the treatment plant and that has recently, in the last few weeks, been opened to public consultation. Jemena's application covers the distribution network and opens for consultation today.

More generally, we see the Water Industry Competition Act as opening the way for the private sector to be involved in the New South Wales water industry, to deliver innovative solutions and new sources of supply, conservation and substitution, and the pricing of water from conventional sources, including Sydney Catchment Authority, will have an important part to play in determining how that plays out.

We have made a written submission to the Tribunal and we cover two principal issues - first, the alignment of the regulatory periods for Sydney Catchment Authority and Sydney Water; and, second, Sydney Catchment Authority's proposal for pricing of bulk water to Sydney Water. Both of these issues have been pretty well canvassed today, and I think we are largely in accord with what has already been said, but I will go through our points.

The first point relates to the alignment of the price review periods for Sydney Catchment Authority and Sydney Water. Of course, until the most recent review of Sydney Water's prices concluded earlier this year, the two reviews were aligned, and for good reasons outlined by the Tribunal, and we think there is a strong case for bringing them back into alignment and we say that there should be a shorter review period for Sydney Catchment Authority this time, and that would allow a holistic approach for dealing with the two entities to take into account demand forecasting, Government policies and, in particular, the price between the two entities, all of which can be determined in a holistic fashion if they are dealt with together.

At this stage, we think that one other benefit for the Catchment Authority in the shorter review period would be a reduction of their exposure to uncertainty about the operation of the desalination plant.

The second issue with prices has been canvassed considerably this afternoon. This slide is an excerpt from the Sydney Catchment Authority's submission. It shows the substantial rebalancing of the tariffs between fixed and variable charges. It is proposed to move the current level of about 35 per cent of their costs recovered through fixed charges up to 80 per cent and there is a substantial reduction in variable charges and volumetric charge of the current level of $220 a megalitre down to about $79 over the period. As has been stated before, the $79 a megalitre was said to reflect Sydney Catchment Authority's short run marginal cost.

In our submission, we would say that particularly the reduction of volumetric charge is a regressive step in today's environment. There are at least two practical consequences. First of all, we would say that the

viability of conservation measures such as demand management and leak reduction projects would be undermined to the extent that they would be justified on the basis of perhaps a higher increase in volumetric charges. There would also be a significant transfer of volume risk from the Sydney Catchment Authority to Sydney Water and that has been discussed already.

Our other observation is that the proposed level that volumetric charges be increased is inconsistent with the principles that might apply in efficient market design or operation. In competitive markets, generally the highest marginal cost of supply requires an equal demand. While there may be periods when prices are short run costs, over the long haul, they reflect an average cost because capital costs have to be recovered as well.

These principles are reflected not only in unregulated markets but in a regulated market such as the National Electricity Market and Victoria's wholesale gas, where for a particular pricing period, there is a bid stack and the market is cleared and the highest bid is required to satisfy the market during that period. In economic terms, pricing in this way produces appropriate signals for any existing new entrants to invest in its capacity.

There is perhaps also an analog in the approach that the ACCC took in arbitrating the access dispute between Sydney Water and Services Sydney. The final decision was given in June 2007. The principle established in that decision was that the cost that should be subtracted from the retail price by the service of establishing the access price should be the cost of the access provided by Sydney Water in that case; that is, the costs they could avoid, that being their long run avoidable costs, rather than the short run costs that they actually bore.

Translating that into the current context is to say that it is not the short run marginal cost that should be the determinant, but rather the long run cost of the marginal source of supply. If you look at that in the current situation and apply it to Sydney, the desalination plant conceivably is the marginal source of supply.

I accept there will be rules around its operation. The chairman referred to aligning the rules with the incentives. In our past submissions, we have argued that

the prices should be set by reference to the long run marginal cost of supply. We still hold that view, and we note that that methodology is applied by the ESC in Victoria, and the Tribunal has adopted that in setting prices for Sydney Water, albeit at the retail level.

At the same time, we acknowledge that there are problems with the establishment of long run marginal costs precisely and certainly after each significant capacity implementation, such as the desalination plant, long run marginal costs would probably for a period perhaps tend towards short run marginal costs.

In the case of the desalination plant, the short run marginal or the marginal cost of operation, we understand, is of the order of $550 a megalitre. That comes from Sydney Water's submission to the Tribunal in connection with the recent price review.

Given that marginal cost of $550 is the operating cost of the desalination plant, even at the current cost supplied from the Sydney Catchment Authority of $222, there is a significant incentive for Sydney Water not to operate the desalination plant but to draw on the dams as long as that water was available. So you have a conflict between the economic incentives that they would have and any potential rule that says they should be operating the desalination plant when dam levels are 70 per cent, say. That situation would be exacerbated if the volumetric charges in the catchment were reduced essentially at the expense of a Sydney Water alternative, or $130 a megalitre.

