

SUBMISSION TO NATIONAL COMPETITION COUNCIL FOR DECLARATION SEWAGE TRANSMISSION AND INTERCONNECTION SERVICES PROVIDED BY SYDNEY WATER

BACKGROUND

The Water Reclamation and Management Scheme (WRAMS) at Sydney Olympic Park (SOP) is a showcase of integrated urban water management, which has been in full operation since July 2000 providing recycled water on a continuous basis to the residential community of Newington, and all sporting venues and facilities at Sydney Olympic Park.

The key elements of WRAMS include:

1. Water Reclamation Plant (WRP) that removes water from sewage;
2. Water Treatment Plant (WTP) to filter and disinfect water from the water reclamation plant and from storage;
3. Rainwater storage reservoirs;
4. Sewer mining facilities; and
5. Separate dedicated recycled water distribution system.

The Sydney Olympic Park Authority (SOPA) owns all of the above assets.

WRAMS is currently saving more than 800 million litres of drinking water annually. In addition WRAMS processes a similar amount of sewage, which would have otherwise been discharged into the ocean. Further, every year SOPA is collecting, storing, treating and reusing approximately 700 million litres of stormwater, which also provides and enhances fauna and flora habitat areas of the 425ha of the Parklands and irrigates the urban areas of SOP.

To complement this initiative the Authority has mandated use of water-saving devices and appliances in all buildings across the whole development area resulting in a reduction of water consumption by 30 % compared to traditional fittings.

Since July 2000 WRAMS has met all mandatory performance standards (chemical, physical and biological) for the entire period.

WRAMS - INTEGRATED URBAN WATER CONCEPT

During initial planning stages of the Sydney Olympic Park development it was recognised there are complex interdependencies between water resources namely sewage, stormwater, recycled water and potable water. This recognition led to the formation of an integrated water cycle system. A sustainable whole-of-catchment

strategy was the central focus to achieve solutions with minimal impact on the land and water, community and economy.

The principles of the scheme are illustrated on the attached document. SOPA believes that local, decentralized and catchment-based schemes have a significant role in resolving some of the urban water problems. We would be pleased to discuss these principles if necessary.

WRAMS DEVELOPMENT

WRAMS was designed and developed by SOPA. The implementation process included a competitive public tender process for design, construction and operation. Currently SOPA has in place a 25 year operating agreement with United Kilpatrick Green.

Sewer Mining

WRAMS sources its sewage supply from Sydney Water Corporation's (SWC) sewage network utilizing the concept of sewer mining. Sewer mining operation is based on the capture and transfer of urban sewage and its subsequent treatment for beneficial reuse applications and to reduce impact on the larger sewer network and environment.

SWC and SOPA have jointly developed a formal sewer mining agreement in 2000 to enable SOPA to source sewage for its purposes from SWC's sewer system.

SOPA Role

For the purpose of WRAMS, SOPA is a Water Supply Authority under the NSW Government's Water Management Act 2000 and is responsible for managing the scheme including the following:

- Compliance with regulatory and statutory Authorities;
- WRAMS asset ownership and management;
- Recycled water quality;
- Interface with customers;
- Biosolids and residual materials management;
- Research & Development; and
- Interface with contractors and service providers.

Meter reading and customer billing functions, recycled water pipeline maintenance, plumbing inspections and certifications have been outsourced and are being performed by SWC on behalf of SOPA.

Regulatory Mechanisms

On the basis of an IPART recommendation recycled water at SOP is sold to customers for fifteen cents less than the price of drinking water supplied by Sydney Water. In addition a meter service charge is also applicable.

SOPA is collecting sewage from SWC system for the purpose of treatment and reuse. SWC also collects normal sewage service charges from all customers at SOP and Newington. This amount is not refunded to SOPA.

Actual costs of WRAMS operation excluding capital investment is in order of \$2.00 per KL.

SPECIFIC COMMENTS TO QUESTIONS RAISED IN NCC ISSUE PAPER

In its Issue Paper, the NCC has requested specific comments on a number of issues which generally are outside SOPA's area of expertise. However based on experience to date SOPA can provide comment on the following specific issues:

The Service, The Facility And The Service Provider

Pages 7 to 11:

- More details are required with regard to responsibility for asset ownership and asset operation in terms of compliance, performance standards, long term planning, technology development, demand management and sustainable outcomes.
- The opportunity exists for more comprehensive, integrated urban water management concepts to be developed that would also address issues of water shortage and pollution control of our waterways.
- Would inland sewerage systems be regarded differently to coastal systems?
- More particularly the proposed Sydney Sewage Reticulation Network comprises only part of Sydney's sewage catchments, however similar challenges and opportunities could exist elsewhere. The declaration should consider all Sydney's sewage catchment, not only selected parts.

Page 12:

S. 44g(2)(b) - "that it would be uneconomical for anyone to develop another facility to provide the service"

The acceptable level of community demand for services should be based on criteria which enable answering fundamental questions such as:

- a. Is the sufficient capacity available? What are the parameters and definition of sufficient capacity?
- b. ESD - Is the quality of service appropriate to present community's social, environmental and economic principles?

- c. Future Demand - Should additional capacity be required, what would be the most beneficial and sustainable method of meeting the future demand?

S. 44g(2)(a) - "that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia), other than the market for the service"

- Declaration of sewage services will only facilitate increased competition, if it is correctly defined and executed.
- SOPA believes that the opportunity exists for establishing a new range of products and services based on sewer mining and recycled water that should be encouraged by a system of incentives.
- SOP is an example of one of the few places that sewer infrastructure is serving more than one purpose and is shared between authorities.
- Since sewage is generally considered a problem with no commercial value. It does not attract any competition in the market place. This perception would change if sewage is regarded as a base product and reliable source of water.
- Taking into account environmental externalities will facilitate and encourage a climate for better resource management and appreciation of resource value distinct from costs and prices. This in turn could stimulate industry to develop products and management tools that could improve overall environmental social and economic performance.