Nature Conservation Council of NSW Inc.

Submission

To the

Independent Pricing and Regulatory Tribunal

On the

Review of Metropolitan Water Agency Prices

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Nature Conservation Council of NSW Inc
362 Kent Street
Sydney NSW 2000

Phone 02 9279 2466
Fax 02 9279 2499

1. Introduction

The Independent Pricing and Regulatory Tribunal (IPART) is conducting this review of Metropolitan Water agencies pricing under Section 11 of the Independent Pricing and Regulatory Tribunal Act 1992.

Section 11 requires the Tribunal in making determinations to have regard (among other things) to:

> "(f) the need to maintain ecologically sustainable development (within the meaning of section 6 of the Protection of the Environment Administration Act 1991) by appropriate pricing policies that take account of all the feasible options available to protect the environment."

When IPART was established some ten years ago, metropolitan water prices, especially in the areas supplied by Sydney Water Corporation, were low and not reflective of environmental costs in the development and supply of water. Water was cheap and consumers could waste it without incurring any significant penalty. The price of water made little or no contribution to maintaining ecologically sustainable development of water resources. The situation improved slightly with the introduction of a two-part tariff comprising a fixed charge and a further charge for the volume of water actually used by each household.

After a decade of IPART oversight, however, prices remain low. They continue at levels that are not reflective of the environmental costs of supplying water; they provide a weak incentive for water conservation; and they contribute little to ecologically sustainable development and management of water supply systems.

In fact, metropolitan water prices are lower in real terms now than they were when IPART was established. However, instead of being a cause for concern, this was cited on the occasion of IPART's tenth anniversary as one of its achievements. Further, some statements in the IPART issues paper on water pricing show that that IPART continues to be reluctant to apply pricing as a means of encouraging water conservation and environmental protection.

In this submission, the Nature Conservation of NSW will address primarily those matters raised in the IPART Issues Paper which most influence environmental performance and relate to section 11 (f) of the IPART Act.

2. Customers' Willingness to Pay

IPART asks in its issues paper how it can best assess customers' willingness to pay for the services of the metropolitan water agencies and the need for any enhancement in services. However, 'willingness to pay' is a fraught concept influenced by many different values and factors.

Subsidies for parts of water and wastewater systems disguise how much the community pays for those services, as distinct from what customers pay.

Environmental degradation (of catchments, rivers, estuaries etc) is often not counted in what people pay for water services, yet the principle of intergenerational equity and other principles of ecologically sustainable development require that remediation costs should be included.

At a basic level, customer contracts, which form part of the major water agencies' operating licences, as well as consultation reports, surveys, complaints records and similar analyses produced by the water agencies, give some guidance as to customer needs, wants and expectations, even if they do reflect an agency view.

In the absence of significant local competition in water and wastewater services, it is important to take account of local innovations, and to look interstate and overseas for examples of best practice in pricing, design, service delivery, and substitution.

The metropolitan water agencies dominate the market for water and wastewater services in their areas of operations but they do not have monopoly rights. Customers can disconnect from the water agencies' systems and meet their needs with on-site systems for water supply and wastewater treatment or use other suppliers. The freedom to go to on-site systems and to alternatives or competitors may become increasingly important as fresh water resources come under strain and the price of water increases. The pathway to these alternatives systems should not be unnecessarily impeded although the alternatives should be adequately regulated to protect the environment and public health.

3. Period of Price Path

IPART has indicated that this pricing determination will apply a two years commencing from 1 July 2003. This is a shorter period than normally applies in price path determinations however a number of circumstances have been identified as justifying it, including:

* decisions to be made about stream environmental flows,

* decisions to be made about stormwater institutional structures,

* Sydney Water's difficulties in meeting its demand management targets,

* expiration of the current SCA and SWC operating licences in 2005.

NCC accepts in these circumstances that a two year period is appropriate.

