

WYONG SHIRE COUNCIL

PRICES OF WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES

Medium term price path from 1 July 1996



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

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I NDEPENDENT

P R ICING A N D R EGULATORY
OF N EW S OUTH W ALES

T RIBUNAL

**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/96/02

Report: No 4.2, 1996

Agency: Wyong Shire Council

Services: Water supply, sewerage and drainage services.

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

Order dated 27 August 1992 - page 6431, Gazette No. 105

TABLE OF CONTENTS

1. INTRODUCTION	2
2. THE PRICE DETERMINATION PROCESS	2
3. SUMMARY OF THE DETERMINATION	2
4. SUBMISSIONS	3
4.1 Pricing proposals made by Wyong Shire Council	3
4.2 Other submissions	3
5. ISSUES CONSIDERED BY THE TRIBUNAL	3
5.1 Costs and efficiency	3
5.2 Consumer protection	6
5.3 Financial viability	8
5.4 Environmental issues	15
5.5 Standards	18
6. BASIS OF THE TRIBUNAL'S DETERMINATIONS	19
6.1 The general level of water and sewerage charges	19
6.2 Net cash generation	19
6.3 Level of return	20
6.4 Water and sewerage charges	21
6.5 Developer charges	23
6.6 Other charges	24
6.7 Other issues	24
7. NEXT PRICE DETERMINATION	25

1. INTRODUCTION

As required by Section 11(1) of the Independent Pricing and Regulatory Tribunal Act 1992, the Independent Pricing and Regulatory Tribunal has investigated proposals by Wyong Shire Council (a standing reference agency in Schedule 1 of the Act) for maximum prices to be charged from 1 July 1996 for declared water supply, sewerage and drainage monopoly services.

The Tribunal's determinations of the maximum prices for these services is shown in Determination No. 4 attached with this report.

2. THE PRICE DETERMINATION PROCESS

The Tribunal called for pricing proposals from Wyong Shire Council for consideration of a medium term price path for the supply of water supply, sewerage and drainage services. Submissions were invited from interested parties and the public on these proposals and other issues relating to the pricing of these services.

A public hearing was held on 21 March 1996 at the Metro Inn, North Gosford.

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

Copies of all submissions and a transcript of the hearing is available for inspection at the Tribunal's offices, Level 1, 44 Market Street, Sydney.

The Tribunal members who considered this determination were:

Professor Thomas G Parry, Chairman

Mr James Cox, Full-time Member

Ms Joan McClintock, Member

Mr Robert Bruce, Temporary Member

3. SUMMARY OF THE DETERMINATION

The main features of this determination are:

- ◆ Overall periodic water and sewerage charges to be reduced by 5 per cent in nominal terms from 1 July 1996 and 1.5 per cent a year in real terms in the subsequent two years.
- ◆ The adoption of the net present value methodology for the calculation of developer charges. Developer charges will be capped at 85 per cent of the charge calculated under the net present value methodology. This will generally imply an increase of approximately 30 per cent over current charges.
- ◆ Continued phased introduction of a cost reflective two part tariff for non residential sewerage charges.
- ◆ Continued phased adoption of cost reflective charges for the pump out of effluent from septic tanks and chemical closet removal services.
- ◆ Continued increases in sewerage charges for non-strata titled units to bring them to the same level as for strata units. The maximum increase in charges for a single unit is to be limited to \$50 in a year.

- ♦ Continued phased increases in sewerage charges to non-strata titled retirement villages to 20 per cent of the charge for a residential assessment.
- ♦ These latter two charges represent a continuation of previous determinations. They are interim measures pending development of common approach by Gosford and Wyong Councils in accordance with the Tribunal's Price Anomalies Report¹.

4. SUBMISSIONS

4.1 Pricing proposals made by Wyong Shire Council

The main proposals made by Wyong Shire Council were:

- ♦ A CPI - 1.5 per cent cap on water and sewerage charges for the next ten years.
- ♦ Continued commitment to debt reduction and cost containment.
- ♦ Strong support for retention of the 200 kilolitre prepaid water allowance.
- ♦ Council has adopted a target of achieving 50 per cent re-use of sewage effluent by 2010.

No submission was made by Council on developer charges as it was understood that the Tribunal would make an independent determination on these charges by March 31 1996.

Council would not implement any changes covering pricing anomalies between it and other water suppliers until 1997/98. Council is proposing two changes to the current charging system to take account of pricing anomalies. These relate to flats and units and retirement villages.

4.2 Other submissions

The Tribunal received a number of submissions from other parties. These are summarised in an attachment. Major concerns expressed in these submissions related to the environmental implications of the pricing of water and sewerage services.

5. ISSUES CONSIDERED BY THE TRIBUNAL

Under Section 15 of the Independent Pricing and Regulatory Tribunal Act 1992 (formerly Government Pricing Tribunal Act 1992) the Tribunal is required to have regard to a number of matters and indicate what regard it has had to them. These matters are outlined below.

5.1 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)]*

5.1.1 Operating Costs

The operating costs incurred by Wyong Shire Council in the provision of water, sewerage and drainage services are anticipated to increase by \$0.6 million in 1995/96 and are projected to increase in real terms by 1 per cent in total over the five years to 1999/2000.

¹ IPART, Price Anomalies Report, December 1995

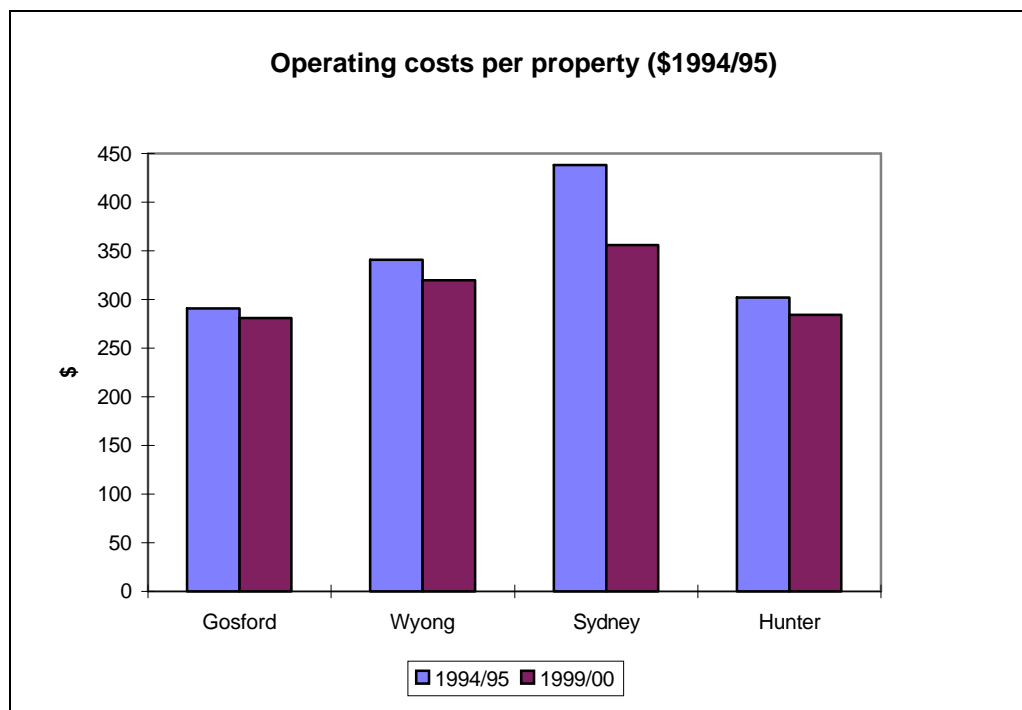
Given the expected growth in the number of assessments served, this equates to a real reduction in operating costs of 6.2 per cent per assessment over the five years.

The following table highlights the trend in operating costs and depreciation.

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Cost per property						
\$1994/95						
Operating	341	335	330	329	325	320
(\$ of the day)						
Operating	341	349	354	363	370	375
Depreciation	<u>186</u>	<u>187</u>	<u>194</u>	<u>198</u>	<u>203</u>	<u>205</u>
Total	527	536	548	561	573	580

In 1994 KPMG, a consultant engaged by both Gosford City and Wyong Shire Councils, released "A comparison of Gosford and Wyong Council's performance in the provision of water supply and sewerage services with that of other authorities". This report found both Councils had managed to contain per capita costs associated with operations, maintenance and administration to levels below those of other authorities.

The Tribunal has prepared the following graph comparing operating costs per property for water and sewerage services between Wyong Shire Council, Gosford City Council, Sydney Water Corporation and Hunter Water Corporation. Wyong Shire Council's projected operating costs for the period to 1999/2000 will remain above all water suppliers, with the exception of Sydney².



Notes: Figures exclude depreciation

Figures for Sydney include BOOT costs and costs associated with increased standards

² In any comparison between the water suppliers it should be noted that Hunter Water Corporation, Gosford City Council and Wyong Shire Council treat sewage to a higher standard than Sydney Water Corporation

The Tribunal believes that, given the opportunity for technological improvements, outsourcing and work place reforms, Council's current cost projections are conservative.

5.1.2 Capital investment

Wyong Shire Council has relatively new fixed assets. But Wyong's proposal for new capital expenditure involves spending over the next 10 years which is equal to 26 per cent³ of its current written down value of fixed assets. This compares with 22 per cent for Sydney Water Corporation and 11 per cent for Hunter Water Corporation. This figure appears relatively large.

5.1.3 Contracting out

At this year's public hearing Council emphasised its view that contracting out of services is regarded as an important part of maintaining productivity, especially as it exposes the existing day labour force to competition. Council contends that over 60 per cent of the current value of capital work on water and sewerage will be completed by contractors. Council will move cautiously in contracting out operations and maintenance functions because industry experience in this area is not extensive.

5.1.4 Competition

The submission from the environment groups discusses possible options for removing pricing barriers to competition. The submission recommends a single set of terms for the presentation of pricing categories for water, sewerage and drainage services for all water agencies in NSW. The uniform format would be based on the terms contained in the Sydney Water Corporation submission. From the Sydney Water Corporation submission:

"The key to the Tribunal's review of Sydney Water's prices in the light of competition policy is to achieve the regularisation of prices and pricing and charging methodologies, and thereby bring Sydney Water's pricing policies into line with the basis that the private sector could be expected to utilise were it to compete directly..."

The submission from the environment groups contends that

"there is no incentive to customers to disconnect from the system (in the interests of self-sufficiency and reducing the stress on existing systems) or to use other service providers."

As a start to resolving this situation the environment groups recommend the following:

- ♦ a customer should be able to disconnect from water, sewerage or drainage infrastructure and pay the costs of the necessary works to their own plumber who certifies to the agency that the works have been carried out
- ♦ fixed charges for water, sewerage and drainage should cease upon disconnection
- ♦ no fixed charges should be payable by a customer who is not connected.

The submission from Sydney Water Corporation argues that entry and exit charges are regulated by the Tribunal and should be based on the recovery of the costs involved in making the physical alteration of services.

³ Excludes developer funded assets

In its 1995 submissions the NSW Department of Health expressed concern about the potential health risks from customers disconnecting from the local water authorities water and sewerage networks. Council has pointed to possible environmental damage from such action and the extra administrative burden of ensuring individual landowners satisfy environmental standards.

The environment groups propose a new category of pricing for sewer mining for which the Tribunal should set a zero or a 'at cost' charge. The groups recommended that the Tribunal should create a forum to identify where markets for the reuse of wastewater may be encouraged. The Tribunal proposes to adopt this latter recommendation.

The submission from Sydney Water Corporation discusses the scope for competition in the distribution network of the water agencies. The scope for removing impediments to competition will need to be reviewed as part of the National Competition Policy Package which was endorsed by the Council of Australian Governments in April 1995. Although an understanding of the application of National Competition Principles to providing third party access to the water industry is still evolving, when competitors bid for access to water agencies' systems they will have to pay for that access.

5.2 Consumer protection

- * *the protection of consumers from abuses of monopoly power in terms of price, 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 determinations and recommendations [S15(1)(k)]*

5.2.1 Pricing

Wyong Shire Council has made significant progress in eliminating price anomalies between different customer classes. These pricing reforms have taken the following form:

- ♦ elimination of property taxes
- ♦ introduction of a two part tariff for non-residential customers
- ♦ adoption of cost reflective charges for the pump out of effluent from septic tanks and chemical closet removal services
- ♦ proposed introduction of new developer charges methodology.

Any changes in the basis of charging (eg. removal of property taxes) will have differing impacts on the various customers. In making its determination the Tribunal has attempted to make charges more cost-reflective to better signal the value of resources consumed. This has been done with due recognition of the financial impacts on individual customers. Therefore extensive use has been made of transition paths to ease the year to year impacts.

