SYDNEY WATER CORPORATION

PRICES OF WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES

Review of
medium term price path from 1 July 1998

INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

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Determination No 3, 1998 **June 1998**

FOREWORD

In its 1996 determination the Tribunal set a four year price path for 1996/97 to 1999/2000 for Sydney Water Corporation. The objective of the price path was to provide a greater degree of certainty than in the past to the customers, owners and managers of Sydney Water regarding prices and revenues. The Tribunal believed that all stakeholders of Sydney Water would achieve significant benefits from this. The Tribunal also indicated that a mid term review would occur in 1998.

An important aspect of a medium term price path is that agencies are able to retain the benefits of cost reductions over and above those agreed with the regulator during the period of the price path. This provides an incentive for greater efficiency. It is less clear whether agencies should be able to retain windfall gains (or be required to absorb windfall losses) that are outside their control. In many cases it may not be easy to distinguish a windfall gain from an efficiency improvement. However, forecast inaccuracies are a particular case. To prevent the accumulation of large gains or losses that must be corrected at a subsequent major review, it seems desirable that forecast gains or losses should be corrected as soon as possible.

At the time of the 1996 determination there were uncertainties about environmental standards. The Tribunal decided that it would conduct a mid term review. The Tribunal's intention in undertaking the mid term review was not to alter the price path unless this was absolutely necessary. Changes in environmental standards have not eventuated. On this basis there is no need to amend the price path.

Financial modelling carried out in 1996 to help establish the mid term price path was based on assumptions of inflation as measured by the consumer price index (CPI). The Tribunal has noted, however, that actual inflation has been significantly lower than forecast. This has resulted in SWC achieving revenue greater than expected.

SWC's capital expenditure has not reached the levels forecast at the time of the determination. The Tribunal notes that actual levels of expenditure have consistently been below those budgeted for by Sydney Water. Over estimation of forecast capital spending may cause overstatement of costs and, consequently, prices. Equally, however, it may reflect cost reductions and a more rigorous approach to capital expenditure by Sydney Water. Further, SWC may make up the deficit with future capital expenditure. This is a complex issue, the Tribunal will examine it closely at the next major review.

Having considered these matters, the Tribunal has decided that the excess returns from the lower than forecast inflation should be returned to customers of Sydney Water at the first opportunity. To date, the Tribunal has seen the elimination of property based charges as a priority. The Tribunal believes that the return to customers can be best achieved through further reductions in property based charges. The Tribunal has determined that there will be further reductions in 1998/99 and 1999/2000 in the property value based sewerage charges paid by non residential customers.

The method of price setting used in the 1996 determination can result in gains or losses to the utility and its stakeholders because of factors outside the control of the utility. The Tribunal will review this method of price determination at the next major review for Sydney Water in the year 2000.

Thomas G Parry
Chairman

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INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

REPORT TO THE PREMIER ON THE DETERMINATION OF MAXIMUM PRICES UNDER SECTION 11 (1) OF THE INDEPENDENT PRICING AND REGULATORY TRIBUNAL ACT, 1992

Matter No.: SRD/98/01

Report: No 3, 1998

Agency: Sydney Water Corporation Ltd

Services: Water supply, sewerage and drainage services.

Declaration of government monopoly services under Section 4 of the Act:

Order dated 14 February 1997 - page 558, Gazette No. 18

1 INTRODUCTION

This determination arises out of the stated intention of the Tribunal in Report No 6, 1996 *Sydney Water Corporation, Prices of Water Supply, Sewerage and Drainage Services* to undertake a mid-term review of the four year price path set for Sydney Water Corporation. The four year price path took effect from 1 July 1996.

The Tribunal's determination of the maximum prices for these services from 1 July 1998 until 30 June 2000 is attached to this report.

2 THE MID TERM REVIEW PROCESS

The Tribunal released an Information Paper in January 1998[1] to assist interested parties in preparing submissions for the mid-term review. Submissions were subsequently invited from SWC, interested parties and the public.

A public hearing was held on 2 April 1998 at the Tribunal's offices in Sydney.

A summary of the SWC submission is contained within the body of this report. Attachment 2 summarises other submissions. Copies of all submissions and a transcript of the hearing are available for inspection at the Tribunal's offices, Level 2, 44 Market Street, Sydney or from the Tribunal's website, *www.ipart.nsw.gov.au*

The Tribunal members who considered this determination were:

Dr Thomas Parry, Chairman
Mr James Cox, Full-time Member
Ms Liza Carver, Member

3 SUMMARY OF THE OUTCOMES OF MID TERM REVIEW

The Tribunal has considered the matters raised in the Information Paper, in submissions and at the public hearing. Dry weather conditions have increased revenues to SWC in the early part of the price path. However, in addition, the Tribunal has concluded that SWC has enjoyed higher revenue, and lower costs, in real terms because inflation is lower than expected at the time of the 1996 determination. These gains are the result of forecast revisions and should, in the Tribunal's view, be corrected at the earliest opportunity.

The main features of this determination are:

- usage and service availability charges for water, sewerage and drainage will remain as determined in the medium term price path
- in 1998/99 and 1999/2000 property based annual sewerage charges for non-residential customers will be reduced by an additional amount totalling $40 million over the two years

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1 Independent Pricing and Regulatory Tribunal, *Review of 1996 Medium Term Price Path for Sydney Water Corporation and Hunter Water Corporation, Review of Sydney Water Corporation's Stormwater Charges and Expenditures – An Information Paper*, January 1998.

- property based annual drainage (stormwater) charges will remain as in Determination No 6, 1996
- in the absence of specific proposals from SWC there will be no change in charges for all SWC customers to recover some of the costs of backlog sewerage
- for non-residential properties within the Rouse Hill Scheme, the Recycled Water (Access) component of the Quarterly Rouse Hill Charge will be based on meter size rather than land area
- arrangements for sewerage charges for Penrith residents will remain as set out in Determination No 6, 1996
- Trade Waste Charges arrangements will remain as set out in Determination No 6, 1996
- the Tribunal will continue to monitor the implementation of the Tribunal's methodology for calculating developer charges.[2] Major changes will be deferred until the next major review.

4 THE MEDIUM TERM PRICE PATH

This determination reviews the charges and issues documented in the 1996 determination (Determination No 6, 1996) which set a four year price path for SWC. Since that time, the Tribunal has released an Information Paper highlighting those issues that it would like to consider before deciding if there is a need for amendment to the price path.

Summaries of the 1996 Determination and the Information Paper can be found attached to this report in Attachments 1 and 2 respectively.

5 SUMMARY OF SUBMISSIONS

5.1 Submission by SWC

5.1.1 General pricing issues

SWC presented evidence to support its main recommendation that:

> … with the exception of stormwater and some minor changes to a limited number of prices for administrative reasons, the major elements of the 1996-2000 Medium Term Price determination should remain intact.[3]

The main arguments presented by SWC in its submission to support this recommendation follow.

Operating licence results

By many measures, SWC has exceeded the accepted levels of service for its customers.

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[2] Independent Pricing and Regulatory Tribunal, Determination No 9, *SWC Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995.

[3] Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998, p 5.

SWC operates under a licence system with the Government. The licence regulates standards of service for water quality, reliability, pressure and for sewerage surcharges. The minimum levels of service and the rights and obligations of customers are also addressed in the licence process. Overall, SWC has met the requirements of its licence within the pricing constraints established in the 1996 determination.

Key outcomes

Key outcomes achieved since the 1996 determination include:

- SWC progress in pricing reform has continued. The elimination of property value based pricing for water was eliminated prior to the 1996 review.
- The level of sewage surcharges has been restricted to operating licence targets.
- Standards achieved for water continuity and pressure have exceeded those set by the operating licence.
- Water quality has been enhanced with the commissioning of three new water filtration plants.
- Measures to ensure dam safety have been implemented with a project to construct an auxiliary spillway at Warragamba Dam under way.
- The environmental performance of SWC in relation to its licence requirements has been described as 'particularly sound' by the auditor of licence performance[4]. SWC continues to work under the regulatory directives of the Environment Protection Authority to improve the environment of beaches and rivers and to control overflows from sewerage systems.
- Capital expenditure for a range of projects is less than the level forecast in the 1996 review but this is a result of various external factors beyond the control of SWC.
- SWC is on target to achieve a 45 percent reduction in underlying operating costs per property between 1992/93 and 2000/01.
- Benchmarking shows SWC compares favourably with both national and international competitors. SWC's prices are competitive and, in some operational comparisons, SWC's performance is well above the average.
- Revenue for core services in 1996/97 was within 1 percent of that forecast in the 1996 determination. This reflects the close-to-forecast figures for properties served and actual usage.

Financial performance

Financial performance overall for 1996/97 was better than forecast, but this was due to once-off factors occurring in that year. These included savings as a result of renegotiation of Build Own and Operate contracts with private operators, savings in superannuation costs because of improved investment performance, and savings in depreciation expenses resulting from a reassessment of asset lives for water and wastewater treatment plants and pumping stations. Nonetheless, profitability and return on assets and equity are low by industry standards. Price reductions would exacerbate this position.

[4] SWC operates under a licence arrangement with an independent body called the Licence Regulator. The Licence Regulator undertakes periodic audits of SWC's performance against criteria set in the licence. The resulting audit report is used by the Licence Minister to determine, and if necessary undertake, any remedial action. The Minister reports to Parliament.

Capital expenditure had been less than forecast because SWC does not have complete control of the process. Underexpenditure has also arisen because of major changes in the allocation of funds to works as a result of changed Government priorities and ongoing refinement of SWC business planning. However, SWC expects to achieve the outcomes agreed to in 1996. In particular, SWC expects to finance the construction of a major tunnel that will reduce wet weather sewage overflows into Sydney Harbour without the need for further price increases. In addition, approval to proceed has been given for the auxiliary spillway at Warragamba Dam, the upgrade of treatment standards at Cronulla Sewerage Treatment Plant, and adoption of the higher 1996 National Health and Medical Research Council (NHMRC) Drinking Water Guidelines standards.

Demand management

Concerns over demand management have arisen with the recent spell of dry weather. Any reduction in prices may encourage greater water usage.

5.1.2 Other pricing issues

Backlog sewerage

In July 1997, the Tribunal made a determination which established the method to charge potential users of sewerage services in backlog areas (essentially areas established where existing customers of SWC have water supply services but not the availability of connection to the sewerage network). Part of the costs was to be defrayed over all SWC customers.

The Tribunal did not set actual prices for particular schemes because costs were unknown at the time of the determination. In its submission, SWC explained that private organisations have been asked to submit tenders to develop specific schemes. The Government has to determine what financial support may be available under its Social Program. Once those processes have been completed, SWC will be in a position to determine the actual costs. Therefore, SWC is not seeking increases in general prices, because of the effect of backlog schemes, at this time.

Rouse Hill

In December 1993 the Tribunal determined unique prices for residents of the Rouse Hill Development Area. One of the charges (for recycled water) was based on the land area of the resident. Following representations from Parklea Public School, the Tribunal indicated that it would, as part of the mid term review, amend the charging method so that it was based on meter size rather than property area.

Penrith Sewerage Scheme

In 1988 SWC took over responsibility for the Penrith Sewerage Scheme from Penrith City Council. As a transition measure, it was decided that the bills of affected Penrith residents would gradually be increased until they were in line with the bills of all other SWC customers. The transition period was to run from 1993/94 until 2000.

In its submission, SWC explains that the few remaining affected residents have had the benefit of lower prices than other SWC customers including the majority of residents in Penrith for ten years. They have also gained from the significant reductions in water charges that have accrued to all SWC customers through pricing reform. SWC believes therefore that the transition period should end on 30 June 1998.

