

**DRAFT DETERMINATION**

**BULK WATER PRICES**

**to apply from 1 July 1997**



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

**DRAFT DETERMINATION  
BULK WATER PRICES  
to apply from 1 July 1997**

Questions relating to this Draft Determination should be directed to:

Alex McMillan  
Colin Reid

☎ (02) 9290 8405  
☎ (02) 9290 8414

**Independent Pricing and Regulatory Tribunal of NSW**

Level 2, 44 Market Street, Sydney NSW 2000  
Tel (02) 9290 8400 Fax (02) 9290 2061

**All correspondence to: PO Box Q290, QVB Post Office, Sydney NSW 1230  
or e-mail: [ipart@tpgi.com.au](mailto:ipart@tpgi.com.au)**

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# 1. INTRODUCTION

This draft determination indicates the Tribunal's views on maximum prices for bulk water services to apply from 1 July 1997.

The Tribunal has held public hearings and consulted widely during its review of bulk water prices for 1997/98. Stakeholders now have the opportunity to comment on proposed bulk water prices and alert the Tribunal to any difficulties arising from their particular circumstances.

Proposed charges for regulated rivers, unregulated rivers and ground water are detailed in sections 4, 5 and 6. Tables showing the impact of charges on typical bulk water bills are included in each section.

The Tribunal seeks comments on these prices from interested persons before the close of business on **Friday 15 August 1997**.

The Tribunal will, after considering comments made in response to this draft determination, publish a Report and Determination setting maximum prices and giving reasons for its decisions.

## 2. THE PRICE DETERMINATION PROCESS

The Tribunal's review of bulk water pricing commenced in November 1995. The Tribunal has conducted its review in terms of the matters listed in Section 15 of its Act. The Tribunal has also had regard to the NSW government's commitment to the Council of Australian Government's water reform agenda.

The Tribunal held bulk water prices (for the 1996/97 season) unchanged<sup>1</sup> in its June 1996 determination to enable a full assessment of the most appropriate price structures, efficient cost levels and the subsequent path to increased cost recovery.

In October 1996 the Tribunal published its interim report<sup>2</sup>. That report set out the principles which the Tribunal intends to use in setting bulk water charges and made recommendations on how DLWC should implement these principles.

The Tribunal then asked interested persons to make further submissions on the Tribunal's recommendations and DLWC's proposals for the 1997/98 season. Given the amount of information prepared by DLWC<sup>3</sup>, the Tribunal extended the due date for submissions from the 14 February 1997 until the end of March 1997. The Tribunal received submissions from 54 organisations and individuals.

The Tribunal held public hearings during March 1997 in Moree, Dubbo, Sydney and Griffith. Copies of all submissions and transcripts of each hearing are available for inspection at the Tribunal's offices at Level 2, 44 Market Street, Sydney.

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<sup>1</sup> The Department of Land and Water Conservation (DLWC) set Water Resource Management Charges for regulated rivers, unregulated rivers and ground water for 1995/96 in September 1995. The DLWC decided to waive payment of these charges on unregulated rivers for 1995/96. The Tribunal's determination in June 1996 maintained all charges at existing levels for the 1996/97 season. Accounts for users on unregulated rivers will be issued for the first time in July 1997 (for the 1996/97 season).

<sup>2</sup> IPART, *Bulk Water Prices: an interim report*, October 1996.

<sup>3</sup> The DLWC made two written submissions (in January 1997 and February 1997) and provided two supporting documents (an Asset Management Strategy and a Critical Action Plan for unfunded resource management activities).

The Tribunal asked the DLWC to organise additional meetings to explain further the costs relating to each region and the activities which give rise to those costs. The DLWC invited regionally-based representatives of water users, other actual or potential customers of its water supply activities, and other interest groups. DLWC explained the process by which its expert group determined the costs to be recovered from water users.

Meetings were held during April and May 1997 at Leeton, Casino, Kempsey, Moree, East Maitland, Dareton, Deniliquin, Forbes, Dubbo, Penrith and Bega. Feedback from these meetings has assisted the Tribunal in preparing this draft determination.

### **3. OVERVIEW**

#### **3.1 Summary of progress**

The Tribunal's determination in June 1996 identified six issues that must be progressed before the Tribunal can give clear direction for water prices over the medium term:

- improving transparency and accountability
- future capital expenditure requirements
- the development of a regional focus for charging and service delivery
- the allocation of costs to user groups
- the identification of who benefits from particular expenditure
- the scope for efficiency improvements by the DLWC

Progress has been made on some of these issues, but others remain significant challenges for the DLWC. The Tribunal notes that DLWC's second submission made a commitment, and nominated an on-going work program, to progress these issues.<sup>4</sup>

The Tribunal's upcoming *Report and Determination of Bulk Water Prices for 1997/98* will review in detail the information available on these issues and report on progress in implementing other recommendations made by the Tribunal in its interim report. A summary of progress to date on these issues is provided below.

#### **Transparent reporting of costs and services**

- ❖ DLWC has put considerable effort into attempting to explain the nature of, and need for, its activities in each region
- ❖ Some of these regional activities were already accounted for in river operations accounts, but the quality of these accounts varies greatly between the regions
- ❖ Limited progress has been made in accounting for the cost of those activities not previously included in river operations accounts because the DLWC has encountered problems in combining the financial management systems of three amalgamated departments
- ❖ There is sufficient cost information available to persuade the Tribunal that some increase in bulk water charges is warranted in most regions.

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<sup>4</sup> DLWC Response to "Bulk Water Prices: an interim report – IPART – October 1996", February 1997, p 32 to 35.

