

'The Green' at Brighton

Village 4 – What We Are Learning

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Location

THE GREEN AT BRIGHTON



Background

'The Green' is Stage 4 of Satterley's Brighton development.

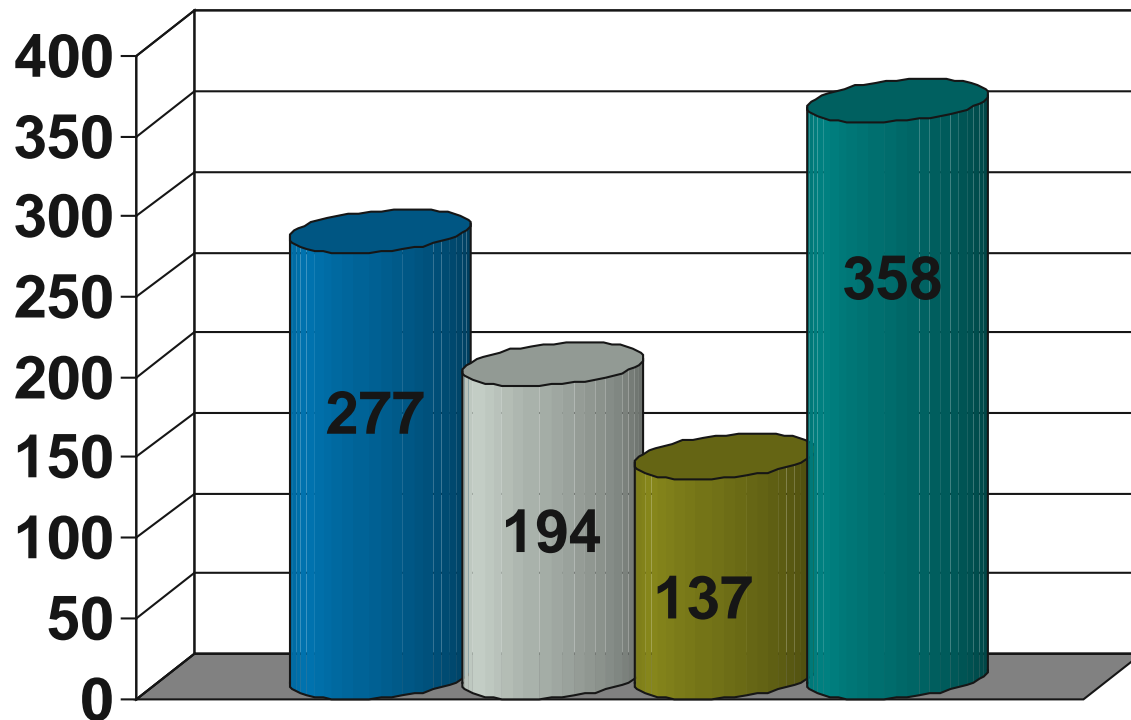
'The Green' is a Waterwise development which has installed a third pipe system which utilises superficial groundwater for irrigation of gardens, verges and POS.

It is intended for 1200 houses within the development to connect to the third pipe system. As at 30th June 2010, 412 houses have connected.

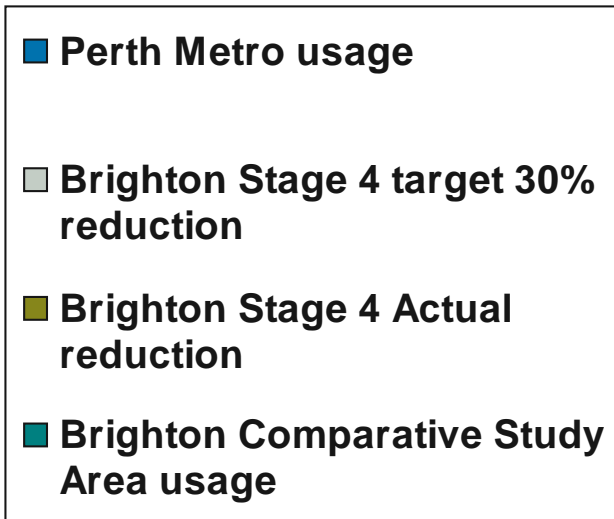
'The Green' waterwise design innovations

