

HUNTER WATER CORPORATION

PRICES OF WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES

Review of medium term price path: 1996 – 2000

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

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FOREWORD

In its 1996 determination, the Tribunal set a four year price path for 1996/97 to 1999/2000 for Hunter Water Corporation (HWC). 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 Hunter Water regarding prices and revenues.

At the time of the 1996 determination there were uncertainties about environmental standards. The Tribunal decided that it would conduct a mid term review in 1988. The Tribunal's intention in undertaking the mid term review was not to alter the price path unless this was absolutely necessary. The Tribunal notes that changes in environmental standards have not eventuated. On this basis there is no need to amend the price path.

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.

HWC's capital expenditure has not reached the levels forecast at the time of the determination. 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 Hunter Water. The Tribunal notes HWC's argument that this has related primarily to delays in obtaining approval for projects. HWC expects to catch up by the end of the price path period. This is a complex issue, which the Tribunal will examine closely at the next major review.

Having considered these matters, the Tribunal has decided that it will not vary the periodic charges set in the medium term price path.

HWC sought changes in miscellaneous charges, trade waste charges and development application fees. While agreeing in principle, the Tribunal believes that these charges should be set in the overall context of the existing pricing framework and revenue requirement. The Tribunal has decided to defer any changes until the next medium term price path.

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/98/04

Report: No 4, 1998

Agency: Hunter 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 5, 1996 *Hunter Water Corporation, Prices of Water Supply, Sewerage and Drainage Services* to undertake a mid-term review of the four year price path set for Hunter Water Corporation. The four year price path took effect from 1 July 1996.

2 THE MID TERM REVIEW PROCESS

The mid term price review forms part of the four year price determination. In setting prices, the Tribunal encourages public discussion about the key issues. This enables a better understanding of the issues, provides a broader range of inputs than otherwise possible and promotes community acceptance of the final decision. The public consultation process for the mid term price review is an important element in this process. The review was advertised and an information paper¹ was prepared and made available to interested parties.

The Tribunal requested the HWC to advise it of any changes that HWC considered were needed to the medium term price path. Submissions were invited from members of the public on these proposals and any other issues relating to the pricing of HWC's water, sewerage and drainage services. The Tribunal received a number of submissions (see Attachment 1).

Details of HWC's proposals are shown below and a summary of other submissions received is shown in the attachment.

A public hearing was held on 2 April 1998 at the IPART offices.

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 on the Internet on IPART's web page www.ipart.nsw.gov.au

The Tribunal members who considered the mid term review of the 1996 medium term price determination were:

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

¹ IPART, *Review of 1996 Medium Term Price Determinations For Sydney Water Corporation and Hunter Water Corporation, An Information Paper*, Discussion Paper DP-24 (1998).

3 SUMMARY OF THE OUTCOMES OF MID TERM REVIEW

The main issues for consideration by the Tribunal at the mid term price review are:

- whether there has been any material changes to the assumptions underlying the medium term price path and how such changes have impacted on HWC
- the impact on HWC expenditures of changes to the Pollution Control Act and recommendation arising from the Healthy Rivers Commission Inquiries²
- consideration of changes to miscellaneous charges, trade waste charges and urban development fees proposed in HWC's Submission for the mid term price review.

The mid term price review determination has been made after considering Hunter Water's obligations, the interests of customers, returns to the shareholders and the implications for environmental outcomes.

The main features of the determination are:

- A continuation of the current medium term price path for water, wastewater and drainage charges.
- The Tribunal agrees, in principle, to HWC's proposed changes to miscellaneous charges, trade waste charges and urban development fees. However, these charges must fit within the context of the overall pricing framework and revenue requirements of HWC. On this basis, the Tribunal will defer implementation of these charges until the next major review.

4 THE MEDIUM TERM PRICE PATH

In 1996, the Tribunal set a medium term price path to apply from 1996/97 to 1999/2000. At the time the Tribunal indicated it would undertake a mid term review to take place in the first half of 1998. A detailed summary of the 1996 Medium Term Price Determination is presented in Attachment 2.

5 SUMMARY OF SUBMISSIONS

5.1 Pricing proposals made by Hunter Water Corporation

In its submission HWC proposes:

- No change to the current medium term price path set in the 1996 price determination for water, sewerage and drainage charges.
- Changes to a number of fees and charges, that were either not covered by the 1996 four year price path or accepted for revision at the mid term review. These include trade waste charges, miscellaneous service charges and urban development fees.

² The Healthy Rivers Commission was established in 1996 to make recommendations to Government on a range of environmental and economic issues for ecologically sustainable development of river systems. The Commission has conducted a number of inquiries including the *Independent Inquiry into the Williams River*, December 1996.

- Changes to trade waste charges involve updating and streamlining the BOD/NFR trade waste strength charge and updating the caustic charge. Changes are due to variations in costs of treating waste. The overall effect of the revisions to charges would be to increase revenue from strength charges by approximately \$137,000. The changes do not reflect costs due to load based licensing.³ Therefore, further revisions to costs may be presented at the next medium term price path determination in 2000.
- Proposed changes to miscellaneous charges include a number of new charges and proposed changes to prices for existing services. A number of services are performed without a direct charge and therefore are funded from the general customer base. HWC argue that a direct charge for these services will be more cost reflective. At the time of the 1996 price determination, HWC were in the process of opening a number of previous monopoly services to competition. HWC argue in the submission that, having done this, IPART should now ratify charges for the remaining monopoly services to more accurately reflect the costs of services. The net effect of these proposed changes would be to increase miscellaneous fee revenue by \$110,000 a year. Costings of these charges are contained within the submission.
- HWC has identified a number of costs associated with urban development applications, amounting to over \$500,000 a year. Following productivity improvements, HWC proposes to pass on approximately \$400,000 of costs to applicants rather than the general customer base.

5.2 Other Submissions

Details of these submissions are summarised in the Attachment 1.

The main themes to arise from these submissions are:

- the trend for budget capital expenditure to be below the level expected at the time of the medium term price path determination and how this may impact on environmental standards and levels of service
- the methodology applied by Hunter Water to calculate developer charges and how this may impact on the costs of development
- whether 'postage stamp pricing' provides distorted signals and the need to assess the benefits of differential pricing within HWC's area.

³ The NSW Environment Protection Authority is to introduce load based licensing (LBL) as a method of charging pollution discharge from September 1998. The fees will include an administrative component and a load based fee reflecting the mass of discharge. These fees will be phased in and replace the current pollution control scheme.

