

SYDNEY WATER CORPORATION

PRICES OF WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES

ISSUES PAPER

**INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES**

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Submissions

Public involvement is an important element of the Tribunal's processes. The Tribunal therefore invites submissions from interested parties to all of its investigations.

There is no standard format for preparation of submissions, however, submissions should have regard to the specific issues that have been raised. Submissions should be made in writing and, if they exceed 15 pages in length, should also be provided on computer disk in word processor, PDF or spreadsheet format.

Confidentiality

Special reference must be made to any issues in submissions for which confidential treatment is sought and all confidential parts of submissions must be clearly marked. *However, it is important to note that confidentiality cannot be guaranteed as the Freedom of Information Act and section 22A of the Independent Pricing and Regulatory Tribunal Act provide measures for possible public access to certain documents.*

Public access to submissions

All submissions that are not subject to confidentiality will be made available for public inspection at the Tribunal's offices immediately after registration by the Tribunal and also via the Tribunal's website. Transcriptions of public hearings will also be available.

Public information about the Tribunal's activities

A range of information about the role and current activities of the Tribunal, including copies of latest reports and submissions can be found on the Tribunal's website at www.ipart.nsw.gov.au

Submissions on the issues raised in this report should be received no later than 14 July 2000.

***Comments or inquiries regarding this review should be directed to:
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Independent Pricing and Regulatory Tribunal of New South Wales

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1 THE FORTHCOMING MEDIUM TERM PRICE PATH DETERMINATION

The Independent Pricing and Regulatory Tribunal of New South Wales (the Tribunal) determines the maximum prices that Sydney Water Corporation (SWC) can levy for its water, sewerage and drainage services.

In July 1999, the Government established the Sydney Catchment Authority (SCA). The SCA is responsible for supplying bulk water and for managing and protecting the catchments utilised for the harvesting and storage of bulk water. These functions were previously undertaken by SWC.¹ The Tribunal has responsibility for determining prices for SCA for five years from 1 October 2000.

Sydney Water now purchases bulk water from SCA. The prices the Tribunal determines for bulk water will establish one of the major costs for SWC. Given that the Tribunal's pricing responsibility for the SCA commences on 1 October, the Tribunal has decided that it can better determine prices for SWC customers for the medium term if it considers SCA pricing and SWC pricing at the same time.

The Tribunal has decided to make a short term determination for the period from 1 July 2000 and intends making a medium term determination for the period from 1 October 2000 onwards. The determination to apply from 1 July 2000 has been issued separately from this paper.

The Tribunal is considering establishing prices for SWC for a medium term period of up to five years. The proposals in SWC's current submission and other stakeholder submissions will form the basis of the Tribunal's deliberations for the forthcoming medium term price path determination. Copies of all submissions can be found on the Tribunal's website.

SWC proposes² real price increases for water and sewerage.

SWC has been set targets to reduce water consumption. These are termed demand management targets. SWC believes that if it meets these targets, then current prices would not generate enough revenue to cover costs. SWC proposes price increases that not only recover the costs, but also are directly linked to attaining the demand management targets.

SWC proposes a large and significant capital expenditure program. The program is much larger than any recent program undertaken by SWC. Because the bulk of the expenditure is directed to solving problems in sewerage systems, SWC proposes increases in its sewerage charges to recover these costs.

¹ The establishment of the SCA resulted from recommendations of the Sydney Water Inquiry conducted by Mr Peter McClellan QC.

² Sydney Water Corporation, Submission on Prices for Water, Sewerage and Stormwater Services (2000-2004), December 1999.

SWC's proposals for residential water and sewerage prices are shown in Tables 1 and 2.