- Overall 30% scheme water saving has been targeted
- 5 communal bores draw groundwater for irrigation purposes
- Central weather station designed to irrigate scheme
- Soil amendment throughout the development
- Utilising indigenous plant species in landscaping of house lots (front and rear), verges and POS
- In-house water efficiency (WELS rated appliances)

Brighton Scheme Water Use Review



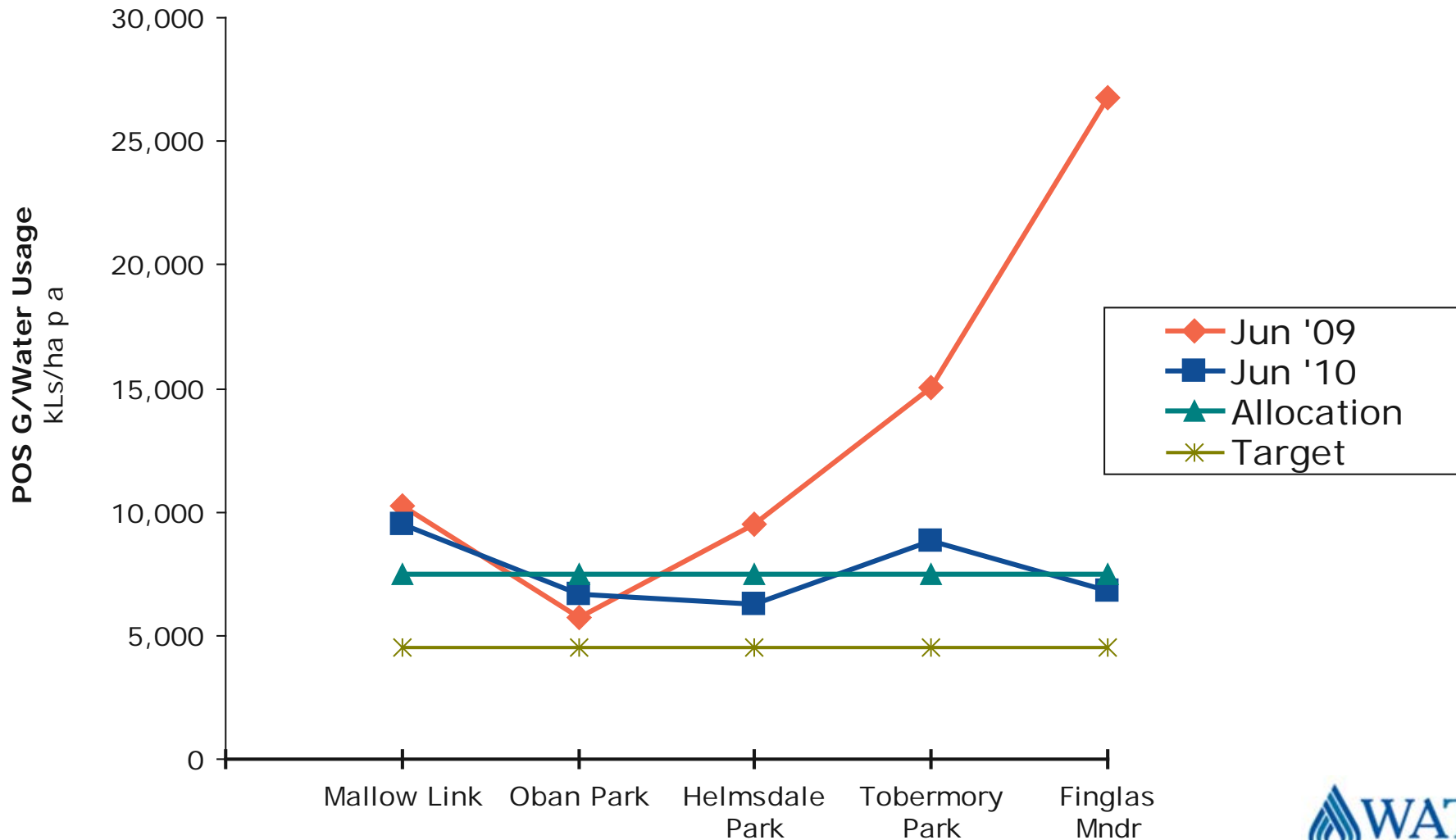
Average kLs/household/pa



Factors affecting original design

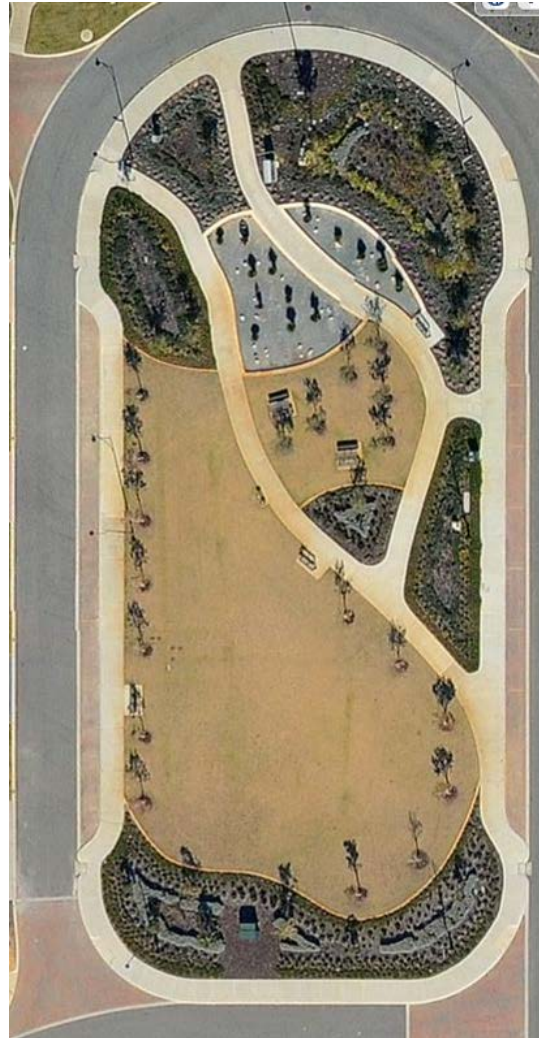
- Central weather station is not commissioned and will remain inactive until the development is completed and all bores are functioning.
- Regulator has determined an allocation of 3 watering days for each lot. The watering of lots is managed by the controller located on the lot.
- Each controller operates the reticulation stations which are run in accordance with water restrictions.
- The Land Developer has chosen not to proceed with rear landscaping for the later released lots.

Brighton POS Groundwater Use



Source: CSIS acct # 901 612 4359

Finglas Meander POS



Area = .3163 ha

Jun '09 = 8453 kLs pa

Jun '10 = 2144 kLs pa

Oban Park POS



Area = .376 ha
Jun '09 = 2164 kLs
Jun '10 = 2518 kLs

Community

- Education has helped gain community acceptance
- System control versus water restrictions

Levels of Service

- Water Quality standards, levels of service (supply standards), including cross connections, need to be reviewed.
- Presence of iron in water (staining) and requirement for chlorine dosing is increasing cost

Performance and Evaluation

- Lack of meters at lot level have made reporting difficult.
- Cross connections
- Audits

Management & Operation

- Monitoring to be brought into line with other IWSS reporting
- Customer Charter
- Handling of Faults and customer service
- Long term management of lot controllers to be determined
- System management (automated or manual)
- Allocation of water supply for construction (dust suppression)

Governance

- Identify opportunities early in planning process
- Determine economic viability
- Maximise water efficiency before exploring more expensive dual reticulation options
- Understand regulatory and policy frameworks.
- Establish workable internal policy and process platforms
- Develop Water Supply Standards & Infrastructure
- Design Standards
- Data / information and technology transfer for proponents
- Cross connections are a fact of life.

Cost & Opportunity

The circumstances in which dual water supplies are possible:

- Country locations where wastewater disposal or water supply costs are high (including both economic and environmental costs).
- Areas with access to high quality, localised groundwater.
- Developments close to existing or proposed tertiary treatment plants.
- Development close to Waste Water Pumping Stations and Main Sewers