

Water Sensitive

South Australia

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Cities Comprising Water Sensitive
Communities

www.watersensitivesa.com



Water Sensitive Communities

- socio-political capital for sustainability exists and
- citizens are involved in decision-making

CRC for Water Sensitive Cities



Capacity Building Dimension

Human Resources Development: Skills and knowledge of individuals to implement

Organisational Strengthening: Management structures, processes, relationships between organisations and sectors

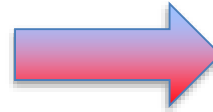
Institutional Reform: Legal & regulatory framework to enable agencies and other organisations to enhance their capacities

Broader Community: Awareness raising and engagement in project development



Transition factors to enable the water cycle & water sensitive community

1. Socio-political capital
2. Champions
3. Accountability
4. Trusted & reliable science
5. Market receptivity
6. Bridging organisations
7. Binding targets
8. Strategic funding
9. Demonstration projects



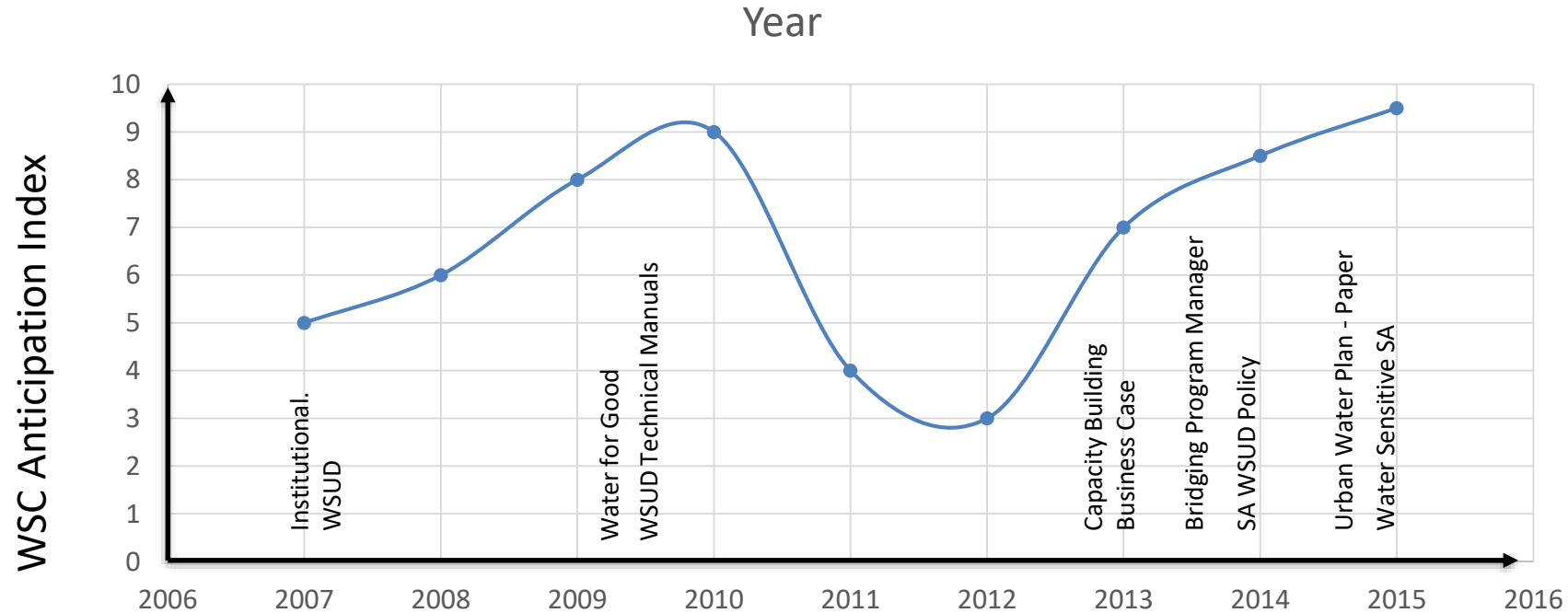
Dependant on the capacity of individuals and organisations



Source: Rebekah Brown, et al



Water Sensitive SA – Are we there yet?