Trade waste

The introduction of Load Based Licensing (LBL) will see the integration of environmental legislation into one Act. It will also greatly simplify the criteria for the issue of licences. For SWC, annual licence fees[5] could fall from $23 million to $8 million over a 4 year period. However, until the basis of the new scheme is released, SWC asks that changes to arrangements for Trade Waste be deferred until the next major review of SWC prices in 2000.

Stormwater

Responsibility for stormwater removal is spread over a number of authorities. SWC has responsibility for a number of major trunk channels and collects charges from property owners within the catchment basins of those channels.

The Premier has requested that the Tribunal undertake a separate review of SWC's stormwater charges and expenditures and therefore SWC has made a separate submission on these issues.

In that separate submission, SWC seeks the elimination of the property tax component of the revenue collected and the introduction of an area based charge for non residential properties. Full details of SWC proposals can be found in the stormwater review.[6]

5.2 Other submissions

Summaries of other submissions can be found in Attachment 2.

6 THE TRIBUNAL'S DETERMINATION

When determining the medium term price path, the Tribunal indicated that changes in environmental standards might require an increase in charges during the period of the medium term price path. Rather than setting prices in anticipation of these charges, the Tribunal indicated it would conduct a mid term review.

The Tribunal notes that the changes in environmental standards have not yet occurred. However, the Tribunal has decided to use the mid term review to examine SWC's financial position and prices more generally.

The Tribunal is reluctant to amend prices during the course of a price path because amendment may discourage incentives for efficiency and the stable environment established for regulated corporations. However, as stated in the Information Paper,[7] the Tribunal will consider varying the current SWC price path if:

- changes have occurred since June 1996 that are material, and

[5] In its submission, the EPA reports that the load licencing fee will be based on the quantity and type of pollutants discharged, with adjustments for the manner of emission and the condition of each receiving environment.

[6] The Tribunal will shortly release its report on SWC's stormwater expenditure and revenues. On release, this report will be available for viewing at the Tribunal's offices or on the Tribunal's website, *www.ipart.nsw.gov.au*.

[7] Independent Pricing and Regulatory Tribunal, *Review of 1996 Medium Term Price Path Determinations – An Information Paper*, January 1998, p 1.

- the Tribunal believes that the alterations should not be deferred until the next major pricing review at the end of the price path in 1999/2000.

The prices considered in this review fall into the broad categories of charges that apply to all customers (ie annual charges) or those that apply to specific customers (eg Trade Waste Charges, Rouse Hill Charges). Each of these is discussed below.

6.1 Periodic charges

Periodic charges comprise usage, service, availability and property based charges.

During a price path, a utility's financial position could improve because of:

1. the utility's efforts to reduce the costs of providing the services
2. changes in external factors over which the utility has no control
3. a lower capital expenditure program.

Incentive regulation is meant to encourage regulated utilities to achieve efficiency gains. Where an agency does better than expected at the time of the price review, the issue arises as to whether the agency should retain the benefits or share them with its customers. When efficiencies have been achieved as a direct result of the endeavours of a corporation, the Tribunal does not believe that revenues should be reduced during the term of a price path. The claims of various stakeholders can be considered in the context of the following major pricing determination.

There may also be circumstances in which an improved (or worsened) financial position has been achieved through factors that are external to the organisation. For example, economic or climatic conditions may be more or less favourable than was expected at the time of the determination and this may have an effect on costs and revenues. Of course, it is not always easy to assess whether costs or revenues have changed because of efforts of the regulated agency or outside circumstances. In general, the Tribunal believes that consideration of whether windfall gains or losses should be borne by shareholders or passed to customers should be deferred to the next major review. An exception to this is where a price path is based on certain forecasts which turn out to be incorrect. In order to prevent accumulation of large forecast errors that require large adjustments at a subsequent major review, it is desirable for forecast revisions to be corrected progressively. This has been the Tribunal's practice in regulating for electricity.

In determining a revenue requirement over the period of a medium term pricing path, an important consideration is the capital expenditure program. This will influence the use of accumulated cash reserves, the need for new debt and ultimately the revenue requirement. Where capital expenditure is much lower than forecast, the utility can achieve a stronger financial position than expected. Over time, these benefits should be shared with customers.

Performance against assumptions

The 1996 determination was based on projections of future revenues and future costs for SWC. Extensive financial modelling by the Secretariat of the Tribunal and by SWC staff was undertaken to ensure that the forecast prices would allow SWC to fund its forecast operating and capital programs.

Projections were made for a number of measures. As shown in Table 6.1, SWC achieved results much better than forecast. Operating expenditure was down, profit before abnormals was higher, distributions to Government were higher and capital expenditure was lower than predicted. Of note is SWC's significantly greater profit. The Tribunal commends the improved performance. However, the Tribunal is interested in that part of the improved performance that derived from factors outside SWC's control. In particular, the Tribunal notes the lower actual CPI figure (0.3 percent) to the one forecast (3.0 percent). The Tribunal also notes that the CPI for 1997/98 (0 percent) is likely to be much lower than forecast (3 percent).

Table 6.1 1996/97 actual performance against forecast ($m)

	Operating Expenditure	Profit before Abnormals	Tax & Dividends	Capital Expenditure	CPI
Forecast	674	115	115	219	3.0%
Actual	662	177	157	148	0.3%

Source: SWC submission, information spreadsheets, annual report.

1996 forecasts against revised forecasts

In its submission, SWC updated some of the forecasts considered in making the 1996 determination. The revised forecasts of profit before abnormals in Table 6.2 reflect the better information available at the time of this mid term review.

Table 6.2 Forecasts from the 1996 determination and revised forecasts ($m)

	96/97	97/98	98/99	99/2000	4 Yr Total
Profit before tax and abnormals					
1996 forecast	115	139	147	146	547
Revised forecast	177 (actual)	146	138	161	622

Source: SWC submission.

Service and usage revenue forecasts for the four years of the price path were also calculated for the 1996 determination. These forecasts were derived using the predictions of CPI available at that time. In retrospect, the Tribunal notes that, due to the lower than forecast CPI, the forecasts of revenue made in 1996 would have been significantly lower if SWC had used the actual inflation outcomes of the past two years. SWC supplied the Tribunal with actual revenue figures for 1996/97 and estimates for 1997/98 for this review. The revised revenue figures are $49 million higher for the two years combined than those forecast in 1996.

In its submission, SWC stated that some of the additional revenue was due to higher than normal water usage figures (for the third quarter of 1997/98) as a result of dry weather conditions in 1997/98. The Tribunal accepts that revenue in future may be reduced if, as a consequence of the dry weather, water restrictions are introduced for Sydney residents. However, the Tribunal believes that the higher revenue figures were also a result of errors in forecasting CPI movements.

Forecast errors occur frequently. In incentive regulation of a CPI ± X type, they can be corrected for progressively during the mid term price path through an ‘unders and overs’ account. Because the SWC determination set actual prices, this mechanism was not available. However, it seems desirable that agencies should neither gain from nor suffer because of forecast inaccuracies. This reduces the scope for ‘gaming’ regulation by manipulating forecasts. The Tribunal notes that in forecasting costs and revenue SWC used CPI forecasts that were consistent with other forecasts at the time. The Tribunal does not wish to imply that SWC has deliberately over forecast CPI expectations.

The Tribunal has concluded that forecast inaccuracies should be corrected at the first available opportunity. The Tribunal is of the view that there is $40 million in additional revenue that should be returned to customers.

Table 6.3 shows that the capital expenditure predictions of 1996 will not be realised. The Tribunal notes that SWC has performed better than was predicted. The indications are that the 1996 capital expenditure targets, although improving, will continue to be underspent. Underspending is not necessarily a matter of concern in itself, it may reflect improved capital works planning. The Tribunal will, however, consider SWC’s forecasting of capital expenditure against actual expenditure in setting the next medium term price path.

Table 6.3 Forecasts from the 1996 determination and revised forecasts ($m)

	96/97	97/98	98/99	99/2000	4 Yr Total
Capital expenditure (97/98 $’s)					
1996 forecast	219	307	338	307	1171
Revised forecast	148 (actual)	178	300	330	956

Source: SWC submission.

Changes to price path

The Tribunal could adjust the price path by amending:

a) the usage component of charges

b) the property value based component of charges

c) the fixed component of charges.

Reducing the usage charge now could mean that it would have to be increased again later. Reducing the usage charge could also have an undesirable impact on water usage at a time when usage measured on a per capita basis shows signs of increasing. The Tribunal has seen the removal of the property value based component of charges as a priority.

The Tribunal has decided that the benefit from correcting the forecast revisions will be passed to those customers still paying a portion of their sewerage bills via a property value based charge. The effect will be to speed up the removal of this type of charging.

The detail of the price changes to achieve those bill reductions can be found in the determination attached to this report and in Table 6.4.[8]

[8] The Tribunal notes that the change in the charge for the 1998/99 year cannot be done until 1 October 1998. Therefore, rates have been set to achieve the $40 million reduction over the remaining period.

Table 6.4 Property Value-Based Charges

		1998/99	1998/99	1999/2000
		1 July 98 to 30 Sep 98	1 Oct 98	1 July 99
		Cents in the AAV Dollar ($ of year)		
Water	Non-Residential (on AAV > $2,500)	0	0	0
Sewerage	Non-Residential (on AAV > $2,500)	0.787	0.508	0.335
Stormwater	Non-Residential (on AAV > $2,500)	0.317	0.317	0.313

Note: Application of the new charges in 1998/99 will commence on 1 October 1998.

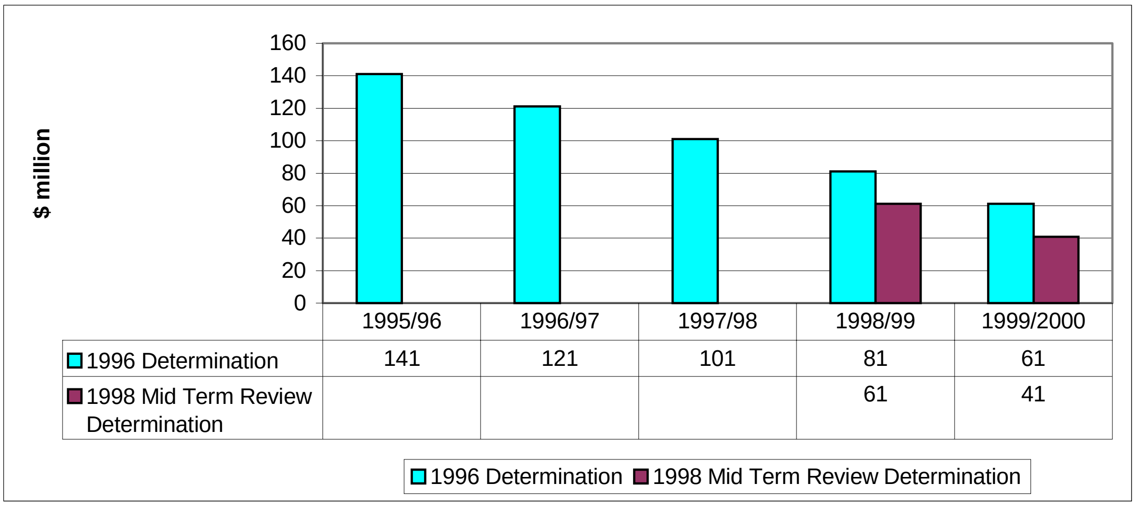
The Tribunal notes that SWC has undertaken significant pricing reform, set commendable targets for reductions in operating costs per property and refined its capital expenditure processes to the benefit of its stakeholders. During this time it still achieved strong financial performance resulting in significant improvement in its overall cash and debt position (see Section 7.3.1 Trend in financial performance). The Tribunal expects that SWC will continue to perform strongly.