## **Capital expenditure**

- ❖ DLWC provided a revised Asset Management Plan for the next 30 years and, based on this plan, calculated a renewals annuity of \$31 million per annum
- ❖ Consultants engaged by the Tribunal reviewed the plan. Based on their recommendations the annuity has been reduced to \$25 million per annum
- ❖ A proportion of these asset annuity costs will be recovered (on a valley specific basis) in the proposed charges for regulated rivers.

## **A regional focus for charging and service delivery**

- ❖ DLWC has submitted budget estimates broken down by region, apportioned the head office budget between regions and calculated regional prices consistent with its assessment of full cost recovery
- ❖ However DLWC's financial management system has not been able to reconcile this budget information with actual expenditure or identifiable levels of service
- ❖ The extent of customer involvement in negotiations over levels of service varies greatly between regions:
  - some regions negotiate levels of service directly with customers and the costs of some of these services are recorded in river operations accounts
  - the full cost recovery prices calculated by the DLWC have not been referred to regional negotiations and are not integrated into regionally-based accounts
  - the contribution which head office makes to levels of service has not been explained in DLWC submissions nor discussed with customers
- ❖ DLWC has undertaken to develop region-based accounting of its activities and negotiate levels and costs of service with stakeholders.

## **Allocation of costs and identification of benefits**

- ❖ An expert group within DLWC proposed an allocation at a disaggregated level of the joint costs of river regulation and resource management
- ❖ A great deal of work remains to be done to determine how the joint costs of DLWC's activities should be shared between users because of:
  - poor accounting of bulk water costs
  - insufficient documentation of levels of services resulting from those costs having been incurred
  - complexity of the links between river regulation, water use, land use and environmental degradation
  - inadequate assessment of the benefits of river regulation for water delivery, flood mitigation, power generation and recreation.

## Efficiency improvements

- ❖ The Tribunal is not able to determine how efficiently the DLWC delivers bulk water services because:
  - DLWC has not continued the corporate performance measures that were used by the former Department of Water Resources (DWR)
  - DLWC's submissions neither included benchmarks relating to efficiency of its activities nor proposed efficiency targets
- ❖ DLWC has agreed to establish indicators of efficiency and a process for collecting data commencing June 1997.

Significant progress must be made on the issues discussed above before the Tribunal can set a path for bulk water prices in future years with a greater degree of certainty.

Region-based accounting of the costs of documented levels of service will allow the Tribunal to gauge the degree of cost recovery from existing charges. Documenting efficiency levels and, where appropriate, negotiating levels of service, will assist the Tribunal and other stakeholders in satisfying themselves that bulk water services are delivered by the most efficient and effective means. More comprehensive assessments of the economic benefits and environmental costs of river regulation will assist the Tribunal in allocating joint costs between those who benefit from river regulation and access to bulk water.

## 3.2 Summary of proposed charges

- ❖ **The proposed charges are based more closely on water usage** in all cases where usage is metered. As a result the Tribunal expects bulk water bills to increase when water usage is high and decrease when water usage is low.
- ❖ **On regulated rivers:**
  - Charges will be set to increase average revenues by up to 20% in all regions<sup>5</sup> except the Murray and Murrumbidgee regions, where existing average revenues will be maintained until better cost information is available
  - Region-specific two-part tariffs will be introduced with a fixed charge on licensed entitlement and a variable charge based on water usage. The new system replaces previous delivery service, metering, water resource management and water quality charges. The minimum annual charge system is also replaced by the fixed charge on licensed entitlement.
- ❖ **On unregulated rivers and ground water sources:**
  - Charges will be set to increase average revenues by 15 percent across the State
  - Options are suggested for tariff structures. One option is for a two part tariff to apply where existing unregulated river licences are converted to volumetric licences and usage is metered.
- ❖ **All other charges** to be maintained at existing levels until better cost information is available. A list of all other charges is provided in the Appendix to this draft determination.

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<sup>5</sup> The actual increase in revenue from 1996/97 to 1997/98 will depend on the pattern and total of water usage in each region. Increases are likely to be in the range of 14% to 20%. Revenue in the Hunter region will increase by a smaller amount due to the large number of sleeper licenses.



### 3.3 Extent of cost recovery

The Tribunal's interim report provided extensive discussion about cost recovery. Full recovery of economic costs implies that bulk water prices should recover from users, operations, maintenance and administration costs, capital charges and external environmental costs. Joint costs should be apportioned between users on the basis of impactor or beneficiary pays principles.

The cost information available to the Tribunal is not sufficient to provide a clear, medium term direction for prices, but does on balance justify some increase in bulk water prices. In particular the Tribunal believes that additional contributions to asset maintenance and increased metering are a priority.

The estimates of expenditure provided in the tables below are likely to be revised considerably when DLWC's financial reporting improves.

The proposed 1997/98 prices for regulated rivers have been set with regard to:

- ❖ existing contributions to river operations by water users
- ❖ metering expenses
- ❖ the capital annuity estimated to be required to fund infrastructure expenditure (this includes asset maintenance)
- ❖ DLWC's estimates of the costs of resource management that are attributable to users
- ❖ submissions made to the Tribunal regarding these resource management costs (following the regional meetings)

The Tribunal feels certain that the charges proposed fall short of capturing all resource management costs relating to use of water. The proportion of these costs that are recovered from bulk water charges is likely to increase when these costs are properly accounted for and the link to service levels is clarified.

A significant component of DLWC activity in the southern regions is work done under contract for the Murray Darling Basin Commission (MDBC). The Commission is funded by the States and the Commonwealth. The DLWC should review whether it has correctly assessed the proportion of this funding that should be recovered from water users in the southern regions. The main reason why water prices differ between southern NSW and Victoria seems to be that different proportions of MDBC funding are recovered from users in the relevant regions.

