



National Water Forum

An integrated urban water future –
the key to success for “Living
Adelaide”

Mellissa Bradley, Program Manager

11 November 2016



Urban Water Forum - 11 Nov 2016



*“Water is an essential element
of placemaking”*

Tony Wong, CRC for Water Sensitive Cities (2011)

Oaklands Wetland

Source: Michael Mullan,

Water sensitive ~~cities~~ communities



Liveable



Sustainable

Source: P.Coombes



Productive



Resilient

Principles WSUD and IWCM



- Re-integrate water back into urban landscape – create microclimate
- Re-use of water at source (or close as possible)
- Protect receiving water quality (streams and marine)
- Fit for purpose water use
- Solutions at a range of scales



Living Adelaide – 30 Year Plan for GA



20% increase canopy cover across metropolitan Adelaide by 2045



Alexandra Ave, Rose Park

Source: news.com.au,

Living Adelaide – 30 Year Plan for GA



85% new housing stock from infill development



East Parkway, Northgate, Lightsview



Bowden Urban Village

Business as usual will deliver this.....

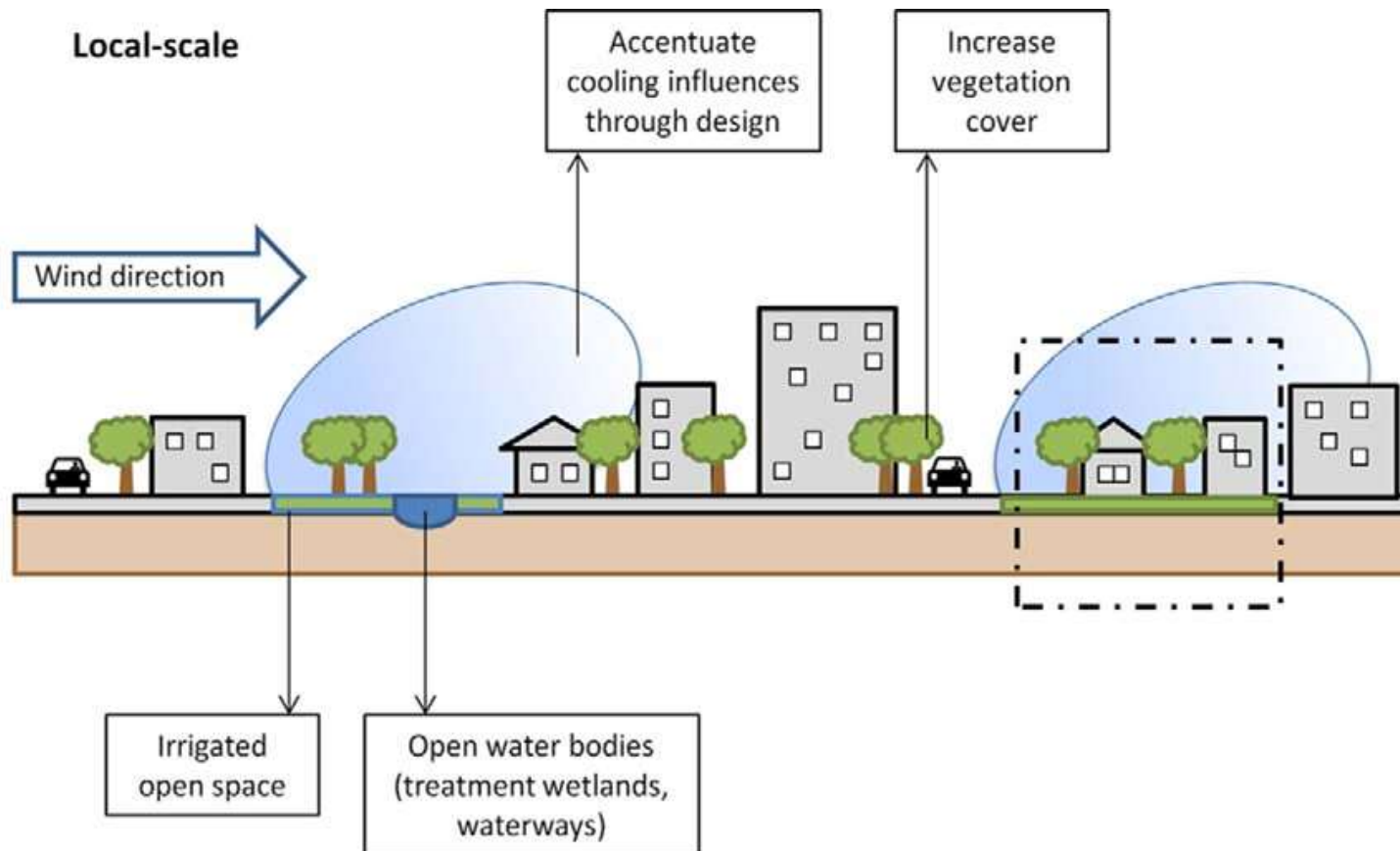


Business as usual Underperforming Asphalt



Source: AKing

What type of our urban water future do we want?

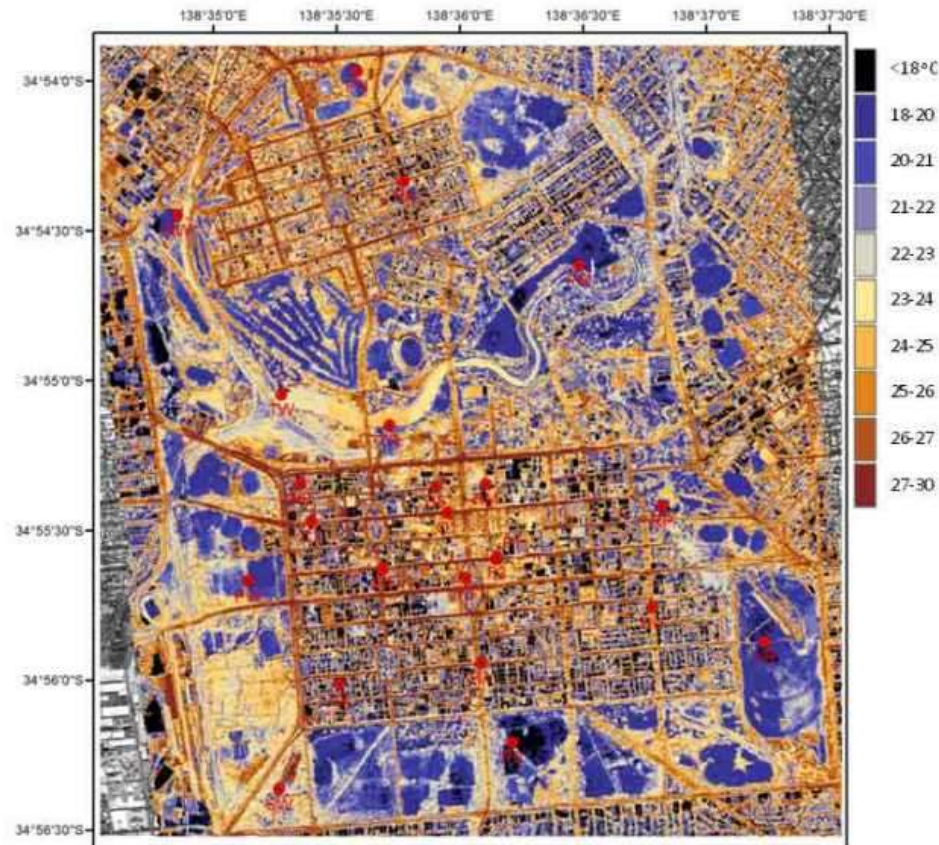


Urban water cycle of Living Cities

Source: Coutts et al

City Scale

Need to cool city temperatures



Surface brightness temperature of the CBD & North Adelaide, early hours of 7 March 2011

Source: Flinders University

City Scale

Recycled wastewater and treated stormwater – better together!



