IPART INQUIRY

REVIEW OF MAXIMUM PRICES TO BE CHARGED BY NSW METROPOLITAN WATER AGENCIES

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One of the fundamental reasons for driving water reform is the need to recognise new management strategies for the whole of the water cycle. Attitudes prevail that divisionalises water into piped potable supply and sewage. Other classes of water (stormwater/greywater/recycled water) are generally negated. The community and environmental costs of storing, transporting and treating our potable supplies, when we use 70% of that water for non-potable or sub-potable purposes (Fisher and Clarke, 1989) is economically and environmentally flawed. As per capita demand increases, so does the volume of sewage increase, adding huge costs of treatment prior to discharge, generally to rivers and the ocean. Sydney Water Corporation figures show that for the month of October 2002, water demand had increased by 15% over the same period last year. Current policies only assume a limitless water supply will continue to be available for a developing and expanding population. Research carried out by a number of institutions including the CSIRO, show that our water supplies are finite. Drought reinforces this fact in the mind of the public. A recent media release by CSIRO (July 18, 2002) by Dr. Peter Dillon states that "Australia, the world's driest continent, currently wastes 92 per cent of its city runoff and 86 per cent of its effluent water". Dr. Dillon goes on to state "Better urban planning to reduce demand, water sensitive urban design, conserving water in homes and industries, making water use more efficient, and changing water pricing structures all have a role, alongside re-use."

The community has traditionally placed a nil value on rain (natural precipitation). The cost of Potable water is currently made up by the input costs of infrastructure, transport, treatment and distribution. All lesser grades of water (stormwater, sewage) therefore have been given negative values (cost of treatment and disposal). This traditional valuation is flawed, and the reasons are given in this submission.

The economic management of natural resources has not, until recently, taken account of the value of environmental change. Reducing natural system flows in rivers (by building dams), or increasing volume and pollution flows (impervious surface area in urban catchments, sewage overflows) alters the ecosystem, and this can have a negative economic impact. This environmental change should be included in the true cost analysis of our water resources, because we are often forced to spend funds to mitigate the negative impacts of flow regimes and pollution. *(NSW Healthy Rivers Commission, Report: Georges River & Botany Bay).*

The current cost analysis for providing potable water supplies to cities, only considers infrastructure and distribution costs, maintenance and capital costs. The water resource itself is considered to have no value. The change of the flow regimes for the water resource and how it effects the receiving environment is not costed. The pollution input to the water resource, by storm runoff and sewage discharge, is not costed. (*Reynolds, Tomorrow Today Strategic Engineering Planning*). If

water was given a true economic value, we could understand and better manage the total water cycle. We could move as a community, to better environmental management, and try to approach a system equilibrium, which we can then call "sustainable".

The Water Utilities (Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council) have introduced some form of demand management strategy to reduce or stabilise consumer water use of piped potable supply. The success of these strategies on evidence appears to have had limited impact. For example, reports tabled at the current IPART mid term inquiry into the Sydney Water Operating License indicates that water demand has increased by 11.5% since 1995 to the current consumption of 421 litres per capita per day (Coombes, 2002). Yet the operating targets are supposed to achieve 364 litres per capita per day by 2004/05 and 329 litres per capita per day by 2010/11. Sydney Water Corporation has admitted that it is unlikely to achieve these savings based on current strategies (*Alex Walker, General Manager SWC*). It can be argued, that demand management strategies will never be transparent and effective, whilst a Water Utility can gain profit by increased water sales, and at the same time urge the consumer to use less water. There is a profound conflict of interest. One must also ask if demand management strategies are necessarily selective in order to give an illusion of action or whether the array of possible measures have not been fully considered.

The funding solution for total water cycle management and 'catchment repair' is that funds should be generated by placing a Natural Water Resource Value on potable water. The 'Value' should be calculated by independent arbitration, by developing true water resource financial modelling, which takes into account the negative values of environmental degradation (and resulting catchment repair) - reduced environmental flows to dammed rivers, the impact of polluting sewage overflows and outfalls to receiving waters, and the diffuse pollution impacts of stormwater runoff.

The impact of increasing the potable price of water means that in most Australian cities, wastewater re-cycling can immediately become an economic reality. With large volume water users quickly moving to a cheaper alternative supply source (both sewer mining and stormwater re-use) the volume of water processed at the sewage treatment plants reduces. This reduces or eliminates the impact of sewage overflows, reduces the cost of treatment and eliminates the need to amplify the main trunk sewers. It reduces the impact of secondary and tertiary treated sewer discharges to our rivers and ocean. It also opens up the commercialisation of sewage treatment, because private enterprise can tap into an economic resource, and hence sell both the water and the sludge. Private enterprise should be allowed to compete with utilities, to give a competitive return for the consumer.

We believe that ultimately, all waste water in the public system should be potentially available to the community for re-use, even if it is mainly for environmental river flow management, and irrigation.

The collection of roof water by retent ion at the allotment scale, amounts to effective cost savings to the managing utility/authority for future potable supply augmentation. Rainwater tanks are an effective tool in a demand management strategy, but to ensure the community adopts this cost effective solution, they must be given an incentive such as a subsidy. Such approaches begin to bring the true cost of potable water to the minds of the community.