The proposed 1997/98 prices for unregulated rivers and ground water have been set with regard to:

- ❖ DLWC's estimates of the costs of resource management that are attributable to users
- ❖ submissions made to the Tribunal regarding these resource management costs (following the regional meetings)

In particular, the Tribunal believes that additional spending on metering is a priority. It is essential that DLWC maintain its commitment to more accurate and extensive metering of the abstraction of water. To assist with demand management it is also important that users should be encouraged to install meters.

### 3.3.1 Regulated rivers

The DLWC proposed that water users pay 58.6% of “resource management” costs, 74.1% of operational” costs, 100% of “regulatory” costs and 70% of asset maintenance and renewal costs (calculated as a regional annuity totalling \$31 Million).<sup>6</sup> These amounts are shown in the first column of Table 1.

For comparison, the second column of Table 1 shows the addition of 50% of the costs of asset maintenance and renewal (calculated as a regional annuity totalling \$25 Million) to the average contributions already made by water users to river operations accounts. The amounts in the second column are likely to understate the expenditure which should be recovered from water users. However the Tribunal is unable to gauge the degree of understatement until actual expenditures by the DLWC are more accurately accounted for.

The most significant expenditures not properly accounted for are contributions by NSW to the MDBC and the Dumaresq-Barwon Border Rivers Commission, and additional resource management costs incurred by the DLWC, but not previously included in the river operations accounts.

The Tribunal’s estimate of the revenue from the proposed charges is shown in the last column of Table 1. Revenue in 1997/98 is expected to be slightly above revenue in 1996/97 and significantly higher than in past years.

**Table 1 Regulated rivers expenditure and revenue**

	Expenditure (\$'000)		Revenue (\$'000)		
	DLWC estimate of user share of costs & 70% of DLWC regional annuity	Average river operations contributions & 50% IPART regional annuity	Average river op's contribution 1992/93-1995/96	1996/97 revenue (projected)	Estimated revenue from two part tariffs, estimated 1997/98 usage
Barwon	12,818	6,681	2,476	5,182	5,945
Macquarie	5,263	2,707	1,152	1,903	2,190
Lachlan	4,548	2,442	1,057	2,210	2,420
Murrumbidgee	7,679	4,120	2,245	5,560	5,600
Murray & Far West	8,713	3,524	1,824	5,180	5,220
Hunter	5,551	1,765	455	620	630
Syd Sth Coast	1,444	296	36	55	65
Nth Coast	1,336	300	10	24	28
<b>Total</b>	<b>47,352</b>	<b>21,835</b>	<b>9,255</b>	<b>20,734</b>	<b>22,098</b>

Notes:

1. The Tribunal’s proposed two part tariffs for regulated rivers are explained in Section 4 below.

<sup>6</sup> DLWC, *1997/98 Submission to IPART on Bulk Rural Water Pricing*, January 1997, page 62. These proportions are summaries of more disaggregated costs sharing ratios, fuller details of which are attached to DLWC’s second submission: *DLWC Response to “Bulk Water Prices: an interim report – IPART – October 1996”*, February 1997.

### 3.3.2 Unregulated rivers and ground water

The DLWC's estimate of the costs that should be recovered from those who draw water from unregulated rivers and ground water are shown in the first columns of Tables 2 and 3. Considerable work is required to identify both the services provided and costs incurred by DLWC on unregulated rivers and ground water. However, based on the feedback from regional meetings and its own assessment of the attributed costs, the Tribunal feels there is sufficient justification to approve some increases in charges. This is particularly true for metering costs.

**Table 2 Unregulated rivers expenditure and revenue**

	Expenditure (\$'000) DLWC estimate of user share of costs	Revenue (\$'000)		
		1996/97 from current charges	1997/98 from Proposal 1	1997/98 from Proposals 2a & 2b
Barwon	1,076	121	149	179
Macquarie	748	90	105	109
Lachlan	612	39	46	49
Murrumbidgee	1,315	83	109	145
Murray & Far West	2,164	100	136	199
Hunter	1,089	168	181	150
Syd Sth Coast	2,022	202	217	179
Nth Coast	1,142	248	263	202
<b>Total</b>	<b>10,168</b>	<b>1,051</b>	<b>1,206</b>	<b>1,212</b>

Note: The Tribunal's proposals for bulk water charges on unregulated rivers are explained in Section 5 below.

Some unregulated rivers (such as the Barwon-Darling) are located downstream from regulated rivers (in the Barwon region). The availability of water for water users on such "unregulated" rivers is affected by structures built on the regulated river. This is a complex issue determined by hydrology and water sharing decisions by DLWC. DLWC should examine whether some of its asset and river operations costs should be attributed to some "unregulated" rivers.

**Table 3 Ground water expenditure and revenue**

	Expenditure (\$'000) DLWC's estimate of user share of costs	Revenue (\$'000)			
		1996/97 from current charges	1997/98 from Proposal 1	1997/98 from Proposal 2	1997/98 from Proposal 3
Barwon	1,453	565	667	654	648
Macquarie	402	143	154	165	155
Lachlan	329	123	132	142	134
Murrumbidgee	892	173	217	217	199
Murray & Far West	1,403	112	138	139	129
Hunter	574	76	93	85	92
Syd Sth Coast	894	53	56	55	60
Nth Coast	487	51	60	56	61
<b>Total</b>	<b>6,434</b>	<b>1,296</b>	<b>1,517</b>	<b>1,513</b>	<b>1,478</b>

Note: The Tribunal's proposals for bulk water charges on ground water are explained in Section 6 below.