Table 1 SWC proposed residential/non-residential water usage prices

(1999/2000 \$)

	Current	2000/01	2001/02	2002/03	2003/04
Price/kL	0.90	0.90	0.915	0.947	0.965
Increase		0%	1.7%	3.5%	1.9%

Table 2 SWC proposed residential/non-residential sewerage service charges
(1999/2000 \$)

	Current	2000/01	2001/02	2002/03	2003/04
Charge/qtr	72.60	81.30	81.30	81.30	81.30
Increase		12%	0%	0%	0%

Prior to the Tribunal determination for prices of up to five years, it seeks comments on the following issues. Submissions on the issues raised in this report should be received no later than 14 July 2000 and forwarded to:

The Chairman
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Level 2, 44 Market Street
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2 SWC'S PROPOSED EXPENDITURES

2.1 Operating expenditure

Efficiency is concerned with comparing costs with the level of services. For example, efficiency has increased when costs are lowered for a particular level of service or when a required higher level of service is delivered for the same cost.

In 1999, the Tribunal commissioned Halcrow Management Sciences Limited (Halcrow) to report on the reasonableness of the cost estimates in operating and capital expenditure programs of the four water companies regulated by the Tribunal. Halcrow comments that SWC's operating expenditure per connection is high compared to water companies in the UK.³

³ Halcrow Management Sciences Limited, *New South Wales Agencies Review*, December 1999, p 29.

Halcrow also examined cost savings proposed by SWC. SWC has set a target of reducing operating costs per property by 23 per cent in 2001/02 compared to 1998/99, and for further annual reductions of 2 per cent from 2002/03 onwards.

SWC calculated the cost savings on costs over which it has control. The costs do not include the costs of bulk water. The cost of bulk water to SWC may increase in the future.⁴ If the costs of bulk water are included, then overall savings in costs may be much less than proposed by SWC. Halcrow believes that this could reduce the savings to 6 per cent over three years.

Looking at the anticipated savings excluding bulk water costs, Halcrow believes that SWC's target reduction of 23 per cent to be appropriate but that the proposed 2 per cent reduction for the following years to be conservative. Halcrow believes that total operational costs projected by SWC for 2002/03 onwards could be further reduced. Halcrow suggested several areas where efficiency improvements could be made. It believes that the improvements would allow additional savings of between 2.3 per cent and 3.0 per cent while still allowing SWC to meet its standards of service targets and environmental obligations.

2.2 Capital expenditure

SWC seeks price increases to pay for a proposed capital expenditure program of approximately \$2 billion over the four years 2000/01 to 2003/04. The program is significantly larger than the program undertaken during the last price path and could increase the current value of SWC's assets⁵ by over 35 per cent.

⁴ In its submission to the Tribunal, the SCA has proposed prices to apply from 1 October 2000. These prices would translate into costs for SWC that would be higher than the costs for bulk water before the establishment of the SCA.

⁵ For the purpose of determining prices, the Tribunal makes its own calculation of the value of assets. This value may vary from the value determined for external financial reporting purposes.

Table 3 SWC capital expenditure⁶ (\$ of the year)

	96/97	97/98	98/99	99/00	Total
ACTUAL CAPITAL EXPENDITURE					
Water					
Asset renewal/replacement	24	37	48	43	152
Environmental	26	17	42	14	100
Growth	1	1	3	5	11
Total capital expenditure	52	55	94	63	263
Wastewater					
Asset renewal/replacement	34	48	53	66	201
Environmental	52	81	256	369	758
Growth	2	3	3	10	18
Total capital expenditure	88	132	312	445	976
Stormwater					
Asset renewal/replacement	1	4	3	2	10
Environmental	1	1	0	7	9
Growth	0	0	0	0	0
Total capital expenditure	2	5	3	9	19
Total					
Asset renewal/replacement	59	89	104	111	363
Environmental	79	98	298	391	867
Growth	3	4	7	15	29
Total capital expenditure	141	191	409	517	1,258
CAPITAL EXPENDITURE PROJECTED IN 1996					
Total capital expenditure	215	301	335	310	1,160
Difference between projected and actual	74	110	-74	-207	-98
% of actual to projected	66%	64%	122%	167%	108%

Source: Figures were taken from SWC's annual information return.
The forecast figures were supplied by SWC for the 1996 medium term determination.
The actual figure for 99/00 is the budget projection from SWC's annual information return.
Figures before July 1999 include capital expenditure on assets now owned by the SCA.