The Tribunal is concerned that there may in future be an undesirable lag in correcting for outcomes substantially different to forecast unless there is a mid term review. The Tribunal will therefore review its earlier approach of specifying actual prices at the next major pricing review in 2000.

The Tribunal determines that SWC's revenue should be reduced by a total amount of $40 million over the next two years. This should come from a reduction in the property charges to non-residential customers.

The total annual reductions in property tax are shown in Figure 6.1.

Figure 6.1 Reductions in property tax



6.2 Backlog sewerage

A determination for backlog sewerage charges was made by the Tribunal in July 1997.[9] Some of the costs were to be paid for by all SWC customers through adjustment to annual charges.

In its submission, SWC indicates that accurate costing for current schemes is not yet available and, therefore, SWC does not seek general price adjustments at this time. The Tribunal supports this approach.

As a result SWC will have to absorb any costs arising from backlog sewerage schemes until the next major review.

The Tribunal will consider how costs for backlog sewerage schemes not paid for by customers in the relevant areas (or the government) will be recovered through annual charges at the next major pricing review in 2000.

6.3 Rouse Hill

The Tribunal made a determination of charges for the Rouse Hill area in 1993 which included a combined drainage and recycled water charge called the Rouse Hill Charge – River Management Charge.[10] Prices for both drainage and recycled water were calculated in proportion to land area with 1000 square metres representing the base charge. Following representations from the Parklea Public School, the Tribunal agreed to change the basis for the recycled water component of the charge for non-residential properties from land area to meter size. This means that non residential customers with land areas less than 1000 square metres and using a standard 20mm recycled meter will be charged similarly to residential customers. The affected customers are those non-residential customers with meters larger than 20mm or multiple recycled water meters. They will now be charged the Recycled Water (access) component of the Rouse Hill Charge according to the size and the number of recycled water meters fitted.

A 20mm meter will be used as the base unit for calculation. Charges will be determined by proportioning the base 20mm charge by the ratio of the cross sectional area of the meter used to the cross sectional area of a 20mm meter. Details of the actual charges can be found in the determination following this report.

The Tribunal determines that the Recycled Water (access) component of the Rouse Hill River Management Charge for those customers with larger than 20mm or multiple recycled water meters should be calculated on the basis of meter size.

6.4 Penrith sewerage scheme

In 1988 SWC took responsibility for the Penrith Sewerage Scheme from Penrith Council. There were substantial differences in some of the prices charged by SWC to its customers and the charges levied on Penrith residents by Penrith Council. To ease the impact of the higher SWC charges, a transition period was instituted whereby the lower Penrith Council

9 Independent Pricing and Regulatory Tribunal, Determination No 4, *Pricing of Backlog Sewerage Services*, July 1997.

10 Government Pricing Tribunal, Determination No 7, *Prices for Special Water, Sewerage and Drainage Services for the Rouse Hill Development Area*, December 1993.

charges would be gradually increased until they equalled those of SWC. This transition period was to end in the year 2000, and was reaffirmed in the 1996 determination.

For the mid term review, SWC requested that the end of the transition period be brought forward to 1 July 1998 (see section 5.1.2).

The Tribunal has considered SWC's submission. However, it believes that the original arrangements are equitable and there is no need to vary those arrangements.

The Tribunal has decided that the arrangements set out in the 1996 determination are to remain in place.

6.5 Trade waste

Fees are charged for pollutants that are discharged into natural watercourses such as rivers. Some organisations choose to discharge their waste into the SWC sewerage system. SWC is then liable for the charges when the pollutants eventually enter the natural systems. Therefore, SWC charges the originator of the pollutant trade waste charges to recover those costs. The trade waste charges also recover costs incurred by SWC in treating the waste before discharge.

The Environment Protection Authority (EPA) is introducing a new scheme called Load Based Licensing (LBL) to improve NSW's environment protection licensing system. LBL charges are charges for the discharge of pollutants into natural watercourses and waterways. LBL will set charges for pollutant emissions based on the annual pollutant load which will provide greater flexibility for licencees under the scheme to find effective options to meet environmental requirements. There will be progressive implementation for the current 3,400 licenced activities with a special provision for SWC's primary treatment ocean outfall plants. At this stage, as the scheme parameters and ultimate fees levels are not finalised, actual fees may change.

Proposed changes to legislation are scheduled to occur on 1 July 1998 with commencement of the scheme from 1 September 1998. SWC has asked that, until the ramifications of those changes become clear, there be no alteration to the arrangements determined in the 1996 determination (see section 5.1.2). The Tribunal agrees that this should occur.

6.6 Stormwater

In conjunction with this mid term review, the Premier has requested that the Tribunal conduct a separate review of expenditure and revenues for SWC's stormwater services. A separate report has been prepared. In that report, the Tribunal has noted that SWC's revenue exceeds its expenditure by some $13 million. However, the Tribunal notes that a number of factors suggest that it would be inappropriate to change the pricing structure or level at this stage. These factors include changes to stormwater management planning, and possible changes in the method of charging. The Tribunal would prefer not to make any changes in prices until these issues have been further advanced.

The Tribunal has determined that the property value based charges for stormwater services should remain.

6.7 Developer charges

Submissions from the Institution of Surveyors and the Urban Development Institute of Australia raised questions regarding treatment of existing assets in the methodology and the phasing in of charges employed by SWC in its development servicing plans.

The UDIA believed that it would be more appropriate for the Tribunal to address these issues, and other potential issues, after the bulk of SWC development servicing plans (DSPs) have been released. This would allow a better analysis of the issues. The UDIA had only viewed eight SWC DSPs of a potential number greater than one hundred. When asked if the Tribunal should wait before considering the issues, the UDIA representative at the Public Hearing commented that:

> … would not mind waiting a bit. That is a personal judgement. In terms of the DSPs we have been able to review, it is really early days.[11]

The Tribunal agrees that this should occur.

The Tribunal may review the implementation of the developer charges methodology at the next major pricing reviews.

7 ISSUES CONSIDERED UNDER SECTION 15

Under Section 15 of the *Independent Pricing and Regulatory Tribunal Act 1992*, the Tribunal is required to have regard to a number of matters and indicate what regard it has to them. The Tribunal's assessment of each of the section 15 matters is outlined below.

7.1 Costs and efficiency

* *the cost of providing the services concerned [s15(1)(a)]*
* *the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers [s15(1)(e)]*
* *the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body [s15(1)(h)]*
* *the need to promote competition in the supply of the services concerned [s15(1)(i)]*

Utilities' costs can be categorised as either operating costs or capital costs. Operating expenditure relates to the day to day running costs of ensuring that current assets perform to their full capacity. Capital expenditure is concerned with replacing current assets or building new assets that extend the capacity of the system.

7.1.1 Operating expenditure

Labour costs for SWC form the largest component of its operating expenditure. Staffing levels have been reduced from 8,629 in 1992/93 to 4,763 in 1996/97, a reduction of 45 percent. Labour costs (excluding provisions and in nominal terms) have reduced from $281 million to $239 million, a reduction of only 15 percent. The reduction in staffing levels has not translated fully into cost savings. Nevertheless, SWC has undertaken to reduce

[11] Transcript, Hearing Volume No 1, April 2, 1998, p 85.

underlying operating costs per property by 45 percent[12] over the period from 1992/93 to 2000/01.

In its submission, SWC stated that it was still on course to achieve its long term goal. The reduction stands at 29 percent at 1996/97. The medium term price path in 1996 allowed for this reduction, but also provided for additional operating expenditure associated with higher standards eg Build Own Operate (BOO) operating costs for filtration plants. This determination will not affect SWC's ability to achieve its efficiency targets.

Table 7.1 Expenditure trend ($m of year)

	1992/93 Actual	1993/94 Actual	1994/95 Actual	1995/96 Actual	1996/97 Actual	Av annual % change
Labour	281	290	292	283	239	-3.9%
Other operating costs	312	256	272	236	287	-2.1%
Provisions	86	104	94	84	59	-8.9%
BOO costs	-	-	-	20	77	Nc
Total operating costs	**679**	**650**	**657**	**621**	**662**	**-0.6%**
Depreciation	291	293	249	167	175	-12.0%
Interest	199	184	194	194	187	-1.5%
Total expenditure	**1,169**	**1,127**	**1,100**	**981**	**1,025**	**-3.2%**
No of employees	8,629	7,326	5,965	5,099	4,763	-13.8%
Properties serviced	1,406,958	1,429,137	1,456,137	1,481,308	1,504,200	1.7%

Source: SWC information spreadsheets. Figures reflect the Consolidated view of SWC.
BOO = Build-own-operate water treatment plants.
Nc = not calculated.

7.1.2 Capital expenditure

Provision of water and sewerage services is highly capital intensive. Therefore, capital expenditure forms a significant proportion of the cash outlays for water agencies. Capital expenditure can take three main forms:

1. Replacement of existing assets without increasing the service capacity of the system (replacement capital expenditure).
2. Enlargement of the capacity of the system (new capital expenditure).
3. Expenditure to improve standards.

Expenditure on assets can also be made by entities outside the water agency with ownership of the assets still residing with the water agency ('free' or customer funded assets), ie in effect, the assets are given to the water agency.

New facilities can also be provided when water agencies enter into arrangements where the private sector designs, builds, finances, owns, operates and maintains infrastructure with the water agency paying periodic tariffs to the private sector entity (BOO projects).

Table 7.2 reveals that capital expenditure at SWC, excluding free assets, has been decreasing on a year by year basis.

[12] Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998, p 1.

Table 7.2 Capital expenditure ($m of year)

	1992/93	1993/94	1994/95	1995/96	1996/97
Asset replacements	99	61	29	29	70
Works other than replacements	402	254	155	152	76
Net capital expenditure	502	315	185	182	145
Free assets	43	36	263	47	42
Gross capital expenditure	545	351	447	228	187
Net capex to sales	43%	26%	16%	17%	13%

Source: SWC information spreadsheets. Information reflects the Consolidated view of SWC.

In its submission,[13] SWC comments that the downward trend in capital expenditure is reflective of SWC's greater capital efficiency and the adoption of a strategic planning process for capital expenditure.

However, the Tribunal is concerned that there may be other reasons for the reductions. In particular, the Tribunal sought assurances that asset maintenance regimes have not been compromised by the lower level of capital expenditure because that may lead to poorer service quality in the medium to long term. In its submission to the mid term review, SWC has commented that the positive result of the audit of SWC's operating licence is evidence that standards have been maintained and in some cases exceeded.[14] SWC also gave assurances at the Tribunal's public hearing on 2 April 1998 that repair and maintenance levels are being maintained.

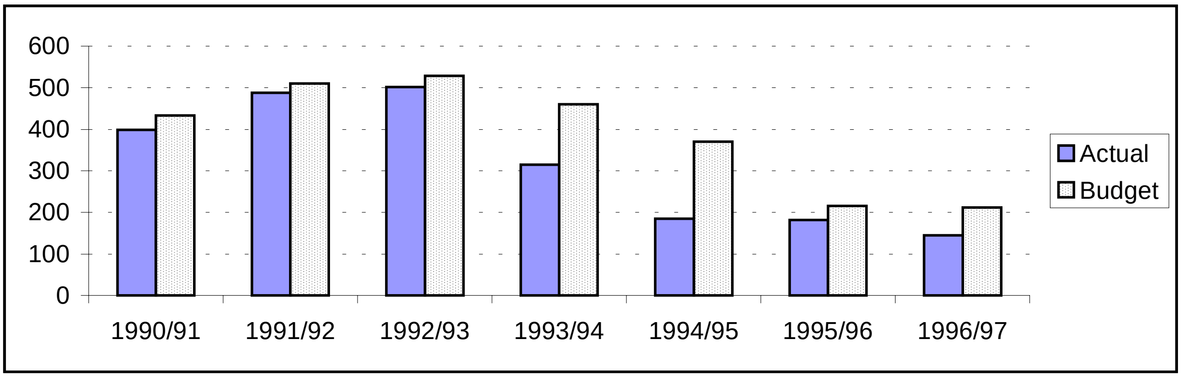
Figure 7.1 not only highlights the downward trend in capital expenditure, but also the difficulty in predicting future levels of expenditure. The graph reveals that for all years surveyed, budgeted levels of expenditure exceeded actual levels.