## 4. REGULATED RIVERS CHARGES

Licences on regulated streams are for certain volumetric entitlements. General security license holders receive an annual allocation of a proportion of their license entitlements depending on water availability. High security license holders are allocated 100% of their entitlement each season.

1996/97 charges include:

1. **delivery service charge and metering charges:** which vary between regions and are calculated on water usage
2. **minimum annual charges:** region-specific minimum charges calculated as assumed minimum water usage charged at the applicable delivery service and metering charges
3. **water resource management charge:** a state-wide charge of \$1.35 per megalitre of entitlement
4. **localised charges and levies:** specific charges to fund localised services, repay previous capital expenditure or for other defined purposes
5. **licensing charges:** fixed fees payable every five years or in annual instalments

This structure of charges is ad hoc and inefficient. New charges were created for each new service as a defacto accounting of expenditure. A more efficient way to monitor and control expenditure is reporting of actual expenditure within audited, regional financial statements. An ideal charging structure should be cost reflective, simple and equitable, and provide the correct incentives for the DLWC to meet water orders and for water users to conserve water where possible.

### 4.1 Proposed charges

The Tribunal's proposed two part tariffs simplify charges by combining the generalised charges (the delivery service, metering, minimum annual, water resource management charges and some of the localised levies) into fixed charges based on licensed entitlement and variable charges based on total water usage. The Appendix to this draft determination gives more details on the charges combined into the two part tariffs.

**Table 4 Fixed and usage charges for regulated rivers**

Region / Valley	Fixed charge		Usage charge
	General security (\$/ML of entitlement)	High security (\$/ML of entitlement)	(\$/ML of usage)
Barwon	3.00	4.50	3.50
Macquarie	2.00	2.60	2.70
Lachlan	2.10	3.15	2.60
Murrumbidgee	2.30	2.42	0.60
Murray, Darling & Far West	2.30	2.53	0.60
Hunter	2.20	3.08	2.50
Sydney South Coast	3.00	3.90	2.00
North Coast	3.00	3.90	2.00

#### Notes

1. These charges apply to irrigation, town water supply, recreational and stock and domestic users.
2. The usage charge is paid on all water diverted (allocation or off-allocation) or transferred to another region.
3. The Hunter region administration charge, Pindari levy, Gol Gol levy, Waddy Scheme charge, Merran Creek charge, rice environmental monitoring charges in the Murray and Murrumbidgee regions remain separately payable.
4. Licensing charges remain separately payable.
5. The Industry charge of \$10/ML on entitlement remains the total charge for the industrial usage component of all licences.

Some localised levies cannot be easily combined into the two part tariffs because the levies pay for services provided to smaller areas within a region. In other cases inclusion would unfairly increase bills to some water users.

In the longer term the Tribunal wishes to combine as many existing charges as possible into the two part tariff. The Appendix to this draft determination explains all existing charges on regulated rivers and how they are affected by this draft determination.

The Tribunal has proposed a different balance between the fixed and usage charges for each region. This returns the charging structure as close a possible to the balance between fixed and usage charges prior to the introduction of the water resource management charge (\$1.35/ML of entitlement).<sup>7</sup>

High security licence holders are guaranteed to receive 100% of their licensed allocation in all but the worst drought years. This insurance justifies a price premium to reflect the service provided by river regulation. The appropriate premium should be based on the avoided risk to general security water of not being supplied with their full entitlement. This will vary between regions and will be determined by climate, hydrology and water sharing decisions made by the DLWC. Until a better assessment can be made of these factors the Tribunal has calculated high security premiums to preserve the current premiums being paid.<sup>8</sup>

Existing high security premiums are calculated mainly on water usage depending on the region.<sup>9</sup> The high security premiums proposed by the Tribunal are for fixed charges because the additional cost of providing high security water appears to relate to fixed costs of maintaining and renewing dams and weirs.

Irrigation areas and districts use around 60% of the total water used on regulated rivers in NSW. These wholesale customers take bulk allocations from DLWC and resell that water to their members. The costs incurred by the DLWC to deliver each megalitre of water to an Area and District farmer are likely to be lower on average than the costs of delivering that water to a river pumper because the Area and District aggregates water orders, billing and any interactions with the DLWC.

This wholesale function is already recognised in the charges paid by Areas and Districts in some regions. In the Lachlan and Murrumbidgee valleys some larger Areas and Districts do not pay metering charges while others pay a negotiated lump sum metering charge. The Tribunal's proposed charges preserve the existing discounts enjoyed by these Areas and Districts.

The Areas and Districts nominated in Table 5 will pay the fixed charge noted plus the usage charge on each megalitre of water usage. All other Areas and Districts will pay the standard fixed charge per megalitre of entitlement and the usage charge per megalitre of water usage nominated in Table 4.

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<sup>7</sup> In the Murray and Murrumbidgee the previous charging structure had a 100% minimum annual charge and for most users the charge was totally fixed. The Tribunal has proposed a usage charge of \$0.60 per megalitre.

<sup>8</sup> There is currently no premium for high security water in the Murrumbidgee region. The Tribunal feels that some premium is necessary and has proposed a premium of \$0.12/ML of entitlement or 5%.

<sup>9</sup> The high security premium in the Barwon is on the fixed charge.

**Table 5 Wholesale charges for some Areas and Districts**

<b>Irrigation Areas &amp; Districts</b>	<b>Fixed charge (\$)</b>	<b>Usage charge (\$ per megalitre used)</b>
Murrumbidgee Irrigation	2,108,000	0.60
Coleambally Irrigation	756,000	0.60
Jemalong Irrigation	158,100	2.60
West Corurgan	112,500	0.60
Western Murray Irrigation	121,000	0.60
Murray Irrigation	2,033,000	0.60
Moira Irrigation Scheme	62,000	0.60
Eagle Creek Scheme	29,200	0.60

Note: These fixed charges for Areas and Districts include premiums for the high security component of each license.