The remaining anomalies concern the treatment of strata titled properties with a master meter attached and the differential between sewerage charges for strata and non-strata titled properties. Wyong Shire Council, in its supplementary submission have proposed the following charges for these properties:

- ♦ Each individual unit within strata titled properties is currently levied a charge equivalent to a 20mm service charge for water services. The proposal is that charges be based on the meter size servicing the property as a whole plus a usage charge

calculated on all water consumed in excess of the prepaid water allowance for the service.

- ♦ Each non strata titled unit and retirement village unit is currently levied a charge for sewerage services. Council are proposing to introduce a two part tariff with an access charge based on meter size serving the property as a whole plus a usage charge calculated on the assessed discharge into the sewerage system. The result could be a difference in sewerage charges between strata and non strata titled units as strata titled units are levied the single residential charge. The Price Anomalies Report⁴ recommended that there should be no difference in charges between strata and non strata titled units.

The Tribunal requests Council to provide information on the impact of its proposed charges, prior to implementation, to enable a full assessment before the next price review.

5.2.2 Service standards

The trends in key service standard levels are shown below.

Water	1992/93	1993/94 actual	1994/95	1995/96	1996/97 target
Water quality complaints					
per 1000 customers	2.5	2.5	2.5	5	5
Mains burst per 100 km	5.38	3.92	3.92	n/a	n/a
per cent properties pressure <15m as measured service meter	<0.1	<0.1	0.5	0.5	0.5
Other water complaints per 1000 customers	2.5	2.5	2.5	5	5
Sewerage	1992/93	1993/94 actual	1994/95	1995/96	1996/97 target
No. of overflows per 100 km	0.7	0.7	0.7	5	5
Average response time to overflow in hours	0.5	0.5	0.5	n/a	n/a
No. of blockages per 100 km	35	35	36.8	100	100
Sewer service complaints per 1000 customers	8.7	9.4	9.4	25	25
Level of phosphorus discharged to ocean kg/day	239	248	256	n/a	n/a
Backlog sewerage: no. of new lots serviced during year	5	5	20	n/a	n/a

Target standards of service are detailed in the annual management plan which is exhibited to the public for comment. Wyong Shire Council contends that the standards achieved are consistent with or better than industry practice.

⁴ IPART, Op.cit. p11

The major quality enhancement program proposed for 1996/97 is the expansion of the telemetry system. The connection of all new sewage pumping stations to this system will reduce the number of overflows.

Both Sydney Water Corporation and Hunter Water Corporation have introduced contracts with their customers regarding key service standards. In some cases failure to comply with these standards requires the water supplier to reimburse customers part of their service charge. This provides an additional incentive for a monopoly business to meet customer needs. Wyong Shire Council should investigate the adoption of a similar process.

The Household Expenditure Survey conducted by the Australian Bureau of Statistics indicates that water and sewerage charges comprise 0.7 per cent of an average household's weekly expenditure in NSW. The proposed reduction in charges will therefore have a small effect on the overall cost of living in the Wyong area.

5.2.3 Social impacts

The major impacts flowing from the Tribunal's determination will be felt by those involved in new developments. The methodology for developer charges which was developed⁵ by the Tribunal in conjunction with water suppliers and developers will provide⁶:

- ♦ a source of funding for the infrastructure required for new urban developments
- ♦ signals regarding the costs of urban development which encourage less costly forms and areas of development. Charges for infrastructure for new developments should signal the true relative costs of providing such infrastructure. This will ensure that the charges do not distort the form and sequence of new development.

The new developer charges will increase the cost of developing land in the Wyong area and may increase the price paid by those who buy serviced land.

5.3 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)]*

5.3.1 Rate of return

The activities of Local Government, including water and sewerage operations, are not subject to the State Government's distribution and tax equivalents regime⁷. Nor do the water and sewerage operations explicitly make such a payment to Council's 'general fund'. The water and sewerage activities are viewed by Council as providing a community good

⁵ Government Pricing Tribunal, *Water Industry Forum, Report on Developer Charges for Water, Sewerage and Drainage Services*, November 1995
Government Pricing Tribunal, *Sydney Water Corporation, Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995

⁶ Government Pricing Tribunal, *Sydney Water Corporation, Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995, p2

⁷ NSW Government, *A Financial Distribution Policy for NSW Government Trading Enterprises*, August 1992

essential for public health and safety, and are therefore not subject to an explicit target rate of return.

In the absence of such disciplines Councils tend to ascribe no cost to internally generated funds and rely on these, to the greatest extent possible, to the exclusion of debt financing. Furthermore, given that Council is competing with organisations with rate of return targets (private sector and Government Trading Enterprises), in markets for resources, then Council's lack of similar targets could provide incorrect resource allocation signals.

A number of accounting and cash based measures of financial performance are shown below. Comparisons are made with large capital intensive private companies and Government Trading Enterprises.

	<i>Wyong Council</i>	<i>Gosford Council</i>	<i>Sydney Water</i>	<i>Hunter Water</i>	<i>Sydney Electricity</i>	<i>BHP</i>	<i>AGL</i>
<i>Year</i>	<i>1995/96</i>	<i>1995/96</i>	<i>1995/96</i>	<i>1995/96</i>	<i>1994/95</i>	<i>1994/95</i>	<i>1994/95</i>
EBIT/Total Assets	3.4	3.9	2.2	2.4	4.7	10.1	10.5
EBIT/Gross Income	36.3	42.4	24.3	29.3	9.1	15.8	19.7
EBITD/Gross Income	58.6	63.9	29.5	48.1	18.2	24.8	26.6
(Interest + Dividends + Tax)/Gross Income	13.3	18.3	24.3	26.9	7.6	11.4	13.7
Depreciation/Gross Income	22.2	21.6	15.2	18.8	9.1	8.9	6.9
Capital expenditure/Gross Income	26.6	17.8	20.0	28.0	10.5	20.4	11.9

Notes: Hunter Water Corporation's Gross Income excludes proceeds from the environmental levy
Figures for water suppliers' Gross Income and Capital Expenditure include capital contributions

The apparent discrepancy in the cash and accounting returns between the public and private entities is a consequence of differences in the asset valuation techniques applied in the two sectors. If Council's EBIT/Total Assets figure is measured on an historic cost basis then the rate of return of 3.4 per cent would increase to approximately 6 per cent, while the ratio of depreciation to gross income would decline from 22.2 per cent to approximately 12 per cent.

If current institutional arrangements were put aside and Council's water and sewerage activities were viewed as commercial operations then the key considerations in establishing the returns which are payable to the owner would be:

- ♦ establishment of the regulatory asset base
- ♦ assessment of the appropriate rate of return
- ♦ performance in relation to the cash based measures which are included in the table on page 9.

The asset base used for regulatory purposes may not necessarily coincide with that reported in the annual accounts. For example, assets may be excluded if they fail the “used and useful” test which is applied in North American jurisdictions.⁸

Similarly, it would be inappropriate to include customer funded assets and assets paid for by the State Government in the regulatory base.⁹ To earn a rate of return on assets provided free of charge to the water supplier would be double dipping. That is, customers should not be charged a return on assets which have already been paid for (including a profit component). It is recognised that the water supplier has to maintain and ultimately replace such assets and that these costs should be included in the cost of service provision.

Customer funded assets have not been separately identified in the Council's existing asset base. However, Council does include developer contributions as part of its income in the year received. Given that developer contributions can vary significantly from one year to the next there can be substantial fluctuations in the reported level of income and rate of return.

In addition, it would be inappropriate to expect a return on investments which were made to satisfy community service obligations (for which no matching payment was received from Government) or on investments which were made to satisfy non-commercial objectives (eg. to meet political objectives).

The figures shown in the above table have not been adjusted for these factors. The unadjusted results indicate that Council's rate of return compares favourably with other utilities, and that its performance in relation to the cash based measures compares favourably with the other utilities and capital intensive private sector organisations.

The NSW Government's approach to defining the rate of return target is¹⁰:

“.... the fundamental investment decision rule is that investments should only be made where, over the lifetime of the investment, the expected rate of return on the assets employed at least equals the firm's weighted average cost of capital (WACC).”

The Tribunal has not calculated the WACC for Council's water and sewerage operations but considers it appropriate to adopt, as a proxy, the figure of 7 per cent real applied by the NSW and Commonwealth Governments for general government projects.¹¹

In applying this figure the Tribunal would wish to distinguish between past and new investments. Past investments were made for a variety of economic and political reasons and it would be inappropriate to apply a commercial return to the written down replacement value of such investments. However, it is appropriate for the Tribunal, as part of its consideration of the matters listed in section 15 of its Act, to consider the effects of applying a return equal to 7 per cent on new investments, including environmental expenditure.

⁸ Reasons for failing the "used and useful" test include gold plating and surplus capacity not anticipated to be utilised within a reasonable planning horizon

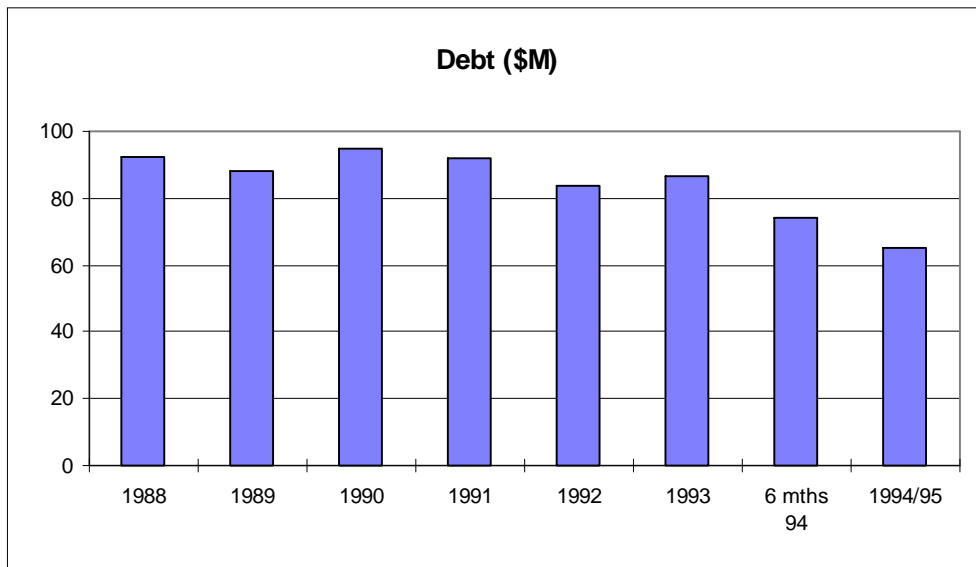
⁹ The State has invested over \$300 million in Gosford and Wyong water operations through the Public Works Department

¹⁰ NSW Government, *A Financial Distribution Policy for NSW Government Trading Enterprises*, August 1992, p12

¹¹ Government Pricing Tribunal, *Water Industry Forum, Report on Developer Charges for Water, Sewerage and Drainage Services*, November 1995, Attachment 1