The Tribunal notes that from 1993/94 to 1996/97 there is a significant gap between actual expenditure and budget. The Tribunal will examine at the next review the reasons for this variance.

13 Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998.

14 Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998.

Figure 7.1 Actual and budgeted capital expenditure ($m of year)



Source: SWC information spreadsheets, Annual Report. Figures reflect the Consolidated view of SWC.
Note: Capital expenditure excludes developer funded / free assets.

7.1.3 Competition and pricing reform

The Council of Australian Governments (COAG) agreed in 1994 to implement reforms in water pricing and resource management within the general objective of

> … bringing about a more competitive and integrated national market, and more efficient and effective arrangements for the delivery of services in areas of shared responsibilities.[15]

In this agreement, State governments have made a number of commitments in relation to water reform, including pricing reform. Some of the reforms call for the adoption of consumption based pricing principles, full cost recovery and the removal of cross subsidies (or making the remaining subsidies transparent). SWC has undertaken significant pricing reform over the last decade. Pricing in water particularly, and to a lesser extent in sewerage (because of practical difficulties in measurement), is based on usage. Previously, cross subsidies arose in pricing because of a property tax component in charges and / or fixed charge based regime. The property tax component has been removed from water pricing and the residual remaining in sewerage and stormwater pricing is being progressively eliminated. This determination will reduce the property value based charges further. SWC already achieves full recovery of operating and capital costs and earns a positive rate of return.

7.1.4 Competition and access

In 1995 COAG agreed to implement a national competition reform package. Under the National Competition Policy (NCP) and Competition Principles Agreement, mechanisms for third party access to nationally significant infrastructure were introduced. The National Competition Council (NCC) was created to oversee implementation of NCP and make recommendations on third party access. One of NCC's roles is to advise Commonwealth and State Governments, particularly in the areas of access matters and progress in implementing competition policy.

To encourage discussion of the access issue, NCC engaged a consultant (Tasman Asia Pacific) to provide a report on the extent to which the services provided by water facilities in Australia meet the criteria for declaration. The five criteria are:

[15] Council of Australian Governments, *Communique*, 25 February 1994.

- access to the services provided by water facilities would promote competition in another market
- it is economically feasible to develop another facility to provide the service or part of the service
- water facilities are nationally significant having regard to
  - the size of the facility
  - the importance of the facility to constitutional trade or commerce
  - the importance of the facility to the national economy
- access can be provided without undue risk to human health or safety
- access to the service would not be contrary to the public interest.

At the end of 1997 the Victorian Government restructured Melbourne Water into four businesses. The restructure resulted in a wholesale water business and three retail water businesses.

SWC has recently restructured its organisation, effectively separating monopoly components from those that are in a competitive environment. This form of separation is necessary for regulation purposes as agencies increasingly operate in both monopoly and competitive areas.

In Australia so far there have been no formal access applications for water infrastructure under Part IIIA of the Trade Practices Act.

SWC has introduced a degree of competition into its business by contracting out a number of major services. Four major water filtration plant contracts have been let to the private sector under build, own and operate arrangements. SWC's own construction arm tenders for work of this nature in competition with outside tenderers. Meter reading has also been contracted out.

The Tribunal intends to examine competition policy issues in more detail at the next major review.

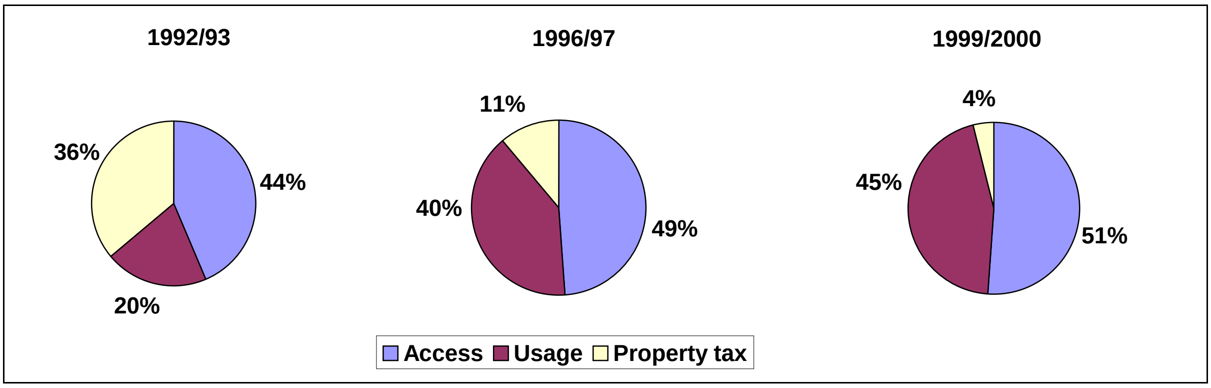
7.2 Consumer protection

* *the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services [s15(1)(b)]*
* *the effect on general price inflation over the medium term [s15(1)(d)]*
* *the social impacts of the determination and recommendations [s15(1)(k)]*

7.2.1 Pricing

SWC has moved progressively from a property based charging system to a usage based system. Figure 7.2 shows the change in reliance on usage and property tax components in SWC's revenue. On 1 October 1995, all property based charges were removed from residential customers' bills. Non-residential bills have had the property based component gradually reduced over the same period. At the moment, non-residential customers pay property value based charges on sewerage and stormwater. As a result, there has been a significant reduction in cross-subsidies from business to households. The property based charges for sewerage services will be reduced to a forecast total of $41 million in 1999/2000 as a consequence of this determination.

Figure 7.2 Sources of revenue

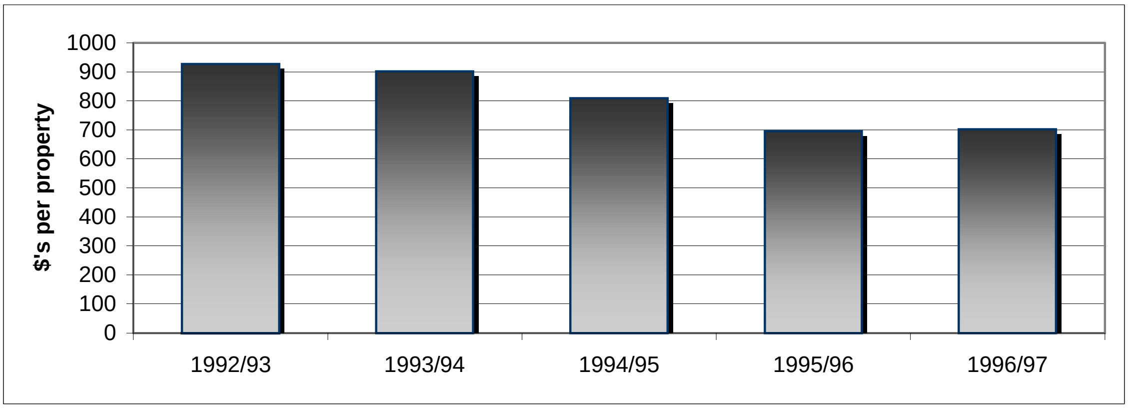


Source: SWC.

7.2.2 Average revenue per property and price reform

Figure 7.3 illustrates the reductions in average revenue per property in real terms. From 1992/93 to 1996/97 the reduction per property has been $225 or 24 percent. Residential prices have not increased in real terms in recent years. Many non-residential customers have experienced a significant reduction in their bills.

Figure 7.3 Average tariff revenue per property (1996/97 $)



Source: SWC, information spreadsheets.

The revenue reduction has resulted from the reduction in property based charging. The aim is to move towards cost reflective pricing.

7.2.3 Effect of pricing proposals on the cost of living

The Australian Bureau of Statistics conducts a Household Expenditure Survey. Water, sewerage and drainage charges are estimated to comprise 0.7 percent of an average household's weekly expenditure in NSW.[16] This determination will not change residential prices from the determination at the mid term review and will have no effect on the CPI.

16 ABS. Household Expenditure Survey 1993-94. Detailed Expenditure Items.

7.2.4 Social impact

The Tribunal evaluates the impact of price changes on customers to minimise any adverse effects. This determination does not increase prices. Some non-residential customers will benefit from the reduction in the property value based component of charges.

7.3 Financial viability

* *the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of NSW [s15(1)(c)]*

* *the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets [s15(1)(g)]*

7.3.1 Trend in financial performance

SWC enjoyed a strong financial performance over the years from 1992/93 to 1995/96 (see Table 7.3).

Table 7.3 Trend in financial performance ($m of the day)

	1992/93	1993/94	1994/95	1995/96
Total revenue (excluding levy)	1,292	1,280	1,245	1,142
Operating expenditure	679	650	657	621
Earning before interest, depn & tax	612	629	588	521
Depreciation	291	293	249	167
Earning before interest & tax	321	337	339	354
Interest	199	184	194	194
Operating profit before abnormal items	122	153	145	161
Abnormal items	-	36	(31)	(7)
Operating profit before tax	122	189	114	154
Tax equivalent	48	47	42	93
Operating profit after tax	75	142	72	60
Total Assets	14,627	14,931	13,570	13,294
Gross debt level (inc overdraft)	1,737	1,778	1,754	1,757
Total cash & investment (ST & LT)	308	461	561	662
Net Debt (Debt less Cash & Invest)	1,429	1,316	1,193	1,095
Total capital and reserves	12,223	12,528	11,139	10,813
Cash flow from operating activities	440	402	341	278

Source: SWC information spreadsheets. Information reflects the Consolidated view of SWC.

7.3.2 Performance in the first year of the price path

The financial performance of SWC in the initial stages of the price path is an important factor in the Tribunal's present determination. Table 7.4 shows the improvement in performance of SWC in 1996/97. There was a significant reduction in net debt which continues a trend over a number of years. As well, distributions to Government (tax equivalents and dividends) have increased.

Table 7.4 Financial performance ($m)

	1995/96 Actual	1996/97 Actual
Total Revenue	1,142.2	1,201.4
Operating profit before tax, abnormal items & contributions for capital works	160.8	176.6
Income tax	93.4	99.0
Operating profit after tax and abnormals but before contributions to capital works	60.3	109.6
Dividends	40.0	77.6
Total fixed assets (1)	12,433.9	12,876.7
Regulatory asset base (2)	5,100.0	5,286.0
Total borrowings	1,756.7	1,752.9
Total investments	661.7	769.2
Net debt/(cash)	1,095.0	983.7
Real rate of return (on revalued assets) (3)	2.5%	2.5%
Return on regulatory asset base (4)		6.2%

Source: SWC, Annual Report, information spreadsheets. Figures reflect the Corporation view of SWC.
Note

1. The accounting book valuation is the written down current replacement cost based on estimates of modern engineering equivalent replacement values.
2. An opening regulatory asset value for existing asset was established in June 1996 based on the net present value of future cash flows at current price levels. The regulatory asset base is then adjusted through time to take account of new capital expenditure.
3. Real rate of return on fixed assets = Earnings before interest and tax / Average fixed assets.
4. Return on regulatory asset base = Earnings before interest and tax / Average regulatory asset value.