The tables on the following two pages illustrate the impact of the proposed tariffs on typical bulk water bills for regulated rivers.

**Typical bulk water bills from proposed two-part tariffs with a 100 ML license (general security)**

<b>Sleepers (nil usage)</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	360	300	-17
<b>Macquarie</b>	240	200	-17
<b>Lachlan</b>	233	210	-10
<b>Murrumbidgee</b>	283	230	-19
<b>Murray &amp; Far West</b>	359	230	-36
<b>Hunter</b>	328	265	-19
<b>Sydney Sth Coast</b>	375	300	-20
<b>Nth Coast</b>	360	300	-17

<b>Use 75% of entitlement</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	473	563	19
<b>Macquarie</b>	338	403	19
<b>Lachlan</b>	355	405	14
<b>Murrumbidgee</b>	283	275	-3
<b>Murray &amp; Far West</b>	359	275	-23
<b>Hunter</b>	401	453	13
<b>Sydney Sth Coast</b>	375	450	20
<b>Nth Coast</b>	360	450	25

<b>Use 30% of entitlement</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	405	405	0
<b>Macquarie</b>	240	281	17
<b>Lachlan</b>	233	288	24
<b>Murrumbidgee</b>	283	248	-12
<b>Murray &amp; Far West</b>	359	248	-31
<b>Hunter</b>	328	340	4
<b>Sydney Sth Coast</b>	375	360	-4
<b>Nth Coast</b>	360	360	0

<b>Use 100% of entitlement</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	510	650	27
<b>Macquarie</b>	405	470	16
<b>Lachlan</b>	428	470	10
<b>Murrumbidgee</b>	283	290	2
<b>Murray &amp; Far West</b>	359	290	-19
<b>Hunter</b>	475	470	-1
<b>Sydney Sth Coast</b>	435	500	15
<b>Nth Coast</b>	435	500	15

<b>Use 50% of entitlement</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	435	475	9
<b>Macquarie</b>	285	335	18
<b>Lachlan</b>	282	340	21
<b>Murrumbidgee</b>	283	260	-8
<b>Murray &amp; Far West</b>	359	260	-28
<b>Hunter</b>	328	390	19
<b>Sydney Sth Coast</b>	375	400	7
<b>Nth Coast</b>	360	400	11

<b>Use 120% of entitlement</b>	1996/97	1997/98	change
	\$ charge	\$ charge	%
<b>Barwon</b>	540	720	33
<b>Macquarie</b>	474	524	11
<b>Lachlan</b>	487	522	7
<b>Murrumbidgee</b>	313	302	-4
<b>Murray &amp; Far West</b>	374	302	-19
<b>Hunter</b>	534	610	14
<b>Sydney Sth Coast</b>	495	540	9
<b>Nth Coast</b>	495	540	9

**Typical bulk water bills from proposed two-part tariffs with a 1000 ML license (general security)**

<b>Sleepers (nil usage)</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	3,600	3,000	-17
<b>Macquarie</b>	2,400	2,000	-17
<b>Lachlan</b>	2,326	2,100	-10
<b>Murrumbidgee</b>	2,830	2,300	-19
<b>Murray &amp; Far West</b>	2,590	2,300	-11
<b>Hunter</b>	2,870	2,245	-22
<b>Sydney Sth Coast</b>	3,750	3,000	-20
<b>Nth Coast</b>	3,600	3,000	-17

<b>Use 75% of entitlement</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	4,725	5,625	19
<b>Macquarie</b>	3,375	4,025	19
<b>Lachlan</b>	3,548	4,050	14
<b>Murrumbidgee</b>	2,830	2,750	-3
<b>Murray &amp; Far West</b>	2,590	2,750	6
<b>Hunter</b>	3,608	4,120	14
<b>Sydney Sth Coast</b>	3,750	4,500	20
<b>Nth Coast</b>	3,600	4,500	25

<b>Use 30% of entitlement</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	4,050	4,050	0
<b>Macquarie</b>	2,400	2,810	17
<b>Lachlan</b>	2,326	2,880	24
<b>Murrumbidgee</b>	2,830	2,480	-12
<b>Murray &amp; Far West</b>	2,590	2,480	-4
<b>Hunter</b>	2,870	2,995	4
<b>Sydney Sth Coast</b>	3,750	3,600	-4
<b>Nth Coast</b>	3,600	3,600	0

<b>Use 100% of entitlement</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	5,100	6,500	27
<b>Macquarie</b>	4,050	4,700	16
<b>Lachlan</b>	4,280	4,700	10
<b>Murrumbidgee</b>	2,830	2,900	2
<b>Murray &amp; Far West</b>	2,590	2,900	12
<b>Hunter</b>	4,345	4,745	9
<b>Sydney Sth Coast</b>	4,350	5,000	15
<b>Nth Coast</b>	4,350	5,000	15

<b>Use 50% of entitlement</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	4,350	4,750	9
<b>Macquarie</b>	2,850	3,350	18
<b>Lachlan</b>	2,815	3,400	21
<b>Murrumbidgee</b>	2,830	2,600	-8
<b>Murray &amp; Far West</b>	2,590	2,300	-11
<b>Hunter</b>	2,870	3,495	22
<b>Sydney Sth Coast</b>	3,750	4,000	7
<b>Nth Coast</b>	3,600	4,000	11