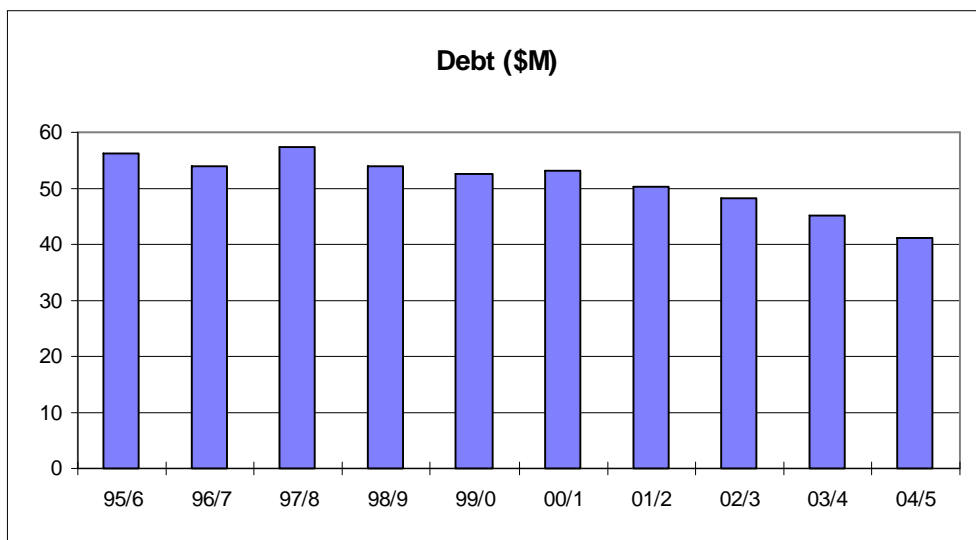
5.3.2 Capital structure

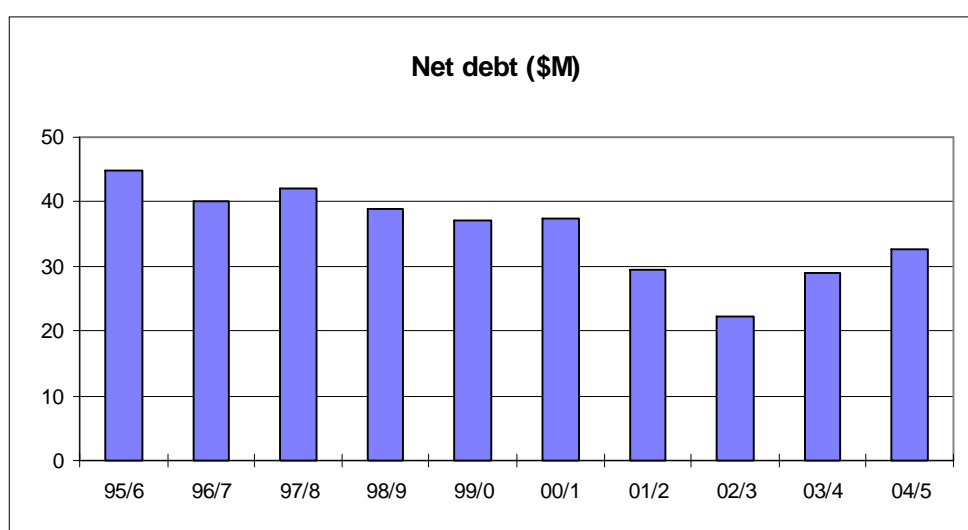
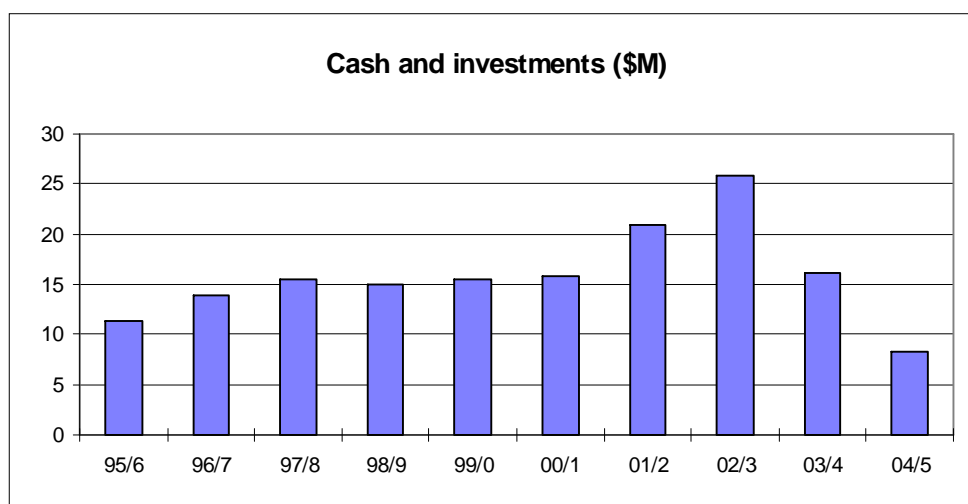
Council's level of debt has been reducing in recent years. This is illustrated in the following graph.



If implemented, Wyong Shire Council's pricing proposals would lead to a further reduction in debt. Council argue that any reduction in charges with the resulting increase in indebtedness will provide short term gains to current users but a huge debt for future generations. Council believes that this policy is in distinct contradiction with the national drive to reduce public sector demand on loan finance and indebtedness.

The following graphs illustrate the financial impacts of Council's proposed charges (excluding the effect of the new developer charges methodology) over the next ten years.





In the past Councils have relied upon debt finance only where major capital works were undertaken and the alternative to debt was a politically unacceptable increase in recurrent charges.

In the discussion of an appropriate debt level, four relevant considerations are opportunity cost, competitive neutrality, intergenerational equity and financial discipline.

If Council, as a monopolist, raises prices above efficient costs (including a rate of return) then it is abusing its monopoly power and denying ratepayers the opportunity to choose how their funds are invested. This may lead to an inefficient allocation of resources.

Similarly, if Council obtains these funds without concerns for the disciplines of tax and dividends that apply to other users of capital in the community then investment decisions between Council and other investors may be distorted.

Thirdly, the absence of debt would result in current ratepayers paying the full cost of infrastructure which will also be of benefit to future ratepayers.

Lastly, an appropriate commercial level of debt will provide an incentive for Council to continue its cost reform process. The costs of debt servicing are explicit and unavoidable,

while the cost of using internally generated funds are implicit and may go unnoticed even where funds are not being used to best advantage.

The Tribunal therefore considers that the advantages and disadvantages of a rapid reduction in debt need to be carefully considered.

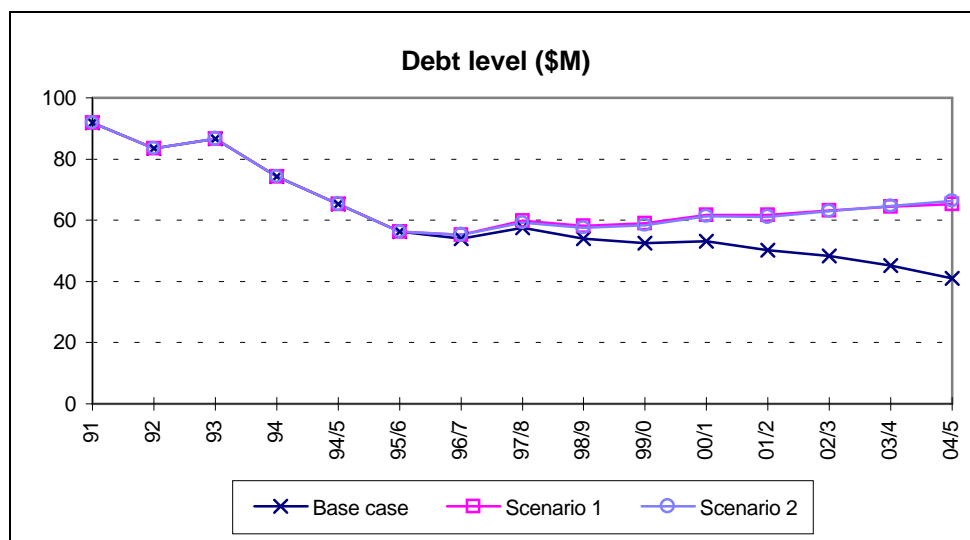
5.3.3 Assessment of alternative pricing scenarios on the level of debt

The Tribunal has considered the implications of charges lower than the ones proposed by Council. The reduced charges will slow down the reduction in debt which would otherwise have occurred, which has implications for current and future ratepayers.

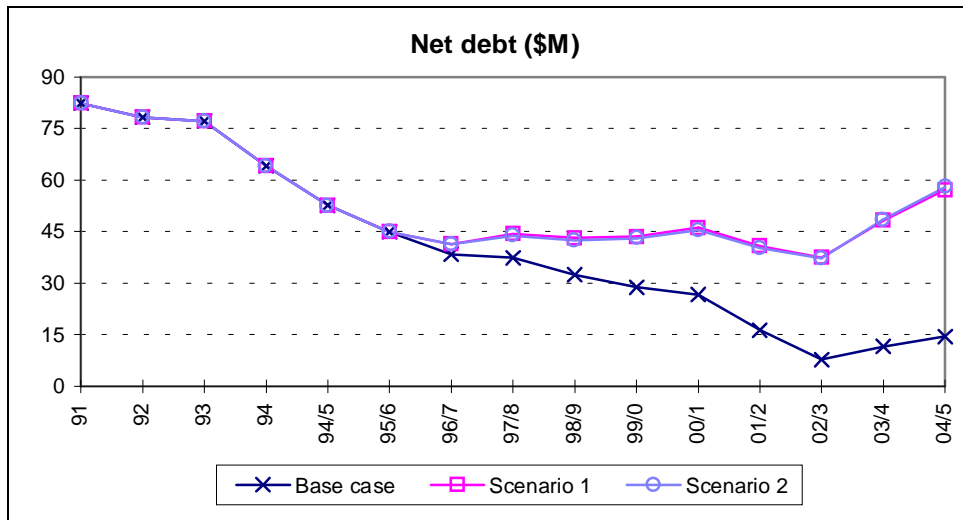
The Tribunal compared the Council's proposed prices with alternative pricing scenarios.

- ◆ Base case: CPI - 1.5 per cent price path proposed by Council, plus a 50 per cent increase in developer charges.
- ◆ Scenario 1: 5 per cent nominal decrease in core revenue per property in 1996/97; CPI - 1.5 per cent cap thereafter; 30 per cent increase in developer charges (this is approximately equivalent to capping developer charges at 85 per cent of the charge calculated under the net present value methodology).
- ◆ Scenario 2: 7.5 per cent nominal decrease in core revenue per property in 1996/97; CPI - 1.5 per cent cap thereafter; 50 per cent increase in developer charges.

The financial projections within Council's submission include a 5 per cent increase in developer charges. Calculations supplied by Council under the proposed methodology indicate an increase of a much greater magnitude. The 30 and 50 per cent increases in developer charges used for financial modelling are indicative only and will, on implementation of the new methodology, vary between developments.

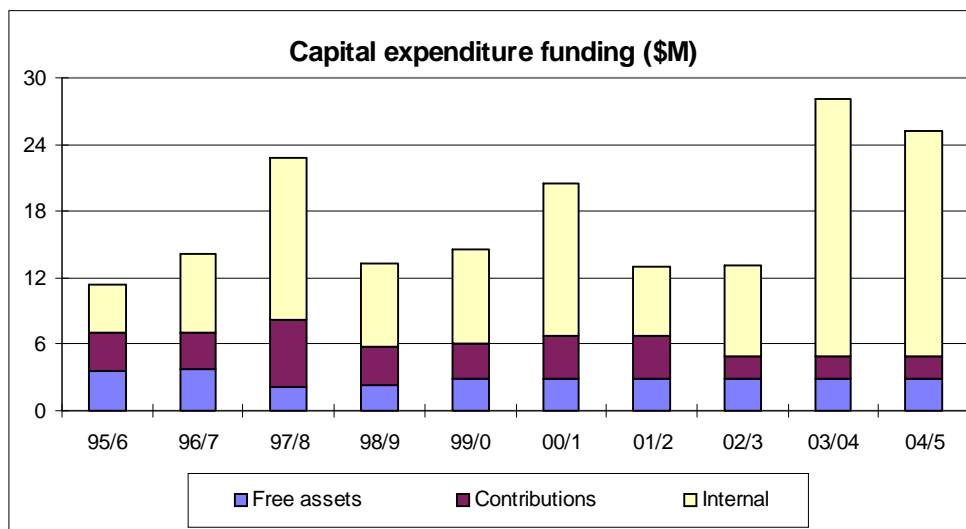


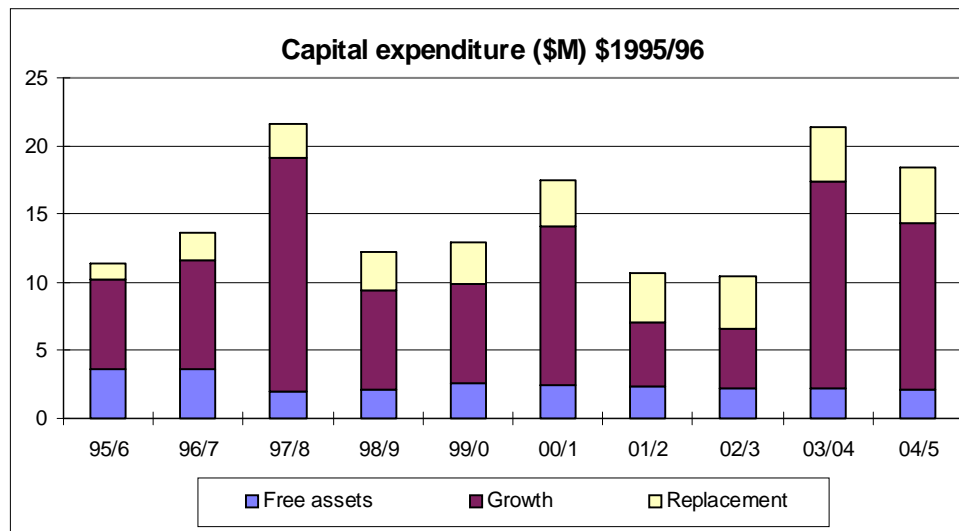
It will be seen that the base case leads to a rapid reduction in net debt (ie. debt minus investments). By contrast, the alternative scenarios stabilise net debt until 2002/03, after which it is projected to increase.



