

Policy Framework for WSUD in Five Australian Cities

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Project B5.1

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Project Context

- **CRC for Water Sensitive Cities** is a major interdisciplinary and multi-institutional collaborative research initiative aimed at revolutionising urban water management within Australia and overseas.
- There are four research streams. *Project B5.1 Statutory Planning for Water Sensitive Urban Design (WSUD)* is part of *Program B Water Sensitive Urbanism* focusing on the influence of urban planning on resource flows across a range of scales.
- Project B5.1's purpose is to:
 - assess the role that statutory planning regulation and processes play in facilitating or constraining the adoption of WSUD; and
 - identify best practice planning policies and legislative framework for mainstreaming WSUD in Australian cities.



Project B5.1's Literature Review

- Examines the statutory planning policy framework affecting Brisbane, Sydney, Melbourne, Adelaide and Perth.
- Looks at the framework through a legal lens (clarity, efficiency, coherency of policies and controls at different scales)
- Publication pending - as five separate reports
- The review will inform the Final Report (to be released in 2016) which will provide a comparative analysis of policy regimes across the five jurisdictions and identify policy reform priorities for WSUD in Australia.



Policy framework for WSUD



Regional Planning

**Precinct Structure
Planning**

**Residential
Subdivision**

**Urban Infill
Development**

Lot Scale



State Planning Policy for WSUD

State
Planning
Policy

Planning
Legislation

BPEM = Best Practice
Environmental
Management

IWCM = Integrated
Water Cycle
Management

SPPF = State Planning
Policy Framework

* *WSUD Creating
more liveable and
water sensitive cities
in South Australia*

State	State Planning Policy for WSUD	Policy focus	Binding on decision makers?	Approach to mainstream adoption of WSUD
Qld	<ul style="list-style-type: none"> • <i>State Planning Policy: State Interest 3 – Water Quality</i> • <i>SEQ Regional Plan</i> 	Urban stormwater management with focus on Flood management	✓	Planning schemes must be consistent with the SPP and the regional plan (SP Act s 55) or interim development assessment requirements apply under the SPP
NSW	No overarching State policy for WSUD but covered under some Environmental Planning Instruments (EPIs)	Focus on water conservation	N/A	Unless land is within the Growth Centres, adoption of WSUD policy varies from council to council
Vic	<ul style="list-style-type: none"> • <i>SEPP – Waters of Victoria</i> • <i>BPEM Guidelines</i> • <i>SPPF</i> • <i>VPP Clause 56.07</i> 	Urban stormwater management with focus on waterway health	✓	Incorporated into all local planning schemes for residential subdivision and PSPs but otherwise it varies from council to council
SA	<ul style="list-style-type: none"> • <i>30-Year Plan</i> • <i>Water Sensitive Cities in SA*</i> • <i>SA Planning Policy Library</i> 	Water security with focus on stormwater harvesting	✗	Planning schemes ‘should seek to promote the provisions of the Planning Strategy’ (Development Act s 22)
WA	<ul style="list-style-type: none"> • <i>State Planning Policy 2.9 – Water Resources</i> • <i>Liveable Neighbourhoods</i> • <i>Better Urban Water Management</i> 	Urban stormwater management with focus on protection of groundwater in aquifers	?	Planning schemes are to have ‘due regard’ to any SPP relevant to the district (Planning and Development Act s 77)



Stormwater Quality Runoff & Flow Targets

Environment
Protection Act

Environment
Protection
Policy

BPEM = Best Practice
Environmental
Management

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State	Environmental Protection Policy on water quality under the State's EP Act	Binding targets under the EPP	Approach to pollutant load reduction targets and design objective
Qld	<i>Environmental Protection Policy Water</i>	X	Adopted under the SPP and the SEQ Regional Plan and given effect when integrated into the relevant planning scheme . Also reliant on the following guides: <ul style="list-style-type: none"> • <i>Urban Stormwater Quality Planning Guidelines</i> • <i>Queensland Urban Drainage Manual</i>
NSW	X	X	Adopted under Water Quality Improvement Plans (WQIPs) which becomes a relevant consideration for a consent authority under s 79C of the Environmental Planning & Assessment Act 1979 , particularly if the council has incorporated in the Development Control Plans
Vic	<i>SEPP – Waters of Victoria & BPEM Guidelines</i>	✓	Adopted under the SEPP – Water of Victoria and the Best Practice Environmental Management Guidelines and given effect under the Planning and Environment Act 1987 and through the Victorian Planning Provisions which forms the basis for all local planning schemes/
SA	<i>Environmental Protection (Water Quality) Plan 2003</i>	X	Contained in the Water Sensitive Cities in SA* which may be used as a broad policy basis for adoption into planning schemes. Generally administered as an engineering condition or as part of a local policy or a Stormwater Management Plan.
WA	X	X	Adopted under the Better Urban Water Management and the Stormwater Manual for WA which are both non-statutory guides. May be used as a broad policy basis for adoption into planning schemes

