



caring for our
community and the
environment

HUNTER WATER CORPORATION

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Dr Michael Keating AC
Chairman
Independent Pricing and Regulatory Tribunal
PO Box Q290
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Dear Dr Keating

Michael

BULK WATER PRICES FROM 2006/07

Enclosed is Hunter Water Corporation's submission to the current bulk water price review.

The main points of the Corporation's submission are:

- Hunter Water is not in a position to review DNR's cost projections. However, the Corporation is prepared to pay for access to natural water sources where the charges reflect the cost of managing these sources. These costs should be specific to the sources accessed and be necessary, prudent and efficient.
- The Corporation performs some water resource management (WRM) activities as part of its water licence obligations. This raises the question as to whether single uniform valley-wide charges are appropriate for all customer groups. It may be more equitable to have more cost-reflective prices for different user groups that pass on the true costs incurred by specific user groups. Hunter Water does not have access to detailed DNR costs to assess the merits of such a differentiation.
- Hunter Water notes that DNR is recommending significant increases in user shares and WRM costs. If these costs are passed through in charges in 2006/07 and following years, they will increase Hunter Water's operating costs by around \$50,000 (real) in each year when compared with current WRM charges. This will further stretch Hunter Water's ability to achieve the efficient level of operating costs established by IPART in the September 2005 price determination (ie a 4.1% reduction over the Corporation's price path). However, as mentioned above, Hunter Water supports the principle of meeting the true costs of its access to water and will continue to strive for other operating cost efficiencies, where possible.
- DNR proposes streamlining tariff structures across a number of valleys where charges are of similar magnitude. Again, the issue of the appropriateness of uniform tariffs mentioned above is relevant. However, if the Tribunal determines that uniform charges within valleys are appropriate, the Corporation does not have any objections to simplifying charges across a number of valleys as long as there are no material inter-valley cross subsidies.
- Hunter Water does not support charging on entitlement. The Corporation's volumetric entitlements are not yet all established or not the main limitation on extractions and, unlike irrigators, Hunter Water is unlikely to use 100%, or close to

100%, of its possible entitlements in most years. Also, Hunter Water can substitute between surface and groundwater sources and draw quite different proportions of each from year to year. This again means that there may be quite significant differences between usage and possible entitlements for individual sources. However, while extractions from the individual sources can vary year to year, overall extractions (from all sources) are relatively consistent over time, thus providing reasonable revenue stability to DNR.

- There is still a lack of clarity about water quantity monitoring activity costs allocated to WRM charges and service level agreements. The key issue is the charging for the main river gauging station on the Williams River – a station that clearly services Hunter Water and irrigators and provides other public benefits. While the costs are not large in dollar terms, DNR's preference for charging the full cost of this station to Hunter Water via a service level agreement, rather than allocating all or some of the cost to WRM activities, fails to pass on legitimate costs to the true users.

As always, I am happy to discuss these matters further or questions can be directed to John O'Hearn, General Manager, Corporate Planning and Government Regulation, on 02 49799748.

Yours sincerely


KEVIN YOUNG
Managing Director


Hunter Water Corporation

**Submission to the
Review of Bulk Water Prices 2006/07
by the
Independent Pricing and Regulatory Tribunal**

November 2005

All inquiries about this submission should be
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November 2005
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**Hunter Water Corporation
Submission to the Review of Bulk Water Prices 2006/07
by the Independent Pricing and Regulatory Tribunal**

1 Introduction

1.1 About Hunter Water

Hunter Water Corporation is a State-owned Corporation and the water and wastewater provider to over 500,000 people in the urban communities in five local government areas in the lower Hunter Valley in NSW.

The Corporation delivers around 200 megalitres of water per day to these communities from both surface and groundwater sources within the Hunter Valley.

Surface water is extracted from the Williams River, an unregulated tributary of the Hunter River running from the Barrington ranges to the Hunter River estuary at Raymond Terrace. Hunter Water extracts water from the Williams River at two locations – Chichester Dam in the upper Williams River valley and at Seaham just upstream of the estuary. Water extracted at Seaham is pumped to an off-river storage at Grahamstown

Groundwater is extracted from coastal sandbeds between the Hunter River estuary and Port Stephens using an extensive network of shallow bores. A water sharing plan is in place for this groundwater source. Groundwater is extracted from two aquifer systems – the Tomago and Tomaree (Anna Bay) sources.