Water Sensitive SA - established to build the capacity of all organisations with a role in the planning, design, approval, construction or maintenance of new developments and infrastructure to implement best practice water sensitive urban design (WSUD)



Water Sensitive SA program partners



**Government of
South Australia**



Natural Resources
Adelaide and Mt Lofty Ranges

Local Government Research & Development Scheme



Our vision

- WSUD is an **integral** component of any **new development or infrastructure project**, to facilitate the transition of state to water sensitive communities.
- All relevant government and industry sectors have the **commitment, knowledge and skills** to work towards this common objective.



Barriers to uptake of WSUD

- Insufficient information on life cycle cost data and/or its application for forecasted planning of operation and maintenance
- Insufficient understanding of best practice operation and maintenance practices
- Little or no monitoring of in-ground systems or devices
- No long-term organisation vision/strategy/framework for adoption
- Limits of regulatory framework
- Lack of knowledge of value of WSUD (ie uncosted externalities/environmental benefits)
- Insufficient resources (budget and human)



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Organisational Strengthening

- Leadership
- Support champions
- Best available information – argument for WSUD
- Networking opportunities for challenging issues
- Communication – hub for WSUD



Links to research

Guidelines

Photo gallery

Self-guided tour

Seminary series

watersensitivesa.com

Forum

Interactive map

Training events

Standard drawings

NEWSLETTER

Online tools

Institutional Reform

Planning Reform

- Integrating state strategies in planning
- Liveability
- Placemaking
- Urban design code

Urban Water Plan



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Policy and Guidelines



Source: Illman Young

Mandate WSUD Policy within: Planning

- Pollutant reduction targets
- Flow reduction performance measures

Building Code

- Potable water demand reduction
- OSD
- Water saving/efficient devices

Guidelines/Tools – Priority Projects

Simple developments

- Deemed to Comply guideline (urban design code)
- On-line assessment tool

More complex

- MUSIC Modelling Guidelines – Calibrate for SA conditions, eg soil

The case for WSUD

- Benefit/cost analysis
- Lifecycle costing

WSUD Technical Manual

- Review due 2017



Source: ewater



Online tools for simple developments

The STORM Calculator
Welcome to the STORM Calculator.
You now need to submit details relating to your development site.
* Required field

Municipality: *

Rainfall Station: *

Click [here](#) to find the location of a rainfall station (closest to your development)

Total Site Area: * (m²)

Address:

Suburb / Postcode: /

Assessor:

Development Type: *

You now need to list every impervious area (Hard surfaces e.g. roof, road) on your site and detail your planned treatment measures.
All hard surface areas must be listed with their area - if there is no treatment choose NONE in the treatment field box.

- You can add or delete rows by selecting the Add Treatment Row and Delete Selected Rows buttons.
- Once you have finished select Calculate.
- Select Restart to clear all details and begin again.

Impervious Area Names	Impervious Area (m ²)	Treatment Type More information...	Treatment Size (m ² or L)	Number of Bedrooms	Delete Row
<input type="text"/>	<input type="text"/>	<input type="text" value="None"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
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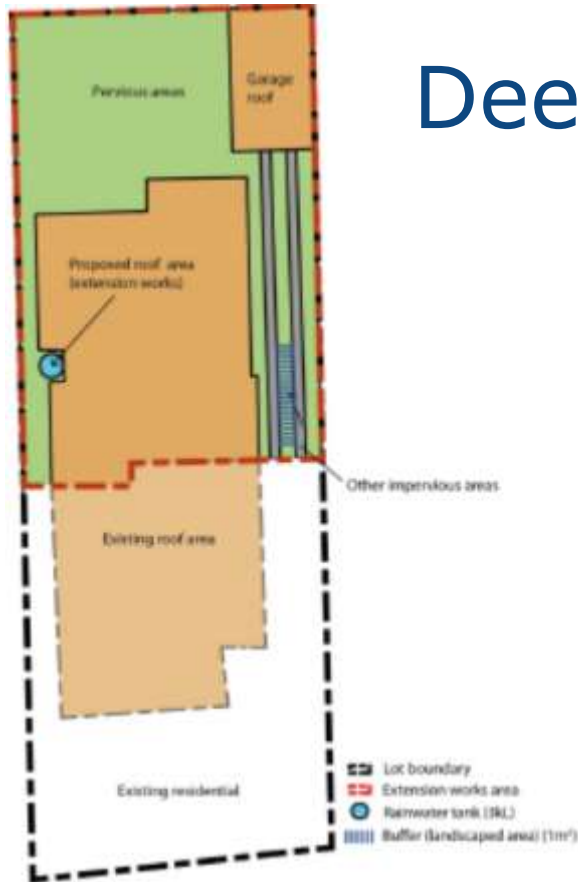
calculator mySTORM login | help feedback