WSUD at Different Scales

	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
Precinct Structure Planning	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, <i>Building Sustainability- MP 4.1 Sustainable Buildings</i> - water efficient taps and toilet
Residential subdivision	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.
Urban Infill Development	Vic	Binding* PSP Guidelines IWCM	binding VPP – Clause 56.07 Integrated Water Management	X	Building regulation: <u>BCA – sustainability measures</u> single detached dwellings to install rainwater tank or solar panels.
Lot Scale	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: <u>BCA – SA2 Water Efficiency</u> – 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



Example of local WSUD policy in Victoria Port Phillip Planning Scheme

Applies to:

- New buildings
- Extension to existing buildings which are 50 m² in floor area or greater
- A subdivision in a commercial zone

Similar Local Planning Policy has been adopted by at least three other metropolitan councils:

- Melbourne
- Mooney Valley
- Yarra

22.12 STORMWATER MANAGEMENT (WATER SENSITIVE URBAN DESIGN)

22.12-2 Objectives

13/03/2014
C78

- To achieve the best practice water quality performance objectives set out in the Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO 1999 (or as amended). Currently, these water quality performance objectives are:
 - Suspended Solids - 80% retention of typical urban annual load
 - Total Nitrogen - 45% retention of typical urban annual load
 - Total Phosphorus - 45% retention of typical urban annual load
 - Litter - 70% reduction of typical urban annual load.
- To promote the use of water sensitive urban design, including stormwater re-use.
- To mitigate the detrimental effect of development on downstream waterways, by the application of best practice stormwater management through water sensitive urban design for new development.
- To minimise peak stormwater flows and stormwater pollutants to improve the health of water bodies, including creeks, rivers and bays.
- To reintegrate urban water into the landscape to facilitate a range of benefits including microclimate cooling, local habitat and provision of attractive spaces for community use and well being.



Port Phillip Planning Scheme

22.12-4
13/03/2014
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Application requirements

An application must be accompanied by a **Water Sensitive Urban Design Response** including, as appropriate:

Requirement	Detail Required
A site layout plan showing the location of proposed stormwater treatment measures.	Show location, area draining to a treatment measure, and the connection points, of any: <ol style="list-style-type: none"> 1. Harvesting and Reuse Measures: such as raingarden tanks (must identify what the tank is connected to; toilets, gardens etc). 2. Water Quality Treatment Measures: such as raingardens, wetlands, buffers and swales. 3. Infiltration Measures: such as porous paving and infiltration trenches/sumps. 4. Passive Irrigation Measures: such as directing runoff into gardens.
A report outlining how the application achieves the objectives of this policy.	A report including an assessment from an industry accepted performance measurement tool such as STORM or MUSIC (or equivalent).
Design details, such as cross sections, to assess the technical effectiveness of the proposed stormwater treatment measures.	Design details as appropriate to the stormwater treatment measure proposed.
A site management plan which details how the site will be managed through construction.	A statement is required outlining construction measures to prevent litter, sediments and pollution entering stormwater systems.
A maintenance program which sets out future operational and maintenance arrangements.	A statement is required outlining operational and maintenance measures to check the effective operation of all systems.

Site layout plan →

Report (MUSIC or STORM) →

Design Details →

Site management Plan →

Maintenance Program →

If the water quality performance objectives set out in the *Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO 1999* (or as amended) are not met, an application must include justification for how the development meets the objectives of this policy.



Funding WSUD in the Public Realm

Infrastructure
Funding

Public Open
Space Planning

Water Quality
(WQ) Offset
Schemes

DCPs = Development
Control Plans

POS = Public Open
Space

LG = Local Government

State	Development Contributions under the relevant planning Act	Levies under the LG Act	POP requirements	WQ Offset Schemes
Qld	✓ Adopted under a LG Infrastructure Plan (LGIP) or a Priority Infrastructure Plan (PIP) required under the SP Act. Capped at \$20k for 1-2 bedroom; \$30k for 3 or more bedroom dwellings.	✓	✓ Set through the infrastructure charges under an LGIP/PIP. No quantum prescribed	✗
NSW	✓ Capped at \$20,000/ dwelling for established areas; \$30,000/ dwelling for greenfield areas. Contributions more than the relevant cap must be authorised by a DCP & approved by IPART	✓	✓ No quantum prescribed	✗
Vic	✓ Planning scheme may include one or more DCPs for the purpose of levying 'community infrastructure' or 'development infrastructure'	✓	✓ 5% of site value under the Subdivision Act unless different rate specified in planning scheme <u>or</u> through the PSP and DCP process – approx 10% with 6% as active open space under the PSP Guidelines	✓ Melb Water
SA	? Development Act, Section 50A allows councils to require developers to provide basic subdivision infrastructure (access roads, hydraulic connections) and the dedication of open space.	✓	✓ max 12% - 12.5% of total area of the site depending on the size and number of allotments	✗
WA	✓ Under SPP 3.6 which forms part of all planning schemes (P&D Regs, Sch 1)	✓	✓ 10% under SPP 3.6 recommended under Liveable Neighbourhoods	✗



