



WSUD in SA and nationally and the policy context

Water Industry Alliance

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Catchment scale

Oaklands Park Stormwater Harvesting & Reuse



Source: City of Mitcham

Oaklands Wetland



Source: City of Marion, Photo.: M.Mullan

Precinct Scale

Letchford Street Reserve, Bedford Park Infiltration system



Source: City of Mitcham

Bowden Urban Village



Source: Water Sensitive SA

Unity Park, Bioretention



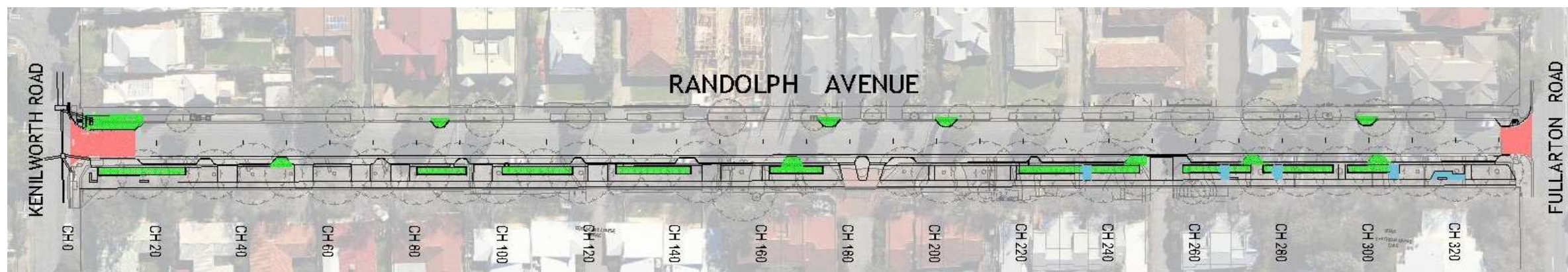
Source: City of Salisbury

Streetscape

City of Unley, Randolph Ave, Fullarton



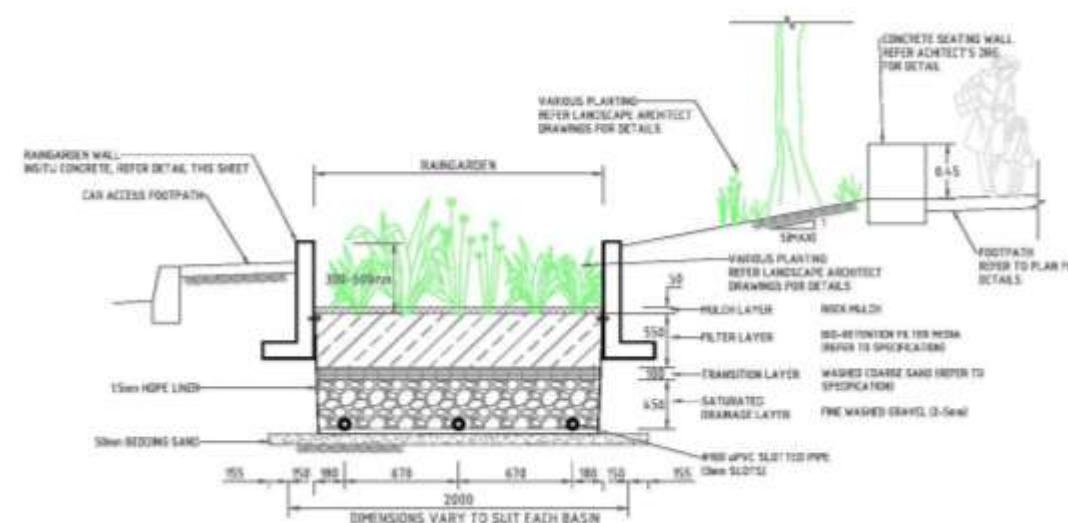
Source: South Front



AERIAL PHOTOGRAPH: NEARMAP JULY 2013

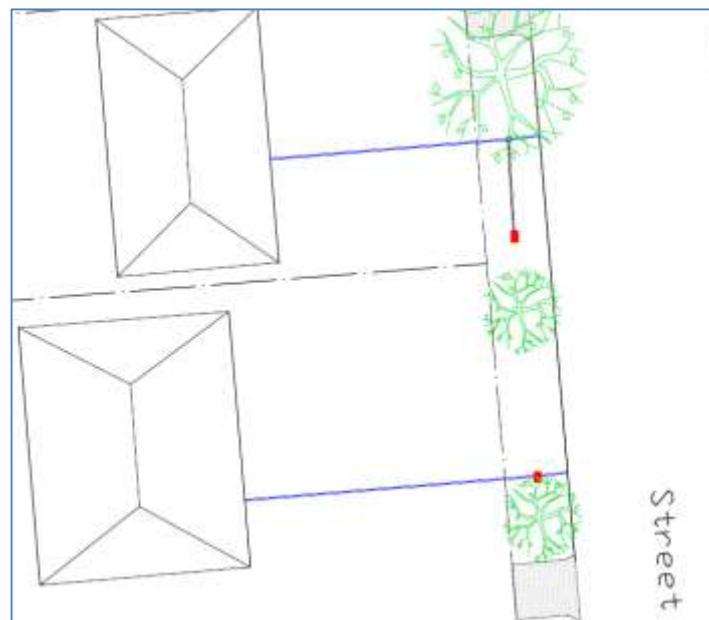
LOCALITY PLAN

NOT TO SCALE



Source: City of Unley

Burnside, B-Pods infiltration systems



Unions Street Dulwich, Source: Water Sensitive SA

Allotment

Christie Walk



Source: Baden Meyers

Policy Framework

Flood management

capacity of the existing drainage system is not exceeded.

no increase in the 5 year ARI peak flow compared to existing conditions.

no increase in flood risk for the 100 year ARI peak flow, compared to existing conditions.



Bowden Urban Village

Source: Water Sensitive SA



Kirkcaldy Avenue, Grange

Source: Baden Myers

Stormwater Runoff Quality

45%

retention of typical annual
urban load of total nitrogen.

60%

retention of typical annual
urban load of total
phosphorus.

80%

retention of typical annual
urban load of suspended
solids.



Caltex, 734 Marion Rd, Marion

Source: Baden Myers



Cooke Reserve, Royal Park.