An important feature of having these separate sources is that, to a degree, they can be substituted for one another to address changes in supply availability at one source or water quality problems. Thus, for example, in some years extractions from groundwater sources may be low but offset by higher extractions from surface sources. In other years, the opposite may apply. This has implications for the proposal by the Department of Natural Resources to charge on entitlement, especially when the substitution occurs between the types of sources (ie between groundwater and surface water). This issue is discussed further in section 4.2.

1.2 Hunter Water and the Department of Natural Resources

Hunter Water's extraction of water from surface and groundwater sources is regulated by the Department of Natural Resources (DNR) via licences and approvals issued under the Water Act 1912 (WA) and the Water Management Act 2000 (WMA).

Hunter Water pays water resource management (WRM) charges (ie bulk water charges) to DNR on all surface water and groundwater extractions. Surface water extractions are paid at the water resource management charges applicable to all unregulated users in the Hunter Valley. Groundwater extractions are paid at the Hunter Valley groundwater charges. In both cases, the specific per megalitre charge is the sum of the Hunter Valley usage charge and the access charge applying to irrigators. The level of extraction since 2001/02 is shown in Table 1.

In addition, Hunter Water also pays an annual “major utility licence management fee”. As outlined in Appendix 4 (Major Utility Licences) of the DNR submission, this fee is established each year and is based on costs incurred during the given year. These costs can vary markedly from year to year, depending on the cycle of the major utility licence – for example, the fee is significantly higher every five years when the licences undergo major public review as required by both the WA and the WMA.

Table 1
Extraction of Water by Hunter Water Corporation – 2000/01 to 2004/05
(Megalitres)

Source	2000/01	2001/02	2002/03	2003/04	2004/05
Surface Unregulated	52,278	48,697	38,182	68,014	65,154
Groundwater	20,297	19,273	18,953	18,474	8,299
Totals	72,575	67,970	57,135	86,488	73,453

Appendix 4 of the DNR submission also mentions service level agreements (SLA) between Hunter Water and DNR for hydrographic services. In its April 2005 submission, Hunter Water raised a concern about being required to increase payments under this SLA from 50% to 100% of the cost of the Glen Martin gauging station on the grounds that Hunter Water is the only “major client” for data from this station. However, Hunter Water believes Glen Martin is of strategic importance in a water resource management sense and that it serves the needs of a range of users and beneficiaries. As such, some of the costs should be included in water resource management charges.

Hunter Water believes that it is inappropriate for it to meet the full cost of the Glen Martin gauge given the discussion in the current DNR submission which highlights the increasing importance of hydrometric data in managing the State’s water resources. The DNR submission outlines the Department’s program to extend the NSW hydrometrics network by some 178 gauging stations to provide accurate data on water resources. This issue is covered in full in section 5 of this submission.

2 Water Resource Management Costs

Hunter Water Corporation is not in a position to comment on DNR’s cost projections. The Corporation notes that independent review consultants are to report to IPART by the end of February 2006 on adequacy and appropriateness of DNR’s proposed capital and operating expenditure.

Hunter Water is prepared to accept the quantum of projected costs subject to this scrutiny by the IPART’s consultants and the Tribunal being satisfied that the future expenditure is necessary, prudent and efficient.

3 Cost Sharing Arrangements

Two points are covered in this section.

1. Not all the WRM activity costs covered by WRM costs are relevant to Hunter Water. Because Hunter Water is itself a large utility, it performs some WRM

activities on its own behalf and at its own cost. In this way it is different to other users, such as irrigators, on whose behalf DNR performs these functions.

2. There are significant increases in the user shares of WRM for unregulated rivers and groundwater in 2006/07 when compared to the IPART 2005 determination.

3.1 WRM Activities

It can be argued that DNR does not incur costs of some WRM activities in relation to Hunter Water and in the surface water, and groundwater catchments where Hunter Water Corporation operates, because Hunter Water itself carries out this work. The DNR submission notes that 21% of WRM activity costs are attributable to surface water information provision¹. Referring to the activity breakdowns in Appendixes 2 and 3 of the DNR submission, it could be argued that, in line with its WA and WMA licence requirements, Hunter Water is a net provider of information to DNR, particularly in relation to monitoring and analysis of surface water quality and groundwater quantity and quality. The benefits of some of this work (such as water quality information) are made available to the broader community.

Hunter Water provides all metering and measurement of its use for billing purposes and other costs such as regional administration for Hunter Water's licence management are directly charged to the Corporation by the water utility licence fee (as outlined in Appendix 4 of the DNR submission).

The Corporation recognises that the approach proposed by DNR is to average valley costs (separately for regulated and unregulated rivers and groundwater) across all users and that it is difficult to isolate particular costs to specific users or user groups. While this approach provides administrative simplicity, it may not be the most appropriate way to signal true costs to users.