STORM Calculator
(Melbourne Water)
storm.melbournewater.com.au

Efficiency in approvals (ie cut “red tape”)

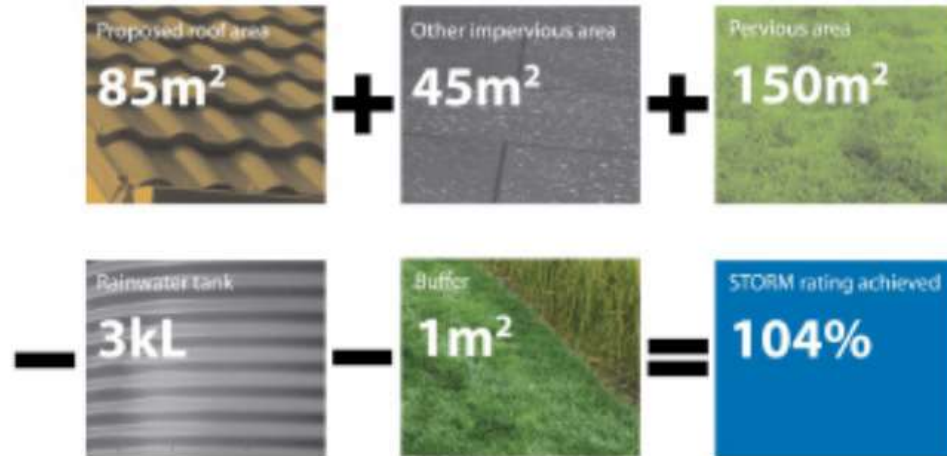


Deemed to comply Guidelines



Case Study 2: STORM rating equation

Total site area - 280m²



Source: Mooney Valley Council



Human Resource Development



Training Priorities

Delivery training for priority knowledge and skills gaps

- Introduction to WSUD for planners
- Promote WSUD (technical detail) to landscape architects and urban designers
- Construction and establishment of WSUD features and wetlands
- Asset maintenance of WSUD features
- Detailed design of biofilters and wetlands
- Post implementation monitoring of WSUD performance

Review existing courses e.g. surveyors, master builders plumbers



Training & Events 2015

Training and Events	Date
Seminar: Creating a capacity building program, Challenges and Learnings: Andrew O'Neill, Water by Design	31 March 2015
Workshop: Water Sensitive City – Benchmarking Greater Adelaide – CRC for Water Sensitive Cities Indexing Tool	April 2015
Training: Vegetated stormwater management systems - Construction and Maintenance	May 2015
Seminar: WSUD 101 for planners	Aug 2015