As shown in Table 7.5, net capital expenditure in 1996/97 decreased by $37 million or 20 percent compared to 1995/96. This continues reductions in expenditure over a number of years. The reductions in capital expenditure have allowed SWC to consistently reduce net debt (gross debt less cash and short term investments) over the same period in addition to paying increasing amounts in income tax equivalents and dividends.

Table 7.5 Capital expenditure ($m)

	1995/96	1996/97
Asset replacements	29	70
Works other than replacements	152	76
Net capital expenditure	**182**	**145**
Free assets	47	42
Gross capital expenditure	**228**	**187**

Source: SWC, information spreadsheets. Information reflects the Consolidated view of SWC.
*Free assets = assets paid for by external entities such as developers.

While the Tribunal has regard for rate of return (as required under s15 of its Act), the Tribunal also has regard for ratios with a primary emphasis on cash flows. These ratios are based on the work of Giacomino and Miekle.[17] The ratios are used by rating agencies to assess an organisation's financial capacity and ability to service debt.

Table 7.6 compares the performance in 1996/97 of the private sector gas distributor Australian Gas Light Company (AGL), the public sector electricity distributor Energy Australia (EA) and Hunter Water Corporation (HWC) with SWC. Performance indicators based on cash flow are marked with an asterisk (*). Definitions of the indicators used in Table 7.6 are listed in Attachment 5.

The ratios in Table 7.6 show SWC to be in a generally strong position compared to the other two organisations. In particular, the funds flow adequacy ratios show that SWC is in a good position to cover dividends, capital expenditure and long term debt with cash from operations. As well, SWC has a comparatively greater ability to cover capital expenditure commitments (internal financing ratio) than AGL and EA. This is a reflection of SWC's low capital expenditure for this year.

Other cash flow measures show that SWC is in a comparatively healthy position to cover interest and debt payments from cash flow (funds flow interest coverage and funds flow net debt payback ratios). The earnings to total revenue ratios, though not cash flow based, reveal that SWC is better able to convert revenue into profit than either EA or AGL.

SWC does not compare as well on a return on funds employed basis (EBIT/funds employed). However, this indicator has asset valuation as a variable. The comparison may be distorted therefore by differing approaches to asset valuation. Most private sector companies for example value their assets on an historic cost basis while public sector organisations often use current replacement cost methodologies.

It should be noted that the comparisons from Table 7.6 represent a 'snapshot' of performance of the three organisations in 1996/97. Performance comparisons are more useful when performance is compared over a number of periods.

Nonetheless, SWC has performed strongly in the first year of the price path with a continuing build up of cash reserves.

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17 Don E. Giacomino and David E. Mielke, "Cash Flows: Another Approach to Ratio Analysis", *Journal of Accountancy*, March 1993, pp 55-58.

Table 7.6 Performance analysis for 1996/97

	Energy Australia	Aust Gas Light Co	Sydney Water	Hunter Water
Lenders				
Fund flow adequacy*	0.8	0.7	2.4	1.0
Funds flow interest coverage (times)*	3.0	11.4	3.6	11.9
Funds flow net debt payback (years)*	7.6	1.4	4.6	1.2
Internal financing ratio*	81%	88%	348%	105%
Pre-tax interest coverage (times)	3.3	6.7	2.3	10.9
Total Debt/Total Capital	46%	28%	14%	4%
Funds from operations/Total Debt*	13%	72%	22%	81%
Regulator				
EBIT/Total revenue	22%	22%	36%	67%
EBITD/Total revenue	30%	29%	51%	91%
EBIT/Funds employed*	14%	15%	3%	4%
EBITD ($ 000)	608,300	312,600	613,242	106,076
Shareholder				
EBIT ($ 000)	441,500	240,300	438,202	78,297
Profit after tax ($ 000)	198,400	148,200	151,751	59,413
Total dividends and tax ($ 000)	310,500	161,000	176,612	47,170

* Cash flow indicators.
Source: Annual reports.
Notes
1. Information reflects the consolidated view of each organisation.
2. SWC's financial statements' format forms the basis for analysis. The financial statements of the other organisations were reconstructed to allow better comparison.
3. For consistency, the figures for purchases of property, plant and equipment net of capital contributions were used as a measure of capital expenditure.
4. Definitions of indicators are listed in Attachment 5.

7.3.3 Rate of return and asset valuation

Measurement of the rate of return is very dependent upon resolving accounting measurement problems. In the absence of their resolution and to provide greater depth to the analysis of the performance of utilities it is necessary to examine a wider range of financial performance measures. The Tribunal therefore looks at a number of measures of performance including those measuring returns on assets. Additionally, the Tribunal must, because of the legislation governing its actions, determine prices that provide an equitable result to a number of stakeholders.

There are two main issues that need to be resolved with rate of return measures. They are the value to be assigned to the asset base and the determination of what a reasonable return to the owners might be.

In the 1996 determination, the Tribunal considered a return on assets when establishing the price cap for SWC. The value for assets in the calculation was based on a 'regulatory asset base' which was constructed as follows:

- an opening regulatory asset value for existing assets was established based on the net present value of future cash flows at current prices

- the regulatory asset base would then be adjusted through time to take account of renewals of existing assets and new capital expenditure.

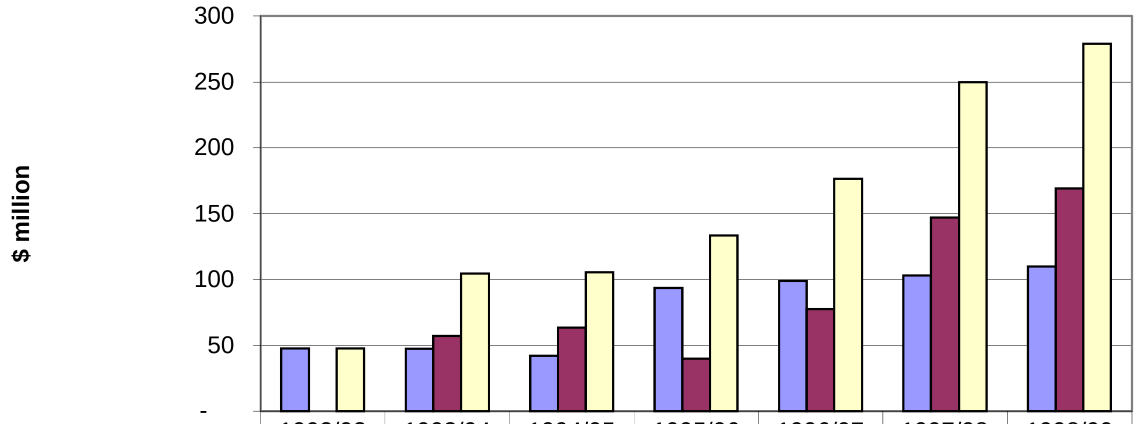
The Tribunal will consider the process of rolling forward the asset base to arrive at regulatory asset values in the next major review for SWC in 1999/2000.

7.3.4 Financial distribution to government

The Tribunal has had regard to what, in all circumstances, an appropriate dividend paid by SWC to the Government would be. The Tribunal has also considered customers' interests and the need to retain earnings to fund new capital expenditure.

Figure 7.4 shows the distribution to government in tax equivalents and dividends. The Tribunal notes the growing rate at which this distribution has accrued. Further, the Tribunal has also been made aware that the Government has engaged consultants to analyse the capital structure of SWC. The outcome of that review may impact on the distribution policy currently in place. The Tribunal has not been advised of the outcome. However, budget forecasts of distributions for the current year and the next are shown in the graph. These may reflect the outcomes of the review.

Figure 7.4 Distribution to government ($m)



	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Tax equivalent	48	47	42	93	99	103	110
Dividends	-	57	63	40	78	147	169
Total distribution	48	105	106	133	177	250	279

Source: SWC spreadsheets, annual reports. Information reflects the Consolidated view of SWC.
Forecasts for 1997/98 and 1998/99 from NSW Treasury Budget Information 1998-99, Budget Paper No 2.

7.3.5 Funding of capital works

During the last five years, (including the first year of the price path) SWC's gross debt levels have remained constant while cash levels have increased. Table 7.7 shows the capital expenditure program for the same period.

This indicates that SWC's capital program has entirely been funded by internal sources and Government contributions for social programs. SWC has indicated in its submission that it expects to fund the construction of a major tunnel which will reduce wet weather sewage overflows into Sydney Harbour without the need for further price increases.[18] Unless there are significant changes to the operating environment of SWC in the next two years, the Tribunal expects that SWC will be able to fund its capital works program over the remainder of the price path from internal sources.

Table 7.7 Capital expenditure and net debt

	1992/93	1993/94	1994/95	1995/96	1996/97
Net capital expenditure	502	315	185	182	145
Gross debt level (inc overdraft)	1,737	1,778	1,754	1,757	1,753
Total cash & investment (ST & LT)	308	461	561	662	769
Net Debt (Debt less Cash & Invest)	1,429	1,316	1,193	1,095	984

Source: SWC information spreadsheets. Information reflects the Consolidated view of SWC.

7.4 Environmental issues

* *the need to maintain ecologically sustainable development (within the meaning of section 6 of the Protection of the Environment Administration Act 1991) by appropriate pricing policies that take account of all the feasible options available to protect the environment [s15(1)(f)]*
* *considerations of demand management (including levels of demand) and least cost planning [s15(1)(j)]*

7.4.1 Ecologically sustainable development

Ecologically sustainable development has been defined as requiring *the effective integration of economic and environmental considerations* and the implementation of *improved valuation and pricing of environmental resources.* A major focus of the Tribunal's determination process is to seek to attain these objectives.

For the current determination the Tribunal has received comments from SWC and the Environment Protection Authority (EPA) by written submission and by oral presentation at a public hearing conducted on 2 April 1998.

In response to the SWC submission, the EPA commented on a number of concerns it had with the details in the submission.[19] In particular, the EPA asked that the Tribunal:

- Seek assurances from SWC that the lower than projected capital expenditure of SWC has not impacted on any commitment to improve its environmental performance.
- Enquire of SWC whether a projected $8.15 million allocation from NSW Treasury from Social program funds will be sufficient to progress back log sewerage projects identified under a priority ranking developed by the EPA.
- Seek assurances from SWC that funding for the Northside Tunnel will not reduce SWC's ability to meet licence conditions or environmental standards and commitments in other spheres of its operations.
- Consider whether SWC expenditures reflect the commitment of the *Water Board (Corporatisation) Act* for SWC to prevent all dry weather discharges of sewage to waters.

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18 Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998.

19 Environment Protection Authority, Submission to IPART, *Mid-Term Review of SWC 1996 Price Path Determination*, March 1996.

- Investigate expenditure implications if reports from the Healthy Rivers Commission on the Hawkesbury-Nepean River and the Shoalhaven are released before the Tribunal makes its determination.
- Seek assurances from SWC that funding is sufficient to meet the requirements by June 2000 for reductions in schedule 10 substances resulting from SWC sewerage services. The requirements are set out in section 23(1) of the *Water Board (Corporatisation) Act 1994*.
- Consider implications arising from the forthcoming Load Based Licensing scheme.
- Seek assurances from SWC that it is meeting its obligations with regard to demand management, and the promotion of efficient use of water as detailed in the SWC Operating Licence (see section 7.4.2 Demand Management).

The Nature Conservation Council of NSW Total Environment Centre's (NCC) submission raises similar concerns to the EPA regarding the priority given to construction of the Northside Tunnel. The NCC is also concerned about the demand management strategies of SWC and in particular is concerned that SWC may be placing too much reliance on pricing strategies. The NCC questions the reliance on fixed charges in prices as this may reduce incentives for conservation.