6 THE TRIBUNAL'S DETERMINATION

6.1 General pricing issues

In making its determination for the medium term price path, the Tribunal was aware of the fact there might be changes in environmental standards. If so, prices might need to increase during the period of the medium term price path. However, the Tribunal was not prepared to set prices in anticipation of higher standards. In the event, the environmental standards have not changed.

To maintain incentives for efficiency and to provide a stable pricing environment for regulated corporations, the Tribunal is reluctant to amend price paths. Incentive regulation is meant to encourage regulated utilities to achieve efficiency gains at least to the level of those assumed in the analysis. Where an agency does better than this it should either 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 wish to reduce revenues to that corporation during the term of a price path. In that situation, the claims of various stakeholders can be addressed in the context of the following major pricing determination.

However, there may be circumstances in which the improved financial position has been achieved through factors that are external to the organisation. That is, additional benefits have accrued to HWC that result from factors which cannot be attributed to the efforts of HWC. For example, the utility could benefit as a result of economic conditions being more favourable than those forecast at the time the medium term price path was determined. The Tribunal is also reluctant to intervene in these circumstances, not least because it is not always easy to distinguish a windfall gain from an efficiency improvement. Demonstrable and significant forecast inaccuracies may be an exception to this.

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 forecast. Over time, these benefits should not be retained by the utility. However, given that major capital expenditure may be delayed in the early stages of a medium term price path, it is appropriate that this be examined at the time of the next medium term price path.

6.1.1 Periodic Charges

In its submission, HWC sought to have the medium term price path for general water, sewerage and drainage charges continue. However, it sought changes in miscellaneous charges, developer application fees and trade waste charges.

The decision to vary the medium term price path could result from increases or reduced costs. The key concern would be whether there has been a substantial and material change in the financial position of the organisation.

For Sydney Water Corporation (SWC), the price path set charges on assumptions of forecast CPI. The inflation outcomes were much lower and resulted in a windfall gain to SWC. In

Determination No 3, 1998,⁴ the Tribunal passed the windfall to SWC customers. In the case of HWC, the price path revolves around CPI – 2 percent. Thereby, there are no opportunities for such gains.

The Tribunal is of the view that there have been no changes that would necessitate the Tribunal to adjust the medium term price path.

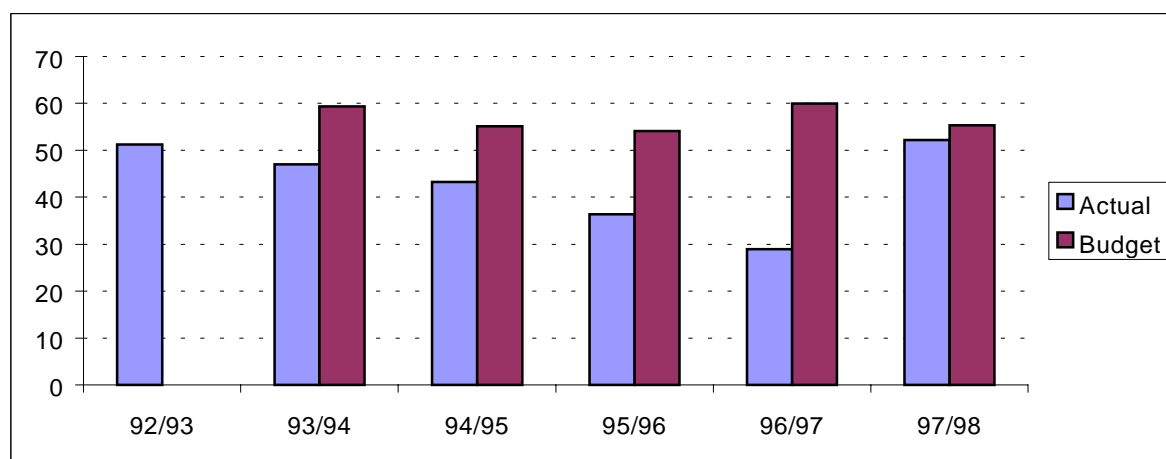
In reaching this decision the Tribunal considered the following:

- the current performance of HWC over a number of parameters that impact on revenue against forecasts provided by HWC for the 1996 determination
- submissions received during the mid term price review that relate to water, sewerage and drainage charges.

An issue that the Tribunal considered in assessing whether to continue with the current medium term price path for water, sewerage and drainage charges is HWC's financial performance as assessed by a number of indicators. It is clear from analysis of HWC's financial performance, that the Corporation is in a relatively strong financial position, particularly with respect to its debt position and ability to internally finance capital expenditure (refer to Section 7).

A major deviation from the assumptions underlying the medium term price path has been the trend in under budget capital expenditure by HWC. As illustrated in Figure 6.1, HWC have continued to underspend on capital expenditure relative to forecast levels since 1993/94. This trend has provided HWC with increased cash reserves and reduced debt levels. For example, the net debt position of HWC has greatly improved from 1992/93 going from \$74 million net debt to a positive net cash position of \$31 million in 1996/97.

Figure 6.1 Hunter Water - Actual and budgeted capital expenditure (\$m of year)



Source: HWC Information spreadsheets.

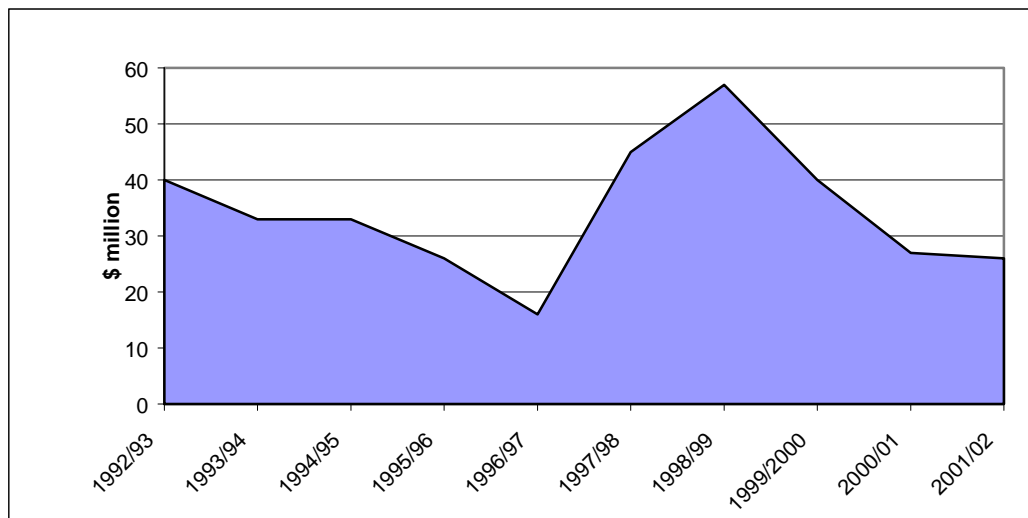
The Tribunal has noted that HWC's capital expenditure program is not as high as expected. However, the HWC has indicated that the delay has related primarily to approval delays and it should catch up over the remainder of the period as reflected in Figure 6.2. Factors