WWTP and MAR schemes Greater Adelaide region
Source: G.Ingleton, SA Water

Precinct Scale



Oaklands Wetland

Source: City of Marion

Precinct Scale



Blacktown City Council

Source: Mark Liebman

Precinct Scale



Kevin Taylor Park, Bowden Urban Village

Precinct scale



Letchford Street Reserve, Bedford Park



Source: City of Mitcham

Precinct



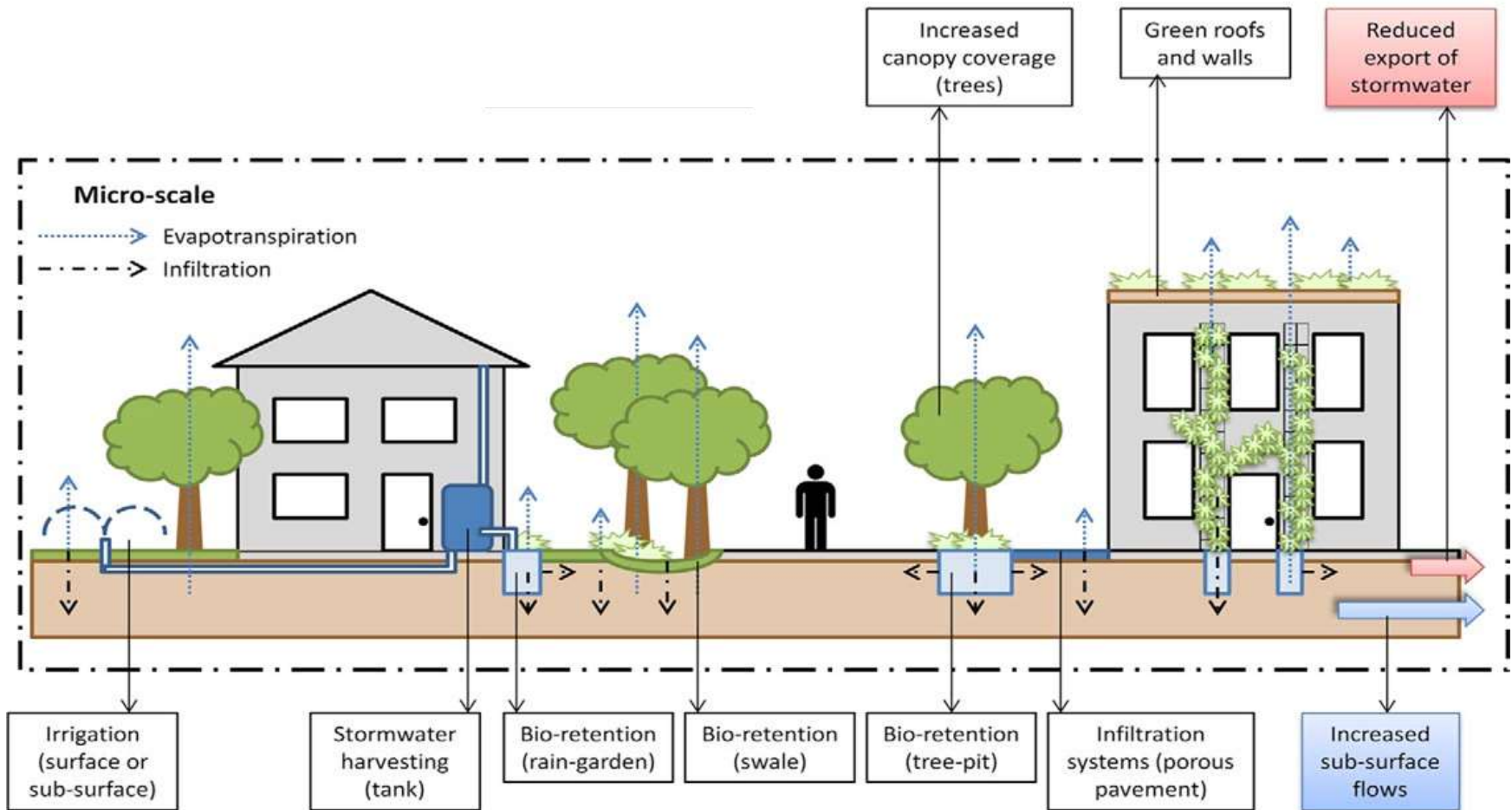
Lightsview infill development

Source map: www.lightsview.com.au



Urban water cycle

Living Cities



Source: Coutts et al. (2012)