5.3.4 Funding of capital expenditure

The following graphs outline how Council expects to fund capital expenditure. From the first graph it appears that capital expenditure will be funded largely from internal sources. At the public hearing, Council’s officers indicated that growth related capital expenditure could be expected to be funded entirely by developers in the future. Looking at the second graph, this implies that the drain on Council’s internal funds will be largely reduced with the implementation of the new developer charges methodology. However, there could be a time lag between when Council incurs the expenditure and when it is recovered through developer charges.





5.4 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)]*

5.4.1 Ecologically sustainable development

Ecologically sustainable development, as described in Part 3 of the Protection of the Environment Administration Act 1991, requires *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. Also, the Tribunal has requested guidance from the NSW Environmental Protection Authority (EPA) as to how it may practically incorporate this objective within its pricing determinations¹².

In its submission to the Tribunal on the pricing proposals of Hunter Water Corporation the EPA stated¹³:

“The EPA supports the inclusion of such a (specific environmental externality) component in the prices for water and related services supplied by water authorities.”

If Council's water and sewerage operations satisfy current and known environmental standards, then the Tribunal believes that this condition has been satisfied by ensuring that Council's prices cover the cost of services (including where appropriate a rate of return). However, the EPA has also argued for inclusion of a component in the usage price for water, above what is already in place, to take account of environmental damage resulting from the use of water. Because of the prepaid water allowance the usage charge is a relatively small part of paying for water in Wyong. This issue is discussed further below.

¹² IPART, Transcript of Public Hearing, Sydney Water Corporation, Hearing Volume Number 1, April 19, 1996

¹³ Environmental Protection Authority, *Determination of Maximum Prices for the Hunter Water Corporation from July 1996*, 25 March 1996

The EPA contends that the principle of ecologically sustainable development should become part of the business processes in place within an organisation. For example, environmental issues need to be considered before any capital works decision is made. In general,

“It is a matter of having a certain culture within the organisation and it is a matter of having certain processes that do try to reinforce that culture and to make sure that environmental considerations become a part of every single decision or the decision making process that is employed within the organisation.”¹⁴

The Healthy Rivers Commission was established in January 1996¹⁵ to conduct public inquiries into the condition of the State's key river catchments and make recommendations on how they should be better managed in the future. The Commission is required to make recommendations to the Government on objectives for water quality, river flows and other goals to achieve ecologically sustainable development in a realistic time frame. The Commission's recommendations will affect future standards and related pricing determinations.

5.4.2 Demand management

During 1995 Council participated in the demand management forum¹⁶ organised by the Tribunal to 'develop a framework for evaluating the merits of specific demand management measures'. The framework developed by the forum requires various inputs to enable the cost effectiveness of options to be assessed. To this end Council is identifying usage characteristics and potential demand reductions and adoption rates.

Meters are read annually for customers of Wyong Shire Council except for those non-residential customers regarded as 'high water users'. These customers may have monthly or quarterly meter readings and bills. Combined with the 200 kilolitre water allowance, annual meter reading may have the effect of stifling demand management signals. While increasing the frequency of meter reading would increase Council's costs in terms of operations and administration, meter reading could be contracted out in conjunction with other utilities.

The following demand management activities will be carried out by Wyong Shire Council in 1996/97:

- ♦ Water efficient devices, including toilet cisterns and urinals, are to be installed in new buildings. Low flow shower heads were considered but not recommended due to lack of product coverage and consequent consumer acceptance.

Comment

It could be argued that this neglects the potential for retrofitting within existing developments, particularly where facilities are under stress from increasing population. At this stage rebates on water efficient appliances have not been considered by Council.

¹⁴ IPART, Op cit. p55

¹⁵ Healthy Rivers Commission, *Williams River Inquiry: Issues Paper*, March 1996

¹⁶ IPART, *Water Demand Management, A Framework for Option Assessment, Water Demand Management Forum*, March 1996

- ♦ Reduction in unaccounted for water. A significant cause is the unmetered watering systems on parks and reserves. A programme is being developed to address this backlog.
- ♦ Extending the telemetry system for leakage detection. Council has previously undertaken leakage surveys which had indicated the system is tight (6-8 per cent compared to an industry average of over 15 per cent). Leakage detection will be carried out as part of routine system monitoring - target implementation date July 1996.
- ♦ Large water users will continue to be contacted and encouraged to conduct water audits.
- ♦ Waterwise/National Water Week. Community education targeting schools, in shopping centres, and offering tours of the water treatment plant.
- ♦ Council is amending water bills to enable customers to make comparisons of water consumption between the period covered by the current bill and the three previous bills.

The EPA and environmental groups have argued strongly for the removal of the 200 kilolitre water allowance. The submission from Council raises the following points regarding the water allowance:

- ♦ It is argued by the EPA and environment groups that an allowance is contrary to effective demand management.
- ♦ Hunter Water Corporation, with a full pay for use system, have average residential consumption of 214 kl/pa compared to the Central Coast's 225 kl/pa. Taking account of holiday loads, climate, soil, etc, there is no evidence to suggest eliminating the allowance would significantly reduce water usage.
- ♦ Wyong Shire Council contends it has achieved water usage statistics comparable to industry best practice over the last 15 years. The Public Works Department report '1992 NSW Water Supply and Sewerage Performance Comparison' shows that the best 10 per cent of Local Government controlled water schemes had an average residential consumption of less than 215 kilolitres per annum, the median was 390 kilolitres per annum and the worst 10 per cent had an average of more than 750 kilolitres per annum.
- ♦ It is argued by the EPA and environment groups that an allowance subsidises large water users.
- ♦ In practice no charging system is perfectly equitable. Eliminating the allowance would see a cross-subsidy from large water users (eg families) to low water users (holiday homes).
- ♦ Reticulated water systems were originally provided for public health reasons. The current allowance encourages the use of water for these purposes. Council views some use of water for footpaths and nature strips as desirable.

The Tribunal is keen to identify the impact of holiday homes (which tend to use only small amounts of water) on average annual residential water consumption figures for the Gosford and Wyong areas. Figures from Council indicate that there are a significant number of users with consumption levels below 100 kilolitres a year. If these are largely holiday home owners then Council's average consumption figures may be distorted and the opportunity for water users to reduce consumption understated.

In the Tribunal's view, Council has provided insufficient evidence in support of its contention that the water allowance of 200 kilolitres should be maintained. It is difficult to apply such a blunt measure to customers whose circumstances differ greatly (eg. a single person living in a unit as opposed to a family in a residential dwelling with a large non-native garden) without neglecting many opportunities for saving water. There are more direct and effective ways of ensuring health and safety standards are maintained.

The Tribunal anticipates that the reduction or removal of the water allowance will be a part of future pricing strategies. Council should therefore develop a proposal to address this issue before the next price review. In that regard, the Tribunal will continue to work with Council towards estimating the marginal cost of water supply and wastewater treatment.

The submission from peak environment groups in NSW argues that the Tribunal should continue to oppose the prepaid water allowance. Fixed charges should, according to these groups, be a relatively small component of bills. With an increased usage component customers would have greater control over the size of their bills. The rationale behind the calculation of fixed charges is questioned by the environment groups.

The environment groups query the logic of Council charging a lower price for water to clubs and sporting bodies because this effectively reduces pricing incentives for treated effluent to be supplied instead. Sporting clubs (eg. bowling and golfing) have the greatest potential for using recycled water. A single price for water would assist demand management and therefore water conservation. The Tribunal intends to examine this issue further as part of the next price review

5.5 Standards

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

5.5.1 Standards met by Wyong Council

Wyong Shire Council's water and sewerage functions comply with all regulatory requirements (EPA licence for effluent discharge and NHMRC/NSW Department of Health guidelines /requirements for water treatment).

	1992/93	1993/94 actual	1994/95	1995/96 target	1996/97
Drinking water quality					
1994 draft NHMRC guides met	yes	yes	yes	yes	yes
EPA licence compliance - ocean sewage treatment plant limits per cent					
biochemical oxygen demand	100	100	100	100	100
non-filterable residue	100	100	100	100	100
effluent re-use per cent	0.5	0.5	0.5		

Council has adopted a target of 50 per cent re-use of sewage effluent by 2010. As yet there is no definitive plan as to how this target will be achieved. Neither capital costs nor associated increases in operating costs have been estimated. The Tribunal anticipates that Council will supply this information before the next price review. The submission from the environment groups contends that developing re-use markets is an important issue that needs to be addressed.

6. BASIS OF THE TRIBUNAL'S DETERMINATIONS

6.1 The general level of water and sewerage charges

Having had regard to all the factors listed in section 15 of its Act, the Tribunal has decided on a pricing structure based on a 5 per cent nominal reduction in charges from 1 July 1996 and increases of CPI -1.5 in the subsequent two years. This enables current consumers to benefit from Council's cost control programs by slowing the rate at which debt is reduced and sharing the cost of infrastructure more equitably between the current and future generations. A slow down can be achieved by partly financing new capital works with debt without impinging on repayment commitments under existing loan agreements. *Under both Council's proposals and the Tribunal's determination the level of debt is substantially below the level that would be expected in a commercial business.*

The reasonableness of the debt level that results from the Tribunal's determination can be assessed by applying the cash based ratios that are used by rating agencies. The results of that analysis are shown below¹⁷.

Ratio	Estimates			AAA	A
	1995/96	1999/00	2004/05		
Funds flow interest cover	4.4	2.5	3.1	4	2.75
Net cash flow/capex	1.7	0.9	0.7	1	0.6
Funds flow net debt pay back	2.9	4.3	4.0	4	9

The figures under the three years show the projected outcomes for each of the ratios. The last two columns show the results that would have to be achieved for an organisation with an excellent risk profile to obtain either a AAA or A rating. The NSW Treasury regards the A rating to be the minimum rating appropriate for a Government Trading Enterprise¹⁸. In all cases the projected figures for Council would give the minimum of an A rating.

6.2 Net cash generation

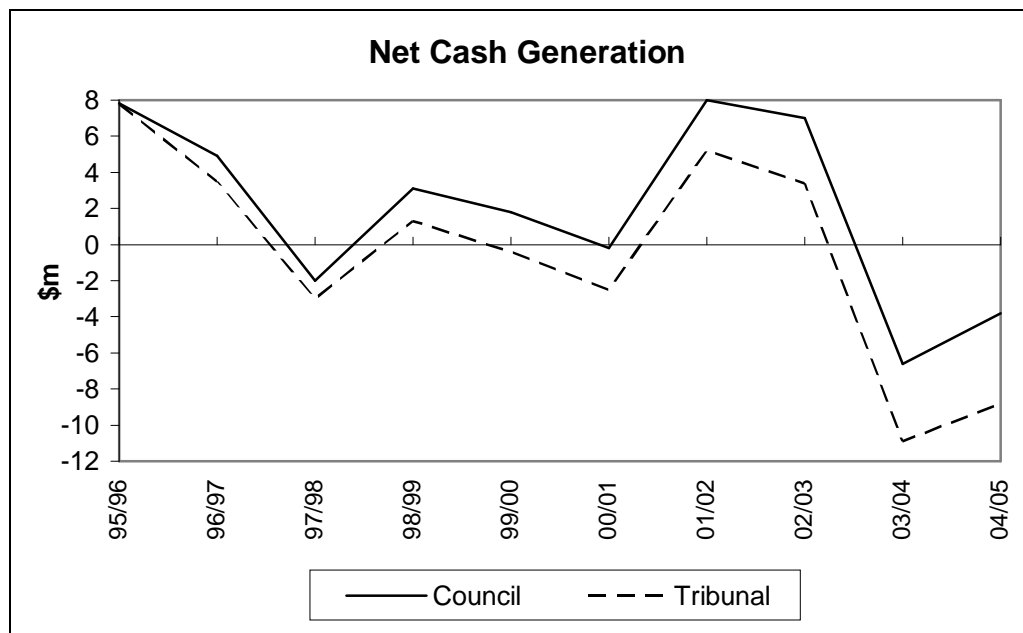
The price determination made by the Tribunal allows Council to meet its expected capital expenditure commitments, both for new and replacement expenditure, while remaining within the parameters established above for capital structure.

The following graph portrays the amount of cash that is projected to be generated by the business after capital expenditure, but not debt reduction, has been allowed for. The two cases illustrated are: Council's preferred option without implementation of the net present value approach to the calculation of developer charges; and the Tribunal's determination after implementation of the new developer charges methodology. While the Tribunal determination only extends out to the year 1998/99 it is assumed for illustrative purposes that periodic charges increase by CPI- 1.5 per cent beyond that date. The figure shows that

¹⁷ NSW Treasury, *Capital Structure Policy for NSW Government Trading Enterprises*, August 1994, p21

¹⁸ NSW Treasury, *Capital Structure Policy for NSW Government Trading Enterprises*, August 1994, p iii

the result of the Tribunal's determination is close to the financial projections contained in Council's submission.