⁴ IPART, *Sydney Water Corporation, Review of Medium Term Price Path and Determination from 1 July 1998*, Determination No 3, June 1998.

such as lower capital expenditure will be considered in setting the next medium term price path.

The sharp rise in capital expenditure forecast from 1997/98 contrasts with the trend in capital expenditure to 1996/97. At the public hearing, HWC pointed to improvements in forecasting methods for capital expenditure making current capital expenditure forecasts more reliable than previous forecasts. According to HWC's revised forecast of capital expenditure, the gap between forecast and actual capital expenditure is expected to close during the remainder of the current medium term price path.

Figure 6.2 HWC Capital Expenditure (\$m 1996/97)



Source: HWC Information spreadsheets.

In its submission to the Mid Term Price path public hearings, the Environment Protection Authority (EPA) raised concern that HWC's under budget capital expenditure may impact on environmental standards.

Hunter Water's capital expenditure was 50 percent below projected levels of the 1996 determination. IPART also seeks comments on whether any outputs or standards are at risk as a result of reductions/deferral in capital investment.⁵

There are a number of capital expenditure projects for 1998/99 and 1999/2000 that will increase overall capital expenditure significantly from levels prior to 1998/99. HWC point out that the new capital expenditure projects are predominantly regulatory capital expenditure, including \$43.7 million on the Environmental Improvement Program for inland wastewater treatment plants.

Given the perceived strong financial position of HWC, the Tribunal has determined that it will not vary HWC's water, sewerage and stormwater charges as set in the medium term price path. The Tribunal will consider HWC's financial performance, particularly in the context of the requirements for capital expenditure, when it sets the next medium term price path in 2000.

⁵ Environmental Protection Authority Submission Number HWC(98)8, p 8.

6.2 Specific Issues

6.2.1 Trade Waste Charges

HWC stated that revisions to trade waste charges are needed to make them more cost reflective. In many cases, the proposed trade waste charges for 1998/99 are lower than the current charges. In only two cases is there a substantial increase in charges.

The Tribunal is concerned that any changes to HWC's fee structure should have regard to a process of community consultation. The Tribunal notes that HWC did not enter into a formal community consultation process for the proposed changes to trade waste charges. The Tribunal also notes that there are no formal consultative groups and HWC did consult with some of its major customers affected by these changes.

The Tribunal recognises in principle the case for changing HWC's proposed trade waste strength charges. However, any change must fall within the overall pricing framework currently in place for water, sewerage and drainage charges, trade waste charges, miscellaneous charges and urban development charges.

6.2.2 Miscellaneous charges

At the time of the 1996 determination, HWC were in the process of opening a number of previous monopoly services to competition. HWC argue in the submission that, having done this, IPART should now ratify charges for the remaining monopoly services to more accurately reflect the costs of services. The net effect of these proposed changes will be to increase miscellaneous fee revenue by \$110,000 a year.

The Tribunal notes that HWC referred, for comment, the list of proposed changes to miscellaneous charges to the Corporation's Consultative Forum⁶ March 1998 meeting. At the meeting members of the forum were informed of the Tribunal's determination process and were invited to submit comments to the Tribunal on issues. To this point, the Tribunal has not received any evidence of negative feedback from members of the forum over the proposed changes to miscellaneous charges.

The Tribunal recognises in principle the case for changing HWC's miscellaneous charges. However, any change must fall within the overall pricing framework currently in place for periodic charges, trade waste charges, miscellaneous charges and urban development charges.

6.2.3 Urban development fees

In its submission to the mid term price review, HWC identified a number of costs associated with urban development applications, amounting to over \$500,000 a year. HWC proposed to pass on these costs to the appropriate development applicant rather than on the general customer base. These fees are separate from the developer charges fees and therefore the costs of development applications are not captured by developer charges. Given that the proposed development fees are designed to recover costs from specific beneficiaries of developer services, it is arguable that there should be a reduction in revenue from the general customer base. HWC has not submitted any proposal on reductions in general revenue to accommodate the increases in revenue from development application fees.

⁶ The Forum is a group of 21 community, local government, business and environmental representative which meets quarterly with senior management of HWC.

The Tribunal notes that HWC consulted with the major industry associations, the Urban Development Industry Association (UDIA) and the Property Council of Australia, on the proposed urban development administration fees. The response from the Property Council expressed concern that the changes were not related to productivity or service improvement. In response to this concern, HWC incorporated prospective improvements in its submission. The UDIA's Hunter Branch submission raised issues concerning developer charges only. There was no formal response provided by the UDIA on the proposed urban development fees.

The Tribunal recognises in principle the case for changing HWC's proposed urban development fees. However, any change must fall within the overall pricing framework currently in place for periodic charges, trade waste charges and miscellaneous charges.

6.2.4 Developer charges

The Tribunal has developed guidelines for the net present value (NPV) methodology to be used in calculating developer charges. Under the parameters of the NPV calculation determined for HWC, there would be an average increase in developer charges of about 50 percent⁷ although the extent of increase will vary depending on the location of the developments. The new developer charges will be phased in over the four year price control period.

Since 1996, there have been concerns over the methodology HWC applies to developer charges, in particular, the adoption of a catchment based system. The Institution of Surveyors has raised the issue of the number of separate charges HWC includes under its developer charges regime and the effects these charges may have on potential and existing developments.

Also, the administration of some 400 development charges clearly has considerable scope for distortion, confusion and risks for both sides of the equation, where substantial changes occur over time and development commitments have already been made.⁸

HWC and SWC appear to have different implementations of developer charges methodology. HWC and SWC are discussing a consistent approach to the methodology for calculating developer charges.