In its submission to the mid term review, SWC listed its progress in a number of areas that have or will have direct impacts on the environment.[20] These included:

- Since the 1996 determination, SWC has met all of its existing and operational and environmental standards and is positioned to meet future regulatory requirements.
- Operating licence targets for sewage surcharges have and are expected to continue to be met.
- Standards for drinking water will be set from the 1996 NHMRC Drinking Water Quality Guidelines, SWC has achieved 100 percent compliance since their introduction.
- Minor work will be carried out over the next two years to maintain the integrity of the stormwater systems.
- Existing environmental standards
  - Requirements of the EPA Sewage Treatment Plant (STP) Licences have been met, particularly compliance with effluent quality conditions. These requirements will continue to be met through improvements identified during negotiations with the EPA.
  - Standards set by eighty Pollution Reduction Programs negotiated with the EPA since the 1996 determination either have been met or are on track to meet time frames agreed with the EPA. These standards will continue to be met through improvements identified during negotiations with the EPA.
- Anticipated Environmental standards:
  - The protection of beaches will be enhanced under the WaterPlan 21 initiative with: a study for work at North Head STP submitted on schedule to the EPA in October 1997; Cronulla STP upgrade expected to be completed on time; a disinfection strategy for Warriewood STP currently being prepared; the Illawarra disinfection strategy delivered to the EPA in January 19998; the Illawarra Waste Water Strategy submitted

[20] Sydney Water Corporation, Submission to the Independent Pricing and Regulatory Tribunal of New South Wales, *Review of 1996 Medium Term Price Path Determination for Sydney Water Corporation*, March 1998.

to the EPA in May 1997 but behind schedule due to technical studies and community consultation.

- The protection of rivers will be enhanced with all bubble licence conditions having been met and work in place to meet future requirements. The EPA has set requirements for STP discharges for 2000, however the overall disinfection program will be completed ahead of schedule.
- The Minister determined the Review of Environmental Factors for the potable water reuse plant in December 1997. The process of tendering for design and construction is underway.
- Twenty seven pollution control licences for sewerage overflows should be finalised by June 1998. In May 1997 SWC and the EPA developed an interim program with the clean up of Sydney Harbour made a priority. The Northside Tunnel project also is designed to protect Sydney Harbour from major overflows. Commitment to completing the Tunnel before 2000 will not compromise the undertakings set out in the 1996 determination. Construction of the Tunnel will not compromise SWC's commitments to customers in terms of ensuring service delivery, regulators in terms of meeting standards and shareholders in terms of providing financial returns.

At the public hearing conducted by the Tribunal on 2 April 1998,[21] SWC made a presentation to the Tribunal to reinforce the major elements of its submission. In reply to questions regarding concerns over reductions, deferrals and diversions of capital expenditure and the potential effects on meeting obligations and agreed outcomes, SWC replied that:

> In all areas effectively the outcomes will be achieved and there is no risk to the environment or other outcomes that are required that are placed upon us.[22]

SWC explained that the issue of overflows was subject to new regulation and therefore the outcomes were not yet fully defined. Nonetheless, SWC did not expect that the expenditure projected in the SWC business plan would need to be exceeded in the last two years of the price path. There was less certainty about expenditure projections after the conclusion of the price path.

The Tribunal notes the concerns of the EPA and NCC. The Tribunal will continue to seek ways to bring about better environmental outcomes through its pricing determinations.

7.4.2 Demand management

SWC has an obligation to promote efficient use of water. Effective demand management may defer the development of major new water sources, and has the potential to save money and avoid additional environmental damage. SWC has a demand management target specified in its Operating Licence which requires SWC reduce the quantity of water drawn on a per capita basis by at least 25 percent between 1990/91 and 2000/01, and by at least 35 percent between 1990/91 and 2010/11.

In its submission, the EPA asked the Tribunal to seek assurances from SWC that it is meeting its obligations with regard to demand management, and the promotion of efficient use of water as detailed in the SWC Operating Licence.

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21 Copies of transcripts of presentations can be obtained from the Tribunal's website: *www.ipart.nsw.gov.au* or from the Tribunal's offices at Level 2, 44 Market Street, Sydney.

22 Transcript, Hearing Volume No 1, April 2, 1998, p 16.

The SWC detailed in its submission its Demand Management Strategy that aims to reduce water consumption under five program areas:

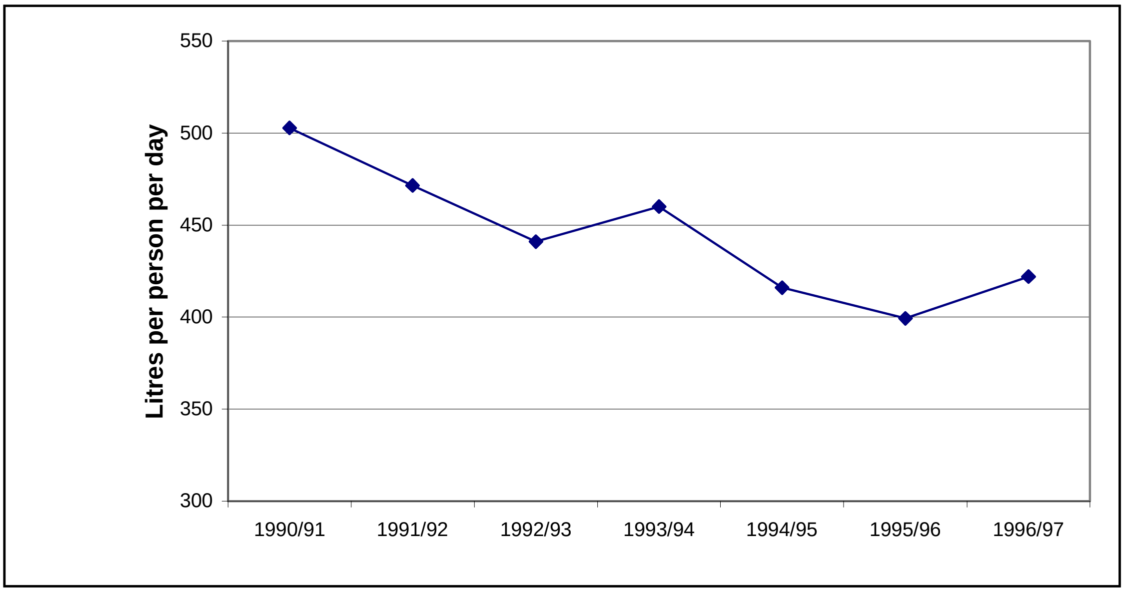
- pricing
- influencing customer behaviour
- consultation with key stakeholders
- improving system efficiency
- water reuse.

The results of the Demand Management Strategy have been encouraging. Daily average use has fallen from 520 litres per person per day in 1980/81 to 425 litres in 1996/97. One of the fundamentals driving the reductions is the adoption of the user pays principle in SWC pricing. There have been noticeable improvements since its introduction in the early part of this decade.

However, there is some concern that in 1996/97 the downward trend of earlier years has reversed with slightly more water per person being used than previously. SWC believes this is a reflection of the very dry weather conditions of that year but it also may signal that further innovative methods of influencing customer behaviour are now needed.

In this determination, the Tribunal has not changed the per unit cost of water. The Tribunal considers that the per unit prices provide adequate price signals to customers on the cost of supplying water.

Figure 7.5 Average daily water consumption (headworks litres/person/day)



Source: SWC information spreadsheets.

7.5 Standards

* *standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise) [s15(1)(l)]*

One of the objectives of the Tribunal's determinations is to improve the efficiency levels of utilities so that the consequent financial gains can be distributed to the stakeholders of that utility. However, increases in financial efficiency must not arise from the lowering of service standards below acceptable levels.

Much of the performance data relating to SWC performance displayed in this report (see sections 7.1.1 and 7.1.2) highlights the downward trend of expenditure, both operating and capital. This is commendable insofar as this has translated into lower prices for customers and rising returns to the shareholder. However, underexpenditure would be undesirable if it led to declines in asset condition and ultimately to poorer service quality in the medium to long term. The EPA is concerned that the underexpenditure may have impacted, or will impact, on SWC's environmental performance.

SWC's response to these issues was made in its submission to the mid term review.

In that submission, SWC comments that operating performance standards are regulated by its Operating Licence with the Government. The Operating Licence sets minimum operating and customer standards of service for water quality, reliability, pressure and sewage surcharges. The Operating Licence Minister, commenting on SWC's 1996 performance, noted that SWC had achieved high or full compliance with the majority of operating requirements, national water quality standards and has performed soundly in environmental areas.

With regard to capital expenditure performance, SWC comments that expenditure projections had not been reached because of delays brought about by factors outside SWC control, such as time taken to fully consult the community on significant infrastructure developments, and the adoption of new priorities by Government such as the Northside Tunnel. Nonetheless, SWC expects that its capital expenditure projections made in 1996 would be substantially realised by the end of the price path.

The Tribunal will continue to closely monitor SWC performance.

8 COMPLIANCE

Compliance with the Tribunal determinations is required under Section 18 of the *Independent Pricing and Regulatory Tribunal Act 1992*. Government agencies are required to include details relating to the implementation of a determination within its annual report.

The Tribunal notes the reporting of compliance with the June 1996 determination in SWC's annual report and will continue to monitor this requirement.

SWC cannot levy any new or additional charges for monopoly services other than in accordance with current determinations, this determination or with the approval of the Tribunal in future determinations.

9 ISSUES FOR THE NEXT MAJOR PRICING REVIEW

The medium term price path remains in place until June 2000. At that review the Tribunal expects to address a number of issues. Among those issues the Tribunal has identified the following.

9.1.1 Pricing methodology

The Tribunal acknowledges that the methodology for setting prices as used in the 1996 determination can result in gains or losses that are not within the control of the utility. If there is no review mid term, then these variations would not be corrected until the end of the price path.

The regulatory approach used for SWC is one of many possible ways of regulating prices. Different approaches are used for other industries. It is a matter of choosing an approach that is best suited to the particular industry.

The Tribunal will consider alternative regulatory approaches in exploring the use of error correction mechanisms at the next major pricing review in the year 2000.

9.1.2 Charges on unconnected (vacant) land

The Tribunal signalled in the 1996 determination that charges on unconnected (vacant) land would remain until the next major pricing review.

In the interim the Tribunal has received several complaints from customers about these charges. The Tribunal will investigate the appropriateness of the charges at the next major pricing review in the year 2000.

9.1.3 Charges on unmetered premises

The Tribunal has received a complaint about the method of charging customers on unmetered properties. In essence, residential customers are charged as if they had the same usage as an average customer.

The Tribunal notes that customers of some other interstate utilities are only charged the access component of charges.

The Tribunal will investigate the appropriateness of the current charges at the next review.

9.1.4 Demand management

The Tribunal notes that the strategies employed by SWC to curtail water usage have been successful so far and that SWC is on track to achieve the targets set in its operating licence.[23] However, the Tribunal is concerned about the upturn in usage in 1996/97. Although the third quarter of 1996/97 was hot and dry, the Tribunal is concerned that the upturn may indicate that the use of price as the prime method of influencing customer behaviour may be losing its effectiveness.

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[23] A demand management target is specified in SWC's operating licence. SWC must aim over the terms of such relevant licences to reduce the quantity of water drawn from all storages on a per capital basis by at least 25 percent between 1990/91 and 2000/01 and by at least 35 percent between 1990/91 and 2010/11.

The Tribunal will monitor demand over the remainder of the price path and will seek SWC's response and intended action to this issue at the next major pricing review. The Tribunal will also consider SWC's actions in relation to the recommendations of the Water Demand Management Forum.[24]

9.1.5 Capital expenditure

The level of capital expenditure has a strong influence on the revenue requirements, and hence the charges, of regulated utilities. The Tribunal will continue to monitor SWC's forecasts of capital expenditure.

As well as monitoring future costs, the Tribunal anticipates that it will conduct an audit of SWC capital expenditure before the next major pricing review.