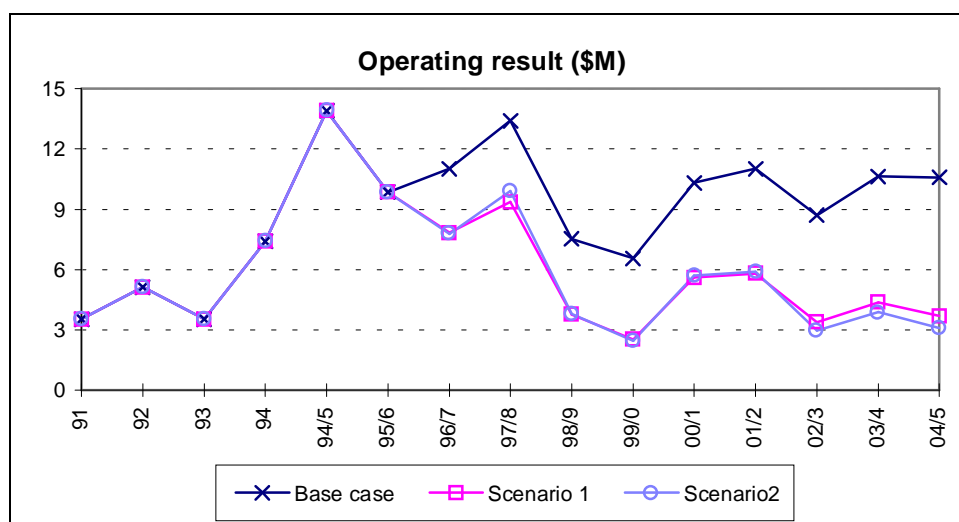


6.3 Level of return

The following graph shows the relative profitability of the Council's combined water and sewerage operations under the following three scenarios:

- ◆ Base case: CPI - 1.5 per cent price path proposed by Council, plus a 50 per cent increase in developer charges.
- ◆ Scenario 1: 5 per cent nominal decrease in core revenue per property in 1996/97; CPI - 1.5 per cent cap thereafter; 30 per cent increase in developer charges (this is approximately equivalent to capping developer charges at 85 per cent of the charge calculated under the net present value methodology).
- ◆ Scenario 2: 7.5 per cent nominal decrease in core revenue per property in 1996/97; CPI - 1.5 per cent cap thereafter; 50 per cent increase in developer charges.

The outcomes of these scenarios are subject to: the impact of the calculation of developer charges under the net present value methodology on the rate of development; and the administrative burden faced by Council in implementing the new developer charges regime.



Scenario 1 illustrates the Tribunal's determination for the period to 1998/99. While Scenarios 1 and 2 produce similar results, the Tribunal favours Scenario 1 for two reasons. Firstly, the Tribunal is concerned about the magnitude of anticipated increases in developer charges calculated under the net present value methodology. The Tribunal has therefore decided to cap developer charges at 85 per cent of the charge calculated under the net present value methodology. Secondly, Council has greater certainty in the future revenue from periodic charges compared to developer charges. At this stage it is difficult to quantify what effect the calculation of charges under the net present value methodology will have on the rate of development in the Wyong area.

A price determination for subsequent periods will be made prior to the commencement of the financial year 1999/2000.

The impact of the determination on Council's revalued asset base is to reduce the rate of return from 3.4 per cent in 1995/96 to 2.7 per cent in 1998/99. As discussed above, Council's asset base includes developer funded assets which need to be excluded to calculate an appropriate return figure. This information is not currently available to the Tribunal.

This fall in the rate of return is reflected also in the ratio of EBITD to Total Income. It is forecast to decline from 58.6 per cent in 1995/96 to 54.6 per cent in 1998/99. However, this remains substantially above the current figures for the other water suppliers (except Gosford) and capital intensive private sector comparators.¹⁹

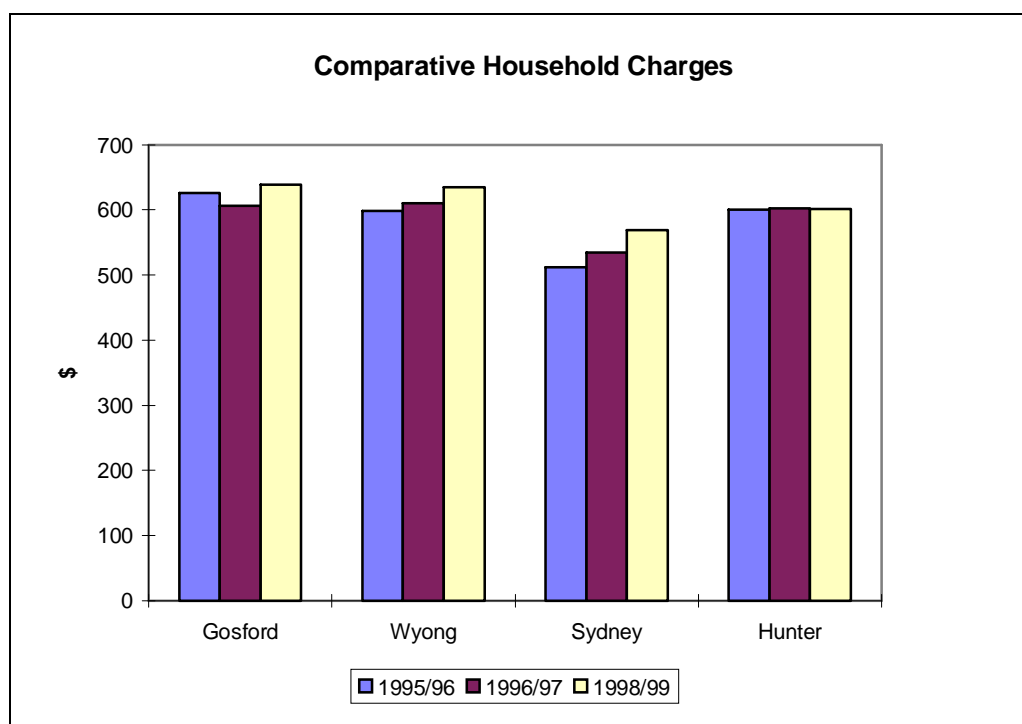
On this basis, the Tribunal believes its determination leaves the water and sewerage operations in a strong financial position while appropriately taking account of the interests of the customers. The Tribunal has a number of environment related concerns with Council's pricing policies and expects Council to address these issues in its pricing proposals for consideration in 1999 (see below).

6.4 Water and sewerage charges

At present the profitability of the sewerage operations is greater than the profitability recorded for the provision of water services. The reductions have therefore been weighted towards sewerage charges to reduce this discrepancy.

¹⁹ Refer to table on page 9

The following graph contrasts Council's proposed annual charges for a household consuming 220 kilolitres of water per year with the proposals of the other suppliers for 1995/96, 1996/97 and 1998/99.



Note: The CPI-3 per cent option has been applied in the case of Hunter Water Corporation.

The water, sewerage and drainage charges **proposed** by Wyong Shire Council and Sydney Water for the year 1998/99 are shown below:

Charge	Wyong	Sydney
Water		
- allowance/base charge	187	80
- excess/usage charge	13	187
sub-total	200	267
Sewerage	435 ²⁰	286 ²¹
Drainage	0	16
Total	635	569

The Tribunal's **determination** will reduce the 1998/1999 average residential charge in Wyong from the Council's preferred figure of \$635 (based on an average annual inflation rate of 3 per cent) to \$582.

Council's current kilolitre charge for excess water (above 200 kL) is 60 cents which contrasts with Sydney's proposed charge for 1998/99 of 85 cents for all water consumed.

The Tribunal expects Council to develop a proposal for the next price review which will eliminate the prepaid water allowance and move the usage charge closer to the marginal cost of supply.

²⁰ Wyong Shire Council treats all sewage to a secondary level

²¹ Sydney Water Corporation treats sewage discharged via ocean outfall to a primary level

6.5 Developer charges

In the June 1995 price determination for Wyong Shire Council²² the Tribunal noted that it had not been able to complete its investigations into prices for developer charges for the provision or upgrading of water supply and sewerage services. The outstanding issues were considered by an Industry Forum consisting of representatives of the Tribunal's secretariat, the water agencies, Government agencies, environment groups and the housing development industry. The Forum was to facilitate discussion between developers and water suppliers, enable them to reach agreement on a number of specific issues, and advise the Tribunal of significant outstanding issues.

Under the Independent Pricing and Regulatory Tribunal Act 1992, the Tribunal may set maximum prices or may determine a methodology for setting maximum prices. The Tribunal has chosen to determine a methodology for fixing the maximum prices for developer charges. The reasons for this decision have been outlined previously²³ and appear below.

“Developer charges are levied to recover water infrastructure costs incurred to service a large variety of developments. Individual price determination by the Tribunal could not cover the required diversity of developer charges. If agencies had to return to the Tribunal each time they received an application for an assessment of developer charges this would cause unworkable delays. The Tribunal would have to devote considerable time and resources to mechanically calculating charges, and would be completing work much better done by the agencies.”

“The Tribunal has stressed that developer charges must be calculated by a consistent and transparent methodology and recover efficient costs. However, it is impractical and inefficient to have the Tribunal do the great number of actual calculations and updates required. Developers include developer charges in their planning and investment decisions, they need a rapid response when applying for an assessment of charges. The NPV methodology will ensure agencies regulated by the Tribunal recover only the efficient costs of water and sewerage works, while allowing the actual calculations to be completed by the agencies in-house. The methodology will be applied in a transparent manner which can be tested by developers and monitored by the Tribunal.”

The parameters which are required to be determined by the Tribunal are:

- ◆ the holding charge (per cent)
- ◆ the discount rate (per cent) to be applied to new capital expenditure
- ◆ the forecast horizon for expected net revenue.

To ease the transition to the new developer charges methodology the Tribunal has determined that the holding charge should be set at zero. The discount rate has however been set at nine per cent consistent with the determination for Sydney Water Corporation. While a three per cent holding charge was determined for Sydney Water Corporation, it was applied to an existing asset base discounted by 40 per cent for assumed inefficiencies in construction. No similar discount has been applied to the existing assets of Wyong Shire Council's water and sewerage operations.

²² Government Pricing Tribunal, *Wyong Council Prices of Water, Sewerage and Drainage Services from 1 July 1995*, June 1995

²³ Government Pricing Tribunal, *Sydney Water Corporation, Prices of Developer Charges for Water, Sewerage and Drainage Services*, December 1995, p3

However, the Tribunal is concerned about the significant increase in developer charges calculated by applying the methodology. Such increases could have a severe impact on low cost housing and be beyond potential home owners ability to pay. The Tribunal has therefore moderated the impact by setting a ceiling at 85 per cent of any developer charge figure derived under the methodology.

Consistent with the determination for Sydney Water Corporation, the forecast horizon period has been set at 30 years. The three parameters determined by the Tribunal will be subject to review as part of the next price determination.

The new methodology applies from the date of this report for all new developments or stages of developments unless a compliance certificate has been issued by Council or Council has written a 'notice of requirements'.

6.6 Other charges

6.6.1 Septic tank effluent pump out and chemical closet removal services

The Tribunal's determination in June 1995 recognised that Council was not recouping the costs of providing these services to customers. Services are provided by private contractors which are selected on the basis of open tender. It is intended that charges should be increased in equal annual amounts to reflect the full cost of service provision.

6.6.2 Non-residential sewerage charges

The Tribunal's determination in June 1995 began to phase in usage pricing for non-residential sewerage customers. The impact analysis conducted last year showed significant variations in bills for some customers, hence the changes were to be phased in over five years. This determination continues that transition path.

6.6.3 Miscellaneous charges

Council has proposed a CPI - 1.5 per cent cap to miscellaneous charges. The Tribunal concurs with this change which is required because of changes in the costs of providing these services.

6.7 Other issues

6.7.1 Form of regulation

The attached determination shows the individual charges applicable from 1 July 1996.

The Inquiry into Water and Related Services²⁴ considered that the most appropriate form of price regulation for water and related services is a CPI±X cap applied to average revenue per property. The X factor is seen as providing a driver for continuing efficiency gains.

Therefore, for the 1997/98 and 1998/99 years Councils revenue per property will be adjusted by applying a factor of CPI-X, where X is 1.5. CPI will be the percentage movement in the Sydney Consumer Price Index for the twelve months to the March proceeding the date of application of the new maximum charges, ie. 1 July 1997 and 1 July 1998.

²⁴ Government Pricing Tribunal, *Inquiry into Water and Related Services*, October 1993

6.7.2 Capital works audit

In 1995 the Tribunal engaged Sinclair Knight Merz to audit the capital acquisition processes of the four metropolitan water suppliers. The audit found the capital work processes followed by Wyong Shire Council were generally sound. Council's proposed capital works program submitted for the purpose of price determination was not part of the review. As stated earlier the Tribunal has concerns over the size of the projected expenditure, particularly towards the end of the decade. The Tribunal believes a further audit of the figures projected rather than processes followed is warranted. This issue will be examined before the next price review.