The existence of the annually negotiable water utility licence management fee and the fact that Hunter Water is a single large user together provide economies to DNR in interfacing costs when considered on a per megalitre basis. All DNR's licence interfacing costs in relation to Hunter Water are met by the licence management fee. As a result, DNR's interfacing costs (on a per ML basis) should be significantly lower for Hunter Water than other water users such as irrigators.

The DNR submission does not provide the cost data needed for Hunter Water to assess the significance of taking account of the differences in WRM costs actually incurred by DNR in relation to Hunter Water and other users and the offsets that could be made for the WRM activities that Hunter Water undertakes, or pays for, by other means.

However, Hunter Water believes that the appropriateness of applying valley-wide WRM charges to Hunter Water (with the associated administrative simplicity and pricing uniformity) should be considered against the value of having more cost-reflective WRM charges that pass on the true costs to users.

¹ DNR Submission to IPART, page 20

3.2 Increases in User Shares

The DNR submission details significant increases in the user shares of WRM costs for unregulated rivers and groundwater for 2006/07 when compared to WRM costs and user shares in the IPART 2005 determination. Comparison of user shares in dollar value for Hunter unregulated rivers and Hunter groundwater in the Tribunal's 2005 determination² and those proposed in the DNR submission (Table A2.11) indicates a 21% increase in WRM costs for unregulated rivers and 51% for groundwater (combined highly managed systems and other groundwater).

These are significant increases, particularly for groundwater. Using the data shown in Table 1 of this submission, Hunter Water's surface water extractions average around 54,500 ML per year and groundwater around 17,100 ML per year.

Table 2 below shows the likely bill impact of increases of the order of increase in user shares and WRM costs on Hunter Water's average extractions. If the WRM cost increases are passed through as price increases for 2006/07, prices will add around \$50,000 in real terms to the Corporation's operating costs in each year of the period 2006/07 to 2010/11 (compared to real 2005/06 prices being applied in each of those years).

**Table 2
Impact on Hunter Water of Potential WRM Cost and User Share Increases**

Source	Average Extractions ML	Bill at 2005/06 charges \$	Bill at potential 2006/07 charges ^(a) \$	Increase in Bill \$
Surface water	54,500	\$145,520	\$176,100	\$30,580
Groundwater	17,100	\$38,650	\$58,360	\$19,710
Totals	71,600	\$184,170	\$234,460	\$50,290

(a) Assuming 21% increase for surface water and 51% increase for groundwater

Hunter Water Corporation has just entered a new 4-year price determination period which commenced on 1 November 2005. The prices that the Corporation can charge its customers have been determined by IPART until 2008/09. This price determination was based on cost information provided to the Tribunal up to June 2005 and assessed by independent consultants appointed by the Tribunal. In setting prices for the next 4 years, IPART determined that Hunter Water's efficient level of operating cost is \$11.9 million or 4.1% less than Hunter Water's own forecast for the next 4 years³.

Hunter Water has assumed charges for access to bulk water would increase in line with inflation in projecting operating costs for the next four years. Any increase in WRM charges in excess of inflation are therefore not covered by the prices Hunter Water can charge to its customers for the next 4 years as determined by IPART in September 2005. The additional cost to the Corporation from potential increases in WRM charges will further stretch Hunter Water's ability to achieve the efficient level of operating costs established by IPART.

² IPART Reports 8 and 9, 2005, Table 3.2

³ IPART Reports 5, 6 and 7, 2005, page 93.

However, as stated in Section 2 of this submission, Hunter Water supports the principle of meeting the true cost of its access to natural sources of water and is prepared to accept the Tribunal's determination on appropriate charges to meet necessary, prudent and efficient WRM costs.

4 Tariff Structures

The DNR proposal puts forward two proposals relevant to Hunter Water Corporation. These are:

1. To simplify the range of tariffs by applying a single tariff across a grouping of valleys with similar unit costs.
2. To recover WRM costs by an access charge on entitlement rather than use.

4.1 Simplifying the Tariff Structure

As discussed in section 3.1 above, the Corporation considers that there is a case for considering the appropriateness of applying valley-wide WRM charges to Hunter Water (with the associated administrative simplicity and pricing uniformity) against the value of having more cost-reflective WRM charges that pass on the true costs to separate user groups (eg major utilities, towns and irrigators) within valleys.

However, if the Tribunal determines that uniform valley pricing for all users is appropriate, Hunter Water has no objection to simplifying tariffs across valleys with similar costs as long as there are no material inter-valley cross subsidies and again subject to the costs in all the grouped valleys being confirmed as necessary, prudent and efficient.