4. Revenue Requirements

In this submission NCC recommends that IPART determine, principally for environmental purposes, water price increases that would deliver to all metropolitan water agencies significant additional revenues.

These revenues would be in excess of requirements the agencies have themselves identified in their submissions. However, NCC does not accept that the revenue requirements of the water agencies are properly calculated as they ignore environmental costs which, if they were taken into account and included in agency budgets, would require much higher level of revenues.

Obviously SWC, SCA and HWC can be relieved of windfall revenues by adjustment of the level of dividends they pay to government.

However a preferable outcome, assuming price increases are determined, would be for IPART to include in its determinations a requirement that the additional revenues be spent by each of the water agencies on environmental remediation programs benefiting their water catchment lands, water supply streams and wastewater receiving waters, and also on their demand management programs.

This can readily be achieved for Sydney Water with a step-pricing system for the water supplied to it by the SCA. A different approach, or perhaps set of approaches, would be needed for Hunter Water as the corporatisation of that water agency occurred under different rules which to some extent absolved the corporation from direct financial responsibility for maintaining its catchments.

5. Demand Management

Water agencies have plenty of scope to provide water and wastewater services by means of managing the demand for such services from their customers as well as by managing water supply. NCC supports the implementation of effective demand management/water conservation programs by metropolitan water agencies, employing both price and non-price approaches. At the recent mid term review of the operating licences of the Sydney Water Corporation and the Sydney Catchment Authority, NCC expressed its concern that the demand management targets for these agencies were not being met. NCC foreshadowed that it would be looking to IPART to make new pricing determinations between SWC and SCA and between SWC and its customers so as to give SWC a strong commercial incentive to pursue effective demand management/water conservation programs.

Table 7.2 in IPART's issues paper shows that SWC's residential customers (the key drivers of consumption levels) have consumed water at levels 15%

higher than the average of HWC, Gosford, and Wyong over the past five years.

HWC, Gosford and Wyong are already at or below the 2004/5 per capita consumption targets set for Sydney Water in its operating licence.

6. Price Increases

IPART states in its issues paper that although it could consider raising prices for demand management purposes it is "... far from convinced that this is either appropriate or likely to be successful in the absence of other initiatives". NCC is not aware of any serious proposal to use pricing "in the absence of other initiatives" to achieve demand management and would not support such an approach. Table 7.3 at p. 26 of IPART's issues paper, which purports to show the price increases Sydney Water would have to impose in order to drive down demand sufficient to meet its 2005 and 2011 targets, is unhelpful. NCC supports the use of pricing as a complementary measure to be deployed alongside non-price approaches to demand management such as leakage control, retrofitting homes with water efficient appliances, and water use restrictions. It is assumed that the burden of reducing demand will fall mainly on the non-price approaches to demand management while pricing will assist in their take up.

6.1 SWC Residential Price Increase

In its submission, Sydney Water proposes CPI adjustments (ie no real increases in bills) for the period 2003-2005. These adjustments, by Sydney Water's admission, would not even cover the corporation's expected cost increases. NCC recommends that IPART reject Sydney Water's submission, as a failure to determine any real price increase for Sydney Water would do little to assist the corporation's efforts to achieve its 2005 demand management target. It would continue IPART's omission under Section 11 (f) of its Act to have regard, when making pricing determinations, to the need to maintain ecologically sustainable development.

NCC recommends that the Tribunal determine residential price increases for Sydney Water that are sufficiently high (taking into account projected reductions in consumption from SWC's non-price demand management program), to drive down per capita demand over the course of the next price period to the target levels required by its operating licence. Pricing should provide for different block prices (see discussion below of inclining block tariff).