IPART is monitoring this process and the issue will be reviewed at the next medium term price review in 2000.

⁷ IPART, *Hunter Water Corporation, Prices of Water, Sewerage, Drainage Services, Medium term review*, June 1996, p 3.

⁸ Institution of Surveyors, Submission Number HWC(98)4, p 3.

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. These matters are considered 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 [S 15(1)(h)]*
- * *the need to promote competition in the supply of the services concerned [S15(1)(i)]*

7.1.1 Operating Costs

Hunter Water has successfully achieved cost reductions in regulated services. Table 7.1 gives a breakdown of total costs in nominal terms including operating costs, depreciation and interest costs. In nominal terms, operating costs for the regulated services have decreased from \$57 million in 1992/93 to \$54 million in 1996/97. HWC have reduced employee numbers from 934 persons to 620 and have increased properties serviced from 173,171 to 187,148 over this period.

Table 7.1 Hunter Water - Expenditure trend (\$m of year)

	92/93	93/94	94/95	95/96	96/97	Average annual % change	97/98 Budget
Operating cost							
- water services	57.0	57.8	57.0	55.0	53.8	-1.4	NA
- non regulated businesses	-	0.4	1.9	2.9	7.6	NC	NA
Total operating costs	57.0	58.2	58.9	57.9	61.4	1.9	59.9
Employee provisions	4.2	0.1	2.7	4.4	3.2	-6.6	3.5
Total operating costs	61.2	58.3	61.6	62.3	64.6	1.4	63.4
Depreciation	37.4	39.3	38.6	27.7	27.8	-7.1	26.4
Interest	24.4	20.2	11	6.6	7.2	-26.3	7.2
Total expenditure	123	117.8	111.2	96.6	99.6	-5.1	97.0
Employee numbers	934	822	770	720	620	-9.7	
Properties serviced	173,171	179,965	182,083	184,865	187,148	2.0	

Source: HWC Information spreadsheets.

NA = not applicable

NC = not calculated

7.1.2 Capital expenditure

To remain viable, a water operator's prices should recover at least operating costs, maintenance and annual renewal costs. As the water industry is a capital intensive business, asset-related costs are substantial.

The main drivers for capital expenditure are:

- system renewal to meet existing operational standards
- system amplification to meet growth
- environmental protection works to meet existing standards
- capital works to meet planned environmental standards
- special programs such as for sewer backlog and dams safety.

For a discussion of HWC's capital expenditure see Section 6.

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.⁹

State governments have made a number of commitments in relation to water reform, including pricing reform.

Some of the criteria call for the adoption of consumption based pricing principles, full cost recovery and the removal of cross subsidies or the making transparent of remaining subsidies. In 1982, HWC introduced major price reform shifting the emphasis of water pricing from property value based charges to water usage. HWC removed all property value based charges in 1994/95 and water and sewerage service charges are now the same for the equivalent level of service. HWC 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)¹⁰ 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:

⁹ Council of Australian Governments, *Communique*, 25 February 1994.

¹⁰ Tasman Asia Pacific 1997, *Third Party Access in the Water Industry*, Report prepared for the National Competition Council, September 1997.

- 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.

In Australia, so far there have been no formal access applications for water infrastructure under Part IIIA of the Trade Practices Act. However, access should become a major issue at the next medium term price path determination in 2000.

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. Sydney Water Corporation has also recently completed a restructure of its business operations.

HWC has opened up a number of customer services to competition and this process is expected to continue during the remainder of the current medium term price path. The benefits derived from services being competitive should flow through to the general customer base as well as those gaining direct benefits from the services.

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

Hunter Water has, since it first adopted user-pays pricing in 1982, made many important pricing reforms:

- a two-part tariff structure was introduced in 1982
- residential property-value based charges were eliminated in 1990/91
- non-residential property-value based charges were eliminated in 1994/95
- charges for vacant land were removed in 1995/96
- charges for fire services were removed in 1995/96

- water and sewerage service charges are now the same for residential and non-residential properties
- the net present value approach to the calculation of developer charges has been adopted.

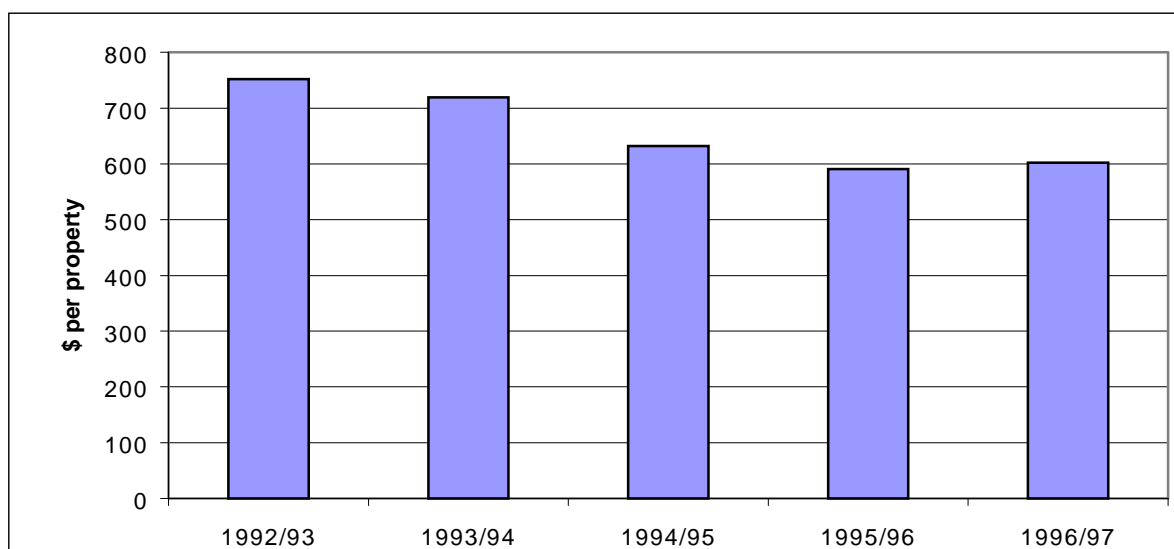
As a result of the removal of property-value based charges, total revenue from non-residential properties reduced by approximately 20 percent in real terms between 1992 and 1995.