⁶ Asset renewal capital expenditure is for replacing or renewing existing assets to maintain current capacity.
Environmental capital expenditure is related to environmental requirements but does not alter the capacity of assets.
Growth capital expenditure relates to expenditure on assets that increases the capacity of the system.

Table 4 SWC forecast capital expenditure (\$ of the year)

	00/01	01/02	02/03	03/04	Total
PROJECTED CAPITAL EXPENDITURE					
Water					
Asset renewal/replacement	54	85	103	98	341
Environmental	22	12	8	9	52
Growth	9	15	16	10	50
Total capital expenditure	85	112	128	117	443
Wastewater					
Asset renewal/replacement	84	79	82	80	325
Environmental	279	289	300	306	1,174
Growth	19	27	34	36	117
Total capital expenditure	382	394	416	422	1,615
Stormwater					
Asset renewal/replacement	3	3	2	3	11
Environmental	14	10	10	10	44
Growth	0	0	0	0	0
Total capital expenditure	17	13	12	13	55
Total					
Asset renewal/replacement	141	166	188	181	676
Environmental	315	311	318	325	1,270
Growth	28	41	51	46	167
Total capital expenditure	485	519	557	552	2,113

Note: Figures were taken from SWC's annual information return.

In the water area, a major focus will be SWC's program to encourage customers to conserve water to enable SWC to achieve its demand management targets. SWC proposes to commit expenditure to address water quality and reliability of supply. The Sydney Catchment Authority has proposed a capital expenditure program of \$162 million over the next five years (see section 4), some of which will also address water quality.

SWC is proposing to spend the largest proportion of capital expenditure on wastewater. Some of the expenditure is to maintain existing standards of service but the major focus is on projects designed to achieve increased standards. The largest component of the State Government's Waterway's Package⁷ is expenditure by SWC on sewer overflow abatement of \$1.6 billion over twenty years. The timing of the expenditure within the twenty years is not fixed but, for example, SWC proposes to spend \$723m on sewer works related to its WaterPlan 21 program over the years 1999/00 to 2002/03.

Expenditure on stormwater management is designed to maintain current systems and fulfil SWC's commitment to the stormwater management planning process conducted by the Environment Protection Authority.

The other major area for capital expenditure is information technology type projects and expenditure on projects such as replacement of customer water meters.

⁷ The Waterway's Package was announced in 1997 by the NSW State Government. The Package is a whole of government approach to improve water quality in NSW's harbours, rivers and beaches. Funding for projects comes from the Government and from government bodies such as SWC. SWC issued its WaterPlan 21 program to define its commitments made to the Government under the Waterway's Package.

The Tribunal has to decide whether to accept the proposals of SWC. In the public hearing for the SWC determination, the Tribunal asked SWC about the reasonableness and appropriateness of the proposed capital expenditure program and how SWC decides on what projects to spend money. In response, SWC explained that much of its expenditure arises from its own WaterPlan 21 program which has been signed-off by the State Government on behalf of the community.⁸

Capital expenditure will also be needed to achieve standards of service contained in SWC's Operating Licence. When reviewing SWC, Halcrow commented⁹ that the standards of service imposed on SWC by its licence are not a comprehensive reflection of customer expectation of water services. It is not these standards that drive the business of delivering water services but a range of secondary indicators that are not directly regulated but in some cases subject to audit.

Halcrow compared the potential for efficiency gains for the proposed capital programs of Sydney Water, Hunter Water, Gosford City Council and Wyong Shire Council. Halcrow believe that SWC has the greatest potential to reduce the cost of its forecast capital program while still achieving its work targets. Halcrow detailed several initiatives where it believed SWC could achieve efficiency reductions. These could see the cost of the proposed five-year program reduced by between 12.3 per cent and 16.6 per cent in total.

