



SHIRE OF CAPEL

Annual Sustainability Report 2012/13



October 2013

1. INTRODUCTION

In 2013 Council adopted the Shire of Capel Sustainability Strategy 2013-2018. The Strategy included information on historical energy, fuel and water use, waste collection, recycling and greenhouse gas emissions, a list of activities to reduce environmental impacts in these areas and targets for improvements. This report describes sustainability achievements in 2012/13, energy, fuel and water use, greenhouse gas emissions and recycling compared to previous years and progress towards meeting the targets set in the Strategy.

2. SUSTAINABILITY ACHIEVEMENTS 2012/13

- Develop Shire of Capel Sustainability Strategy 2013-2018
- Win Australian Water Association's WA Award for Waterwise Council
- Install LED tubes to replace fluorescent tubes in the Shire Office
- Council endorses introduction of third bin for organic waste
- Irrigation water audits of three Shire public open spaces (POS)
- Maintain Waterwise Council status
- Energy audits of eight Shire buildings
- Develop processes and spreadsheets to monitor energy, fuel and water consumption at Shire facilities
- Complete initial investigation into using Treated Waste Water for irrigating parks in Dalyellup
- Reduce ground water consumption at the Capel and Boyanup ovals from 45,526kL in 2011/12 to 28,542kL in 2012/13.
- Change electricity tariffs at four sites, which is expected to save over \$3,000 per year.



3. SUSTAINABILITY INDICATORS AND PROGRESS TOWARDS TARGETS

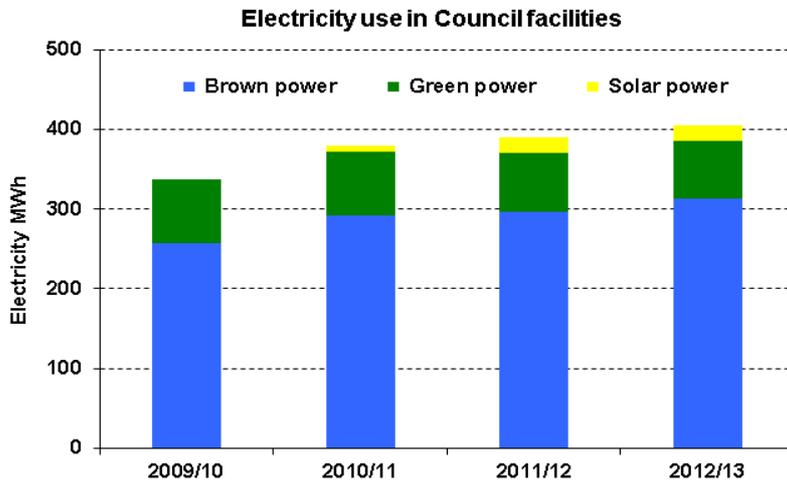
Energy

In 2012/13 405 MWh of electricity was consumed across Council facilities including:

- 313 MWh of imported coal and gas fired electricity
- 72 MWh of imported green power
- 20 MWh of solar power.

Consumption of imported electricity was about 17MWh or 6% higher than in 2011/12 due mainly due to changes in the use of particular facilities:

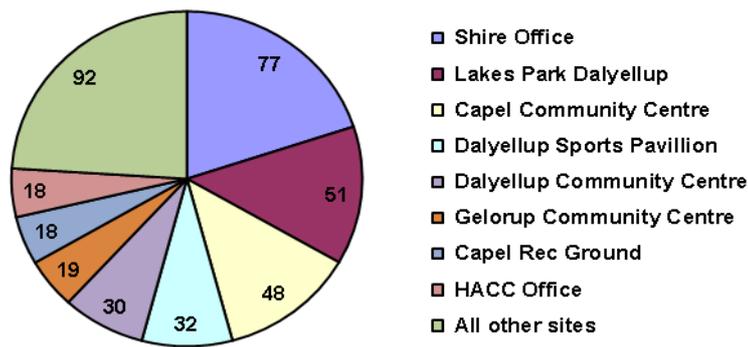
- Dalyellup Sports Pavilion – this was officially opened in late 2012 and electricity use increased from 12.1 MWh in 2011/12 to 32.1 MWh in 2012/13
- Lakes Park Dalyellup – increased from 45.0 MWh in 2011/12 to 51.4 MWh in 2012/13 due to increased pumping for irrigation of additional POS.