Most of Hunter Water's structural reforms were completed by 1995/96. The remaining structural issue the imputed residential sewerage usage charge which involves a cross subsidy from the residential to the non-residential sector. This cross-subsidy is estimated to be \$5m a year. The Tribunal notes that is based on fully distributed costs rather than avoidable costs.

In accordance with the medium price path, the sewerage usage charge for residential customers will reduce to remove the anomaly. Water usage charges were increased to maintain the demand management signal.

As illustrated in Figure 7.1, real average tariff revenue per property has declined by approximately 16 percent from 1992/93 to 1996/97. This fall can be largely attributed to the phasing out of property-based charges. The impact on HWC's cash flow from the declines in average tariff revenue were offset by reductions in costs arising from efficiency gains.

Figure 7.1 Average tariff revenue per property (\$1996/97)



Source: HWC Information spreadsheets.

In its submission to the mid term review, HWC argued for the continuation of the current medium term price path for water, sewerage and drainage charges. The submission also proposed changes to a number of trade waste charges, miscellaneous charges and the inclusion of a number of new charges for development applications. The 1996 medium price path determination established that water, sewerage and drainage prices should increase by CPI -2 percent over the period of the medium term price path. As noted earlier, the Tribunal would agree to HWC's proposal if that the weighted average of these charges were to conform with the general pricing framework put in place in the 1996 determination. The

Tribunal acknowledges that there are practical difficulties in making these changes within the constraint. The Tribunal has decided to defer implementation these changes until the next major review.

7.2.2 Effect on inflation

The Household Expenditure Survey conducted by the Australian Bureau of Statistics indicates that water and sewerage charges comprise 0.7 percent of an average household's weekly expenditure in NSW.¹¹ The 1996 medium price path determination would have had a small but favourable impact on the overall cost of living in the Newcastle area. This review will have no further impact on the costs of living.

7.2.3 Social impacts

There is no change to general charges under this review. Therefore, there is no impact on the general customer base other than that indicated at the time of the medium term price path.

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(7)(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(l)(g)]*

7.3.1 Rate of return and asset valuation - regulatory approach

The Tribunal is required by its legislation to consider what should be an appropriate return to Hunter Water's shareholders. The Tribunal also has regard for the COAG agreement, that the full costs of providing water and related services should be recovered through prices.

There are a number of reasons why inclusion of a rate of return element in prices is important:

- new investment should only take place if a rate of return can be obtained on the funds that are employed or the investment is explicitly funded by government as a social program policy
- because privately owned enterprises are expected to earn a rate of return on the funds that are employed, considerations of competitive neutrality suggest that government-owned enterprises should be expected to do the same
- it is reasonable for government to obtain a return from its commercial businesses

The problem is to determine what an appropriate return¹² to the government might be and to determine the methodology to apply to the calculation of the asset base value.¹³

¹¹ ABS Household Expenditure Survey 1993-94, Detailed Expenditure Items.

¹² For a discussion of this issue and an assessment of the rate of return and the valuation of HWC's asset base refer to IPART, *Hunter Water Corporation Prices of Water Supply, Sewerage and Drainage Services, Medium term price path from 1 July 1996*, Determination No 5, 1996 pp 13 -17 and IPART, *Review of 1996 Medium Term Price Determinations For Sydney Water Corporation and Hunter Water Corporation, An Information Paper*, Discussion Paper DP-24 (1998) pp 24 - 26.

In 1996, the Tribunal set a regulatory asset base value of \$680m to assist it in making its determination. At the time of the determination the Tribunal was considering how the regulatory asset value should be updated through time. The Tribunal is still to settle on an approach. One option is to use of the following formula.

$$\text{Regulatory asset value} = \text{Initial asset value} + \text{net new capital expenditure} - \text{adjustment for replacement expenditure}$$

Where

$$\text{Initial regulatory asset value} = \text{economic value of existing assets as at 30.6.1996}$$

$$\text{Net new capital expenditure} = \text{written down replacement value (after depreciation) of new investment from 1 July 1996} - \text{disposal of new assets}$$

$$\text{Adjustment for replacement expenditure} = \text{replacement expenditure adjusted by the ratio of initial regulatory value to accounting book value as at 30.6.96. (For HWC this figure is 0.374)}$$

Using this approach the estimated regulatory asset value is \$704m at 30 June 1997.

There are many important issues involved in updating the regulatory asset value and various approaches could be adopted. The Tribunal will review these issues in further detail at the next major review.

7.3.2 Assessment of rate of return

Similarly, the appropriate rate of return to apply to the asset base is difficult to determine. In particular, rates of return are structured to reflect the degree of risk associated with the entity under consideration. Water agencies such as HWC have a low risk margin as they enjoy a relatively high degree of certainty in their revenue. This is because the majority of their revenues come from fixed availability charges. Additionally, at this time there is little competition between water agencies that may influence that risk.

In the 1996 medium term price path determination, the Tribunal concluded that it should have regard to the consequences of a 7 percent return (pre-tax, real) on new investments¹⁴ as part of its consideration of the issues listed in section 15 of the *IPART Act*. The mid term review does not vary the financial return to HWC.

7.3.3 Trend in financial performance

As Table 7.2 illustrates, HWC enjoyed a strong financial performance over the years from 1992/93 to 1996/97. In 1996/97 HWC recorded an excess of cash and investments over debt. This has provided HWC with an increase in cash flow and further funds for payment

¹³ This value is established based on the capitalisation of the current level of gross operating surplus. No allowance has been made for improvements in operating efficiency, capital refurbishment and property growth.

¹⁴ In its submission to the 1996 medium price determination, Hunter Water has argued that it should earn at least a 5 percent real rate of return on commercial assets, excluding assets funded by customers and government. It believes that this target return can be achieved in the medium term by maintaining current returns on existing assets and ensuring that future investment yields a real return of 7 percent.

of dividends and taxation equivalents. Both operating profit before tax and operating profit after tax increased over the first year of the medium term price path.