6.7.3 Compliance

Compliance with Tribunal determinations is an issue that will need to be addressed under section 18 of the Independent Pricing and Regulatory Tribunal Act 1992. Council will need to provide evidence of compliance on an annual basis for the duration of the price determination.

7. NEXT PRICE DETERMINATION

In the absence of any major problems in the implementation of the price path the Tribunal's determination will continue for the next three years.

Issues to be covered as part of the next review include:

- ♦ the water allowance
- ♦ pricing anomalies between Council and other water suppliers (including the lower water usage charge for clubs and sporting bodies)
- ♦ application of the demand management framework
- ♦ sewer mining proposal
- ♦ Council's capital expenditure program
- ♦ principles of competition and access.

Thomas G Parry
Chairman
7 June 1996

Attachment - Other submissions

Submissions were received from:

Brisbane Water and Gosford Lagoons Catchment Management Committee

- ◆ In approaching pricing and valuation issues, the Committee is guided by the need to implement sustainability, and the key role that improved valuation, pricing and incentive mechanisms play.
- ◆ Environmental factors should be fully included in the valuation of resources, assets and service, using principles outlined in policy documents. For example
 - * Polluter pays ie those who generate pollution and waste should bear the cost of containment, avoidance, or abatement.
 - * The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the disposal of any wastes.
 - * Environmental goals having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.
- ◆ Committee's concern is for expanding the scope for integration of environmental, economic and social concerns.

Department of Fair Trading, NSW

Council has been under pressure from the Tribunal to lower the price of water. It is understood the drive for this comes from current debt reduction being greater than the Tribunal believes is necessary. Lower pricing may act against the water conservation policies implemented by Council.

While equity in intergenerational debt transfer should continue to be sought, because many of the fiscal and technological indicators/mechanisms change over time, an optimum solution for debt transfer may be illusory. The Department recognises the Tribunal's intention to ensure that today's customers do not pay a higher than necessary price. The question is will reducing the total debt at a faster rate than fiscally necessary cause a greater distortion than decreasing the price.

The department recommends:

- ◆ Before any future price determination is made Council should provide
 - * local elasticity demand for water
 - * time frame for depreciation of current capital equipment
 - * expected maintenance cost over life of the resource
 - * capital costs and expected depreciation rates associated with the introduction of new capital equipment
 - * when the capital equipment is likely to be introduced.
- ◆ Council consider retro-fitting low pressure, low volume usage systems for low income group (cost to be made explicit in any future pricing strategy).

- ◆ Council examine whether groups disaffected by a move to a full 'user pays' policy could be compensated by a reduction in general council rates or through other types of Council transfer payments.
- ◆ To minimise cross-subsidy between customer classes, Council consider the introduction of a rebate scheme to provide customers with the incentive to conserve water.
- ◆ The 1997/98 pricing proposal could contain a survey of consumer preferences re the water allowance and a move to a full user pays system, and incidence effects of each pricing proposal (with strategies to deal with those adversely affected).
- ◆ Council consider the implementation of a guarantee of service.

Environment Protection Authority

- ◆ Commend Council on the demand management and sewage re-use policies being pursued.
- ◆ Issue of most concern is the water allowance.
 - * Without appropriate price signals, consumption decisions of consumers and the investment and operations decisions of industrial and commercial enterprises will be distorted (from an optimal use of society's resources).
 - * A water allowance is a very blunt tool to protect public health. In cases of financial hardship assistance could, and should, be provided in more targeted ways.
 - * Fears of a 'brown environment' are not supported by experience in the Sydney and Hunter regions. As long as people perceive that the benefits of applying water to nature strips, reserves and gardens outweigh the costs, these areas will still receive water.
 - * The fact that water usage on the Central Coast compares favourably with other areas does not imply that significant savings could not be made by removing the allowance. Currently only the last 11 per cent (on average) of water consumed attracts a usage charge. Even if water consumption was only reduced to the level prevailing in the Hunter, this would still represent a 'no-regrets' improvement of 5 per cent.
- ◆ The EPA supports the introduction of a two part tariff to reflect the full cost of service provision including environmental costs.

Peak Environment Groups, NSW

- ◆ No immediate five year price determinations

There is no evidence that agencies are in a position to allow removal from public scrutiny for more than one year. Important issues need to be examined: re-use markets; water conservation; implementation of previous Tribunal recommendations; ecologically sustainable development (ESD).
- ◆ Setting a framework for achieving ESD

Environment groups wish to know what steps the Tribunal has taken to meet the Section 15 requirements of its Act, especially regarding ESD.
- ◆ The need to remove pricing barriers to competition

- * Support a uniform water, sewerage and drainage pricing terminology across agencies. The Tribunal is requested to create one set of terms for water, sewerage and drainage pricing in NSW.
 - * Insert new, and amend existing, pricing categories as outlined in Attachment 1 of submission.
 - * Remove current price barriers to competition. Pricing may create barriers to recycling, reuse and customer self sufficiency.
 - * Insert a new category of pricing for sewer mining. The Tribunal should recommend a zero or 'at cost' price for sewer mining as an incentive for re-use schemes.
- ◆ Issues relating to fixed charges
 - * Fixed charges for water, sewerage and drainage should be reduced. There needs to be greater clarity in the rationale for arriving at the current fixed charges.
 - * The Tribunal should continue to oppose a prepaid water allowance within fixed charges.
 - ◆ Demand management

All water agencies should move toward a single price for water. Water restrictions should be maintained, particularly given community education objectives.
 - ◆ Evidence required before price determination

The environment groups would like access to further information which they consider essential if they are to maximise their limited resources and continue to make submissions.



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/96/02
Determination: No 4, 1996
Agency: Wyong Shire Council
Services: Water supply, sewerage and drainage services.

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

Order dated 27 August 1992 - page 6431, Gazette No. 105

Maximum prices determined under Section 14 of the Act to be charged from 1 July 1996 for water, sewerage and drainage monopoly services (excluding water supply and sewerage developer charges for the provision or upgrading of water supply and sewerage services for new developments).

1. 1996/97 Charges

(a) Water Supply:

(i) Water Base Charges

The maximum annual water base charges for residential, commercial, industrial and exempt properties are the metered base charges applicable to the property and, where applicable, the unmetered fire service base charges. The maximum annual water base charges for combined fire services and water services are the higher of the two charges as they appear below:

Size of Service for Water Usage mm	Meter Charge \$	Water Fire Service \$	Fixed Charge \$
20	156	176	20
25	243	176	20
40	624	176	20
50	975	264	20
80	2,496	644	20
100	3,900	995	20
150	8,775	2,214	20

Charges for meters in excess of 150mm are calculated on the proportional increase in the area of connection when compared to a 20mm, plus a fixed charge of \$ 20.

Unmetered fire services in excess of 150mm are charged 25% of the comparable meter charge as shown above, plus a fixed charge of \$ 20.

The annual water base charge for each unit within a strata development is not to exceed \$ 176.

The annual water base charge for vacant unconnected land is not to exceed \$ 176.

(ii) Water Usage Charges

The maximum water usage charge for consumption up to 0.55 kilolitres a day for individual assessments is zero. The maximum water usage charge for consumption in excess of 0.55 kilolitres is 60 cents a kilolitre. The maximum water usage charge for fire services is zero.

Where a water meter is attached to service a community title property, the service charge is based on an availability charge commensurate with the size of the meter and this charge is apportioned to the various lots in the community title plan in accordance with the schedule of unit entitlement. Excess usage on the combined entitlement is charged at the rate of 60 cents per kilolitre.

The charge for water supply to golf clubs, lawn bowling clubs and clubs utilising water to maintain public sporting facilities is 47 cents per kilolitre.

Power stations are charged the applicable base charge with the charge for all waster consumed in excess of the allowance set at 77 cents per kilolitre.

(b) Sewerage

Residential Sewerage Charges

The annual residential sewerage charge is not to exceed \$ 378. (See comments below on non-strata retirement villages and non-strata units.)

Non-Strata Titled Retirement Villages

The maximum sewerage charge is to be \$ 76 for each unit.

Non-Strata Flats

The maximum sewerage charges are to be the lesser of :

0.445 cents in the dollar on the land value plus \$ 150 for each unit

or

A charge of \$ 378 per unit.

Non-Residential Sewerage Charges

The maximum charges for sewer base charges are:

Meter Size (mm)	\$
20	136
25	212
40	544
50	850
80	2,176
100	3,400
150	7,616

The maximum price for sewer usage charges is 65 cents per kilolitre.

The above sewer usage charge is multiplied by a discharge factor. The discharge factor is the assessed percentage of water purchased from Wyong Shire Council which is discharged into the sewer.

The minimum amount payable by a non-residential customer is \$ 378.

The maximum amount payable for sewerage services by a non residential customer is to be determined by the following formula:

$$S_{(1)} = S_{(0)} + ((X - S_{(0)})/4)$$

where:

$S_{(1)}$ = the maximum annual sewerage charge applicable from 1 July 1996.

$S_{(0)}$ = the applicable charge as at 30 June 1996.

X = the charge calculated using the above sewerage base and usage charges.

Sewerage Service Fees Exempt Properties

1. The charge for sewerage services rendered in respect of :

A Land which belongs to a religious body and which is occupied and used in connection with

- i any church or other building used or occupied for public worship
- ii any building used or occupied solely as the residence of a minister of religion in connection with such church or building

iii any building used or occupied for the purposes of religious teaching or training.

Or

iv any building used or occupied solely as the residence of the official head or the assistant official head, or both, of any religious body in the State or in any diocese in the State.

B Land which belongs to and which is occupied and used in connection with any school including any playground which belongs to and is used in connection with any such school, and any building occupied as a residence by a caretaker, servant or teacher of any such school which belongs to and is used in connection with the school.

Is \$ 26 per annum for each water closet on the premises. In any case where a urinal is installed an additional charge of \$ 19 per annum for each cistern serving such a urinal may be levied.

2. The charge for sewerage services rendered in respect of:

A Lands, other than the lands referred in 1A belonging to a religious body which are not rateable.

B Lands, other than lands referred to in 1B owned by the Crown, which are not rateable.

Is \$ 51 per annum for each water closet on the premises. In any case where a urinal is installed and additional charge of \$ 19 per annum for each cistern serving such a urinal may be levied.

Effluent Charge

The maximum charge for the sewerage charge known as "effluent charge" is not to exceed \$ 579.

Sanitary Charge

The maximum charge for the sewerage charge known as "sanitary charge" is not to exceed \$ 787.

(c) Trade Waste Services

Trade waste discharges are grouped into two categories.

Category A

Discharge of high strength chemical wastes with parameters greater than acceptable standards.

Category B

Discharges which fall into the following categories:

1. Any club, hotel, motel caravan park or hostel which has a kitchen
2. Restaurants and cafes
3. Butcher shops
4. Garages and workshops
5. Concrete batching plants and any light industry requiring pre-treatment of sewer wastes

Premises listed under Category B shall be registered and inspected annually by Council staff and should the equipment be found to be improperly maintained a re-inspection fee shall apply. The annual fee for these premises is based on the cost to Council to carry out the above service.

Premises listed under Category A shall be visited twice annually with samples being collected and tested according to agreement conditions. If quality of trade waste or volume is outside agreement conditions, owner or occupier of premises will be immediately requested by Council to cease disposing of trade waste to within the agreement conditions the waste is to be re-sampled and analysed. If results meet the agreement conditions, the owner will be notified that trade waste may be disposed of to the sewer.

	Charge	Comment
Volume	38	cents per kilolitre
BOD	64	cents per kilolitre
SS	52	cents per kilogram
Oil and grease	\$1.29	dollars per kilogram
Annual licence fee	\$295.00	includes inspection fee
Re-inspection Inspection fee	\$41.00	inspection of oil arrestors ¹

1 With water consumption less than 2,00 kilolitres per year. Inspection of premises plus collection of sample

(d) Recoverable Works

The maximum amount charged for recoverable works will be the direct cost plus internal overheads in accordance with the charge out rates published annually by Wyong Shire Council.

(e) Other water supply and sewerage services for which no alternative supply exists

The maximum price for these charges are listed in the attachment.

In 1997/98 and 1998/99 these charges may be adjusted by a factor of CPI - 1.5 per cent.

CPI is the increase in the average all-groups CPI for Sydney for the four quarters to March on the average index value for the four quarters to the previous March.