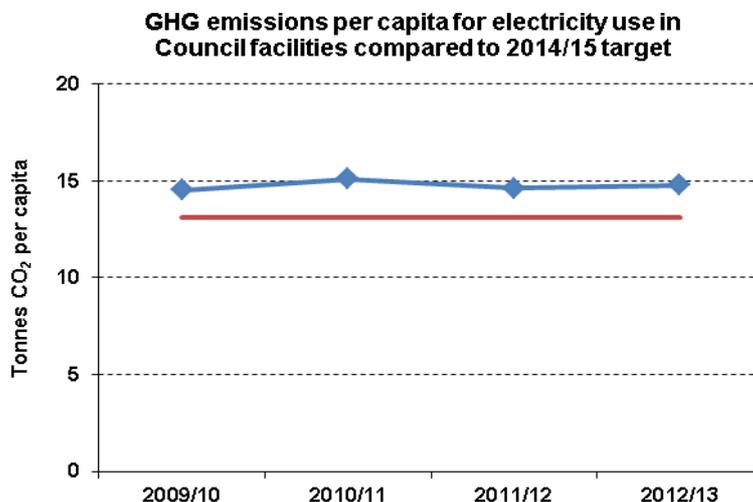
Consumption of imported electricity decreased at some facilities:

- Dalyellup Community Centre – decreased from 36.0 MWh in 2011/12 to 29.5 MWh in 2012/13, possibly because of increased awareness to turn off air-conditioners
- Capel Recreation Ground – decreased from 23.6 MWh in 2011/12 to 18.0 MWh in 2012/13 due to reduced pumping for irrigation
- Boyanup Recreation Ground – decreased from 14.7 MWh in 2011/12 to 10.8 MWh in 2012/13 due to reduced pumping for irrigation.

Electricity use MWh in 2012/13 (imported)

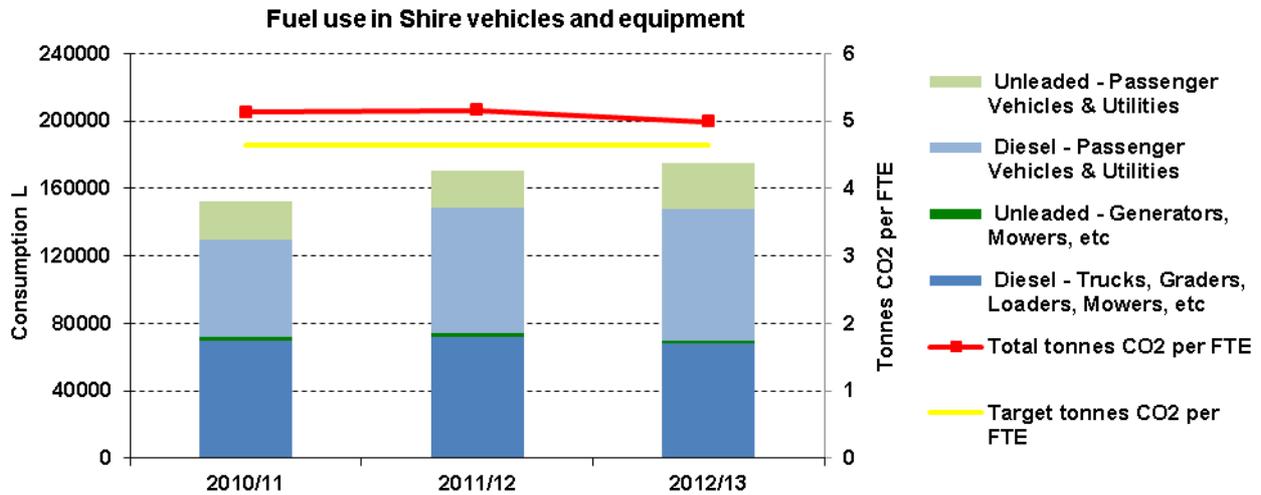


Greenhouse gas emissions associated with electricity use in Shire facilities increased from 243 tonnes CO₂ to 257 tonnes CO₂. Per capita emissions remained about the same at 14.8 kg CO₂. Projects implemented late in 2012/13 and early in 2013/14 should significantly reduce emissions and help the Shire meet its target of 13.1 kg CO₂ per capita by 2014/15.