9.1.6 Postage stamp pricing

With the exception of developer charges, SWC's charges are the same throughout the service area ie postage stamp pricing.

The Tribunal will investigate for the next major review whether this form of pricing is appropriate or whether alternative forms of pricing such as differential pricing need to be substituted.

9.1.7 Third party access

Competition reforms are mandated by COAG. The Tribunal will investigate the issues surrounding methods of access to SWC's network in line with these requirements and as a general method of increasing efficiency and service.

[24] IPART, Water Demand Management Forum, *Water Demand Management – A Framework for Option Assessment*, March 1996.

ATTACHMENT 1 SUMMARY OF JUNE 1996 DETERMINATION

From 1992/93 until 1995/96, the Tribunal determined prices for SWC on an annual basis. In 1996, the Tribunal set a four year price path (to take effect from 1 July 1996) because it believed that the certainty gained with a medium term path would be of significant benefit to SWC and ultimately its stakeholders. The certainty of prices would enable SWC to better plan for, and ultimately accomplish, those objectives deemed of importance to its customers, shareholder and the community in general. It would also provide incentives for SWC to reduce its costs at a greater rate than envisioned by the determination.

The determination was structured to:

- provide a balance between the various and conflicting interests of stakeholders
- provide sufficient revenues to fund SWC's core business activities
- reduce the cross-subsidy burden on the business sector of property based charges
- keep increases in total bills over the four years to CPI
- provide sufficient revenues to generate appropriate commercial returns and dividends to the owner
- strengthen demand management signals with incentive for customers to benefit financially by conserving water.

The main features of the June 1996 determination are:

- A four year price path from 1996/97 to 1999/2000 with a mid term review in early 1998.
- Overall periodic water, sewerage and drainage charges to be reduced by 2.3 percent in real terms in 1996/97[25] and an average of 0.8 percent a year in the subsequent three years.
- The existing non-residential property-value based charges to be reduced by $20 million a year in each of the four years. The remaining non-residential property-value based charges ($61 million in 1999/2000) to be considered in the next review.
- Water charges to increase to reflect water filtration costs associated with higher drinking water quality:
  - water usage charges (residential and non-residential) for retail filtered water to increase by 6 cents to 76 cents per kilolitre in 1996/97 and then progressively increase to 90 cents in 1999/2000
  - the water service charge to remain at the current level ($80 a year) in nominal terms until 1999/2000.
- Sewerage charges:
  - The annual sewerage service charge to increase by $8.60 to $271.60 for residential and non-residential properties (with 20mm water meters) in 1996/97. The annual charge to then increase in small steps to $290.40 in 1999/2000.
  - Non-residential sewerage usage charges to increase by 4 cents to 87 cents per kilolitre in 1996/97 and gradually increase to 96 cents in 1999/2000.

25 This implies a nominal increase of 3.0 percent on the basis of a 5.3 percent average increase in the Consumer Price Index (Sydney) for the twelve months to March 1996.

- Stormwater drainage area charges to remain at the current level in nominal terms over the next four years. Drainage property-value based revenue to also be maintained at the current level in nominal terms.
- All new charges to be reflected in customers' bills on or after 1 July of each year except for the water service charge for unmetered residential properties and the usage charges. These will reflected in bills from 1 October each year. The usage charges will apply to meter reading periods commencing on or after 1 July and concluding on or after 1 October. Details can be found in Table A1.

Table A1 Overview of Sydney Water's Charges: 1996 Determination ($ of year)

	1995/96	1996/97	1997/98	1998/99	1999/2000
Water					
- service charge per annum	$80	$80	$80	$80	$80
- usage charge	70 c/kL	76 c/kL	80 c/kL	85 c/kL	90 c/kL
Sewerage					
- service charge per annum	$263.00 (2)	$271.60	$280.40	$285.60	$290.40
- non residential usage (1)	83 c/kL	87 c/kL	90 c/kL	93 c/kL	96 c/kL
Stormwater drainage area					
- charge per annum	$16	$16	$16	$16	$16
Non residential property-value based charges	$141m	$121m	$101m	$81m	$61m
Revenue projection					
- residential	$ 664m	$ 697m	$ 732m	$ 763m	$ 795m
- non residential	$ 356m	$ 354m	$ 347m	$ 340m	$ 334m
- total	$1,020m	$1,051m	$1,079m	$1,103m	$1,129m

Note:
1. For non-residential discharges above 1.37 kL/day (500 kL a year).
2. The sewerage service charge (65.75 per quarter) applies from 1 October 1995.

- The Tribunal stated its intention to introduce a new charge for sewer mining for SWC. The initial price to be set at the higher of zero or cost[26] until the reuse market increases to 20 percent of total water use market.
- Determination of charges for sewerage backlog projects to be deferred until a review by Government is completed.
- Existing transitional rebates for pensioners to continue pending a full examination of pensioner concessions by the Government.
- Trade waste charges to remain at existing levels pending the completion of the final report of the inter-departmental working group on trade waste.
- Rouse Hill Development Area charges:
  - Rouse Hill charges (drainage and access for recycled water) to be $110 in 1996/97 and be indexed by CPI thereafter
  - The usage charge for recycled water to be set at 30 percent of the potable water price

[26] There may be connection/contractual costs imposed on SWC in any sewer mining activity undertaken by another party.

  - The sewerage buy-in charge to remain at $924 (for a 20mm water meter) in 1996/97 and indexed by CPI thereafter.
- Water prices for unfiltered water and raw water supply to be increased marginally.
- Charging for recycled water to be further investigated and be reported on at a later date.
- In accordance with the recommendation in the Price Anomalies Review,[27] charges on unconnected land to remain until the next determination period.
- The charging arrangements for standpipe metering to be adjusted in line with movements in the water service and usage charges.
- Annual increases in charges for the Penrith and Hawkesbury sewerage areas to continue to be capped at 10 percent for privately owned flats and 15 percent for non-residential properties.
- Septic pump-out arrangements in the Blue Mountains:
  - the quarterly service fee to increase in line with CPI in 1996/97
  - usage charges to remain unchanged.
- Charges for sewerage services which are rendered to exempt properties to increase in line with the sewerage service charge.
- Charges for miscellaneous customer services to be determined at a later date after considering comments from relevant interest groups.
- All other charges to remain at existing levels until otherwise determined by the Tribunal.

[27] *Report of the Working Group on the review of price anomalies,* December 1995.

ATTACHMENT 2 ISSUES RAISED IN INFORMATION PAPER

Performance against assumptions

SWC had met its cost reduction targets, with actual cost outcomes below budgeted 1996/97 levels. The Tribunal asked for comments on whether the efficiency gains should be shared among stakeholders between major pricing reviews.

Capital expenditure for 1996/97 also was below the budgeted level. The Tribunal questioned whether service standards are at risk with the lower levels of expenditure.

Sewerage backlog pricing

In 1997 the Tribunal made a determination in regard to pricing principles for the provision of sewerage services in backlog areas. Since the 1996 determination, SWC has continued with four sewerage backlog projects which will not be completed prior to 1999/2000. The Tribunal left open the option for SWC to seek price changes at the mid term review.

The Waterways Package

On 1 May 1997, the Government released its strategy for cleaner harbours, rivers and beaches: the Waterways Package. Key components of the package are:

- $3.1b will be spent over 20 years in Sydney, the Blue Mountains, the Hunter and the Illawarra region. A high priority is to clean up the harbour by 2000.
- Establishment of a special Waterways Advisory Panel to consider Sydney Water's proposed solutions to combat stormwater pollution/wet weather sewage overflows.
- Competitive tendering would be used to deliver maximum benefit/least cost solutions.

A major capital project proposed by SWC is the construction of a tunnel from Lane Cove to North Head (often referred to as the 'Northside Tunnel') which will aid in the clean-up of Sydney Harbour by capturing wet weather sewer overflows. The Waterways Advisory Panel[28] has recommended that the project proceed.

Although much of the capital expenditure included in the Waterways Package will occur after the period of the price path, initial analysis suggests that there may be significantly more capital required within that period than was provided for in the 1996 determination. The Tribunal sought comment from SWC on the implications of the Waterways Package. SWC replied that it could fund its capital program within the 1996 determination prices, including financing of the tunnel. Some of the capital works projected in the 1996 determination had been deferred.

SWC's Water Plan 21

In September 1997, SWC released its Water Plan 21.[29] The Plan covers four key areas of wastewater management, those being:

- protecting the rivers
- protecting the beaches and ocean
- recycling water and biosolids

[28] The Advisory Panel was chaired by Dr Col Gellatly (Director General of the Premier's Department) and is represented by Mr Ian Kiernan (Chairman of Founder of Clean Up Australia), Mr. David Harley (Chairman of the EPA) and Dr Tom Parry (Chairman of IPART).

[29] Sydney Water Corporation, *Water Plan 21*, October 1997.

- reducing wet weather sewage overflows.

Healthy Rivers Commission's inquiries

The Healthy Rivers Commission was established to make recommendations to Government on the establishment, implementation, and consequences of objectives for the attainment of healthy rivers in NSW. A draft report on the Hawkesbury-Nepean River System has been published.

Inquiry into the management of sewage and by-product in the NSW coastal zone

This inquiry was a result of NSW Government's and the community's concern with the impact of ocean outfalls and other effluent disposal schemes on the coastal environment of NSW. In August 1997, a draft report was released.[30]

It was expected that the report would be finalised in early 1998 (a decision has been made since the Information Paper that this report will not be finalised).

Legislative changes and load based licensing

The Government is currently moving to integrate the State's pollution contract statutes into one new Act. This will provide the essential legislative framework for implementation of the load based licensing (LBL) reform package.

The draft regulatory impact statement was made available for public consultation in February 1998 with implementation scheduled from 1 July 1998 (the closing date for comments was 30 April 1998 and implementation is on schedule). The impending implementation of LBL will have major implications for licensing fees for SWC.

National and inter-state water reforms

- The Council of Australian Governments (COAG) agreed in 1994 to implement reforms in water pricing and resource management. State governments have made a number of commitments in relation to water reform, including pricing reform.
- Under the National Competition Policy (NCP) and Competition Principles Agreement, mechanisms for third party access to nationally significant infrastructure were introduced. The National Competition Council (NCC) was created to oversee implementation of NCP and make recommendations on third party access. One of NCC's roles is to advise Commonwealth and State Governments, particularly in the areas of access matters and progress in implementing competition policy.
- Other states are at various stages of implementing water pricing reforms. In October 1997, the Victorian Government announced a major reform package for the Victorian Water Industry. It is expected that 85 percent of Melbourne's water customers will benefit from lower water and sewerage bills when the new system begins.

The Tribunal sought comment on the implications on pricing of the above reforms.

Shareholder value added

In 1996/97, a new indicator, the measurement of shareholder value added (SVA), was adopted by NSW Treasury and has been included in the Corporation's Statement of

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[30] EPA, *Draft Report on Public Inquiry into the Management of Sewage and Sewage By-products in the NSW Coastal Zone*, August 1997.

Corporate Intent (SCI). SVA represents economic profits generated by a business above and beyond the return required by providers of capital.

The Tribunal sought comment on the adoption of EVA and the impact on pricing.

Other issues

- Sydney Water's trade waste charges are levied on businesses that discharge wastewater to the sewerage system. The amount levied is determined by the Trade Waste Service Agreements which individual firms enter into with SWC. Currently, the revenue raised by SWC trade waste charges exceeds the cost of transporting and treating trade waste. Therefore, not all of the trade waste charge can be considered to be a user charge. SWC's trade waste charges have been frozen since 1993/94.
- SWC has indicated that it will submit revised prices for the Penrith Sewerage Scheme and asks for amendment of the method of calculation of part of the Rouse Hill Charge (see section 5.1.2).
- The water corporations have an obligation[31] to promote the efficient use of water. Effective demand management will defer the development of major new water sources, with the potential to save money and avoid additional environmental damage. The Tribunal sought comments on the Corporation's progress in demand management.