6.2 Residential Price Increases for HWC and Councils

NCC recommends that IPART determine residential water supply price increases for Hunter Water generally in line with those recommended in the

corporation's submission. However this determination should be made subject to Hunter Water justifying the adequacy of its financial contributions to maintaining the catchments from which it draws its water (as referred to in section 4 of this submission) and if it appears that the contribution is inadequate (in comparison, say, with Sydney Water's contribution through the SCA) then the pricing determination should be varied. NCC also recommends that the determination for Hunter Water provide for an inclined block tariff with a marked price differential between blocks.

Gosford Council has proposed a price increase of about 10% nominal over the two years and this is supported, subject to the introduction of a higher second block price by the Council during the next price period in line with that recommended for the other agencies.

The recommendation for Wyong Council is the same as for Gosford Council.

7. Inclining Block Tariff

NCC strongly supports the introduction of inclining block tariffs for residential customers of the water agencies. The OECD and many European countries support inclining block tariffs as a means of strengthening the demand management signal to consumers. The use of such tariffs would ensure that ordinary household needs for water could be met at a moderate price which maintains social equity, while those households drawing additional water for discretionary uses (such as filling a swimming pool or maintaining a large garden) would pay a significantly higher price for this water.

IPART questions in its issues paper whether consumers would have a correct perception of the price increase resulting from an inclining block tariff (the concern being that it may be perceived as a small increase in average price instead of a significant increase in the marginal price and therefore have less force as a demand management measure). Any consumer uncertainty about the cost of water use can be reduced by means of a well-designed water account presenting the information in graphic form. The water account should ensure that each household is informed about its water consumption, about the steps it can take to moderate its water use, and the cost savings it can make by reducing its water consumption.

IPART has indicated its concern that an inclining block tariff might be inequitable, noting that as household (not individual) consumption is billed, a household with more people might pay more per person for the same level of water consumption than a household with fewer people. However, this concern seems overdone given that a large proportion of metropolitan household water is consumed for outdoor use, especially in gardens, and this is largely independent of the number of persons living in the household. Still, care should be taken to minimise any inequities when drawing the line between blocks and in determining the size of the step up to the next block. Furthermore it should be possible to design block pricing arrangements so that their effects are phased in and are not experienced by consumers as a

sudden spike in water bills. If justifiable equity concerns continue to be raised by particular customers, there should be some scope for these to be dealt with by the government and the water agencies under the arrangements the agencies have in place to meet their community service obligations.

NCC recommends that IPART require inclining block tariffs to be introduced by SWC, HWC, and Gosford and Wyong Councils during the next price period.

8. Split between Access and Usage Price for Water

NCC supports an increase in the proportion of total water bills resulting from usage charges by reducing fixed (or access) charges, as this will strengthen the consumption price signal. This change in billing should apply to both residential and non-residential customers.

IPART's concerns that this might create inequities and cause revenue volatility problems for the water agencies seems unwarranted given that serious problems of that kind have not been reported by Hunter Water, which has for some time relied much more on usage charges than the other metropolitan water agencies.

Hunter Water's fixed (access) charge (based on the same assumed consumption level as the other water agencies of 250kL per annum) is only $25.80, compared with Sydney Water's fixed charge of $75.00, Gosford Council's fixed charge of $70.00 and Wyong Council's fixed charge of $80.00.

The fixed charge proportions of water bills issued by Sydney Water, Gosford Council and Wyong Council should be brought down over the price period to a level close to, if not level with, Hunter Water's fixed charge.

9. Step-Pricing by SCA for supply to SWC

NCC strongly supports the introduction of 'step pricing' to the prices paid by Sydney Water to the Sydney Catchment Authority for bulk water, so as to provide a commercial demand management incentive for Sydney Water.

NCC supported such an approach earlier this year in its submission to IPART for the mid term review of the SWC and SCA operating licences.

Under a step pricing arrangement the volumetric charge paid by the SWC to the SCA for bulk water supplies should rise significantly for water drawn in excess of the demand management targets set out in the agencies' operating licences.

