

**8 November 2005**

**PRINCES PARK RECYCLED WATER PROJECT – PROGRESS  
REPORT**

**Division**      Assets & Services

**Presenter**    Ian Harris, Group Manager Parks & Recreation

**Purpose**

1. To report on the progress of planning for the proposed Princes Park Recycled Water Treatment plant, to provide feedback on the initial community consultation and to seek endorsement to proceed with the planning of this project.

**Recommendation**

2. That the Planning and Environment Committee:
  - 2.1. note the progress in relation to the proposed Princes Park Recycled Water Treatment plant; and
  - 2.2. endorse proceeding with the planning associated with the water treatment plant.

**Key Issues**

**Progress to date**

3. In April 2004, the former Environment, Sustainability and Indigenous Affairs Committee of Council considered the project and requested that a further report be provided following financial modelling on the project.
4. City West Water in conjunction with the City of Melbourne has subsequently confirmed the feasibility to deliver treated recycled water from a plant located in Princes Park, to Princes Park, Royal Park and Carlton Gardens (see attachment 1). Other potential user sites include Melbourne Zoo and the University of Melbourne, Fitzroy and Treasury Gardens and Yarra Park. Water would be sourced from the large sewer located under Cemetery Drive.
5. Site investigations have indicated that plant could be completely underground (except for a small structure in the vicinity of Princes Park Drive. This would be required for access and an emergency access/vent structure). The plant when constructed would be covered with soil and the site made available for sports (soccer) use. (See attachments 2, 3 and 4).

### **Water Smart Australia Grant Application**

6. The recent initiative of the Federal Government of the “Australian Government Water Fund – Water Smart Australia” has provided the opportunity for City West Water to apply for a grant for the substantial portion of the \$30 million total project cost. The announcement of successful applications is expected in late November or early December, 2005. The project is understood to have significant support at both State and Federal Government levels.
7. The application is based on Federal and State Governments contributing in the order of 90% of the project cost with City West Water and key consumers, including the City of Melbourne, required to contribute the balance.
8. Council’s contribution (proposed at approximately \$1.25m) would be provided by the capital investment in the reticulation network required to deliver the recycled water to our parks and gardens. These funds would be sourced over several years through Council’s capital works program.

### **Community Involvement**

9. Support of the community is critical for both the construction of the treatment plant in Princes Park and for the use of treated re-cycled water for irrigation of parkland. To ensure that the community is fully informed of this project a comprehensive community consultation strategy has been prepared and to date the relevant resident associations have been fully briefed and a general community forum has been held (see Consultation Section).

### **Recycled Water Quality**

10. Success of this project depends on the treatment plant producing quality recycled water that is acceptable to the community for use in parkland. Class A recycled water is required that meets the Environment Protection Agency and Department of Human Services guidelines for unrestricted use in publicly accessible spaces.

### **Land Tenure & Planning Approvals**

11. Council as Committee of Management, in conjunction with the Minister for Planning would be responsible for negotiating and approving a lease (subterranean) for the treatment plant facility in Princes Park and other facilities, e.g. underground tanks in other parks. A maximum 21 year lease can be issued under the *Crown Lands Reserves Act* without specific legislation.
12. Council as the Responsible Authority under the City of Melbourne Planning Scheme would be responsible for considering and approving the planning permits required for the treatment plant and the storage tanks located in the other parks and gardens. The statutory planning process also would allow for further community input.

### **Financial & Water Purchase Arrangements**

13. City of Melbourne and City West Water financial staff have investigated financial modelling scenarios. A long term agreement is proposed to be negotiated by the parties based on the premise that the initial purchase of recycled water used by the City of Melbourne would be at or below the potable water rate (currently \$0.868 cents per kilolitre) applicable at the commencement of the scheme.

## **Environmental Approvals**

14. Environmental approvals would be issued by the Environment Protection Authority with a pre-requisite endorsement by the Department of Human Services required. Both the Environment Protection Authority and Department of Human Services have been fully involved in the planning of this project.

## **Next Steps**

15. Should the application for funding be successful it is expected this would be announced in late 2005. This would initiate a four year project timeframe for detailed planning and construction as follows:
  - 15.1. a 12 month community consultation, approvals and design phase (2007);
  - 15.2. a 12 month treatment plant construction phase (2008);
  - 15.3. an initial water treatment phase – Princes Park Only (2009); and
  - 15.4. subsequent stages (2 & 3) of increased water treatment, Stage 2 Royal Park (2010), Stage 3 Carlton Gardens (as required after 2010).

## **Relation to Council Policy**

16. Council's Water Management and Conservation Policy "Total WaterMark" calls for an ongoing reduction in consumption of potable water by Council with a target reduction of 40% by 2020. This is to be achieved by reducing total water use, and the substitution of potable water with recycled water.
17. Council's Environmental Management Strategy for Parks and Recreation Facilities "Growing Green" - calls for the increase in the use of water products from renewable and alternative sources in the development, refurbishment and management of parks and recreational facilities.