The conclusion we reach is that the volumetric charges to supply the margin to the Sydney Catchment Authority should be set by reference to the marginal cost of operation of the desalination plant so that Sydney Water would be indifferent at the point that the plants operate between taking water from the Sydney Catchment Authority and its operating the plant.

The point at which the higher marginal charge should cut in, of course, is quite contentious and we can perhaps relate it in some way to the sustainable yield from the dams. The alternative that you canvassed today, which is something that we had not considered, of having a fixed block and a fixed charge and then applying a variable charge to everything above that perhaps has some merit. It

is not something we gave consideration to, but that might be a way of achieving a relatively higher volumetric charge on the margin.

We have already made the observation that there seems to be a general support from a number of submissions that a higher volumetric charge should be considered rather than reducing it in the way that the Sydney Catchment Authority proposes. At the same time we accept that if you took higher charges on the margin, it then increases the volume risks, which clearly the Sydney Catchment Authority is seeking to avoid. So there may be a case for overs and unders between years and between periods to compensate for that. You talked about a fair band and compensation if you get outside that fair band. We have not thought too much about the mechanics of that. Thank you, that concludes my prepared remarks.

THE CHAIRMAN: Thank you very much for that.

MR EDGERTON: Jemena's submission mentions that the SCA's volumetric charge to Sydney Water should not be reduced as Sydney Water would then have an economic incentive to maximise its use of water from the SCA. If the SCA can provide a lower cost source of water, why shouldn't Sydney Water have an incentive to maximise its use of water from the SCA in preference to the higher cost source of the desalination plant?

MR TUDEHOPE: We make the observation at the margin rather than on average, but at the margin, the way the prices are structured at the moment, one would say that the desalination plant should never be operated until the dams are dry, because that is the economic sense of it. We are talking now of rules that would force operation of the desalination plant, but it would be uneconomic, given the availability of cheaper lower cost water from the Sydney Catchment Authority. So to remove that economic incentive at the times when the desalination plant is operating, and the way a normal head of the market would figure at times when the desalination plant is operating, suggests that the alternatives would be priced at a similar level. That is the way that the National Electricity Market clears and so on.

MR COX: This is a sort of price stack.

MR TUDEHOPE: Yes.

MR COX: There is a certain amount for lower marginal cost and another amount for the higher marginal cost for and it would depend upon what happened at which particular period as to which price applied.

MR TUDEHOPE: Yes.

THE CHAIRMAN: Another way of putting it is that if we had rules that treated how a desalination plant operated or how much it operated and which related to dam levels, you would then change the costs the Sydney Catchment Authority charged also tied to the dam levels. So when the dams are full, their charges are lower than when the dams are half empty.

MR TUDEHOPE: Or when the desalination plant is --

THE CHAIRMAN: But the desalination plant operates when the dams are half empty; it does not operate when the dam is full.

MR TUDEHOPE: No, and that is --

THE CHAIRMAN: You could have a system where the rules and the prices are then integrated.

MR TUDEHOPE: That may be complex. A simpler way, which has been canvassed here, is to have a fixed block and a fixed charge and then a variable charge price for everything above that. That could be in some way linked to the desalination plant, so that there were no disincentives.

MR COX: You said the desalination plant would operate during dry periods. It does not necessarily easily relate to a fixed amount of water in the desal; it would come in earlier, so to speak, if it was dry.

MR TUDEHOPE: Possibly not.

MS GYZEN: Can I make a general point? We are talking about desalination and dams only, but we are also talking about an alternative source of supply, and that is recycled water. That recycled water investment, in providing those solutions, is basically competing only at the volumetric

component of the water price. The customer has already paid the fixed price, so in terms of competing for that market and basically having enough money to invest further in recycling, the volumetric price has a direct impact on the new competitive sources.

MS CHADWICK: Associated with that is Jemena's view of the potential for other entrants to come in to Sydney's market and the implications for the price determination for those additional water suppliers. I note that one of the implications of the concept that you were putting forward is a reasonable degree of volatility in the prices between regulatory periods. What degree of certainty in pricing approaches do you think is important to encourage that sort of efficient entry?

MS GYZEN: We certainly would not want to see very volatile prices. To invest in infrastructure like recycling infrastructure, you need to take a very long-term view. If you are going to sign up customers to use recycled water, you need to have a reasonable certainty that that price and that revenue stream will be reasonably predictable.