NCC notes that IPART will not allow this additional cost to be passed on to the SWC's customers. This is supported and to do otherwise would undermine

the rationale - to give a commercial incentive to Sydney Water to develop non-dam supply augmentation options.

NCC further notes that the step price would be the usage price charged by Sydney Water less its marginal cost of supply. NCC supports this price. It would give Sydney Water a strong commercial incentive to develop re-use, stormwater harvesting, and rainwater retention as alternative means of supplying its customers with water.

It is appreciated that this approach could, in the first years especially, generate significant funds for the SCA. While NCC accepts that the use of these funds would be a matter for the SCA and the Government, NCC points to the need
(see 11. below) for the SCA to more effectively manage its catchment areas and the requirement this implies for a considerably increased investment of resources.

10. Wastewater/Sewerage Pricing

Wastewater/sewerage charging by volume is in use in the USA and Europe. It is applied by the metropolitan water agencies in Victoria, and IPART has approved such charges by Hunter Water in the form of a two part tariff. Sydney Water charges by volume for trade waste charges but does not have a volume sewerage charge.

NCC supports in principle the introduction of volume charges for domestic wastewater/ sewerage by metropolitan water agencies. However, it is noted that the charging systems employed by the Victorian water agencies and by Hunter Water are less than optimal in the absence of practicable metering systems for wastewater discharges.

The Hunter Water system uses a sewerage discharge factor of 50% for metered fresh water supplied to the household. While this is administratively simple, it provides no way for a household to reduce its wastewater bill other than by reducing its fresh water use, so the wastewater volume charge, to the extent that it can operate as a demand management measure, must operate to limit demand for fresh water.

For the two year price path now under consideration, it may be unwise to distribute a price increase across both the fresh water supply price, and a new wastewater discharge price, as it risks confusing and weakening the demand management signal to customers. It may be better to add the whole of any price increase to the fresh water price as this is more likely to get a strong water conservation response from customers.

IPART should revisit the issue of applying a charge for wastewater/sewerage discharge at the next price path determination for the metropolitan water agencies.

11. Catchment Management

In its discussion paper, IPART asks: "how efficiently and effectively is the SCA managing the catchment and what is the optimum level of funding required by the SCA for its catchment management activities"?

The Audit of the Sydney Drinking Water Catchments performed by CSIRO (Dec. 2001) for the Sydney Catchment Authority, gives some guidance on these matters.

Sydney's drinking water catchments comprise an area of eastern NSW covering 1.6 million hectares and extending from Lithgow in the north to past Braidwood in the south, and from near Nowra in the east almost to Crookwell in the west. There are considerable urban areas within the catchment including the Southern Highlands towns and the city of Goulburn, as well as large areas of land used for agricultural, grazing and forestry purposes.

The Audit's key findings (pp. 24 -25) were:

"1. A range of land uses within the headwater and upper catchments of the Cox's, Nepean, Nattai, Wingecarribee, Mulwaree, Wollondilly, Kangaroo and Shoalhaven River systems are increasing the hazards for both water quality and catchment health. These hazards derive from the extraction of water from the catchment and river systems and most importantly the management of wastes and effluents. The specific pollution hazards to be managed are sewerage effluent and biosolids from sewage treatment plants, unsewered villages, and unsewered per-urban and rural landholdings.

2. Many of these same headwater catchments are under high levels of hydrological stress, particularly during periods of low flow and high demand, This stress, in concert with other impacts of land use and management, has degraded many headwater and upper catchment aquatic ecosystems to the extent that their ability to ameliorate and assimilate pollutants and toxins has been seriously compromised.

3. Hazards to water quality and catchment health in the Mulwaree, Wollondilly, Kangaroo and Shoalhaven catchments include urban and peri-urban development. However, the primary hazards in these catchments derive from the impact of animal grazing with stock access to streams, the large number of unsealed roads and tracks, intensive pig and poultry enterprises, meat and wool processing, and damaged riparian zone, coupled with extensive gully and sheet erosion.