Table 7.2 Trend in financial performance (\$ million)

	1992/93	1993/94	1994/95	1995/96	1996/97	% change
Total revenue	140	136	130	129	135	-0.9%
Operating expenditure	61	58	61	62	65	1.4%
Earning before interest, depn & tax	79	77	69	67	71	-2.8%
Depreciation	37	39	39	28	28	-7.1%
Earning before interest & tax	42	38	30	39	43	0.7%
Interest	24	20	11	7	7	-26.3%
Operating profit before abnormal items	17	18	19	33	36	19.8%
Abnormal items	(0)	-	-	-	18	-
Profit before tax (excluding envir. levy)	17	18	19	33	54	32.9%
Tax equivalent	16	13	14	16	12	-7.8%
Operating profit after tax	1	4	5	17	42	146.9%
Dividends	12	12	17	30	36	31.1%
Total Assets	1,705	1,675	1,675	1,972	2,027	4.4%
Gross debt level (inc overdraft)	170	155	85	86	85	-15.8%
Total cash & investment (ST & LT)	96	100	56	85	117	5.1%
Net debt/(cash)	74	55	29	1	(31)	-
Total capital and reserves	1,454	1,442	1,526	1,790	1,837	6.0%
Cash flow from operating activities	14	51	56	56	62	46.0%

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

Table 7.3 shows capital expenditure for HWC on a net and a gross basis. Gross capital expenditure includes a value for free assets (ie assets passed to HWC by developers without cost to HWC). HWC's net capital expenditure has reduced from a high of \$39.5m in 1992/93 to \$16.2m in 1996/97. This represents a 59 percent reduction. These cash flow savings have been taken up by debt retirement, cash accumulation and payments to government.

Table 7.3 Capital expenditure (\$m nominal)

	1992/93	1993/94	1994/95	1995/96	1996/97
Asset replacements	4	2	1	4	5
Works other than replacements	36	32	32	21	12
Net capital expenditure	40	33	33	26	16
Free assets	12	14	10	20	10
Gross capital expenditure	51	47	43	46	26
Net capex to sales	22%	17%	18%	13%	5%

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

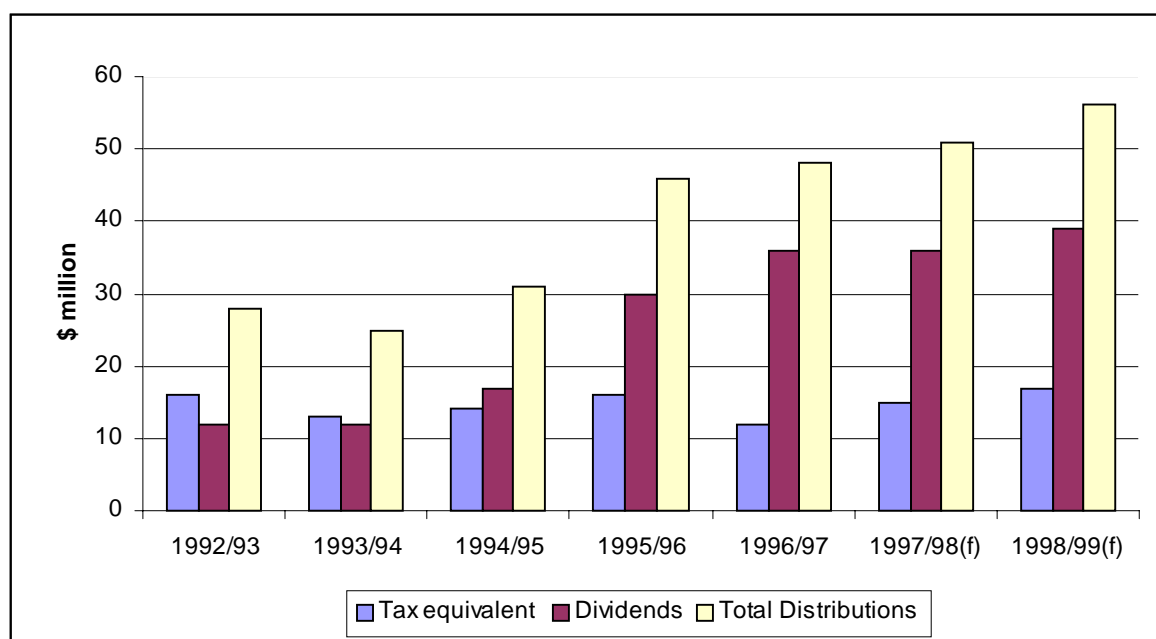
*Free assets = assets paid for by external entities such as developers.

Note: Numbers do not add due to rounding.

7.3.4 Financial distributions to government

The Tribunal is required to have regard to what an appropriate dividend to be paid by Hunter Water to the Government would be. Figure 7.3 illustrates the financial distributions to government (dividends plus tax equivalents). The Tribunal has noted the increasing level in recent years of the total financial distribution from Hunter Water to the Government. The projected increase in financial distribution in 1996/97 and forecasts for 1997/98 and 1998/99 are due to a higher payout ratio and higher profits as a consequence of reduced depreciation. Also, HWC are required to pay taxation equivalents to government.

Figure 7.3 Financial Distributions to Government



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

7.3.5 Other financial performance measures

Table 7.4 compares the performance in 1996/97 of HWC with the private sector gas distributor Australian Gas Light Company (AGL) the public sector electricity distributor Energy Australia (EA) and the Sydney Water Corporation (SWC).¹⁵ Definitions of the indicators used in this table are contained in Attachment 4.

The ratios in Table 7.4 show HWC to be in a strong financial position compared to the non water utilities. The fund flow adequacy ratios show that HWC is in a good position to cover dividends, capital expenditure and long term debt with cash from operations. HWC has a comparatively greater ability to cover capital expenditure commitments than AGL and EA, as evidenced by its internal financing ratio and total debt/total capital ratio. This is due to its very low debt levels.

¹⁵ For an analysis of SWC's comparative financial performance refer to *SWC, Mid Term Review of the Medium Term Price Path, Determination Number 3, 1998*.

Table 7.4 Financial indicators comparison

	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. HWC'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 4.

7.3.6 Funding of Capital Works

During the last five years, (including the first year of the price path) HWC's gross debt levels have fallen by 50 percent while cash and investments have built up to \$117m. The net debt position (debt less cash and investments) has moved from an excess of debt over cash and investments in 1992/93 to an excess of cash and investments over debt in 1996/97. Table 7.5 shows the declining trend in capital expenditure over this period. This indicates that Hunter Water's capital program has largely been financed from internal sources, developer contributions and government contributions (for social programs such as the Hunter Sewerage Project). Given the current cash flow position, Hunter Water should be able to fund all of its capital works program from internal sources over the remainder of the current medium term price path.