3 NORTHSIDE STORAGE TUNNEL

One of the commitments of the State Government's Waterway's Package is to clean up Sydney Harbour. Sewage and stormwater are the main contributors to water quality problems in Sydney Harbour. In 1997, the NSW Government gave approval to SWC to construct the Northside Storage Tunnel to address sewerage contamination. The tunnel's completion is scheduled for mid or late 2000.

In its submission to the Tribunal's 1998 mid term review of pricing, SWC indicated that it would fund construction of the tunnel without the need for further price increases. However, SWC has included the costs of tunnel construction for the years 2000 and 2001 in its pricing proposals for the medium term review. These amount to \$249 million.

When the Tribunal determines charges, it has regard for the potential return on and return of the assets owned by the agency.¹⁰ For these calculations, the Tribunal has to determine the value of those assets. If the Tribunal decides to include the costs of the tunnel in the medium term review, it will have to decide on the value to ascribe to the tunnel.

In 1997, the NSW Government established the Waterways Advisory Panel (the Panel) to report on the tunnel. SWC advised the Panel¹¹ that it estimated that the cost of the tunnel would be \$375 million. Because this estimate was a pre-design estimate and was expressed in 1997 dollars, the Panel believed that some increase in the cost would be expected. The

⁸ Independent Pricing and Regulatory Tribunal, Public Hearing into Sydney Water Corporation Prices for Water, Sewerage and Stormwater Services, 3 March 2000, p 18.

⁹ Halcrow Management Sciences Limited, *New South Wales Agencies Review*, December 1999, p 27.

¹⁰ Commercial organisations seek prices that allow them to maintain the value of their shareholders' investments (a return of capital) and also allow some interest on the investments (a return on capital).

¹¹ Waterways Advisory Panel, *Report to the NSW Government*, August 1997.

second report of the Panel¹² notes that SWC revised the cost in January 1998 and the budget was estimated at \$300 million. The reduction came about when SWC decided that it would not proceed with various components of the tunnel. These included a full lining of the tunnel and construction of conduits including a sludge pipe.

The current budget for completion of the tunnel is \$451 million. Reasons for the increase in costs are detailed in the second report of the Panel. The Panel expressed concern about the increase in costs. The Panel recognised that there had been significant changes to the Board and management of SWC since the project began and that these exacerbated problems relating to financial control of the project. However, the Panel considered that the explanation from SWC did not satisfactorily address the level of, or the reasons for, the cost blowout.

4 IMPACT OF THE COSTS OF THE SYDNEY CATCHMENT AUTHORITY

In 1998 SWC users experienced a series of incidents regarding the occurrence of giardia and cryptosporidium in drinking water. As a result of a State Government inquiry,¹³ the Government established the Sydney Catchment Authority (SCA) in July 1999. The role of the SCA is:¹⁴

- to manage and protect the catchment areas and catchment infrastructure works
- to be a supplier of bulk water
- to regulate certain activities within or affecting the outer catchment areas as well as the inner catchment areas.

The SCA has submitted to the Tribunal pricing proposals for five years from 1 October 2000. These proposals are based on costs that SWC previously would have incurred. The costs are considerably greater than those incurred by SWC prior to the establishment of the SCA. SCA states¹⁵ that its operating costs for the year 2000/01 will be about \$68 million. SWC¹⁶ has advised that its operating costs for the same period will be reduced by about \$41 million because of the transfer of SWC functions to SCA. This indicates extra operating costs of approximately \$27 million.

The SCA also proposes spending \$162 million on capital projects over the next five years. Much of the expenditure is directed towards the Warragamba Dam Auxiliary Spillway but there is expenditure proposed to reduce the risks of water contamination.