4. It is clear that many of the risks to water quality within the catchment come from existing development. However, current legislation outside the mandate of the SCA can override catchment management regulation. Thus land uses that are inconsistent with drinking water quality and catchment health can be expected to flourish in the Sydney Water Supply catchments unless the SCA has the legislative capacity and the institutional arrangements to deal with existing and future development. This is the primary threat to both water quality and catchment health.

5. The behaviour of microbial pathogens, in particular viral pathogens, in the continuum from source(s) to treatment plant is not well understood. While there has been work detecting Cryptosporidium and Giardia in the catchments, there is minimal information on the behaviour and survival of the different pathogens in different environmental conditions. It is essential that any existing or future data used to improve the understanding of pathogen behaviour in the Sydney catchments are relevant to the environmental and climatic conditions of these catchments. Until these facts are properly understood, risk assessment and management decisions about pathogens in the catchments cannot be undertaken properly.

6. There are large gaps in data on mines, both old and new, the status of their rehabilitation and their impact on the environment. This is largely due to poor collaboration between government departments with different priorities and will need to receive attention.

7. Diffuse sources of sediment and nutrients in the outer catchments, especially degraded riparian zones, unsealed roads, and stock watering points, gully and sheet erosion are a high priority for mitigation".

Catchment management issues highlighted in the Audit include the following:

* " ... The conservation of terrestrial biodiversity needs to be enhanced by targeted revegetation that increases woodland patch size, reduced patch isolation and improves woodland structure by control of grazing." (p.10)

* " .... SCA has estimated the locations and length of stream where stock potentially have access to the stream. They have found that stock presently have the potential to access 38% of the entire river network in the water supply catchments - or a total of about 21, 000km of river. ... stock access to the streams poses a major risk to Sydney's drinking water supply, and is likely to be one of the important causes of river degradation. At the time of the 2001 Audit there is no evidence of any management or policy response by the SCA or by other agencies to this new information." (p. 10)

The SCA's submission to IPART for this price path determination puts SCA's budgeted operating expenditures for 2002/03 at $70m. Of this, the catchment -related budget will be $23.6m of which up to $13m might be expended on projects directly addressing water quality threats identified by the Audit of the Sydney Drinking Water Catchments.

The SCA's capital budget ($15.3m in 2002/03 increasing to $28m in later years) is directed to dam infrastructure rather than catchment works although the Tallowa Dam fishway/offtake ($8.4m commencing in 2004) is expected to improve the quality of the Shoalhaven River by permitting fish to migrate to its upper reaches.

The NCC disagrees with the SCA submission to IPART which recommends a continuation of the current price-path to June 2005, effectively deferring the commencement of a step-price approach for water supplied by the SCA to Sydney Water until after June 2005. NCC believes the SCA cannot afford to take such an approach given the enormous challenge of catchment remediation and management now facing it.

NCC recommends that the SCA/SWC step-price be introduced at the commencement of the two year price-path (2003 - 2005).

12. Stormwater management

Urban stormwater and runoff is a major environmental problem. Stormwater is also a potentially valuable water resource but the current fragmented institutional arrangements for stormwater discourage the metropolitan water agencies from any investment in harvesting this resource.

Stormwater arrangements need to be rationalised and it is noted that they are currently under review by the government.

13. Compliance with environmental standards

IPART asks in is issues paper whether it should pass through to customers the capital costs associated with environmental upgrades by water agencies "... where these are not being undertaken to meet the requirements of the EPA".

If IPART were to apply such a policy in its pricing determinations, EPA regulatory standards would become a brake on the environmental performance of water agencies, stifling innovation, and forcing the water agencies to be less responsive to the demands of their customers. These are very undesirable outcomes.

NCC urges IPART to view EPA standards as placing a floor under the environmental performance of the water agencies, rather than a ceiling above which their environmental performance is not encouraged to rise.

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