2. 1997/98 and 1998/99 Charges*(a) Maximum revenue formula applicable in 1997/98 and 1998/99*

In the 1997/98 and 1998/99 years Council can adjust the above core revenue charges providing its average core revenue per property does not exceed the figures calculated by the following formula:

Maximum average core revenue per property 1997/98=

(Estimated average core revenue per property in 1996/97)*(CPI - 1.5%)

Maximum average core revenue per property 1998/99=

(Estimated average core revenue per property in 1997/98)*(CPI - 1.5%)

Where:

Core revenue equals income from periodic water and sewerage charges;

and CPI is the increase in the average all-groups CPI for Sydney for the four quarters to March on the average index value for the four quarters to the previous March.

For effluent and sanitary charges, being phased to the real cost of service provision, the following adjustments are to be made:

Maximum charge for the sewerage charge known as:

Effluent charge = \$636 in 1997/98

= \$712 in 1998/99

Sanitary charge = \$934 in 1997/98

= \$ 1,129 in 1998/99

Methodology for the determination of maximum prices under Section 14A of the Act for water supply and sewerage developer charges for the provision or upgrading of water supply and sewerage services for new developments.

The reasons the Tribunal has chosen to make this determination by setting a methodology in terms of section 13A(1)(b) of the Independent Pricing and Regulatory Tribunal Act, 1992 are set out in Attachment 2 of this determination.

The determination is as follows:

1. A Net Present Value (NPV) methodology is to be used by Wyong Shire Council to calculate developer charges for water and sewerage infrastructure works.
2. Details of the methodology are set out in the guidelines in Attachment B to this determination.
3. The methodology applies from the date of Gazettal of this determination for all new developments or stages of developments unless:
 - a) a development consent has been issued by Council in accordance with Section 91 of the Environmental Planning and Assessment Act, 1979. Such consent incorporating relevant water and sewerage charges/conditions advised in accordance with Section 27 of the Water Supply Authorities Act, 1987.
 - b) Wyong Shire Council has advised charges/conditions in accordance with Section 27 of the Water Supply Authorities Act, 1987.
4. The parameters of the NPV calculation for Wyong Shire Council are:
 - a) A zero (0 per cent) discount rate on existing assets
 - b) A nine percent (9 per cent) real discount rate on future assets
 - c) A forecast horizon for expected net revenue of 30 years
5. Developer charges are to be capped at 85 per cent of the charge calculated under the methodology.

Thomas G Parry
Chairman
7 June 1996

Attachment 1

ITEM	\$
1. Septic and sewer applications	
1.1 Septic Tank - Design. For preparation of septic tank design layout for one WK.	66.00
1.2 Septic Tank - Permits	122.00
1.3 Sewerage Drainage Arrestor. Each - then \$25 per annum for inspection	82.00
1.4 Sewerage Junction Repairs/ Additional. Minimum (Estimate provided on application)	326.00
1.5 Plumbing and Drainage Inspection -	
Single dwellings/villas & units/ commercial & industrial Application fee including max. 2 inspections	122.00
Alterations/Caravan Parks & Mobile Homes for 1 unit Application fee including max. 2 inspections	61.00
Additional inspections	46.00
1.6 Sewer Mains Encasement - Inspection Fee	76.00
1.7 Sewer Drainage- Diagram (external)	20.00
Sewer Long Section	20.00
1.8 Sewer Connection Diagram (internal)	20.00
1.9 Sewerage Advance Scheme- Administration Charge	200.00

ITEM	\$	
2. Water		
2.1 Water Carter's Licence (per vehicle) - Per quarter plus usage at excess water charge	92.00	
Standpipe Bond	600.00	
Water usage charge for all water drawn from standpipes per kilolitre	0.60	
2.2 Water Pressure Test	61.00	
2.3 Water Charges Certificate (Section 41) - on application	26.00	
2.4 Special Reading Fee	46.00	
2.5 Meter Testing Fee	56.00	
2.6 Water Sample Analysis -for water quality testing of private supplies	61.00	
2.7 Water Service Applications (1st water service and meter to residential allotments)		
20mm Payable on submission of Building Application.	550.00	
New subdivision where developer has extended service 300mm into property	112.00	
2.8 Raise/Lower/Adjust Existing Service -20mm service only (no materials required)	102.00	
2.9 Alteration from Dual Service to Single Service	306.00	
2.10 Relocate Existing Service		
Short	255.00	
Long	398.00	
2.11 Disconnection of Existing Service	100.00	
2.12 Water Service Applications (other than residential allotments) (includes Meter)		
Size	Short	Long
	\$	\$
20mm	550.00	550.00
25mm	663.00	663.00
40mm	1,224.00	1,580.00
50mm	1,734.00	2,132.00

Attachment 2:**The Tribunal's preferred methodology for the determination of developer charges**

Under the Independent Pricing and Regulatory Tribunal Act, 1992, the Tribunal may set maximum prices or may determine a methodology for setting maximum prices. Section 14A lists a range of additional matters the Tribunal must take into account when setting a methodology. The Tribunal has chosen to determine a methodology for fixing the maximum prices for developer charges. In accordance with Section 13A(3) this section explains the reasons for this decision.

Developer charges are levied to recover water infrastructure costs incurred to service a large variety of developments. Individual price determination by the Tribunal could not cover the required diversity of developer charges. If agencies had to return to the Tribunal each time they received an application for an assessment of developer charges, this would cause unworkable delays. The Tribunal would have to devote considerable time and resources to mechanically calculating charges, and would be completing work much better done by the agencies.

The Tribunal has stressed that developer charges must be calculated by a consistent and transparent methodology and recover efficient costs. However, it is impractical and inefficient to have the Tribunal do the great number of actual calculations and updates required. Developers include developer charges in their planning and investment decisions, they need a rapid response when applying for an assessment of charges. The NPV methodology will ensure agencies regulated by the Tribunal recover only the efficient costs of water and sewerage works, while allowing the actual calculations to be completed by the agencies in-house. The methodology will be applied in a transparent manner which can be tested by developers and monitored by the Tribunal.

Attachment 3:

Guidelines for methodology to be used in calculating developer charges

Introduction

In its Final Report, Inquiry into Water and Related Services, the Tribunal emphasised the importance of ensuring that developer charges reflected the costs of providing water and waste-water infrastructure for urban development. In the absence of recurring charges which vary between different locations to reflect the 'true' costs of providing such services, up-front developer charges need to:

- provide better signals for resource allocation and usage
- provide better signals to reflect the environmental effects of urban development
- ensure the financial viability of extensions of urban water infrastructure.

However, the Tribunal is also mindful of the possible effects of such up-front charges on housing affordability. In setting the parameters for the calculation of developer charges the Tribunal will have regard to management of the impacts on affordability while ensuring that the charges provide a clear signal on the relative costs of urban development.

The Tribunal's Final Report endorsed in principle the use of the net present value (NPV) approach to the calculation of developer charges. In order to provide the framework for the implementation of the NPV method for calculating developer charges, the Tribunal:

- will from time to time set key parameters such as cost of capital, efficiency adjustment factors for asset values and the period of the analysis
- has published these guidelines for the calculation of developer charges
- has established the Developer Charges Forum to advise on issues associated with the calculation and levying of developer charges.

These Guidelines, which form the basis for calculating developer charges, should be read with reference to the principles outlined in the Tribunal's report 'Inquiry into Water and Related Services', October 1993.

The starting point is the principle that, subject to the need to maintain housing affordability, new development (and redevelopment) should meet the full efficient cost of the infrastructure provided for the development through either developer charges or annual charges. In general this objective is met by developers' constructing local distribution systems and paying for their share of off-site infrastructure works to service the development (allowing for future net annual revenues). In calculating developer charges the following factors need to be taken into account:

- major infrastructure works (existing or planned) serving the development,
- assets to which any new development should contribute and the proportion of those assets serving the development
- value of the infrastructure
- risk borne by the authority that is providing the infrastructure and the appropriate return to cover this risk
- contribution, in the form of future net annual charges, which will be paid by future occupiers of the development towards the efficient cost of infrastructure works less the

future expected annual operating, maintenance and administration costs of providing water related services. (This contribution must be deducted from any upfront charge.)

- the impact on housing affordability of applying a developer charge.

Coverage of methodology and guidelines

The NPV methodology and these guidelines are to be used by Sydney Water (SWC), Hunter Water (HWC), Gosford City Council and Wyong Council. Subject to any specific limitations included in the Tribunal's determinations for each agency, the NPV methodology is to be used for

1. all new developments from the date of the Tribunal's endorsement of these guidelines for use
2. all redevelopments from the date of endorsement of these guidelines for use, and
3. existing staged developments other than in respect of stages where a current development approval has been issued by the authority.

In the interests of equity, current charges should be used for existing developments (ie. developments or stages of development for which a relevant approval was issued prior to the date of endorsement of these guidelines and such approval is still current).

The Tribunal may set different parameters for the NPV model for each of the authorities. This will provide a necessary degree of flexibility in the model's application.

Maximum prices

Charges calculated using this methodology are maximum prices (Section 13A and Section 14A of the Independent Pricing and Regulatory Tribunal Act 1992). The authority and developer can negotiate a charge below this maximum charge. In these circumstances, the Treasurer must agree to the negotiated charge (Section 18 (2) of the IPART Act).

This could be achieved through specific case-by-case approvals. Alternatively, a more general approach for negotiation within defined limits may be possible.

Relationship to price paths and annual determinations

Existing developer charges are not the subject of review in accordance with these guidelines. An existing developer charges would exist where a consent approval for the development or stage has been issued by the water authority as at the date of endorsement by the Tribunal of these guidelines. Adjustments to existing developer charges will be made in the annual determinations and/or medium term price paths.

Calculation of developer charges using the net present value (NPV) approach

The net present value approach calculates the developer charges as:

- the cost of the assets used to service the development
- less the future net operating profits (or losses) expected to be derived from providing services to the development area.

The components of this calculation are as follows:

- K** - the capital charge for the existing or future assets calculated on a NPV basis which will serve the development or release area (see section 6.4)
- R_i** - the future periodic revenues expected to be received from customers in the development area in each year (i)
- C_i** - the future expected annual operating, maintenance and administration costs of providing services to customers in the development area
- r** - the cost of capital to be used in the calculation of the net present value of future revenues and costs
- n** - the forecast period for the assessment of future revenues and costs.

The definition and derivation of each of these components is discussed in detail below. The developer charge (DC) is calculated from estimates of each component as follows:

$$DC = K - NPV_r(R_i - C_i) \text{ for } i = \text{years } 1, \dots, n; n \leq 30$$

This charge is assessed for the development as a whole. Calculation of this charge requires estimates/projections of:

- the efficient cost of existing and proposed assets servicing the development
- the amount and timing of any investment in new infrastructure required to be built or advanced in timing due to the development
- the take-up rate of lots in the development and the take-up of asset capacity
- future annual revenues and costs per equivalent tenement (ET) or other appropriate charging criteria (eg hectare).

The following sections describe each of the components of the calculation in more detail and provide guidelines for the estimation or projection of costs and revenues.

Assessment of asset costs

Identification of relevant assets

Water authorities may seek to obtain contributions for providing, extending or augmenting services which the developments will, or are likely to, require. In assessing the costs of assets to be included in the developer charge, water authorities shall demonstrate that there is a nexus between the development and the assets which are to serve that development. These assets should be clearly identified in the Development Servicing Plans described in Section 12 of these guidelines. The efficient cost of these assets should be taken from an asset register or other source acceptable to the Tribunal (Such costs may be expressed as a cost per equivalent tenement (ET)).

Assets which are provided to service the development may be assets:

- which were already in the ground prior to the implementation of this methodology,
- constructed after the implementation of this methodology but prior to the commencement of the development, or
- which are constructed or to be constructed after the development.

Valuation of existing assets

Assets should be valued on the basis of replacement, or modern equivalent asset, costs. As a transitional measure, a reasonable proxy of these costs may be used. Where necessary, proxies for replacement costs may be established by:

1. the Tribunal setting adjustment factors to be applied to a utility's initial construction costs, or
2. the utility undertaking case studies to estimate relativities between initial construction costs and replacement costs. The case studies and estimates would be subject to external, independent review and discussion with relevant parties.

However, the Tribunal is concerned that such estimates should reflect the least cost and most efficient means of providing the service.

Where MEA costs are used, cost estimates should be based on the provision of the same quality of service using a modern equivalent asset within an optimised system design. The MEA value will vary from indexed historical costs as a result of relative productivity improvements due to technological change, variations between planned and actual urban development patterns and densities, and any past sub-optimal investment or development decisions. The values should not automatically assume the replacement of the assets in the same form or configuration. The Tribunal is concerned to ensure that prices reflect efficient costs. Where asset values based on actual costs exceed efficient costs, given today's knowledge and technology, asset values should be reduced accordingly.

The revision of asset values to MEA may create disincentives for the authorities to develop new technologies where these would devalue some of their current assets unless the anticipated rate of technological change is incorporated into the model.

In calculating the value of existing assets, the cost of design, construction and administration should be included.