Source: City of Charles Sturt



WSUD at Different Scales

Precinct Structure
Planning

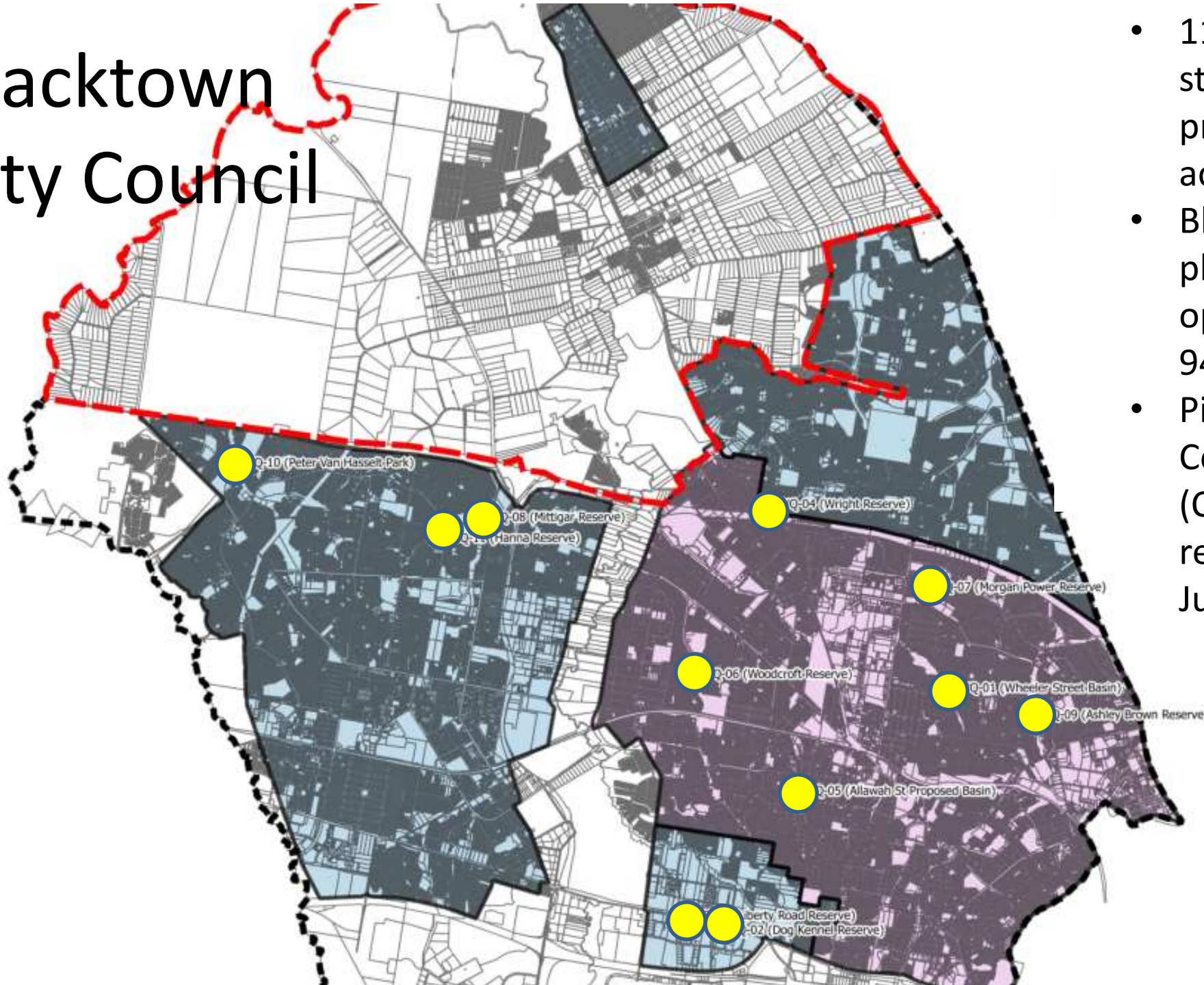
Residential
subdivision

Urban Infill
Development

Lot Scale

State	State-wide policy for Precinct structure Planning	State-wide policy for Residential Subdivision	State-wide policy for Infill	State-wide policy for Lot Scale Development
Qld	Broad policy framework under the SPP and the SEQ Regional Plan	Broad policy framework under the SPP and the SEQ Regional Plan	X	Building regulation: QDC Part 4.0, Building Sustainability- MP 4.1 Sustainable Buildings - water efficient taps and toilet
NSW	<i>Growth Centre Development Code & SEPPs for Growth Centres. No WSUD policy for other areas.</i>	None unless in Growth Centres	X	SEPP (Building Sustainability Index: BASIX) 2004 All new developments and renovations > \$50,000 - up to 40% reduction in potable water consumption and 40% in greenhouse gas emissions targets.
Vic	Binding* PSP Guidelines IWCM	binding VPP – Clause 56.07 Integrated Water Management	X	Building regulation: BCA – sustainability measures single detached dwellings to install rainwater tank or solar panels.
SA	Broad policy framework under the 30-Year Plan and the SAPP Library	Broad policy framework under the 30-Year Plan and the SAPP Library	X	Building regulation: BCA – SA2 Water Efficiency – new houses/house extensions > 50 m2 to have additional water supply to supplement mains water or on site stormwater retention for certain soil types. SA 78AA Onsite Retention of Stormwater – for certain soil types