<b>Use 120% of entitlement</b>	<b>1996/97</b>	<b>1997/98</b>	<b>change</b>
	<b>\$ charge</b>	<b>\$ charge</b>	<b>%</b>
<b>Barwon</b>	5,400	7,200	33
<b>Macquarie</b>	4,590	5,240	14
<b>Lachlan</b>	4,866	5,220	7
<b>Murrumbidgee</b>	3,126	3,020	-3
<b>Murray &amp; Far West</b>	2,738	3,020	10
<b>Hunter</b>	4,935	5,245	6
<b>Sydney Sth Coast</b>	4,950	5,400	9
<b>Nth Coast</b>	4,950	5,400	9



## 5. UNREGULATED RIVERS CHARGES

Existing charges on unregulated rivers are fixed charges which vary depending on the type of licence (irrigation, recreation, industrial or town water supply). The fixed charges for irrigation licences vary with the limit on hectares that may be irrigated.

Table 6 shows annual charges for irrigation licences on unregulated rivers in 1996/97. For a licence for 12 hectares the charge is \$80 (in effect \$6.67 per hectare) while a licence of 162 hectares is charged at \$210 (in effect \$1.30 per hectare). The charges are inequitable because the costs incurred by DLWC to monitor and manage water use are unlikely to fall so dramatically (per hectare) as water use rises.

### 5.1 Proposed charges

The Tribunal's proposal is designed to link charges more closely to the amount of water used. Unregulated water usage for irrigation is not metered (except for some large users on the Barwon-Darling river), so the proposed charges are fixed amounts. Some other water users such as town water supply are metered, but do not have a volumetric licence. The proposed charges for these users therefore includes fixed charges and a usage charge.

DLWC intends to work with water users to convert existing licenses to volumetric allocations and to install metering. The Tribunal's proposal 2b is a two part tariff based on both licensed entitlement and water usage. The two part tariff will apply to all water users on unregulated rivers whose licenses are converted to volumetric entitlements and whose usage is metered.

#### 5.1.1 Irrigation

Proposal 1 maintains existing fixed charges for smaller users but introduces a higher fixed charge for licenses above 20 hectares. Proposal 2a rebalances all charges at \$3.75 per hectare, resulting in a bill reduction for smaller licences and increases for those irrigating over 20 hectares.

Proposal 2b shows the charges equivalent to proposal 2a that would apply if existing area-based licences were converted to volumetric licences and metered. Licences have been assumed to be converted at a rate of 4 megalitres per hectare. However, the correct conversion rates will be set by DLWC in consultation with water users and are likely to vary between regions depending on climate, irrigation practises, crop types and other factors. The Tribunal will then review whether the charges in proposal 2b remain appropriate.

**Table 6 Proposed irrigation charges on unregulated rivers**

Area (ha)	1996/97 (\$)	Proposal 1 (\$)	Proposal 2a (\$)	Proposal 2b
				Entitlement \$0.47/ML Usage \$0.47/ML
<b>12 and below</b>	80	80	50	50
<b>20 and below</b>	100	100	80	80
<b>40 and below</b>	125	150	150	150
<b>80 and below</b>	170	225	300	300
<b>162 and below</b>	210	325	608	608
<b>Greater than 162</b>	250	500	Greater than 608	Greater than 608

Note: Minimum Charges of \$50 and \$80 apply for entitlements of 48 ML and below, and 80 ML and below, respectively.

## 5.1.2 Town water supply, recreation and industry

Town water supply, recreation and industry charges on unregulated rivers are currently set at \$265 per licence.<sup>10</sup> Depending on the number of licences held, the same charge might be paid by very small and very large water users. Charges can also vary dramatically between those using comparable amounts of water depending upon whether they draw their water from one licence or from a number of licences.

Proposals 1 and 2a replace this charge with a fixed charge per water user and a usage charge. Proposal 1 is for a fixed charge of \$200 per user plus \$0.25 per megalitre of total water usage. Proposal 2a is a fixed charge of \$100 per user plus \$0.47 per megalitre of usage. DLWC have indicated that most towns are already metered. If there is no way to calculate a particular customer's usage, then only the fixed charge would apply in those cases.

**Table 7 Town water supply, recreation and industrial licenses on unregulated rivers.**

	<b>Fixed Charge (\$)</b>	<b>Usage Charge (\$/ML)</b>
<b>1996/97</b>	265	nil
<b>Proposal 1</b>	200	0.25
<b>Proposal 2a</b>	100	0.47
<b>Proposal 2b</b>	0.47/ML of entitlement	0.47

Table 8 shows the impact of the proposed charges on bulk water bills for Town water supply, recreation and industrial use from unregulated rivers.

**Table 8 Typical bills for Town water supply, recreation and industrial licenses on unregulated rivers**

<b>Example usage (ML)</b>	<b>Proposal 1 (\$ charge)</b>	<b>Proposal 2a (\$ charge)</b>	<b>Proposal 2b (\$ charge)</b>
200	250	194	188
1000	450	570	940
5000	1,450	2,450	4,700

Note: The charge for 1996/97 is \$265 per license. Typical bills will increase in multiples of \$265 in line with the number of licenses held.

<sup>10</sup> Towns, recreation and industry on regulated rivers pay the charges shown in Table 4. Those accessing groundwater pay the charges shown in Table 9.

## 6. GROUND WATER CHARGES

DLWC has informed the Tribunal that most ground water licenses of 20 megalitres and above are, or shortly will be, metered.

Existing charges for ground water use include fixed charges of \$75 per licence and \$0.40 per megalitre of licensed entitlement. Water users in designated areas already pay an additional \$25 per license fixed charge to recover some additional metering and monitoring expenses.

