

INQUIRY ON URBAN WATER AND WASTEWATER PRICING

Environmental Protection Authority

August 2004

Summary

1. The EPA position on water (in summary) is:

- potable water, be it for public water supply, agriculture, industry or domestic use is a fundamental and absolute requirements for life and the community's quality of life;
- the community has the right to expect potable water to be demonstrably clean and healthy;
- the community has the right to expect that the extraction and use of potable water does not compromise the environmental values dependant upon that water (which includes adequate provision of water for the environment);
- management of the environmental impacts of potable water use is an essential component of its use, and requires a consistent and reasonable funding base. Management includes planning, allocation, monitoring for quality and quantity, monitoring of impacts and management strategies, and compliance and effectiveness auditing;
- it would be consistent with 'user pays' for water pricing to reflect full resource management costs including protection of the environment.
- present water resource planning and management function is not meeting environmental regulatory standards, e.g. Gngangara Mound; and
- components of urban water and non-urban water prices should include cost of managing the water resource and any environmental impacts from accessing the resource.

2. The EPA's position on wastewater (in summary) is:

- wastewater treatment can have two main sources of environmental impacts, viz. from operations (e.g. odour, noise, amenity) and solid and liquid waste disposal (e.g. odour, nutrients, bacteria).
- wastewater treatment plants and their waste disposal generally require referral to the EPA for possible environmental impact assessment under Part IV of the *Environmental Protection Act 1986*. Those that don't, normally require licensing under Part V of the *Environmental Protection Act*.
- the EPA is currently developing an Environmental Protection Policy under Part III of the *Environmental Protection Act* for odour emissions from State strategic assets such as wastewater (and water) treatment plants;

- the specific environmental management requirements for wastewater treatment are a core cost of undertaking this business, and consistent with the 'polluter pays' principle, should be fully met by the users of the service (see s.4A, Principle 4(2), of the *Environmental Protection Act 1986*); and
- the price of waste water service should include a component for managing and redirecting (if necessary) the environmental impacts.

Terms of Reference

3. With respect to the Terms of Reference for the Inquiry (Economic Regulations Authority (Water and Wastewater Pricing Reference) Notice 2004), the EPA wishes to address:

- “the cost of providing the services concerned including,-
 - any additional resources needed to meet the required standards of quality, reliability and safety including such matters as the protection and development of future water resources.”
- “the need to maintain ecologically sustainable development, including by appropriate pricing policies that take account of our flexible options for protecting the environment.”
- (from Guidelines for the application of the COAG Pricing Principles)

“6. In applying (4) and (5) above, economic regulators (or equivalent) should determine the level of revenue for a waste business based on efficient reference pricing and business costs. Specific circumstances may justify transitional arrangements to that level.”

“7. In determining prices, transparency is required in the treatment of community service obligations, contributed assets, the opening value of assets, externalities including resource management costs, and tax equivalent regimes.” (“ externalities ” ... means environmental and natural resource management costs attributable to and incurred by the waste business.”

EPA's Role and Responsibilities in the Water and Wastewater Business

4. While the EPA has broad, overarching functions of advising Government, formulating policy and setting standards (see ss.16 and 17 of the *Environmental Protection Act 1986*) it has some specific statutory mechanisms:

- Part III of the *Environmental Protection Act* provides for the formulation of statutory Environmental Protection Policies (EPPs);
- Part IV of the *Environmental Protection Act* provides for the environmental impact assessment of proposals and town planning schemes. As well, this part includes strategic environmental assessment (of plans and programmes); and
- for specific water allocation proposals for which the Water and Rivers Commission is proponent, the EPA has delegated powers for compliance audit.

5. The EPA also has three specific tasks asked of it by Government which are relevant to water resource protection and management:
 - State of the Environment Reporting;
 - environmental performance evaluation (see www.epa.wa.gov.au/overview.asp) of natural resource management sectors (EPA 2004, Preliminary Position Statement No. 8, Environment Protection in Natural Resource Management); and
 - implementation of the Western Australian framework for the Australian and New Zealand Guidelines for Fresh and Marine Water Quality Monitoring and Reporting (Government of Western Australia, 2003, State Water Quality Management Strategy: Document No. 6).

Key Issues: Water resource manager (Water and Rivers Commission)

6. The EPA's key environmental issues with water are:
 - water provisions for the environment;
 - water quality; and
 - compliance with environmental conditions for water abstraction and use.
7. The EPA considers that in order to meet the environmental protection principles in the *Environmental Protection Act 1986* (and to have regard for the wider suite of principles for environmental protection (EPA 2004, Position Statement No. 7 Principles of Environmental Protection) there must be a systematic and open process to determine environmental water requirements before allowable abstraction and use levels are set and authorised. To this end the EPA supports the (then) Water and Rivers Commission's Statewide Policy No 5, 2000 Environmental Water Provisions Policy for Western Australia, which has as a primary objective:

“to provide for the protection of water dependant ecosystems while allowing for the management of water resources for their sustainable use and development to meet the needs of current and future users”.