Transport

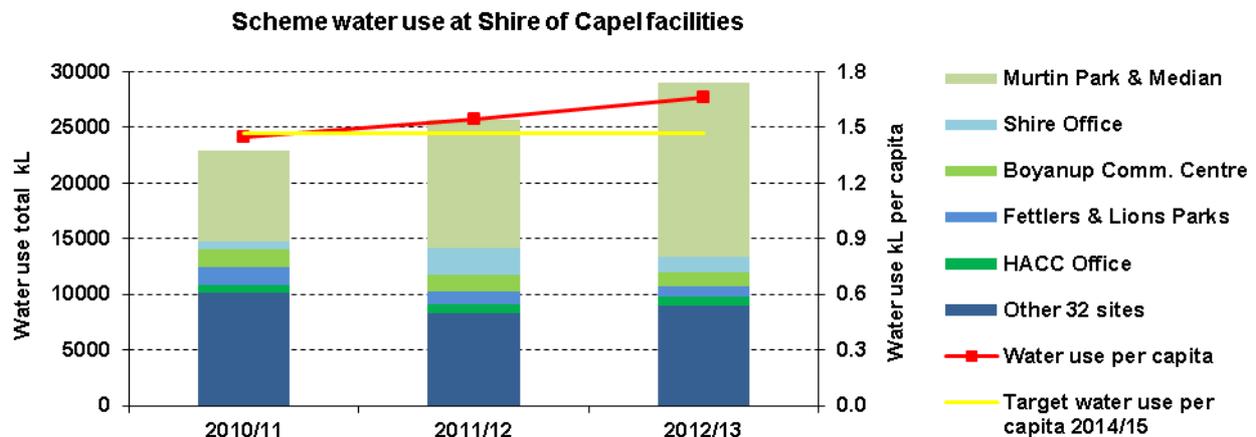
In 2012/13 29,104 litres of unleaded petrol and 145,640 litres of diesel were consumed in Shire vehicles and equipment. While the amount of fuel used to run machinery and equipment was about 6% lower than in 2011/12, fuel used in passenger vehicles and utilities was about 9% higher. This is partly a result of the higher number of staff working for the Shire.



Greenhouse gases emitted through the combustion of these fuels totaled 459 tonnes CO_{2e} (scope 1). Greenhouse emissions per full time equivalent staff member (FTE) decreased slightly from 5.2 tonnes CO_{2e} in 2011/12 to 5.0 tonnes CO_{2e} in 2012/13. More work is needed to meet the 2014/15 target of 4.65 tonnes CO_{2e} per FTE and carbon offsets may be required.

Water

In 2012/13 an estimated 29,041kL of scheme water was consumed at Shire facilities, about 13% more than in 2011/12. This was due mainly to water use for irrigation at Murtin Park and along the Parade Road median strip increasing by around 36% or 4000kL. Extension of the planting in the median strip was one of the main reasons for the increased water use. Scheme water consumption at all other Shire facilities except Murtin Park decreased by about 6%.



Note the amount of scheme water used in 2012/13 has been estimated from 10 months of actual consumption data, from September 2012 to July 2013, plus 50% of consumption in the 4 month period from May to August 2012. This has been done because of the recent adoption of two monthly billing by the Water Corporation. In future years 12 months of actual water use data, from around August to July each year, will be used to calculate annual consumption.

A water audit of the irrigation system at Murtin Park conducted in April 2013 indicated that significant savings could be made by adjusting the level of watering according to the weather, putting less water on areas with established native plants and some minor hardware repairs. Water saving actions identified in the audit will be implemented in 2013/14 and should lead to lower consumption this year.

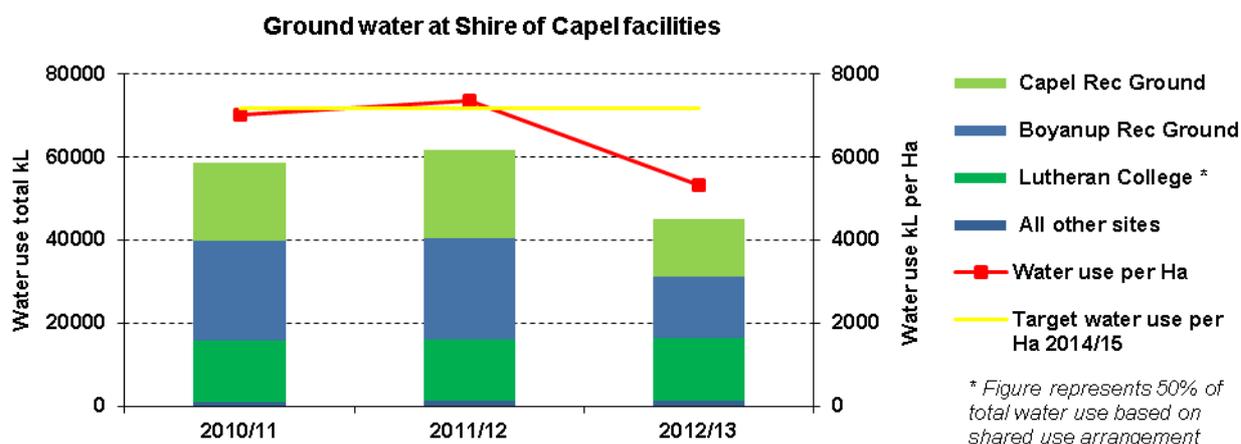
Other sites that experienced higher water use include:

- Peppermint Grove Beach path reserve – community pressure led to this reserve being regularly irrigated and water use increased from 101kL to 539kL.
- Dalyellup Sports Facility – this new facility opened late in 2012 and 418 kL was consumed in the first six months of operation.
- Boyanup Reserve – The water at this site was turned off but someone turned the mains tap back on and a leak in the connecting pipework led to 1679kL being used before the leak was found and fixed and the tap turned off again.