MR TUDEHOPE: I guess the model that we are talking about, to linking the Sydney Catchment Authority's marginal price to the marginal cost of supply, is unlikely to vary greatly over the period. We are not talking about the price in terms of supply and demand necessarily, which is the scarcity pricing model; although I guess, at the same time, it would be nice to have restrictions at the end of --

THE CHAIRMAN: Can I just clarify that? I think we have to acknowledge that the scarcity pricing model would be more volatile than the long run marginal cost pricing model.

MR TUDEHOPE: Indeed.

THE CHAIRMAN: I am not quite clear, for that reason, whether you would prefer a long run marginal cost price if you are not interested in a scarcity price model or you are at least prepared at present to consider further the scarcity price model?

MR TUDEHOPE: No, I agree; it would involve a long run marginal cost model. As I said, the proposition we put,

given the long run marginal cost is a difficult concept to deal with and takes some time to analyse and establish, is that the long run marginal cost must be at least displayed in the short run marginal cost. So the short run marginal cost of the desalination plant, which is the marginal source of supply in the market at present, establishes that benchmark.

THE CHAIRMAN: That is what you would prefer.

MR TUDEHOPE: Yes. We have not really considered beyond that to scarcity pricing as a complete model, but on the face of it, both in the implementation and also from the point of view of long-term investment in assets, certainly the ability to do so is an important factor.

MS KRIEGER: Can I just ask a point of clarification on a point that you made about the importance of a volumetric charge for alternative sources of water? When you say the volumetric charge is key because the customers want to pay for the fixed charge, is that as a consequence of buying properties which, through developer charges, have been fitted out with a third pipeline which then gets passed through to the consumers? Is that the sort of thing that you were talking about?

MS GYZEN: No, it is more than that. If you take an industrial customer as an example. People will always use potable water as well as recycled water. There would be very few places where you would use recycled water. You buy the potable water first and then you say, "What applications do I have for recycled water?" So you have already bought the potable water. You have already paid your fixed charges and you say "How much can I then save, or how much recycled water can I buy and what will I pay for that water?" That really comes down to what the variable part of their overall charge is.

THE CHAIRMAN: Thank you very much. We have now completed the people in the witness box, if that is the right phrase. I did say we would allow people in the room some time for comments or questions. In particular, with regard to the Sydney Catchment Authority, there may have been comments that you would like to reply to. This is an opportunity.

MR BULLEN: One of the key issues that probably would require some elaboration is how the iterative process might

work around operating rules for desalination and pricing. As part of the review of the metropolitan water plan, some of the process around that is to consider the various costs of the various sources of supply and a determination as to how that will come out might play out in terms of the trigger levels in the various rules.

It is in the very early stages. In terms of the review of the metropolitan water plan around that work that has been undertaken, there are two key areas of work: firstly around the framework for the metropolitan water plan reviewed up to 2010; then, secondly, how the desalination operating rules may sit under that broader framework.

The other aspect is: over the next 50 years, as demand for water increases - there are demand issues; that is not to downplay demand side issues and recycled water - when can the appropriate points for decisions about alternate investments around augmentation be predicted and managed? We need to bear in mind lead times around particular augmentation sources, whether they are major engineering constructions, such as a dam; or, alternatively, supplementation of the 250 megalitre a day desalination plant up to 500, as the case may be.

It is an interesting issue as to how you structure that framework and go through the considerations around that, given some of the other issues that have been identified during the course of the day.

THE CHAIRMAN: Are there any other questions or comments? In that case, I will bring the hearing to a close

CLOSING REMARKS

THE CHAIRMAN: Some of the issues which you just touched on, Michael, are pretty interesting, but they may not be that relevant to this immediate determination for the here and now, but we would certainly like to see if pricing can be integrated with the regulatory regime.

I think also, just commenting on that, in terms of planning for the future we need to bear in mind that the Government also is seeking to involve the private sector, so it is not just, if I can put it this way, what mischiefs the Government might have in mind in terms of public sector

investment - albeit it could involve a private partner - but also those that other people think of and which may reflect their judgment about the future market which may be as good as or better than the people who advise Government.

MR BULLEN: That's right.

THE CHAIRMAN: Just going back over today, we did receive an enormous amount of unanimity on the price determination period, and while the Tribunal hasn't taken a formal decision on that, there is an obvious case for going to three years. We will bear that in mind.

We are working our way through the capital expenditure and operational expenditure with the consultants, but that hasn't been a matter of huge dispute. There have been some useful suggestions from Leigh Martin in particular about making sure that you directed your resources appropriately.

Clearly, the issue that we do want to think about is the pricing structure, and you did indicate a preparedness to talk to us further about that.

MR BULLEN: Yes.

THE CHAIRMAN: We might want to take you up on that, thank you.

I would like to thank you all for your participation today. The proceedings are now closed, thank you.

AT 4.05PM THE TRIBUNAL ADJOURNED ACCORDINGLY