Streetscape Scale



Afracaine Avenue, Northgate, Lightsview

Streetscape Scale



Redward Ave, Greenacres, Lightsview

Streetscape Scale



Angas Street raingarden



Unions Street Dulwich, B-Pods
(infiltration systems)



Allotment Scale

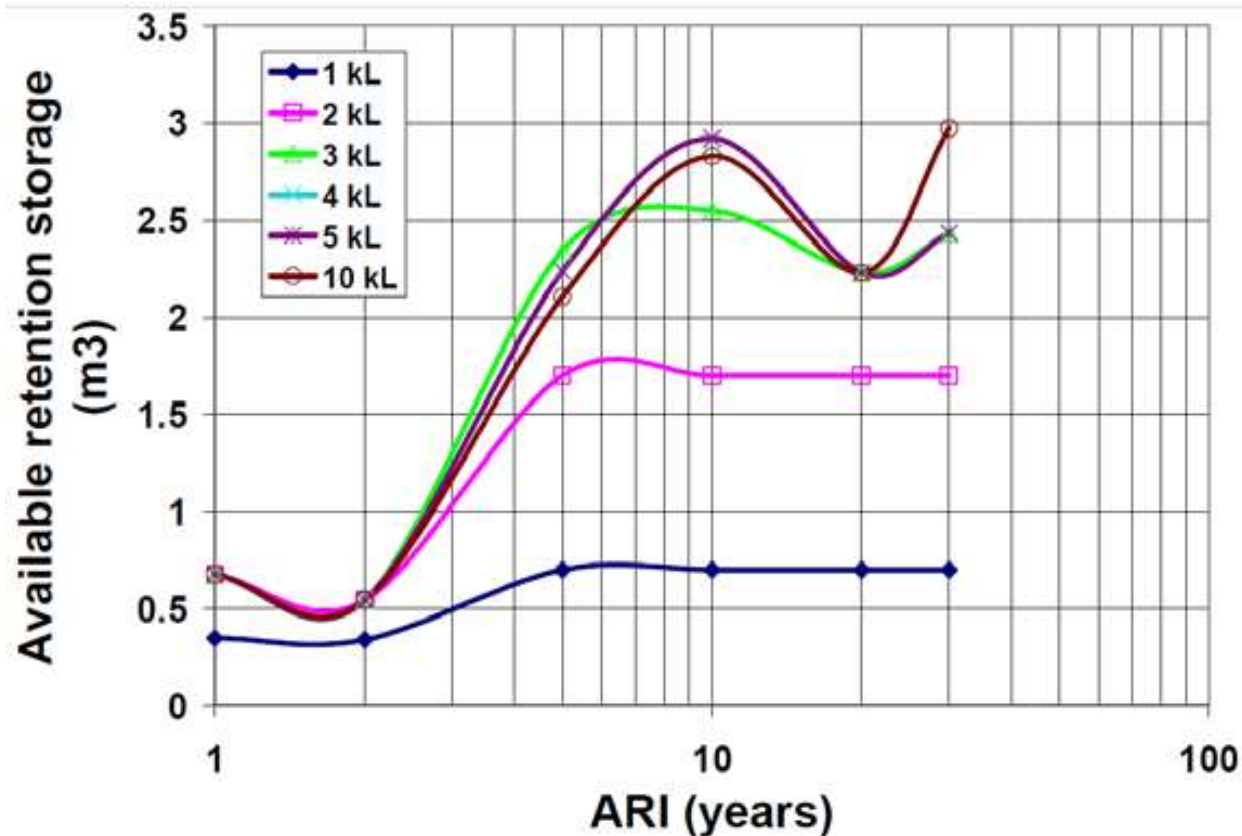


Source: A.King

Allotment scale – Supersize your rainwater tank



Available Storage in rainwater tanks



Source: Peter Coombes (2016)