The water planning and allocation process identified in this policy, including reference to the EPA as appropriate, must be properly resourced in order to be effective.

8. With respect to water quality for fresh and marine water in the State, the EPA has specific responsibilities under document 6 of the State Water Quality Management Strategy 'Implementation framework for Western Australian for the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Monitoring and Reporting'.

This is a Cabinet – endorsed policy development which requires that:

- all significant water resources in Western Australia be defined spatially, on a priority basis;
- through a thorough consultative process involving the community, environmental values (EVs) for water quality be developed for each significant water resource. An EV is a particular value or use of the environment important for a healthy ecosystem or for public benefit;
- for each EV, a set of broad environmental quality objectives (EQOs) be developed. An EQO should reflect the desired state of water quality;

- For each broad EQO, environmental quality criteria (EQC) – sometimes know as benchmarks – be set. EQC can comprise numerical values and/or narrative statements;
- For EQC, two thresholds may be set:
 - (a) Environmental quality guidelines (EQGs). If a guidance is breached, then an investigation should be initiated against and environmental quality standard (EQS). Breaching an EQG does not automatically imply environmental problems but does imply a warning level, and
 - (b) Environmental quality standards (EQSs). If a standard is breached, then management response should be initiated to fix the problem and if necessary, restore the environmental quality. Breaching an EQS implies that there is some risk of environmental problems occurring.

Where water resources are highly degraded, the use of interim remediation targets may be used. This would usually apply to terrestrial water resources with significant salinity, eutrophication and sedimentation problems arising from diffuse source activities;

- The Australian and New Zealand Guidelines for Fresh and Marine Water Quality and Water Quality Monitoring and Reporting be used as default EQGs unless more appropriate information for local water resources is available;
- Environmental quality standards be developed specific to the water resource. They may be numeric or narrative;
- The day-to-day water resource manager for water quality employ an environmental management system (EMS) for each significant water resource,
- The EPA signs off the EVs, EQOs – including EQC – and targets;
- The resource management agency has the day-to-day management responsibility for the resource; and
- The EPA evaluates the environmental performance of the day-to-day management agency against the EQOs and publicly reports to Government.

The cumulative outcome of systematically setting EVs and EQOs (EQC or targets) for each of the State's significant water bodies, and having appropriate monitoring, auditing and reporting procedures, should be sustainable water resources that meet the needs of the State, communities, and the environment.

Again to achieve this, water quality protection must also be properly resourced.

9. The EPA has noted in two recent public reports (EPA Bulletins 1134 & 1139 available on www.epa.wa.gov.au) regarding the performance and compliance auditing of environmental management of the Gngangara and Jandakot. Mounds, that there is non-compliance with environmental conditions and that “deferring immediate action to achieve compliance is no longer legally nor environmentally acceptable”.
10. The EPA has also noted the report of the Auditor General (Second Public Sector Performance Report: Report No. 7, 2003) and the key consideration contained therein:
 - ground and surface water monitoring has been progressively reduced;

- the resource manager does not have the information needed to accurately determine the sustainable level of groundwater and surface water in many areas of the State;
 - the resource manager has not determined allocation limits for a significant number of water resources;
 - licensed water use in parts of 13 of the State's 44 groundwater management areas exceed the estimated sustainable limit; and
 - water demand has doubled in the past 15 years while there has been a 33% decline in funding in real terms since 1998.
11. In the face of the evidence of dimensions of the required resource management task and the documented performance it is hard not to conclude that water resource management performance has fallen below that required to ensure ongoing sustainable management of the State's water resources. From the environmental protection viewpoint, there is a danger of unacceptable impacts with both quantity and quality.
 12. Water pricing as an economic tool for helping demand management with consequential environmental benefits should be explored.

Key issues: Wastewater manager (Water Corporation).

13. Environmental impacts from operations can and do transgress site boundaries, and this can lead to land use conflicts. The most common example is odour conflicting with urban development. If planning decisions allow urban development to move closer to wastewater treatment plants, then to achieve environmental quality standards, the costs for treatment normally rise. On the other hand there is a question of equity whereby private land-owners may unreasonable bear some of the cost of wastewater treatment through 'lost opportunity'. Either way the cost of treatment must include the cost of managing any land use conflicts.
14. Similarly the cost of solid and liquid waste disposal including treated waste discharge to the ocean must be fully factored into treatment costs. Monitoring and application of a continuous improvement philosophy form part of these costs.
15. Consistent with the 'polluter pays' principle in the *Environmental Protection 1986* (s.4A, Principle 4(2)), the environmental management costs of wastewater treated should be met in full by the users of the service.