Table 7.5 Capital Expenditure and Net Debt (\$m nominal)

	1992/93	1993/94	1994/95	1995/96	1996/97
Net capital expenditure	40	33	33	26	16
Gross debt level (inc overdraft)	170	155	85	86	85
Total cash & investment (ST & LT)	96	100	56	85	117
Net debt/(cash)	74	55	29	1	(31)

Source: HWC spreadsheets, annual reports. Information reflects the Consolidated view of HWC.

7.4 Environmental issues

* *the need to maintain ecologically sustainable development by appropriate pricing policies that take account of all the feasible options available to protect the environment [S15(1)(f)]*

* *considerations of demand management and least cost planning [S15(1)(j)]*

7.4.1 Ecologically sustainable development

Ecologically sustainable development (ESD) is defined in the Report of the World Commissions on Environment and Development as development which meets the needs of present generations while not comprising the ability of future generations to also meet their needs.

ESD is described in Part 3 of the Protection of the Environment Administration Act 1991 as requiring *the effective integration of economic and environmental considerations* and the implementation of *improved valuation and pricing of environmental resources*. In line with this objective the Tribunal has introduced a number of initiatives. The Tribunal has also requested guidance from the NSW Environment Protection Authority (EPA) as to how it may practically incorporate ESD within its pricing determinations.¹⁶

The EPA provided a submission for the mid term price review. The key issues raised with respect to HWC's environmental commitments are as follows:

- Environmental improvement necessary in the next five years will be in the areas of effluent and biosolids re-use, transportation system management, environmental monitoring and protection of human health. These improvements could require significant HWC investment.
- The EPA notes that HWC has spent less on capital expenditure than expected at the medium term price path determination and questions whether this will have an impact on environmental standards.
- The EPA requests an assurance that HWC's funding of recommendations made by the Healthy Rivers Commission will not reduce the achievement of environmental standards elsewhere in the Corporation's operations.
- The EPA raised the issue of the quality control measures in place for asset maintenance in the light of HWC's outsourcing of its asset management program and recommends

¹⁶ IPART, Transcript of Public Hearing, Sydney Water Corporation, Hearing Volume Number 1, April 19, 1996.

that IPART should examine this issue. The Tribunal carried out an audit of HWC's capital program prior to the medium term price path determination. The audit found that HWC had a detailed planning and approval process for capital expenditure. The Tribunal may consider further capital audits of HWC at the next medium term price determination.

HWC stated in its submission that the funding of recommendations from the Healthy Rivers Commission and other environmental expenditures can be achieved under the current medium term price path. However, "if there are costs outside reasonable expectation, they will be brought to the 2000 price determination."¹⁷

7.4.2 Hunter Water's Environment Management Plan

Hunter Water has developed an Environmental Management System (EMS) which sets out the processes for environmental planning, due diligence procedures, performance monitoring and auditing. The EMS was implemented in February 1995 and has been reviewed to assess its adequacy against the relevant draft international standards. Hunter Water's compliance with the EMS is assessed as part of the annual operational audit. The Tribunal has considered the Annual Environment Report and the findings of the Operational Audit for 1996/97. The report found that Hunter Water fully complied with the Operating Licence requirements with respect to the environmental. The auditor stated that:

Hunter Water has generally made satisfactory progress towards the environmental objectives of its Environmental Management Plan. Most of the specific environmental targets have been met. In the isolated instances where targets have not been met, progress towards the target has generally been sufficient to give the auditor confidence that these will be met in the future and that progress towards the overall objectives has not been affected. Several significant environmental management projects were undertaken during 1996/97, which demonstrate the process of continual environmental improvement adopted by Hunter Water.¹⁸

7.4.3 Demand Management

HWC's pricing policy has resulted in a considerable reduction in demand. Water consumption in HWC's area is 30 percent below the Australian urban average.

Apart from pricing measures, Hunter Water considers that the greatest impact on overall consumption will come from reuse of effluent. Priority will be given to the supply of effluent to large industrial customers. Reuse not only reduces the demand for potable water but can avoid some of the problems that are associated with the disposal of wastewater.

7.5 Standards

* *standards of quality, reliability and safety of the services concerned [S15(1)(l)]*

7.5.1 Standards met by Hunter Water Corporation

Hunter Water must ensure that it complies with the standards for water quality, continuity, pressure and sewage surcharges that are set out in the Operating Licence. It is also required to comply with all effluent discharge licence conditions and pollution reduction targets of EPA.

¹⁷ Hunter Water Corporation Submission Number HWC(98) 2, p 2.

¹⁸ *Licence Regulator, 1996/97 Operational Audit of Hunter Water Corporation, August 1997, p ii.*

Hunter Water's compliance with the licence conditions is subject to an annual audit. The Tribunal has to consider whether Hunter Water has fully met its obligations for quality, reliability and safety. The Tribunal has considered the findings and conclusions of the Operational Audit Report for 1996/97. The Auditor concluded that Hunter Water has achieved full or high compliance with all the primary Operating Licence requirements.¹⁹

The Tribunal will continue to consult the Licence Regulator regarding Hunter Water's performance in terms of its operating licence.

8 COMPLIANCE

Compliance with the Tribunal's 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 1996/97 determination in HWC's annual report and will continue to monitor this requirement.

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 Pricing methodology

The regulatory approach used for HWC 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.

9.2 Demand management

The Tribunal notes that the strategies employed by HWC to curtail water usage have been successful so far and that HWC is on track to achieve the targets set in its operating licence.²⁰ The Tribunal will monitor demand over the remainder of the price path and will seek HWC's response and intended action to this issue at the next major pricing review. The Tribunal will also consider HWC's actions in relation to the recommendations of the Water Demand Management Forum.²¹

¹⁹ Licence Regulator, *1996/97 Operational Audit of Hunter Water Corporation, August 1997*, p i.

²⁰ A demand management target is specified in HWC's operating licence. HWC 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.

²¹ IPART, Water Demand Management Forum, *Water Demand Management – A Framework for Option Assessment*, March 1996.

9.3 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 HWC's forecasts of capital expenditure.

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

9.4 Postage stamp pricing

With the exception of developer charges, HWC'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.

9.5 Third party access

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

ATTACHMENT 1 OTHER SUBMISSIONS***The Environment Protection Authority (EPA)***

- The EPA notes the under capital expenditure of HWC since the 1996 determination and whether this will have an impact on environment standards.
- The EPA requests assurance that HWC's funding for recommendations from the Healthy Rivers Commission will not reduce the provision of environmental standards elsewhere in the corporation's operations.
- The EPA recommends that IPART should examine the quality control in place under HWC asset management plan.
- The submission notes the positive effects of HWC's pricing reforms on demand management and therefore the deferral of additional water storage facilities.

