WSUD in SA and nationally and the policy context

Water Industry Alliance

Mellissa Bradley, Program Manager
August 2016
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

www.watersensitivesa.com
Unity Park, Bioretention

Source: City of Salisbury
Streetscape
City of Unley, Randolph Ave, Fullarton

Source: South Front

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

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

www.watersensitivesa.com
Mellissa Bradley
Program Manager
mellissa@watersensitivesa.com
0431 828 980
Development Industry support for WSUD

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
Source: Qattro