Existing charges do not vary with the volume of water used. The Tribunal proposes to introduce additional fixed and usage charges to better reflect water usage in bulk water bills and recover increased revenue from larger water users.

### 6.1 Proposed charges

Proposal 1 maintains the existing charges and includes an additional charge of \$0.40 per megalitre of water usage.

Proposal 2 maintains the base charge of \$75, raises the fixed charge on entitlement to \$0.50 per megalitre of entitlement, and includes a usage charge of \$0.10 per megalitre of usage.

Proposal 3 increase the fixed charges by \$10 per licence, maintains the fixed entitlement charge of \$0.40 per megalitre of entitlement and includes a usage charge of \$0.20 per megalitre of usage.

**Table 9 Ground water charges**

	Base charge (\$)	Fixed charge (\$/ML of entitlement on licenses over 20 ML)	Usage charge (\$/ML) (\$/ML of usage on licenses over 20ML)
<b>1996/97</b>	75.00	0.40	nil
<b>Proposal 1</b>	75.00	0.40	0.40
<b>Proposal 2</b>	75.00	0.50	0.10
<b>Proposal 3</b>	85.00	0.40	0.20

Note: The base charge in designated ground water areas includes an additional \$25.

The tables on the following page illustrate the impact of the proposed tariffs on typical bulk water bills for ground water.

**Typical bulk water bills from proposed charges for ground water**

<b>Use none of entitlement</b>			
<i>Entitlement (MI)</i>	<i>20</i>	<i>500</i>	<i>1000</i>
1996/97	\$75	\$275	\$475
Proposal 1	\$75	\$275	\$475
Proposal 2	\$75	\$325	\$575
Proposal 3	\$85	\$285	\$485

<b>Use 30% of entitlement</b>			
<i>Entitlement (MI)</i>	<i>20</i>	<i>500</i>	<i>1000</i>
1996/97	\$75	\$275	\$475
Proposal 1	\$75	\$335	\$595
Proposal 2	\$75	\$340	\$605
Proposal 3	\$85	\$315	\$545

<b>Use 50% of entitlement</b>			
<i>Entitlement (MI)</i>	<i>20</i>	<i>500</i>	<i>1000</i>
1996/97	\$75	\$275	\$475
Proposal 1	\$75	\$375	\$675
Proposal 2	\$75	\$350	\$625
Proposal 3	\$85	\$335	\$585

<b>Use 75% of entitlement</b>			
<i>Entitlement (MI)</i>	<i>20</i>	<i>500</i>	<i>1000</i>
1996/97	\$75	\$275	\$475
Proposal 1	\$75	\$425	\$775
Proposal 2	\$75	\$363	\$650
Proposal 3	\$85	\$360	\$635

<b>Use 100% of entitlement</b>			
<i>Entitlement (MI)</i>	<i>20</i>	<i>500</i>	<i>1000</i>
1996/97	\$75	\$275	\$475
Proposal 1	\$75	\$475	\$875
Proposal 2	\$75	\$375	\$675
Proposal 3	\$85	\$385	\$685

## **7. RESPONDING TO THIS DRAFT DETERMINATION**

### **7.1 Questions about the maximum prices**

Questions relating to the maximum prices in this draft determination should be directed to Alex McMillan on (02) 9290 8405.

Questions relating to licence classifications, entitlements and allocations should be directed to the relevant head office or regional office of the DLWC.

**SYDNEY**  
23-33 Bridge Street  
GPO Box 39  
Sydney NSW 2001  
Ph 02 9228 6111

**PARRAMATTA**  
Macquarie Tower  
Ground Floor  
10 Valentine Avenue  
PO Box 3720  
Parramatta NSW 2124  
Ph 02 9895 6211

**MURRAY**  
8-20 Edwards Street  
PO Box 205  
Deniquin, NSW 2710  
Ph: 03 5881 2122

**FAR WEST**  
45 Wingewarra Street  
PO Box 1840  
Dubbo, NSW 2830  
Ph 068 833000

**HUNTER**  
19 Mitchell Drive  
PO Box 424  
East Maitland, NSW 2323  
Ph. 049 341055

**SYDNEY/SOUTHCOAST**  
84 Crown Street  
PO Box 867  
Wollongong, NSW 2520  
Ph. 042 268591

**NORTH COAST**  
49-51 Victoria Street  
PO Box 339  
Grafton, NSW 2460  
Ph. 066 402200

**MURRUMBIDGEE**  
43-45 Johnston Street  
PO Box 10  
Wagga Wagga, NSW 2650  
Ph. 069 230475

**BARWON**  
155-157 Marius Street  
PO Box 550  
Tamworth, NSW 2340  
Ph. 067 645900

**CENTRAL WEST**  
181 Anson Street  
PO Box 53  
Orange, NSW 2800  
Ph. 063 608278

## **7.2 Written submissions to the Tribunal**

Written submissions should reach the Tribunal by 15 August 1997. Submissions should be addressed to

Chairman  
Independent Pricing and  
Regulatory Tribunal of NSW,  
PO Box Q290,  
QVB Post Office,  
Sydney NSW 1230.

