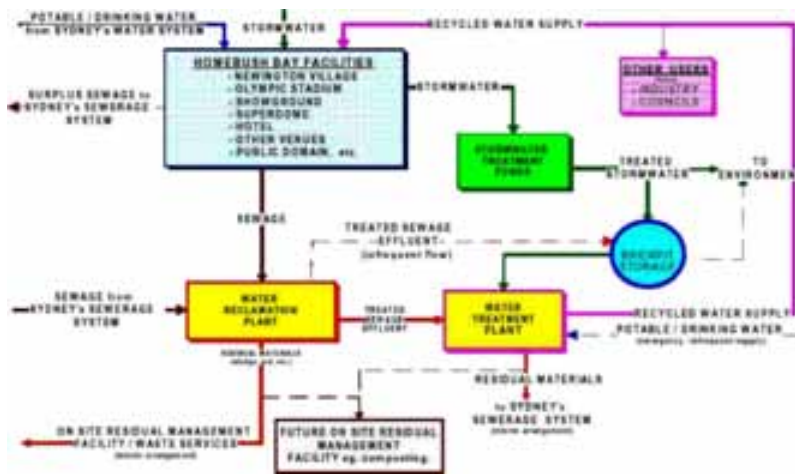


A Case Study in *Water Sensitive Urban Design: Homebush Bay, Sydney, Australia

Homebush Bay was transformed from an area of landfill, abattoirs and a navy armament depot into an international showpiece for the 2000 Olympic Games using innovative water treatment and conservation measures. The WSUD objectives of the site include protecting receiving waters from stormwater and wastewater discharges, minimising potable water demand and protecting and enhancing habitat for threatened species. These objectives have been achieved largely by on-site treatment, storage and reuse of stormwater and wastewater.

Stormwater run-off is treated using gross pollutant traps, swales and/or wetland systems. Wastewater is treated on-site using a water reclamation plant. The treated wastewater and stormwater is stored in a disused brick pit and subsequently used as an alternative water supply for water features, irrigation purposes, toilet flushing and fire fighting.

The use of this alternative water source, combined with water saving appliances, can reduce consumption of potable water by approximately 50% annually. To date, all water quality monitoring data of the recycled water (ie. metals, nutrients, bacteria, viruses) complies with Australian water quality standards.



The Homebush Bay Water Management Scheme

WSUD Planning and Design Features at Homebush Bay

- Contaminated soils were reclaimed and treated prior to any construction activities.
- Open space plans were modified to conserve the habitat of an endangered frog species.
- Stormwater is treated using gross pollutant traps, swales and wetlands to improve water quality.
- On-site wastewater is treated using an advanced water reclamation plant.
- Recycled water is stored in a disused brick pit.
- Stormwater and wastewater are harvested and used in water features, irrigation, toilet flushing and firefighting.
- A dual pipe system exists for potable and non-potable water supply to all buildings.

* Water Sensitive Urban Design (WSUD) offers sustainable solutions for integrating land development and the natural water cycle. SuDS are a component of WSUD. Source: Water Sensitive Design in the Australian Context, conference held 30th - 31st August 2000, Melbourne, Australia. For further performance details, please refer to the following website: <http://www.oca.nsw.gov.au/resource/wramsartwork.pdf>