Implementation Guides



State	Technical/design	Maintenance guidelines	Policy guidelines	Cost benefit	Institutional support and training	Water quality	Accessibility
Qld	✓	✓	✓	✓	✓	✓	Dispersed across Water by Design & State Gov websites
NSW	✓*	✓*	✗	✗	✗	✗	Dispersed across various sources
Vic	✓	✓	✓	✓	✓	✓	Dispersed across various sources
SA	✓*	✓*	✗	✓	✓^	✗	Dispersed across various sources. ^Currently being developed
WA	✓	✓	✓	✓	✓	✓	Dispersed across DoW & other Gov websites

* Limited range available

In summary ...

- *Most jurisdictions have developed State policies to support the implementation of WSUD but the approaches vary. Most States allow councils a high degree of discretion in application of State policy with SA's framework potentially providing broadest discretion compared to other States.*
- *The concept of WSUD is well established in most jurisdictions, but there is no consistent statutory definition..*
- *In Victoria, the SEPP – Waters of Victoria is the key driver for the implementation of best practice stormwater management and must be given effect in planning decisions. The legal status of water quality policy is less clear in other jurisdiction's planning framework.*
- *WSUD policy and planning controls are generally better developed in precinct structure planning (PSP) and residential subdivision contexts. There tends to be a policy gap for infill (buildings) and lot scale developments in all jurisdictions.*
- *WSUD is often delivered in the public realm where there is a PSP process, but tends to be delivered on-site in established areas. Market mechanisms such as offsets are not widely used at present.*
- *A range of implementation guides are offered in most jurisdictions but these are often non-statutory, poorly integrated and dispersed. The vast array of non statutory guidance can be difficult to navigate.*
- *Many councils have been at the forefront of policy development for WSUD, which may reflect the fact that most jurisdictions allow Councils to tailor WSUD policies to local circumstances, rather than imposing State-wide controls that have automatic effect in the planning scheme.*

Questions for further stakeholder engagement and discussion...

WSUD Definitions

- In your view, is the concept of WSUD clearly defined in planning policies of your jurisdiction?
- Do you think it would be helpful to have a statutory definition of WSUD in each jurisdiction and why?

Overarching State Planning Policy on WSUD

- What are your views on the current approach to mainstreaming WSUD in your jurisdiction?
- Would you support mandatory WSUD requirements (e.g., standards or codes) for all or classes of development and why?
- If your jurisdiction does not have mandatory requirements for WSUD (discretionary requirements are not mandatory), is this working well, or could it be improved?
- Do you think it would be helpful to have a national standard for WSUD or code that can be applied across jurisdictions to align performance standards and assessment in the implementation of WSUD? Explain why.

Stormwater runoff quality and flow targets

- Do you think stormwater runoff objectives and targets can help to mainstream and simplify the implementation of WSUD and why?
- Do you support mandatory stormwater runoff targets? If so, why?

WSUD at different scales

- Where do you think the policy gaps are in the current framework in your State and how does this affect the uptake of WSUD in your practice?
- To what extent is flexibility in applying the WSUD policy important to you and why?
- What, if any, regulatory barriers may prevent the uptake of WSUD at each development scale?

Questions for further stakeholder engagement continued...

Funding WSUD in the public realm

- In your practice, to what extent is the current regulatory framework for infrastructure funding a barrier to the implementation of WSUD?
- From your experience, what would you suggest is the optimum economy of scale or setting for delivering WSUD in the public realm?
- Would you support the expansion of market based approaches to stormwater (offsets) and why?
- To what extent would better alignment of infrastructure planning by water agencies and local council help facilitate the provision of WSUD in the public realm?

Implementation Guidelines

- Would consolidation and simplification of policy guidance as part of a single code reduce red tape and make it easier to apply WSUD policy and why?
- Do current guidelines provide adequate support for the implementation of WSUD?
- What, if any, additional tools or guidelines are required to support the implementation of WSUD?

Natural Resource Management Framework and Catchment Planning

- Do you think NRM policies and catchment planning should play a greater role in the implementation of WSUD and why?
- What would you suggest be the best way to integrate NRM policies and catchment planning in statutory and strategic planning?

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