[31] A demand management target is specified in SWC's operating licence. SWC must aim over the terms of such relevant licences to reduce the quantity of water drawn from all storages on a per capital basis by at least 25 percent between 1990/91 and 2000/01 and by at least 35 percent between 1990/91 and 2010/11.

ATTACHMENT 3 SUMMARY OF SUBMISSIONS

Submissions were received from various organisations and individuals and are summarised below.

Environment Protection Authority

- The EPA asks the extent to which the under budget capital expenditure has and may effect environmental standards. These concerns also include SWC commitments to the backlog sewerage program and the Northside Storage Tunnel project and their potential to effect commitment to licence conditions and environmental standards.
- The EPA also expresses concerns about SWC capital expenditure forecasts with the imminent release of the Healthy Rivers Report on the Hawkesbury-Nepean and Shoalhaven.
- The EPA, while recognising SWC's commitment to reduce per person water usage by 35 percent between 1990/91 and 2010/11, asks the Tribunal to examine any pricing issues that may effect SWC's demand management plan.

Institution of Surveyors

The submission from the Institution of Surveyors concentrates on issues in relation to the developer charges regime introduced by the Tribunal's determination in 1995.[32] It questions:

- SWC's method of treating existing assets in calculations.
- SWC's method of stepping charges over the period of a development servicing plan.

Nature Conservation Council of New South Wales

- The Council questions the priority given to construction of the Northside Storage Tunnel over alternative methods of abating sewerage overflows.
- The Council questions SWC's demand management methods and particularly its reliance on the price mechanism.
- The Council believes that current pricing levels do not reflect environment and other costs, that SWC's profits should be directed to demand management and environmental objectives and not taken out as dividends to Government, and that pricing should have greater emphasis on usage rather than fixed components.

New South Wales Treasury

- Treasury believes that, with the exception of some minor issues, the price paths do not require amendment.
- Treasury's main focus is on emerging issues that need attention at the major pricing review in the year 2000.
- Current environmental costs can be accommodated within the current price path but there may well be upward cost pressures after 2000.
- Council of Australian Government's Reform Agenda requirements:

[32] Independent Pricing and Regulatory Tribunal, Determination No 9, *SWC Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995.

  - consumption based pricing reforms for SWC are advanced, Treasury advocates the 'Line in the Sand' approach to asset valuation to determine full cost recovery
  - generally, other requirements are currently being met but Treasury believes rate of return measures may need amendment
  - third Party Access requirements may be better met with differential pricing.
- Treasury has adopted the 'Shareholder Value Added' (SVA) approach to measuring SWC financial performance and will seek full cost recovery on a SVA basis at the next major pricing review.
- A review, undertaken with the agreement of SWC's Board and shareholder, was currently analysing SWC's capital structure and is expected to result in the return of cash, that is excess to operating requirements, to the Government.

Public Interest Advocacy Centre (PIAC) and The Council of Social Service of NSW (NCOSS)

- PIAC and NCOSS believe that the cost savings per property under the current zero to negative inflation environment should be shared with customers.
- PIAC and NCOSS believe that:
  - the Tribunal should acknowledge if there was a degree of inaccurate forecasting for the 1996 determination
  - the Tribunal should examine the current pricing system in relation to the reversal in decline in consumption.

Urban Development Institute of Australia (UDIA)

The submission from the UDIA concentrates on issues in relation to the developer charges regime introduced by the Tribunal's determination in 1995.[33]

- The UDIA supports the model for developer charges calculations implemented by the Tribunal.
- The UDIA supports the views expressed in the submission by the Institution of Surveyors.

Australian Chamber of Manufactures

- The ACM restricts its comments to trade waste charges.
- With the imminent introduction of LBL and for transparency purposes, the ACM believes that operational costs and environmental taxes should be divided.

Mr S Caruana

- Mr Caruana complains of the SWC method of charging residents on unmetered properties as if they had the same usage as an average customer.

The Tribunal also received submissions from ***Mr E Dymond, Mr EC Ecob, and Mr V Lai*** who raised objections in general to any rise in rates. ***Mr P Rodoreda*** made a submission commenting on observed large volumes of water being used from unmetered sources.

[33] Independent Pricing and Regulatory Tribunal, Determination No 9, *SWC Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995.

ATTACHMENT 4 LIST OF PRESENTERS AT PUBLIC HEARING

A public hearing was held at the Tribunal's offices, Level 2, 44 Market Street Sydney, on Thursday 2 April 1998. These hearings were held in conjunction with the hearings for the mid term review of the Hunter Water Corporation medium term price path and the Tribunal's review of the revenues and expenditures of SWC's stormwater operations. Copies of the transcript can be viewed during normal business hours, 8:45 am to 5:15 pm Monday to Friday, at the Tribunal's office or at the Tribunal's website, *www.ipart.nsw.gov.au*.

The organisations that presented at the public hearing and their representatives are listed below. Those organisations marked with an asterisk (*) are relevant to the SWC medium term price path review.

Organisation	Representatives
Sydney Water Corporation*	Mr Chris Pollet Mr Arthur Butler Mr George Bawtree
Hunter Water Corporation	Mr David Evans Mr Don Audet Mr Andrew Amos
Institution of Surveyors*	Mr Peter Price
Environment Protection Authority*	Ms Lisa Corbyn
Stormwater Industry Association	Mr Peter Higgins Mr John Wood
Urban Development Industry of Australia*	Mr Laurie Rose

ATTACHMENT 5 DEFINITION OF FINANCIAL INDICATORS

FINANCIAL INDICATORS	GENERAL DESCRIPTION	DEFINITION/COMPONENTS
Funds Flow Adequacy	Ability to generate funds to cover primary cash requirements	(Net Profit after Tax + Depreciation & Amortisation + Increase in Long Term Provisions) / (Dividends + Capex)
Funds Flow Interest Coverage	How many times funds flow covers interest payments (controlled for depreciation)	Net Profit after Tax + Depreciation & Amortisation + Interest + Tax + Increase in Long Term Provisions) / Interest
Funds Flow Net Debt Pay Back	How many years will it take to payback total debt	(Total Debt – Cash) / (Net Profit after Tax + Depreciation & Amortisation + Increase in Long Term Provisions)
Internal Financing Ratio	Funds retained as a proportion of capital expenditure	(Net Profit after Tax + Depreciation & Amortisation + Increase in Long Term Provisions – Dividends) / Capex
Pre-tax Interest Coverage	How many times profit before tax covers interest payments (including depreciation)	Profit before Interest and Tax / Interest Expenses
Total Debt / Total Capital	Proportion of debt to capital (gearing ratio)	Total Debt / (Total Debt + Shareholders Funds)
Funds From Operations / Total Debt	Proportion of funds from operations to total debt	(Net Profit after Tax + Depreciation & Amortisation + Increase in LT Provisions) / Total Debt
EBIT / Total Revenue	Ratio of profit realised per total revenue	Profit before Interest and Tax / Total Revenue
EBITD /Total Revenue	Ratio of profit plus depreciation per total revenue	(Profit before Interest and Tax + Depreciation. & Amortisation) / Total Revenue
EBIT / Funds Employed	Return on funds employed	Profit before Interest and Tax/ (Total Assets - (Current Liabilities-Current Borrowings))
EBIT	Earnings before interest and tax	Profit before Interest and Tax
EBITD	Earnings before interest, tax and depreciation	Profit before Interest and Tax + Depreciation. & Amortisation

INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

DETERMINATIONS UNDER SECTION 11 (1) OF THE INDEPENDENT PRICING AND REGULATORY TRIBUNAL ACT, 1992

Matter No.: SRD / 98 / 01

Determination: No 3, 1998

Agency: Sydney Water Corporation Ltd

Services: Water supply, sewerage and drainage services.

Declaration of government monopoly services under Section 4 of the Act:

Order dated 14 February 1997 - page 558, Gazette No. 18

Maximum prices determined under Section 14 of the Act to be charged from 1 July 1998 for water, sewerage and drainage monopoly services.

1. *Property value based charges*

Rates for the property value based component of sewerage charges for non residential customers shall be as set out in the attached Pricing Schedule. Rates determined in Determination No 6, 1996 shall apply from 1 July 1998.

2. *Rouse Hill Development Area – River Management Charge*

From 1 October 1998, the Recycled Water (access) charge component of the River Management Charge for non-residential properties with larger than 20mm or multiple recycled water meters will be calculated according to the size(s) and numbers of recycled water meters fitted as per the attached Pricing Schedule. Charges determined in Determination No 6, 1996 shall continue to apply for the period 1 July 1998 to 30 September 1998.

3. *Developer charges*

The maximum price for developer charges is to be set according to the methodology outlined in Determination No 9, 1995.

4. *Miscellaneous charges*

The maximum prices to be charged for miscellaneous customer services are to remain as determined in Determination No 3, 1997.

5. *All other charges*

The maximum prices to be charged from 1 July 1998 and the commencement date for their applicability for all other charges are to remain as determined in Determination No 6, 1996.

6. *New or additional charges*

All other charges for water, sewerage and drainage monopoly services provided by SWC shall remain at the maximum as determined in Determination No 6, 1996. SWC cannot levy any new or additional charges for water, sewerage and drainage services other than in accordance with the approval of the Tribunal in this or future Determinations.

Thomas G Parry
Chairman

26 June 1998

pricing schedule

Property Value-Based Charges

The property value based charges for water, sewerage and stormwater shall apply as follows.

Property Value-Based Charges - (See Note)

		1998/99 1 July 98 to 30 Sept 98	1998/99 1 Oct 98	1999/2000 1 July 99
		Cents in the AAV Dollar ($ of year)		
Water	Non-Residential (on AAV > $2,500)	0	0	0
Sewerage	Non-Residential (on AAV > $2,500)	0.787	0.508	0.335
Stormwater	Non-Residential (on AAV > $2,500)	0.317	0.317	0.313

Note: State Government owned and occupied properties (and properties owned and occupied by the Australian Broadcasting Corporation), are liable for payment of service or availability charges, but are not subject to property value-based charges. These properties are liable for all other charges applicable to non residential properties, including the appropriate meter size charges for water and sewerage.

Rouse Hill Development Area

The Rouse Hill Development Area charges will apply as follows.

Rouse Hill Development Area

	1998/99 1 Oct 98	1999/2000 1 July 99
	$ of year	
Quarterly Rouse Hill Charges		
Residential Properties		
River Management Charge		
- Drainage	23.75	24.50
- Recycled Water (access)	5.50	5.75

Non – Residential Properties

River Management Charge

For non-residential land with an area not greater than 1,000m^2 and a 20mm recycled water meter, the same combined charge shall apply as applies to residential properties. For larger areas of non-residential land, the drainage component of the Rouse Hill charge will be payable according to the land area in proportion to the number of equivalent 1,000m^2 lots occupied. For non residential properties with larger than 20mm or multiple recycled water meters the Recycled Water (access) component of the Rouse Hill Charge shall be payable according to the size(s) and numbers of recycled water meters fitted. Charges for various sizes of meters are contained in the following table:

Meter Size	1998/99 1 Oct 98	1999/2000 1 July 99
20mm	$5.50	$5.75
25mm	$8.59	$8.98
30mm or 32mm	$14.08	$14.72
40mm	$22.00	$23.00
50mm	$34.38	$35.94
80mm	$88.00	$92.00
100mm	$137.50	$143.75
150mm	$309.38	$323.44
200mm	$550.00	$575.00
250mm	$859.38	$898.44
300mm	$1,237.50	$1,293.75