Information Sheet

water forever

Water Recycling – Public Open Space

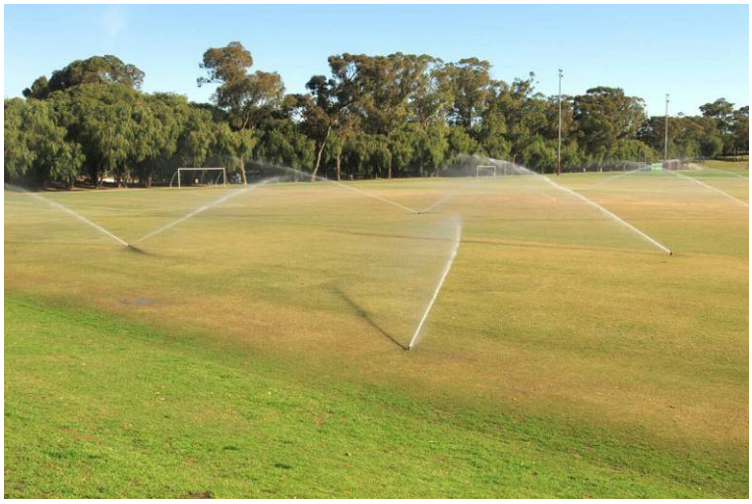
Background

Water is considered recycled when wastewater and / or stormwater is appropriately treated then supplied for any number of suitable uses such as watering of parks and gardens, golf courses, industrial uses and household non-drinking uses. There are currently 60 water recycling schemes across Western Australia where treated wastewater is recycled, mainly onto parks, golf courses, gardens and race courses.

In 2005 an estimated 70 gigalitres of water was used for watering public open space in Western Australia. In the Perth metropolitan area, local groundwater resources are the major source of water for public open space. Traditionally it has been uneconomic to utilise alternate water supplies such as scheme water.

Current Situation

In Perth there are some examples of recycled water being used for irrigating public open space. These schemes generally replace groundwater use rather than drinking (scheme) water use.



One well known example is McGillivray Oval, established by the Water Corporation in 2004 using treated wastewater from the Subiaco Wastewater Treatment Plant.

In Mandurah, the Halls Head Wastewater Treatment Plant is the water source for a groundwater replenishment scheme, infiltrating treated wastewater into the superficial aquifer through onsite basins. This water is then stored in the aquifer and is available for re-use.

Recovery bores draw this recycled water and have supplied the Seascapes estate with water for public open space since 2000. Opportunities to expand this scheme are currently being investigated.

In April 2007 the WA Premier announced that a State Water Recycling Strategy would be developed to improve water use efficiency and water recycling in Western Australia. This strategy supports the State Water Plan 2007 water policy framework to “Use and recycle water wisely”.

The Future

Future water recycling for public open space will most likely be feasible where there is no cheaper alternative water supply available. Where groundwater is available, it generally provides a more economic and sustainable alternative to using recycled water.

Until recently, there has generally been groundwater available to irrigate public open space in the metropolitan area, although this is beginning to change as a result of the drying climate. Recycled water schemes for public open space may be cheaper than scheme water, but still cost prohibitive for end users. Greater capacity development in local government together with access to grant funds will facilitate water recycling to public open space.

Sustainability considerations

Economic	Social	Environmental
Recycled water schemes for public open space may require Government subsidy	High level of community acceptance for recycling to public open space	Minimises the use of scheme water and private groundwater supplies
Some costs for recycled water supplies may be passed on to customers (eg: at a golf course)	Public open space provides important health and lifestyle benefits to the community	Helps to maintain wetlands and natural bush areas
Seasonal demand can make schemes more costly	Smaller lot sizes increase the need for adequate and suitable public open space	Infiltration of wastewater can provide a low cost, low energy intensive treatment option

Potential source yield

Most recycled water schemes for public open space do not replace scheme water demand.

Potential cost

The estimated cost to provide recycled water to public open space in close proximity to a wastewater treatment plant is between $1 - $2 a kilolitre. The unit cost of an individual scheme could vary greatly, depending on proximity to source, level of treatment required and other factors.

More Information

- Water Recycling, November 2006
  Integrated Water Supply Scheme, Security through Diversity, 2005 – 2050
  http://www.watercorporation.com.au/_files/PublicationsRegister/22/Recyling_Nov06.pdf

- Water Corporation web site
  http://www.watercorporation.com.au/M/mcgillivray_oval.cfm

Key

Potential source yield (in 50 year planning horizon)

Potential cost (2007 $)

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