Incitec Ltd

- Importance of maintaining competitive prices for water to encourage long term investment decisions and water consumption patterns.
- Importance of written down historical cost as the basis for measuring asset valuation and water charges.
- Lack of detailed public information on Hunter Water's operating costs.
- Problems of `postage stamp pricing` and the need to move to a more cost reflective basis.

Institution of Surveyors

- The submission raises concerns regarding the 400 separate charges that HWC apply to developer charges. This arises from the catchment based method of developer charging adopted by HWC to reflect costs in each catchment. The Institution argues that this method of charging could lead to scope for distortion, risks and the potential for existing areas with large charges to be effectively quarantined from the development process.
- The submission seeks a consistent approach to the calculation of developer charges between HWC and SWC.

Barry Nolan

- Regards the HWC's formula for calculating sewerage charges as not appropriate on the basis that it assumes a large proportion of total water usage of a household derives from sewerage discharge and that water charges do not take into account differences in household size and water fittings.

NSW Treasury

Treasury point to the importance of competition policy reforms and access issues. In particular Treasury state the need to review `postage stamp pricing` and examine the benefits of differential pricing for the next medium term price review.

To assess the performance of the water corporations with respect to shareholder value added (SVA), Treasury point to 'Line in the Sand'²² approach as a the most appropriate method of calculating asset values.

²² The 'line in the sand' approach to asset valuation makes the distinction between past and new investments. As past investments were made for a variety of economic and political reasons, it would be inappropriate to apply a commercial return to the written down replacement value of such investments. However, a commercial rate of return should be required for new investments.

ATTACHMENT 2 THE MEDIUM PRICE PATH

- A four year price path has been set from 1996/97 to 1999/2000 with a mid term review to take place in early 1998.
- Overall periodic water, sewerage and drainage charges (excluding charges for the Hunter Sewerage Project) are to decrease by 2 percent²³ a year in real terms from 1996/97 to 1999/2000.
- Charges relating to the Hunter Sewerage Project:
 - The Environmental Improvement Charge is to decrease from \$78 a year to \$40 in 1996/97 and to be held constant in nominal terms (at \$40) until 1999/2000.
 - The Hunter Sewer Service Access Charge is to be reduced from the current level of \$3,059 to \$2,780. This charge will remain at the reduced level in nominal terms until 1999/2000.
 - A refund of \$441 plus accrued interest will be provided to owners who have paid the sewer service access charges in past years.
- Water charges
 - The water usage charge (for water consumption below 1000) is to increase by 5.3 cents to 85.7 cents per kilolitre in 1996/97. The usage charge is to then *increase* to 88.8 cents (in 1996/97 dollar terms) by 1999/2000.
 - The water service charge is to decrease from \$73.50 a year to \$63.60 for residential and non-residential properties in 1996/97. The annual charge is to then *decrease* progressively to \$23.70 (in 1996/97 dollar terms) by 1999/2000.
- Sewerage charges
 - Residential sewerage usage charges are to *decrease* by 8.8 cents to 74.6 cents per kilolitre in 1996/97 and then to decrease progressively to 45.8 cents (in 1996/97 dollars terms) in 1999/2000. (This usage charge is multiplied by a discharge factor of 50 percent and is then added to service charges to make up the residential sewerage bill.)
 - The non-residential sewerage usage charge is to *increase* by 2 cents to 39 cents per kilolitre in 1996/97 and will remain at this level in real terms to 1999/2000.
 - The sewerage service charge for residential customers will *increase* by \$16.20 a year to \$172.50 (assuming a discharge factor of 50 percent) for residential and non-residential properties in 1996/97. The annual charge are to then increase progressively to \$195.00 (assuming a discharge factor of 50 percent) in 1999/2000.
- Stormwater drainage service charges will be adjusted by CPI-2 percent a year over the price control period.
- The net present value (NPV) method currently used by Hunter Water to calculate developer charges will be modified to be consistent with the methodology determined by IPART. This generally implies an increase of approximately 50 percent over current charges. The new charges are to be phased in progressively over the next four years.
- New trade waste charges approved by IPART in 1994/95 to continue to be phased in during 1996/97. The charges are then to be adjusted annually by CPI-2 percent during the remainder of the price control period.

²³ This implies a nominal increase of 3.3 percent on the basis of a 5.3 percent average increase in the Consumer Price Index (Sydney) for the twelve months to March 1996 compared with the twelve months to March 1995.

- Charges for miscellaneous customer services are to be adjusted annually by CPI-2 percent over the four years from 1996/97 to 1999/2000.
- Hunter Water is permitted to enter into contractual arrangements with its large customers, subject to a framework to be developed by IPART in consultation with the water agencies.

Overview of Hunter Water's future charges

	1995/96 Current	1996/97	1997/98 in 1996/97 dollars ⁽¹⁾	1998/99	1999/2000
Water	\$73.5	\$63.6	\$49.5	\$35.7	\$23.7
- service charge per annum					
- usage charge ⁽²⁾	80.4 c/kL	85.7 c/kL	86.8 c/kL	88.1 c/kL	88.8 c/kL
< 1000 kL	74.2 c/kL	78.9 c/kL	79.9 c/kL	81.1 c/kL	81.7 c/kL
> 1000					
Sewerage ⁽³⁾	\$312.60	\$345.0	\$362.1	\$377.4	\$390.0
- service charge per annum	83.4 c/kL	74.6 c/kL	63.5 c/kL	53.9 c/kL	45.8 c/kL
- residential usage	37.0 c/kL	39.0 c/kL	39.0 c/kL	39.0 c/kL	39.0 c/kL
- non-residential usage					
Stormwater drainage	\$24.1	\$24.9	\$24.4	\$23.9	\$23.4
- residential service charge per annum					

Note:

1. Charges from 1997/98 to 1999/2000 to be indexed by the retrospective CPI for each year ending in March compared with the previous year.
2. Meters to be read progressively throughout the billing period. As the new usage charges apply from 1 July of each year, which may be part way through a billing period, the average daily consumption will be assumed to be constant throughout the billing period.
3. Subject to a discharge factor of 50 percent for residential customers.

ATTACHMENT 3 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 Sydney 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, 8:45am to 5:15pm 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 HWC 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
Institute 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 4 DEFINITION OF FINANCIAL INDICATORS

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