4.2 Charging on Entitlement

As mentioned earlier, Hunter Water now pays on the basis of usage and the specific per megalitre charge is the sum of the Hunter Valley usage charge and the access charge applying to irrigators.

Currently, there is no volumetric entitlement (volume entitlement) for the surface water used by Hunter Water. Maximum diversion levels are quoted in the WA and WMA licences and approvals but these are based on works capacity, not sustainable entitlement or share components derived through a water sharing plan.

Allocation rules in the existing surface water licence are based on a combination of environmental release requirements, daily pumping limits, diversion capacity and cease to pump river heights. As a result, it would not be possible at present to charge on entitlement rather than use.

Annual extraction of surface water varies markedly from year to year and is generally in relation to available river flows, demand and available free storage capacity in the Corporation's off-river storage at Grahamstown. Over the last 40 years, annual river flow at the offtake has varied between **6,000 ML and 800,000 ML** and extractions to Grahamstown have ranged from **zero to 86,000 ML**. The availability of high river flows does not mean high volumes always will be extracted because these high flows

usually occur in years of above average rainfall and the Grahamstown storage receives good inflows from its own small catchment⁴.

DNR is giving consideration to developing a surface entitlement as part of the macro water sharing plan process. This entitlement development will take account of a number of factors. These include population projections for the lower Hunter region served by Hunter Water, growth in water demand, the environmental flow needs of the Williams estuary and the fact that Hunter Water has large off-river storage at Grahamstown that enables it to take advantage of high flows in the river.

High flows do not occur every year and this variability will be taken into account in establishing an entitlement that, in some years, will be greater than available river flows. The effect of the entitlement, most likely, will be to put an upper bound on extractions over a number of years rather than reflect the volume of water needed to meet current demands or demand in a single year. In this context, full entitlement will not be accessible or used in most years.

This situation, where entitlement is unlikely to be used in most years, differs from norm for irrigators described in the DNR submission that “*most surface water entitlements are already fully utilised (ie close to 100% of allocation is utilised in any given year)*”.⁵

A similar situation applies to groundwater. Under the water sharing plan for the Tomago-Tomaree-Stockton groundwater sources, Hunter Water has an “available water determination” of 25,300 ML/year for the Tomago source and 3,700 ML/year for Tomaree. These volumes appear in current Water Access Licences under the WMA as the Corporation’s “share components”. These annual share components are derived from the initial three-year available water determinations in the water sharing plan by simple division. This simple arithmetic derivation from the longer-term available water determination means the annual share component may not be available every year of necessarily govern annual use.

As part of a review of Hunter Water’s licences, DNR has required Hunter Water to develop a Sustainable Groundwater Extraction Strategy for the Tomago and Tomaree aquifers. The timeframe for developing this strategy will see it completed sometime around the end of 2007 or early 2008. The strategy will determine a sustainable extraction regime for these aquifers and will be main determinant of extraction levels, rather than the current share components.

Further, as mentioned in the Section 1 of this submission, the Tomago and Tomaree aquifers are shallow sand aquifers. These aquifers are recharged by significant or sustained heavy rain. It is only when these aquifers are notionally “full”, and are kept full by continuous rain, that extraction can be sustained at levels around the annual share component.

Overall, the annual share component is not a suitable expression of an annually accessible entitlement for charging purposes but more an upper bound that can be accessed only in some years. Further the variable nature of water levels in these aquifers means that the annual share components cannot be accessed in most years

⁴ This situation has occurred in a number of years. To illustrate some events, the following figures show, in order, the year, flows and extractions (in volume and as a percentage of flows). 1971, 796,000 ML, 8,300 ML, 1%; 1977, 400,300 ML, 7,700 ML, 2%; 1988, 484,600 ML, 4,900 ML, 1%; 1990, 631,000 ML, 5,600 ML, 1%; 1999, 339,200 ML, 0, 0%.

⁵ DNR submission, page 36.

and that true entitlement will be driven by the rules within the Sustainable Groundwater Extraction Strategy. The Corporation believes that, on these grounds, tariffs should not be linked to entitlement as expressed by the share components.

Further, as outlined in section 1, Hunter Water has considerable flexibility to substitute between its groundwater and surface water sources. The Corporation's decisions about substitution are based on a range of factors, including resource sustainability and protection. Given that different tariffs apply to surface water and groundwater, it is desirable that the Corporation's total WRM charges in any year reflect its source substitution decisions.