This IPART inquiry needs to evaluate the costs of total water cycle management, and we suggest on evidence, should recommend an increase in the current price of potable water to reflect the cost of catchment repair, environmental flows, water re-cycling, stormwater coordination and funding to local government using *a whole of water cycle analysis*. The results of such an evaluation may surprise. Considerable debate as occurred in the past, when costs of up to \$5 per mega-litre have

been arrived at. We recognise that politically, it would be impossible to increase the price of water to such an extent, so a change in pricing policy must be incremental if it is to work. We suggest that the bulk price of potable water should rise by 10% immediately (i.e. the price the water utility pays for water from the Sydney Catchment Authority). The price of water in the Hunter, Gosford and Wyong areas should have similar parity pricing. The retail price of water should be managed on a tiered rate system, based on the water use. This approach makes it equitable for the community, because the more water used per property, the higher the rate per mega-litre applies.

We suggest that the retail price base rate should apply to the 329 litres per person per day target set for SWC demand management strategy. Above that volume, a new range cuts in at say 5% premium (say 329 to 400 litres per day base calcs), and above 400 litres, a further 5% premium cuts in. The result is politically acceptable because those who conserve pay no extra - those who consume pay a premium. This structure would drive the installation of water tanks for roof water collection as well as all the wastewater recycle options. We suggest there should be no price increase in the base rate, only for the higher usage rates.

Water Reform is necessary to bring about change. The changes we suggest can be brought in systematically and in an controlled framework. The implementation requires leadership. It is principally a mindset change, brought about by the following seven considerations:

- Remove the protected monopoly status of Water Utilities
- Permit private enterprise to trade in all grades of water
- Remove all current conflicts of interest controlled by Water Utilities
- Ensure that regulation and standards are set by independent bodies that are not controlled by Water Utilities.
- Ensure that future water management planning is whole of water cycle driven, and considers the true economic costs to the community in all forward planning decisions.
- Ensure that the environmental regulator has sufficient powers to monitor and police all water trading entities (both public and private)
- Ensure that the human health regulators are provided with sufficient information and independence, in order to set and monitor water quality by all traders for all classes of water.

These suggested changes would have immediate positive outcomes for the consumer the environment, and the industry, however there would need to be some principal guidelines set independently by government to ensure that all water traders played by the same rules. We have seen in the past, restrictive regulation or standards set, where monopoly interests can draw up rules which favour their interests. Good regulation creates a fair and equitable playing field, which protects both industry and consumers. It is important to note that these water reform suggestions do not place a value on water. The trading in all classes of water will find their own market price.

Such reforms need to be implemented in a staged manner, and we suggest, still requires some government monopoly control. This continuing control should apply to the water supply catchments and the water storages managed by the Sydney Catchment Authority. However the authority should be able to sell bulk water to private enterprise. At present they are obliged to sell only to Sydney Water Corporation. However, the regulator (IPART) would need to set the bulk price of water taking into account the true community and environmental cost.

These water reforms would see the introduction of innovative marketing and a choice of water qualities. Consumers need only purchase piped potable water for drinking and food preparation.

Other household water needs can be supplied by lesser quality recycled water or from on-site water retention tanks. Commercial business needs and industry would benefit by being able to purchase water quality grades to suit their potable and non-potable water needs. Individual householders can compete with water retailers, by installing rainwater tanks with or without trickle top-up from the potable supply. Depending upon location, a household rainwater tank of 5000 litres or more can save up to 67% of all household water use in the Sydney Region. The recent incentives announced last month for owners to install individual tanks to supplement their water needs in the Sydney Water Corporation supply area, needs to be extended to customers in the Hunter Water, Gosford and Wyong supply districts. Over time such a strategy will effectively reduce total potable water demand.

We have seen recent deregulation of Utility monopolies both in Australia and overseas, with varying degrees of success and failure. Failure has resulted from poor regulatory controls put in place at the time of deregulation. The successes have resulted where good regulation has safeguarded the public interest, and competition has given greater choice and price competition.

Water reform properly implemented, will conserve our natural water resources, generate new industry, provide consumers with greater choice and provide a better and more sustainable environmental outcome. These reforms can be driven by correctly valuing our scarce potable water resources, by factoring in the true costs borne by the community.

RECOMMENDATIONS

The Stormwater Industry Association considers that there are a number of changes required to the way we view and manage our water resources, which are attributable to all classes of water quality. We make the following recommendations.

- The pricing and management of potable water supply should be assessed by placing values on environmental damage and catchment repair, and then set the value of water resources by applying total water cycle management principles. (Catchment repair levy)
- Pricing should be independently assessed by a tribunal for potable water, together with the environmental damage due to sewage discharge and overflows (black water). Market forces can set the price of re-cycled water (second class water).
- Water retailing & sewage treatment should be opened up to private competition, providing greater economic choice for the consumer with the introduction of recycled water for non-potable use.
- All urban development should be approved subject to providing on-site rainwater retention and re-use of the water for toilet flushing, hot water, laundry and garden irrigation.

For further information and clarification of information contained in this submission, please contact:

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