Water use at some sites decreased significantly including:

- Shire Office – Water use decreased to 1386kL from an unusually high level of 2428kL in 2011/12.
- Boyanup Memorial Park – Water use decreased from 885kL to 121kL due to changes made in the application of water to the bowling club’s artificial greens and the repair of leaks at the standpipe next to the club.
- Boyanup Cemetery – Water use decreased from 1008kL to 246kL after the main supply pipe which regularly sprang leaks was completely replaced.

In 2012/13 ground water consumption at Shire facilities totaled 44,885kL, about 27% lower than in 2011/12. Ground water use includes 50% of total water use at Lutheran College oval, which is under a shared (50:50) use arrangement with the Shire. Note ground water use also includes surface water taken from the Capel River under license.

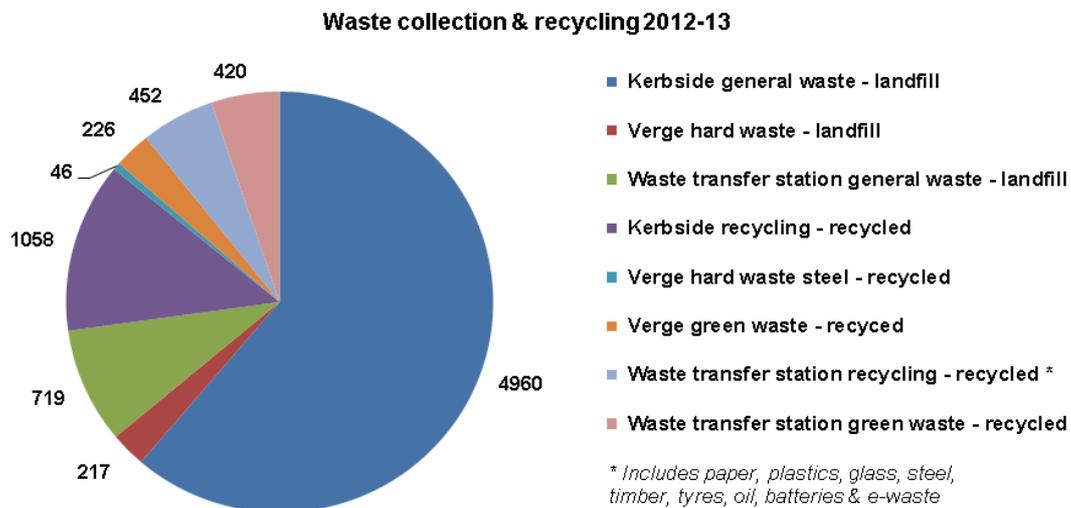


Water use for irrigation of the Capel and Boyanup sports grounds was much lower in 2012/13 compared to previous years as a result of actions taken by the Shire’s Parks Leading Hand. This staff member completed a course in irrigation efficiency in 2012. He subsequently carried out water audits of the two sports grounds, including developing seasonal water budgets for each site. During the 2012/13 irrigation season he regularly adjusted the irrigation controller settings according to the water budgets and turned the system off after rainfall events. This resulted in a large saving compared to previous years, where the irrigation systems were set to deliver about the same amount of water each month.

Scheme water use at Shire facilities per capita increased significantly from 1.55kL to 1.66kL, well above the 2014/15 target of 1.47kL per capita. Changes to the irrigation system and practices at Murtin Park and other sites should help reverse this trend and enable the Shire to meet the target. Groundwater use per Ha is already much lower than the 2014/15 target of 7,152kL per Ha due to the good work of the Shire's Parks Leading Hand.

Waste

In 2012/13 an estimated 8,098 tonnes of municipal waste were collected through weekly or fortnightly kerbside collections, annual or six monthly verge collections and via the Capel waste transfer station. About 2,202 tonnes or 27% of this waste was recycled, with the remainder going to landfill. The Shire's target is to recycle 30% of municipal waste by 2014/15. The target should be achieved following the introduction of the third organics bin in July 2013.



Carbon

No additional activities to reduce or offset carbon dioxide emissions were carried out in 2012/13, such as tree planting.

4. SUSTAINABILITY ACTION PLAN

The Shire of Capel Sustainability Strategy 2013-18 was finalised towards the end of 2012/13. Because of this the activities to save energy, fuel, water, etc as set out in the Action Plan part of the Strategy remain valid and no changes are proposed at this stage.