In the light of the above arguments, **entitlement is not considered a suitable basis charging**. The Corporation recommends charging should continue to be based on actual extractions.

5 Service Level Agreements

Hunter Water historically has contributed to the cost of surface water quantity data collection for the Williams River and paid the full cost of a number of gauging stations through service level agreements with DNR. This is entirely reasonable because some of these stations were installed at the request of the Corporation's predecessor authority to provide data for future source investigations and assist in extraction decision making. Hunter Water, therefore, does not object to paying the full cost of these gauging stations and associated hydrographic services via service level agreements.

The main gauging station for the Williams River is Glen Martin (station 2100010), which has been in service since the 1920s. There is now a substantial and valuable history of flow data from this gauge available to the community. The Glen Martin station services a variety of uses including management of irrigation licences on the Williams River and flood warnings⁶.

The station's history and location on the Williams River, a major tributary of the Hunter River, suggest that data from the Glen Martin gauge is of strategic importance to DNR and other government agencies. Real time data from the gauge is available to the whole community via DNR's Hunter Integrated Telemetry (HITS) web page⁷. The strategic value of hydrometric data more generally to DNR is underlined by reference throughout the current DNR submission to the need improve the monitoring of water resource condition by expanding the hydrometric network in NSW by 178 new gauges over the next 4 years.

Until now, Hunter Water has paid 50% of the costs of operating the Glen Martin station in recognition that, while it is the major user data from the gauge, streamflow data from this gauge is used for other purposes. Hunter Water's 50% contribution has been paid by a separate service level agreement with DNR. However, in November 2004, DNR advised that, from 2005/06, Hunter Water will be charged the

⁶ Minor and major flooding can be quite frequent east of the Great Dividing Range. Because of high rainfall on the coast and short river lengths, coastal river heights can rise and fall quickly and gauging stations provide valuable information in these situations. Flood warning river height information is available from the Bureau of Meteorology's NSW flood warning web page. This page provides interactive access to real time river heights at key gauges including Glen Martin (Mill Dam Falls). www.bom.gov.au/hydro/flood/nsw/midnorth_clickable.shtml

⁷ <http://hits.nsw.gov.au/servlet/Hits2Servlet?method=SiteDtl&site=210010>

full operating cost of this gauging station on the ground that the Corporation is the only identifiable “major client”.

Hunter Water Corporation’s submission to the 2005 Bulk Water Price Review raised the issue of a lack of clarity between amounts paid under service level agreements for hydrographic services and the bulk water charge coverage of DNR’s water management activity designated “Surface water quantity/reporting/information provision” (activity C01-01). This issue particularly relates to stations, such as Glen Martin, that service a range of users – it does not relate to the gauges established and operated by DNR at Hunter Water’s request.

Hunter Water notes that the Appendix 4 of the current DNR submission responds to Hunter Water’s April 2005 submission and states that costs incurred for hydrographic services are isolated from WRM charges when these costs are covered by service level agreements. Hunter Water believes that this quarantining of the costs should be confirmed by the consultants appointed by IPART to review DNR’s operating costs.

More importantly, given that the Glen Martin gauge services a number of uses by various agencies (including DNR for irrigation licence management on the unregulated Williams River and water sharing plan development), it is questionable whether the full cost of this gauge should be isolated from WRM activity costs as described in Appendix 4 of the DNR submission. Hunter Water believes that it is entirely reasonable for other users to meet part of the cost of operating this gauge through WRM charges and that the Corporation’s maximum obligation under a service level agreement should remain at 50%. It should be remembered also that, if the operating cost of the gauge is included in the WRM charges, Hunter Water will also contribute via that those charges to the cost of operating the gauge.

Hunter Water requests that the Tribunal consider the appropriateness of DNR seeking to transfer the full cost of this gauge to Hunter Water when it clearly provides wider resource management benefits. Perhaps, the Tribunal can test the strategic value of the gauge by asking DNR if it intends to decommission the gauge if Hunter Water does not meet the full cost through payment of a service level agreement.

References

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Independent Pricing and Regulatory Tribunal (NSW), 2005, **Sydney Water Corporation, Hunter Water Corporation, Sydney Catchment Authority: Prices of Water Supply, Wastewater and Stormwater Services**, Report Nos 5, 6 and 7, 2005, Sydney, September.

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Abbreviations

CPI	Consumer Price Index
DNR	Department of Natural Resources
IPART	Independent Pricing and Regulatory Tribunal
ML	Megalitre
SLA	Service level agreement
WA	Water Act 1912
WMA	Water Management Act 2000
WRM	Water resource management