Minimise impervious surface areas by:



Source: B.Myers



Source: www.houzz.com

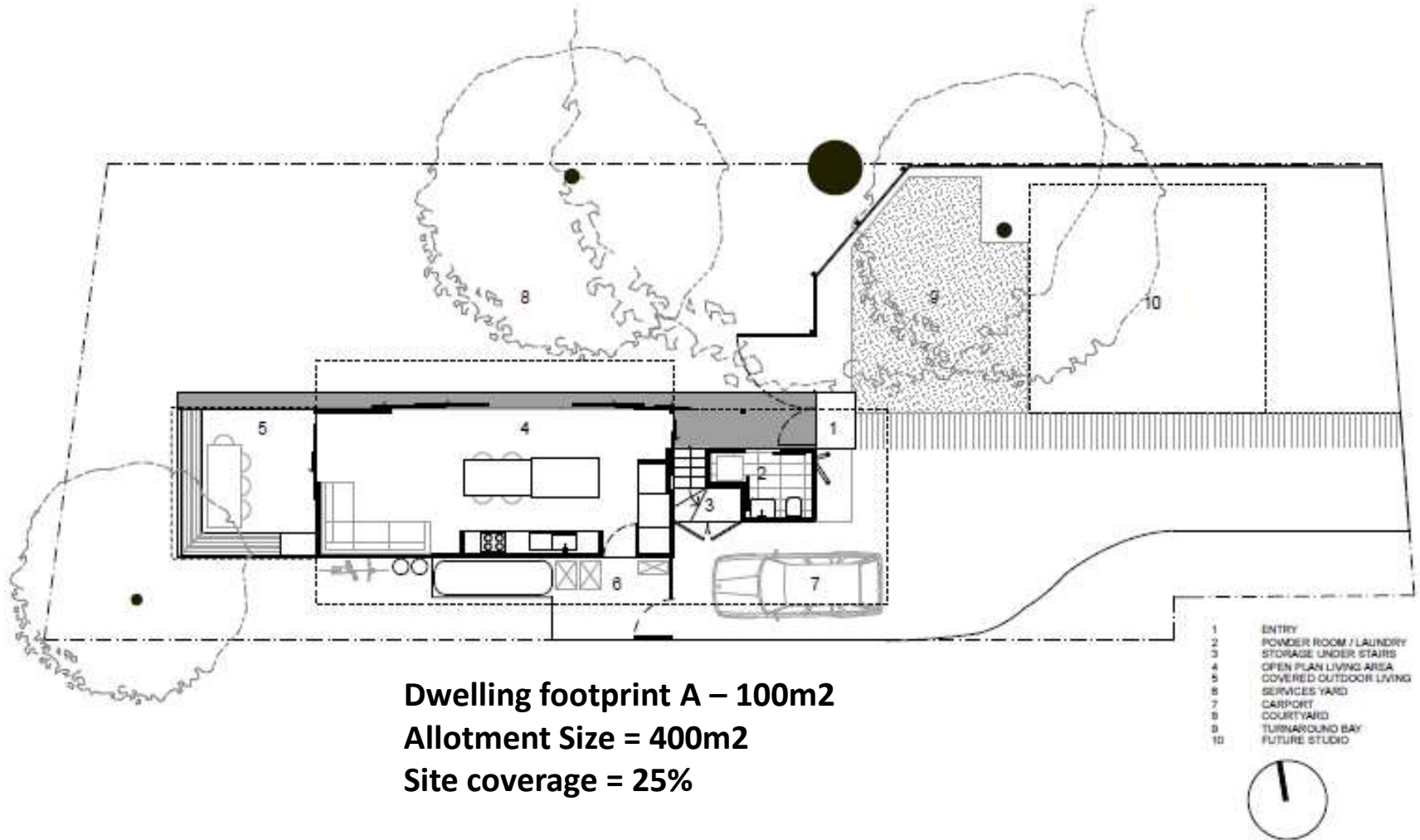


Source: www.shedforce.com



Source: www.marshalls.co.uk

The 100m2 house



Source: Levesque & Derrick Architects, lada.com.au

The 100m2 house



Source: Levesque & Derrick Architects, lada.com.au

5,000L rainwater tank for:

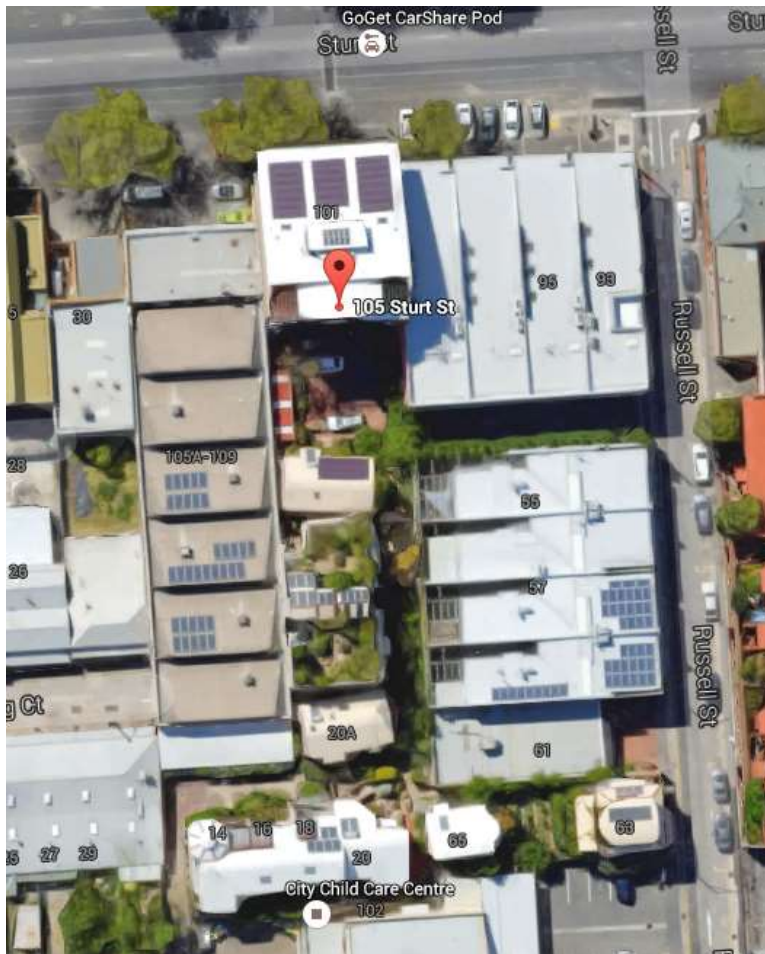
- Toilet flushing
- Laundry
- garden

The 100m2 house



Source: Levesque & Derrick Architects, lada.com.au

Christie Walk



What is possible? How do we account for the benefits and should we?



Source: A.Parthirana

What is possible? How do we account for the benefits and should we?



Source: A.Parthirana

**If we don't put value on benefits
Benefits = 0**

How to fund?



- Nation Water Initiative Mark 2
- Stormwater Management Authority
- Stormwater quality/quantity offset schemes (new Act)
- User pays – proportion of land imperviousness
- Carbon offset schemes
- Maintenance – engage community
- Partnerships water utilities local government
- Partnerships with end-user beneficiaries of alternative water e.g. schools
- Integrated solutions – multiple use of public open space
- Retrofit at asset renewal





www.watersensitivesa.com

Mellissa Bradley
Program Manager
mellissa@watersensitivesa.com