Submissions may also be made by email to [ipart@tpgi.com.au](mailto:ipart@tpgi.com.au)

**APPENDIX: EFFECT OF THE DRAFT DETERMINATION  
ON EXISTING CHARGES ON REGULATED RIVERS**

**Effect of the Draft Determination on existing charges on regulated rivers**

<b>Charge (paid by)</b>	<b>Details</b>	<b>Effect of draft determination</b>
<b>Delivery service</b> (all regions except Barwon)	Charges for water delivery which vary between regions and are calculated on water usage.	Replaced by two part tariffs
<b>Metering</b> (all regions except Murray, Far West and Barwon)	Charges for metering which vary between regions and are calculated on water usage.	Replaced by two part tariffs
<b>Metering</b> (Murray and Far West)	Fixed charges for metering that range from \$50 to \$5500 increasing with entitlement size.	Replaced by two part tariffs
<b>Minimum annual</b> (all regions except Barwon)	Minimum charges calculated at the regional delivery service and metering charges, assuming a minimum water usage. The minimum water usage assumed varies between regions.	Replaced by two part tariffs
<b>Water resource management</b> (all regions)	A state-wide charge of \$1.35 per megalitre of entitlement	Replaced by two part tariffs
<b>Two part tariff</b> (Barwon)	The Barwon region has an existing two part tariff for water.	Replaced by two part tariffs
<b>Water quality monitoring</b> (Central West and Barwon)	A voluntary levy of \$0.25/ML of entitlement in the Barwon region. The Macquarie region participates in the program, but funds the contribution from the delivery service charge on usage.	Replaced by two part tariffs
<b>Licensing fees</b> (all regions)	Fixed fees payable every five years or in annual instalments	Maintained at existing levels.
<b>Sydney Water Corporation and Hunter Water Corporation</b>	\$1.80/ML of water usage.	Maintained at existing levels.
<b>Industrial use</b> (all regions)	\$10/ML on entitlement is the total charge payable for the industrial usage component of all licences.	Maintained at existing levels.
<b>Administration fee</b> (Hunter)	An account keeping fee of \$45 per license per year.	Maintained at existing levels.



**Effect of the Draft Determination on existing charges on regulated rivers, cont'd**

<b>Charge (paid by)</b>	<b>Details</b>	<b>Effect of draft determination</b>
<b>Calibration Charge</b> (Hunter)	Fixed charges of \$200 for the first pump and \$100 for each consecutive pump to recover the costs of calibrating power meters used to measure the amount of water extracted.	Maintained at existing levels.
<b>Irrigators Council Levy</b> (all inland regions)	A voluntary levy of \$0.05/ML on entitlement collected by DLWC on behalf of the NSW Irrigators' Council.	Not affected.
<b>Pindari levy</b> (Border rivers within the Barwon)	A charge of \$9.40 (escalating at 5% p.a.) on water usage to recover some of the capital costs of enlarging Pindari dam. The charge is set in a Memorandum of Understanding with the NSW Border Rivers Council and ceases when a total of \$37,500,00 has been paid.	Not affected.
<b>Shelf Price for new water entitlements</b> (Hunter)	New water entitlements from Glenbawn Dam are available for sale at \$260/ML for general security and \$650/ML for high security. Annual charges for this water are \$17/ML of usage.	Not affected.
<b>High flow licenses</b> (Hunter and Barwon)	Some water users in the Hunter and Barwon regions hold licenses which allow them to divert water during times of high river flow. This water is not charged. Other high flow licenses may exist in other regions.	Not affected.
<b>Glennies Creek Dam Act and Agreement</b> (Hunter Region)	The Glennies Creek Dam Act and Agreement permit Macquarie Generation to access water in the Hunter region and prescribes a formula for payment of this water. The Agreement is current until 2035.	Not affected.
<b>Ground water monitoring</b> (Hunter)	Payment made to recover the costs of ground water monitoring as a condition of a sand mining permit.	Not affected.
<b>Rice environmental monitoring</b> (Murrumbidgee)	An annual fee of \$142.50 paid by all farmers who have grown rice during the previous season to recover rice environmental monitoring costs.	Not affected.

**Effect of the Draft Determination on existing charges on regulated rivers, cont'd**

<b>Charge (paid by)</b>	<b>Details</b>	<b>Effect of draft determination</b>
<b>Rice environmental monitoring for licensed pumpers</b> (Murray and Murrumbidgee)	Farmers applying to grow rice pay an application fee of \$650 for the first 100 hectares and \$375 for every 50 hectares thereafter to recover drilling and assessment costs  Existing rice growers also pay \$550 for the first 100 hectares and \$300 for every 50 hectares thereafter to recover monitoring costs.	Not affected.
<b>Lowbidgee Flood Control and Irrigation District</b> (Murrumbidgee)	A charge of \$0.10/hectare and an internal (non-DLWC) district charge of \$3.90/hectare.  The District does not have a licensed entitlement.	Not affected
<b>Waddy Scheme</b> (Murray)	An additional \$1.00/ML of entitlement for five years from 1993/94.	Not affected
<b>Wakool, Colligen, Neimur, Little Meran Creek Water Trust</b> (Murray)	A management fee of \$1.00/ML on entitlement	Not affected
<b>Gol Gol Creek and Gol Gol North Creek</b> (Far West)	An additional Delivery Service Charge of \$2.94/ML of entitlement.	Not affected
<b>Gol Gol North Creek</b> (Far West)	\$7/ML for a weed eradication program and \$1.00/ML as a drainage charge (for small area farms based on the greater of usage or entitlement and for large area farms based on the greater of half entitlement or usage).	Not affected.
<b>Hydro power royalties</b> (all regions)	Hydro power stations at Wyangala, Glenbawn, Copeton, Burrinjuck, Pindari, Burrendong and Keepit Dams are charged a royalty on revenue from electricity generation.	Not affected.
<b>Application Fees for Water Transfers and Overdraws</b> (all regions)	Application fees for water transfers and overdraws to recover administrative costs: <ul style="list-style-type: none"> <li>• surface water temporary transfers      \$75</li> <li>• surface water permanent transfer      \$250</li> <li>• ground water temporary transfers      \$200</li> <li>• overdraws      \$25</li> </ul>	Not affected.