The SCA comments¹⁷ that the extra costs are for additional staff, enhanced water storage modelling and testing, and a new legislative responsibility for the SCA of a Catchment Audit. The SCA believes that the initial Catchment Audit will identify some key sources of pollution that will need to be controlled.¹⁸

¹² Waterways Advisory Panel, *Second Report to the NSW Government*, March 2000.

¹³ Peter McClellan QC, *Sydney Water Inquiry*, December 1998.

¹⁴ *Sydney Water Catchment Management Act, 1998*.

¹⁵ Sydney Catchment Authority, *Medium Term Pricing Submission*, December 1999.

¹⁶ Sydney Water Corporation, *Correspondence to the Tribunal*, February 2000.

¹⁷ Sydney Catchment Authority, *Confidential Correspondence*, April 2000.

¹⁸ Sydney Catchment Authority, *Medium Term Pricing Submission*, December 1999.

The SCA believes that it will have significant additional work to undertake if it is to safeguard the quality of Sydney's water supply. Much of the additional work is focused on the outer catchments.

The additional work will come about as a result of:

- amendments to SCA's operating licence
- the findings of the Catchment Audit
- the Strategic Priorities being established by the Catchment Authority Board
- the regulations to be put in place, and
- the Regional Environmental Plan.

5 LINKING WATER CHARGES TO DEMAND MANAGEMENT TARGETS

Over the period of the price path, SWC has sought annual increases in water prices that would be directly linked to it achieving demand management targets. Under SWC's proposals, if SWC does not successfully reduce the amount of water consumed, then it would not receive the increased prices.

The targets are set out in SWC's Operating Licence. Under its operating licence, SWC is required to reduce water consumption by 28 per cent by 2004/05 compared to 1990/91 levels.

Sydney Water sees the advantages of linking price increases and demand management targets as:

- it provides an appropriate incentive for Sydney Water to meet the demand management targets
- usage prices are directly linked to levels of demand.

However, there are other issues:

- Customers who reduce their consumption will then receive an increase in price. This may be counterproductive in encouraging customers to conserve water.
- Reduced consumption should lead to reductions in costs. There should be deferrals in expenditure on capital items, and maintenance expenditure should decrease because of reduced 'wear and tear' on systems.

6 CHARGES FOR LARGE CUSTOMERS

For the same quality of water, non-residential customers of SWC generally pay the same usage charge as residential customers.¹⁹ A group of large water users in the SWC area has forwarded a submission²⁰ seeking either discounts in tariffs (based on cost savings) for users of large volumes of water or a framework to negotiate directly with SWC about appropriate discounts.

The level of access charges for SWC customers varies with the size of the access pipe but the level of usage charges is the same for all users. Customers do not receive a discount on the usage charge regardless of the distance they are from the source of supply, the size of pipes used in delivery, or the customer specific billing costs. Having a common usage charge for all customers is known as 'postage stamp pricing'.

Postage stamp pricing can result in subsidies from high volume water users to low volume water users and likewise from customers close to the source of supply to those who are distant. The advantages of this pricing mechanism are that it is simple to calculate and easily understood by customers. There is also the view that the supply of water is a basic need and that there should not be discrimination on any grounds, including price.

Recently, in considering the issue of large-user tariffs, Ofwat²¹ put forward the following principles:

- unit charges should not be lower for business customers simply because they use a large amount of water
- charges should reflect the lower costs of delivering large quantities of water to a single point of delivery, which does not require the use of all levels of the distribution system, and
- tariffs should be structured to avoid incentives to waste water.²²

¹⁹ Hunter Water currently offers a lower usage charge for consumption greater than 1000kL per annum. However, residential customers would not normally reach this level of consumption.

²⁰ Caltex Refineries et al, Submission to the Medium Term Price Path Review for Metropolitan Water Agencies, February 2000.

²¹ Ofwat is the regulator of water companies in England and Wales. It has similar pricing responsibilities to the Tribunal.

²² Ofwat, *1999 – 2000 Report on Tariff Structure and Charges*, p 49.