## **Consultation**

18. Initial consultation has been undertaken on the project as follows:
  - 18.1. Resident Groups - A briefing of relevant residents associations about the underground treatment plant in Princes Park was held on 26 September 2005. The groups involved were the Parkville Association, Save Princes Park Group, Princes Park Protection Group, Carlton Association and North Carlton Association. Positive feedback was received at this meeting with regard to this project; and
  - 18.2. Community Forum - A Community Forum chaired by Councillor Brindley was held on Monday, 10 October 2005 involving residents from Princes Park, Royal Park and Carlton Garden areas. This forum specifically addressed the issue of the use of recycled water for irrigation of parkland. Five people attended and the feedback indicated general support for the use of recycled water and the associated underground treatment plant. The need for a traffic management plan in order to protect residential areas from increased truck traffic during the construction period of the treatment plant was also identified.
19. Extensive ongoing involvement of the community will continue during the planning and approval process. Specific initiatives will include the preparation of an information brochure, information provided on Council's website, corporate advertisements in the local papers and further community forums. The community will also have the opportunity to input when Council considers the planning approvals required for the project.

## **Government Relations**

20. The Australian Government Water Fund – Water Smart Australia is a significant initiative to advance water conservation and water recycling. The success of the City West Water application would show the strong support of both Federal and State Government for the proposed project.
21. Both the project Feasibility and Functional Design reports have been developed in conjunction with City West Water and Melbourne Water. Both Authorities fully support the initiative and the City of Melbourne’s involvement. Each see the implementation of a full scale water mining plant significantly contributing to the achievement of the goals of the Victorian Government’s - “21 Century Melbourne: A Water Smart City”.

## **Finance**

22. The City of Melbourne will be required to provide capital of approximately \$1.25m for new reticulation systems within the Princes Park precinct.
23. This is a City West Water project and the total capital cost will be determined, firstly by the success of grant funding and secondly the final design specifications of the plant proposed to be built by City West Water.
24. A contract to be negotiated between City West Water and City of Melbourne will determine operational cost, however current assumptions include operational costs of the plant will be borne by City West Water, with City of Melbourne required to purchase recycled water at or below the prevailing potable water rate (currently \$0.868 cents per kilolitre).

## **Legal**

25. Council is committee of management of Princes Park pursuant to Section 14 of the *Crown Land (Reserves) Act 1978* (“CLR Act”).

## **26. Sustainability**

27. The Treatment Plant’s overall annual maximum capacity is 700 megalitres with an estimated maximum potential demand for all users of 580ML at ultimate development. The City of Melbourne’s use, depending on seasonal fluctuations and irrigation system efficiencies, is likely to range from 350-450ML/year. Potable water savings in the order of 25 -30 % of the current average annual volume of water used to irrigate Council’s parks are anticipated.
28. A preliminary embodied energy assessment of the proposal has been conducted. For the ultimate development of the scheme, the estimated embodied energy associated with the water purification plant and associated distribution system and storage tanks is in the order of 34,686,000 MJ.
29. A preliminary greenhouse gas assessment of the proposal has been conducted. At ultimate development (580 ML), the estimated green house gas emission of the water purification plant and distribution pumping is 2800 t CO<sub>2</sub>-e/yr, with an estimated power consumption of 1900 MWhr/yr.
30. City West Water has indicated that it will assign dedicated “green power” to this project thus avoiding an increase in green house emissions (potentially 2715 t CO<sub>2</sub> – e/yr) that would otherwise arise).

## Background

31. Council's parks and gardens consume 1,300 to 1,550 Mega litres of water each year. A range of initiatives is being progressively introduced to reduce water consumption wherever practicable. These measures include:
    - 31.1. the development of comprehensive water management plans by Council's Open Space Service Providers;
    - 31.2. the renewal of ageing and inefficient irrigation systems; the introduction of drought tolerant grasses, especially in sporting fields;
    - 31.3. revised plant selection when renewing garden beds where appropriate; and
    - 31.4. in addition to reduction strategies, Council is also examining potable water substitution opportunities.
  32. The use of membrane technology allows the significant reduction of the treatment plant footprint making it suited to inner suburban locations. Princes Park (South) is a good location for such a treatment plant due to its proximity to a large sewer and its geographical central location to Council's northern parklands. The chosen site has good physical characteristics for the proposed underground installation (flat, no trees, relatively easily excavated rock) and is remote from residential areas.
  33. The current potable water used to irrigate the identified park area and sports fields is on average, approximately equivalent to 25 to 30% of the Council's water consumption.
  34. Due to the Council's involvement in the development and the likely high community interest, an application for planning approval for the treatment plant and storage tanks is considered necessary and appropriate.
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### Attachments:

1. Recycle Water Scheme Distribution Area
2. Princes Park Treatment Plant Footprint
3. Underground Treatment Plant Schematic
4. Post – Construction Schematic

**FINANCE ATTACHMENT**

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Funding of \$66,040 has been included in the Capital carried forward from 2004/05 for Water Mining and Purification (project 04PR017N). There has been no future budget pre-commitments for this project approved by Council.

**Joe Groher**  
Manager Financial Services

## LEGAL ATTACHMENT

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Assuming the City West Water and Council reach agreement to construct the water mining facility, it is proposed that Council grant a lease to City West Water.

Pursuant to section 17D of the *Crown Land Reserves Act 1986* (Act), the Council in its capacity as Committee of Management of the Land, is entitled to grant leases of the whole or part of the relevant lands for purposes for which the lands are not reserved where approved by the Minister, up to a term of 21 years. The Act also provides that the property in any fixtures installed on the land reverts to the Crown at the expiry of the lease.

Assuming the lease is for a term of more than 10 years, Council's intention to enter into the lease must be advertised in accordance with section 190(3) of the *Local Government Act 1989*, ("LGA").

Where the Council is required or chooses to advertise its intent to lease pursuant to section 190 of the LGA a public submission process in accordance with section 223 of the LGA is required.

**Alison Lyon**  
Manager Legal & Governance