The Industry Forum on Developer Charges will provide an opportunity for discussion and agreement on a set of efficient costs and may maintain a register of suitable unit costs for assets as a reference point for calculation of developer charges contributions.

Apportionment of assets

In respect of assets shared by a number of development service plans or forming part of a system, it is necessary to calculate the relevant capital charge for the system based on expected system utilisation estimates. The per unit capital charge can then be applied to each development on the basis of the expected capacity utilisation within the development. Typically, each asset will need to be assessed in terms of its design criteria and the calculated demand for the area to be serviced by it.

Calculation of capital charge to the development for existing assets

Given the estimate of the value of the assets, a capital charge may be calculated as follows:

- Estimate the period for full take-up of asset capacity. If information is readily available, actual take-up rates to date should be used. If not, the water authority could use an average based on similar release or development areas' take-up rate or other (better) estimates if available. An estimate of the take-up of existing unused capacity should also be made.

- Estimate the capital charge per ET (or hectare) necessary to equate the net present value of the stream of charges which would be derived from annual per ET (or hectare) charges and the costs of the assets.
- Calculate the charge for the development by multiplying the per ET (or hectare) charge by the number of ETs (or hectares) proposed in the development.

The Tribunal will set the cost of capital. A real cost of capital will be used and the resultant per ET (or hectare) charges may be indexed by the average increase (or decrease) in annual charges determined by the Tribunal.

Where:

1. the full capacity of an asset will be taken up by a development; or
2. the period of development covered by the DSP includes the full take-up period for the relevant asset,

the same calculation can be achieved through the following steps:

- The capital cost of the assets are fully assigned as a cost for the number of ET's in the DSP.
- The capital charge per ET is the NPV of a stream of projected contributions predicted by the DSP.
- The charge per ET may be iterated or calculated as the capital cost divided by the NPV of the ET take-up rate.

Exclusion of existing assets

In general, all assets providing services to the development should be included when calculating developer charges. The costs of an existing asset should be excluded from the calculation of developer charges:

1. if its capacity is unlikely to be fully utilised over the planning horizon relevant for that asset, or
2. if the required capacity was created before 1970, or
3. if capacity was made available by changes in land use patterns.

Exclusion due to excess capacity will occur most commonly in the case of infill development in long-established areas. If an asset was constructed to service earlier development and changes in land use have made surplus capacity¹ available then it is appropriate to delete the asset from any subsequent contribution calculation. This will reduce the contributions payable for developments utilising these assets and encourage the use of under-utilised assets.

Estimation of costs of assets yet to be constructed

Two methods are available for inclusion of the costs of assets yet to be constructed. In either case it is essential that feasible options for meeting future needs be examined, including pricing and demand management options, and that the lowest cost alternative be chosen. In the first case, the assets may be specific to the development or related developments. In such cases, it may be assumed that if the development did not proceed, the assets would not be built. In other cases, such as dams, the expenditure is driven by

¹ "Surplus capacity" exists where the asset has capacity which is unlikely to be fully utilised over the relevant planning horizon.

growth widely dispersed throughout the system. In such cases, the development may affect the timing of the expenditure rather than whether the expenditure will occur at all.

In the first case the expected future expenditures would be included in the stream of future incomes and expenditures and discounted back to current values. If the assets will serve more than the area covered by the development, the capital charge applicable to the whole asset should be apportioned on the basis of the share of the capacity of the assets expected to be taken up by the development.

In some cases the development may temporarily use the capacity of an existing asset before construction of a new asset has been completed. If so, inclusion of the costs of both the existing and new assets would result in double counting. Only the costs of the new assets should be included.

Where the assets are part of a more general expansion of the system (i.e. the second case), the effect of a decision to proceed with development or not may be to alter the timing of the expenditure. In such cases, expected expenditures should be included using the second method which involves:

1. estimating the extent to which the development would bring forward the timing of the expenditures, compared with the timing if this development did not proceed
2. calculating the difference in the net present value of the expenditures due to the change in the timing of the expenditures
3. including the calculated cost as a cost to the development only if it exceeds the cost of any equivalent existing assets used by the development. The costs of the comparable existing assets would be excluded from the calculation.

In practice, standard per ET (or hectare) factors could be calculated for major planned works to avoid the re-calculation of steps 1 and 2 for each development.

Step 3 is necessary to avoid the double counting which would occur if the costs of both existing assets and the additional NPV cost for advancing future assets were included.

Demographic assumptions

Demand for services will, in part, be driven by assumptions on population growth and density (eg occupancy rates). Forecasts of population and densities should have regard to the latest projections published by the NSW Department of Urban Affairs and Planning for the same or a comparable local government area. Demographic assumptions used should be locality specific (eg at the LGA level) for local works and system wide (eg for all Sydney) for headworks such as dams and treatment plants.

Demand projections

Projections of the demand for water per household or discharges of waste water should have regard to corporate goals and objectives and estimates of future costs and revenues. This includes targets or objectives included in licence agreements or corporatisation frameworks.

Projection of operating costs

The operating, maintenance and administration costs (excluding depreciation and interest) of providing services to a development area should be based on the most efficient and lowest cost means of providing the services. The calculations should assume that current service standards will continue rather than anticipate possible increases in service standards. Subject to the Tribunal passing through costs, the costs of meeting higher standards will be recovered through periodic charges.

The costs should reflect costs associated with the specific services provided. System-wide averages should not be used if the costs of providing services to the development area vary significantly from the system-wide operating, maintenance and administration costs,

Projection of operating revenues

Operating revenues should be projected on the basis of the efficient operation of the authority's assets to best meet the needs of its customers given current service standards. On this basis, additional revenues to fund future backlog sewerage programs, for example, should be excluded. Unless differential charges have been approved by the Tribunal, it should be assumed that residential charges are uniform across the region of operation.

The Tribunal will set the parameters to be used for the projection of future revenues by each authority. These will incorporate the 4-5 year price paths to be agreed with each authority and take into account the structural changes for prices proposed in the Tribunal's report, *Inquiry into Water and Related Services*.

Estimates of future revenues will also depend on projections of future lot take-up in the development area. These will necessarily be specific to each proposal.

Discount rate

The Tribunal may set different cost of capitals for each water supplier. The real cost of capital will contain two components:

1. the risk free cost of capital. A proxy for this may be the Commonwealth bond rate or an indexed bond benchmark,
2. the business risk to the authority of providing infrastructure for future urban development which may vary.

In providing infrastructure prior to development, authorities face a number of uncertainties. These include the rate of connection, the cost of construction, and interest rates. To compensate authorities for accepting these risks, a risk adjusted return on capital investment should be built into developer charge calculations.

Typically, this return should represent the risk taken by the authority. Where the authority reviews charges regularly, for example, every five years, the risk factor should be less than for an authority which sets a charge (adjusted only for inflation) for the life of a scheme. The return on existing assets will be less than that on new assets.

Period of analysis

Future operating costs and revenues should be projected over a 30 year period. Theoretically, operating revenues and costs could be projected over the life of the assets. In

practice, a 20 year period is a long period for the analysis of a return on investment. However, in recognition of the long planning cycles and asset lives, the Tribunal considers that the inclusion of future incomes and expenditures should extend out beyond the twenty years. The discounting of future values reduces the impact of forecast errors, the further out in time these errors occur.

Adjusting for impacts

The impact of calculated developer charges will depend primarily on the valuation and treatment of past assets. It seems that, for some developments, the charges calculated using the methods outlined in these guidelines would be higher than those currently charged.

The Tribunal is concerned that developer charges should provide signals on the relative costs of servicing urban development. However, it is also concerned about the effect on housing affordability and needs to balance competing interests.

The Tribunal may seek to manage these impacts through transitional adjustment arrangements.

This adjustment may vary between authorities reflecting concerns with regard to the relative impacts of the charges.

Transparency

The Tribunal wishes to establish mechanisms which ensure that developer charges are fair and transparent. Transparency in the water authority's processes for calculating developer charges will assist in reducing the extent of regulation required and the likelihood of disputes.

In order to provide a transparent approach the Tribunal requires that, at a minimum, the water authorities provide the following information for each development.

The water authority is to prepare a Development Servicing Plan (DSP). The DSP is to specify, amongst other things:

- a summary of the contents of the DSP
- relevant land use planning information
- the extent of the catchment/supply zone
- the extent of services required to be staged over the anticipated development period
- estimates of future capital and operating costs
- standards of service that will be provided and design parameters
- estimates of lot and dwelling production including demographic assumptions
- timing of works and expenditures related to anticipated development and demographic assumptions
- the calculated developer charge and how it is projected to move through time
- a reference to other relevant DSPs.

The water authorities are to allow developers access to the models used in calculating the charge and provide copies to local councils and development industry associations.

Once the relevant approval has been issued, the calculated developer charge is to be registered with the Tribunal and should be published in an appropriate document at least annually.

Dispute Resolution

The Tribunal prefers that appeals be avoided as much as possible through a transparent and consultative process. These guidelines, in conjunction with the transparency requirements and the Industry Forum provide such an approach.

Despite this, it is possible that a developer may wish to appeal the charge levied by the water authority. A developer who is dissatisfied with how an agency has calculated a developer charge has a right to have the dispute arbitrated under section 31 of the Independent Pricing and Regulatory Tribunal Act 1992. The dissatisfied developer should first complain to the agency and the chief executive officer of the agency is to have the complaint reviewed. The developer, if still dissatisfied, may require the matter to be decided by an arbitrator whose decision is binding. (Copies of relevant section of the Act are attached).

The Water Industry Forum strongly supported having mediation available as an option for customers. The Tribunal supports the Forum's unanimous view that mediation should be available to the parties if they so wish. The Forum will compile a panel of possible mediators and will recommend to its constituents that they attempt mediation as a preliminary step to resolve any disputes.

Extracts from Independent Pricing and Regulatory Tribunal Act, 1992**Determination of methodology for fixing prices**

14A. (1) A determination of the Tribunal of the methodology for fixing the price for a government monopoly service may be made in any manner the Tribunal considers appropriate.

(2) In making such a determination, the Tribunal may have regard to such matters as it considers appropriate, including, for example, the following:

- (a) the government agency's economic cost of production;
- (b) past, current or future expenditures in relation to the government monopoly service;
- (c) charges for other monopoly services provided by the government agency;
- (d) economic parameters, such as:
 - (i) discount rates; or
 - (ii) movements in a general price index (such as the Consumer Price Index), whether past or forecast;
- (e) a rate of return on the assets of the government agency;
- (f) a valuation of the assets of the government agency;
- (g) the effects of pricing on environmental outcomes (including the sustainability of eco-systems) and the use of natural resources by the government agency.

Matters to be considered by Tribunal under this Act

15. In making determinations and recommendations under this Act, the Tribunal is to have regard to the following matters (in addition to any other matters the Tribunal considers relevant):

- (a) the cost of providing the services concerned;
- (b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services;
- (c) the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales;
- (d) the effect on general price inflation over the medium term;
- (e) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers;
- (f) the protection of the environment (within the meaning 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;
- (g) 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;
- (h) 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.

Disputes regarding application of determination of methodology

31. (1) A customer who is dissatisfied with the way in which a government agency applies the methodology in a determination referred to in section 14A may complain to the agency.
- (2) The chief executive of the agency is to review the complaint or cause it to be reviewed.
- (3) The customer, if still dissatisfied, may request the agency that the matter be reviewed by way of arbitration by an arbitrator, who is to be appointed by agreement between the customer and the agency. The agency is, subject to this section, to comply with any such request.
- (4) Costs of the arbitration are to be borne equally by the agency and the customer.
- (5) The regulations may exclude classes of determinations from the operation of this section and may make provision for or with respect to reviews and arbitration under this section, including:
- (a) the times within which complaints and requests are to be made;
 - (b) the circumstances in which complaints and requests may be dismissed without consideration;
 - (c) the determination of costs of arbitration.
- (6) Subject to this section and the regulations, the Commercial Arbitration Act 1984 applies to any such arbitration.



**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/95/02

Report: No 4.1, 1996

Agency: Wyong Shire Council

Services: Water supply and sewerage developer charges for the provision or upgrading of water supply and sewerage services for new developments.

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

Order dated 27 August 1992 - page 6431, Gazette No. 105

Background

In Report No 2, 1995 on the determination of maximum prices for Wyong Shire Council from July 1995, the Tribunal indicated that it had not completed its investigations of prices for water supply and sewerage developer charges for the provision or upgrading of water supply and sewerage services for new developments. Those issues were to be the subject of a separate report and determination at a later date.

The Tribunal has now considered the determination of maximum prices for such developer charges with its investigations of a medium term price path for water supply, sewerage and drainage prices for Wyong Shire Council from July 1996. These matters are contained in Report No 4.2, 1996 and Determination 4, 1996.

Accordingly the Tribunal will not be making a determination on developer charges under this matter.