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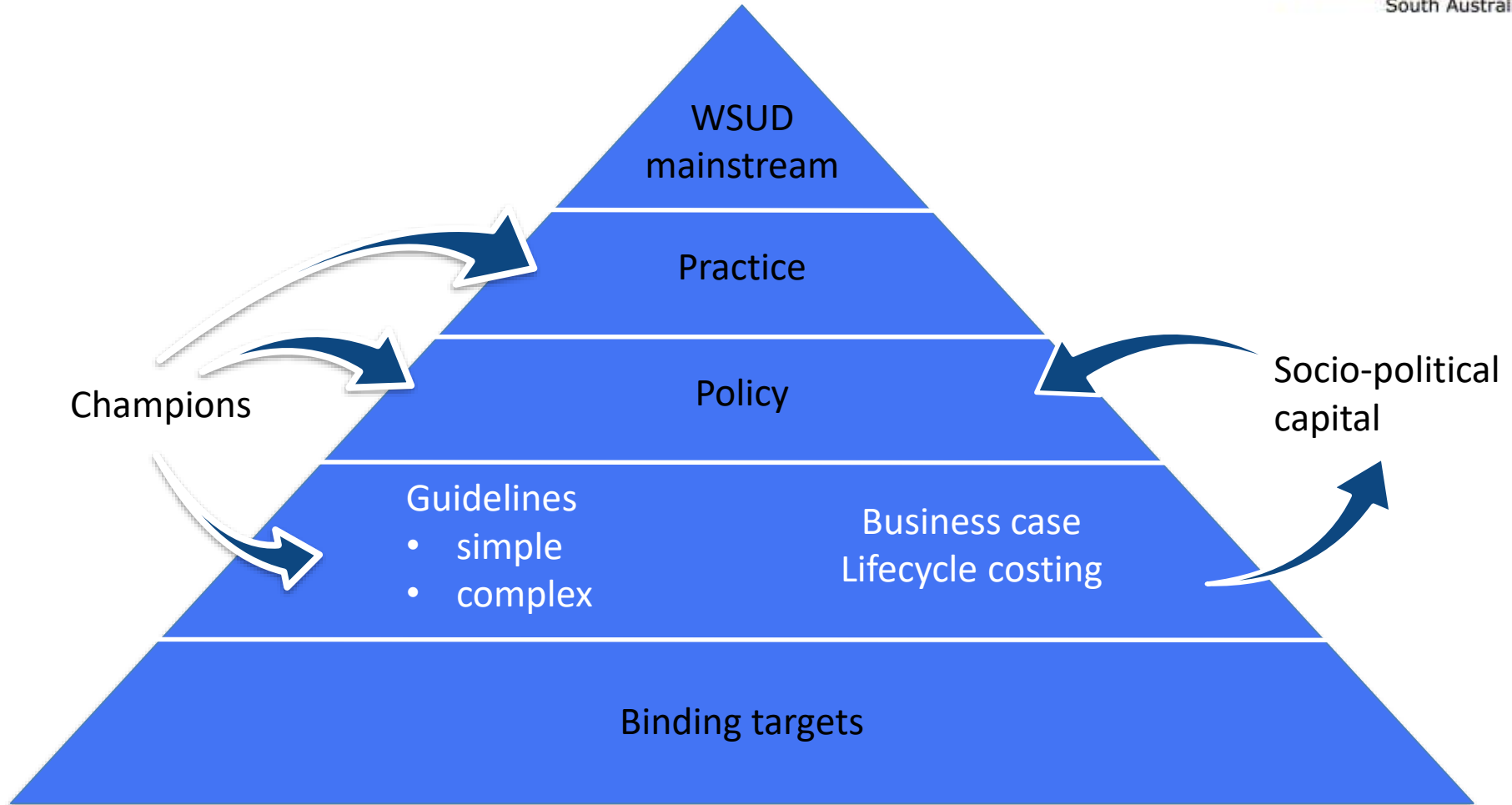
Water Sensitive SA Priorities

- Provide opportunities to share information and network
- Business Case / Lifecycle costings
- Deemed to comply design guide / on-line assessment tool
- MUSIC guideline for SA (standard rainfall sets and parameters eg, soils)
- Argument for WSUD – Goyder research-bring outcomes to practitioners
- Revise and update the Water Sensitive SA website
- Adapt relevant interstate information to SA
- Develop relevant technical training and education materials



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Water sensitive communities are sustainable, resilient, productive and liveable.

They:

- efficiently use the diversity of water resources available to them
- enhance & protect the health of urban waterways & wetlands
- mitigate against flood risk and damage
- create public spaces that harvest, clean & recycle water, enhance liveability, increase biodiversity & reduce urban heat island effects

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