WA	Liveable Neighbourhoods BUWM	Liveable Neighbourhoods BUWM	?	R-Code cl 5.3.9 or cl 6.3.8 demonstrate compliance with the stormwater management design principles

Blacktown City Council



- 11 precinct scale stormwater treatment projects proposed across the LGA
- Blue area – voluntary planning area to operate until Section 94 plan adopted
- Pink area – Section 94 Contribution Planning (CP19) proposed – reported to Council in June 2015.

Blacktown City Council



Source: Mark Liebman

Future

LIVEABLE WATER SENSITIVE COMMUNITIES.

Future Opportunities

Challenges:

- 20 – 30% canopy cover
- 80% new dwellings from urban infill
- Capital works to address impacts of historical development beyond current budgets



Future Opportunities

- Need innovation for small scale infill
- and/or
- Offset scheme so cumulative impacts of small scale can fund offsite solutions
 - Multiple is of public open space – green & grey spaces



St Clair Wetlands

Program Partners



Natural Resources
Adelaide and Mt Lofty Ranges

LOCAL GOVERNMENT RESEARCH & DEVELOPMENT SCHEME





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Development Industry support for WSUD



Source: Qattro

Marden Connect

- \$80 million Project
- 2.1Ha site
- 165 Dwellings. 2 & 3 storey townhouses, 3 storey apartments
- Self lead compliance with SA WSUD Policy (stormwater runoff quality and quantity targets)
- Tree pits, permeable paving and upsized rainwater tanks 2,000L
- 66 affordable housing products
- 8 Accessible / disability living
- Land values \$170,000 greater adjacent Torrens linear park v sites facing River Street 200 m east



Source: Qattro