

The Green at Brighton

Land use / development type	Scale
Residential Public open space	Residential lot Precinct

Stormwater controls	Scale
Swales	Street

Efficient use of water	Scale
Waterwise landscaping	Structure plan area

Water reuse	Scale
Community bores	Structure plan area

Site conditions	
Soils	Sand
Groundwater	> 5 m
Slope	< 10 %

Local government	Location
City of Wanneroo	Landbeach Boulevard

The Australian Bureau of Statistics estimated that the Perth metropolitan area had a growth of 3.2 per cent in 2008-09. This population growth rate is the fastest of any metropolis in Australia.

There has been a lack of rainfall runoff in Perth and availability of groundwater is declining, particularly in the north west corridor due to the supply of drinking water from the Gnangarra mound.

'The Green' at Brighton is the fourth village of Satterley's Brighton development in the City of Wanneroo. Approximately 1,100 lots and 10 public open spaces are located within the development area.

The development has installed a reticulated non-drinking water or dual reticulation system which delivers non-drinking water supply for the irrigation of public open spaces and private spaces using groundwater from the superficial aquifer. An onsite weather station with moisture sensors is connected to five bores and has a central controller which determines the watering schedule. The system is pressurised only between 10pm and 6am to reduce water loss through evaporation.

Key Project Features

- Reticulated non-drinking water supply of groundwater for irrigation of public open spaces and domestic gardens which is controlled by a central control system
- Waterwise landscaping utilised within public open spaces and promoted to residents through waterwise landscaping packages
- Homes installed with WELS rated appliances
- Swales used to aid infiltration
- Community marketing campaign aimed at educating the local community



Image courtesy of UDIA



Image courtesy of the Water Corporation

Development Costs¹

Weather station	\$25,000
Computer and software	\$30,000
Dual reticulation	\$2,500 - \$3,000 / lot
Waterwise landscaping	\$8,000,000 - \$12,000,000

¹All Costs are site specific and are an approximation given for guidance purposes only

Issues

The Green is located within a protected drinking water source area P3 protection area.

Outcomes

The project has significantly improved our understanding of the regulation, operation and maintenance of non-drinking water schemes in Western Australia. The project overcame several significant challenges such as financial, regulatory, health, and complicated approvals processes. The results of community marketing campaign revealed that the community are supportive of the project.

Water efficiency monitoring within The Green is still in its early stages due to the rolling construction schedules although sample data

from select homes have indicated that household use of water has possibly been reduced by over 50% in comparison to the Perth Metropolitan average.

The monitoring of groundwater usage in public open spaces indicated that the water usage is decreasing with most of the public open spaces using below the allocated level with target levels being approached.

The Green project enabled the establishment of a central point of expertise for non-drinking water in WA whilst exploring different levels

of service to make schemes cost competitive.

In order to assess the merit of dual water supply schemes the Water Corporation in collaboration with the Department of Water established a structured approach. Industry wide guidelines were developed in to assist developers in the design and construction of dual reticulation schemes. The [draft](#) guideline is available from the Department of Water and is valid until the October 2011 when it will be formally reviewed.



Image courtesy of UDIA

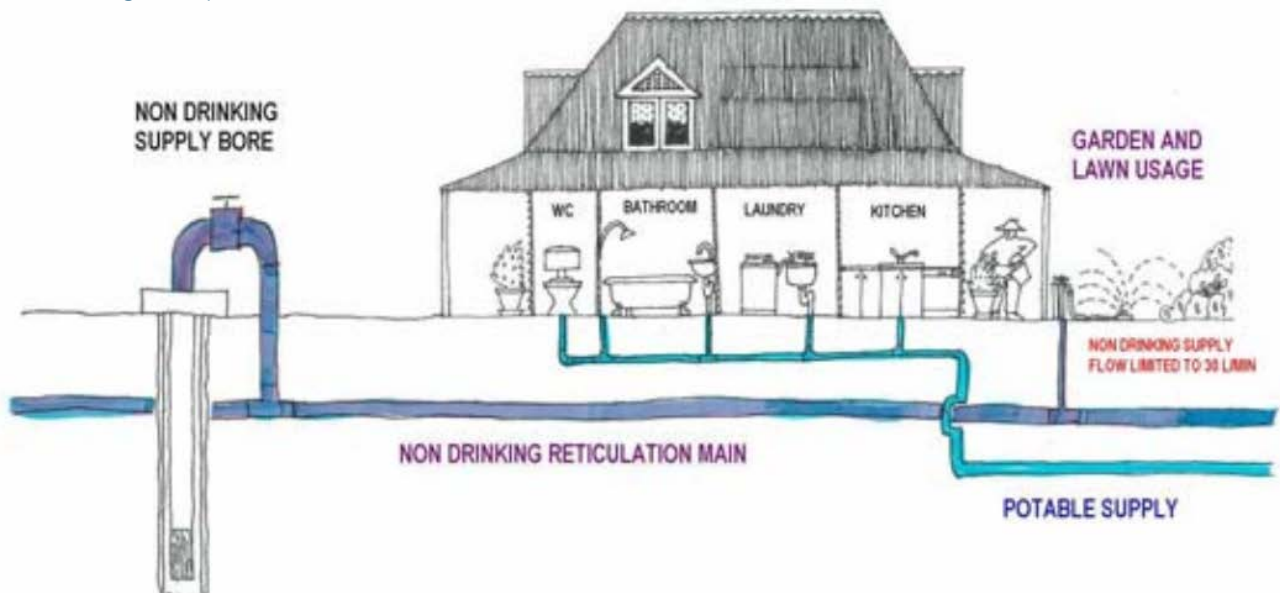


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