Policy Instruments and Pathways for SA WSUD Policy

Outcomes of the Goyder Institute for Water Research WSUD Project: Phase 2

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Overview

- Background to this study
- Pathways for WSUD implementation
 - Some examples where available
 - Some discussion of each



Background

- Goyder Institute for Water Ressearch?
 - A partnership between SA Government (DEWNR) and CSIRO, Flinders University, the University of Adelaide and UniSA
 - Focussed on demand driven research, and research to inform policy
- WSUD Project Phase 1 completed 2014 Focussed on on impediemnts to WSUD in SA
- This work is part of the WSUD Project Phase 2. It examined all current interstate and SA WSUD policy to identify potential WSUD policy pathways.



Key Pathways for WSUD in SA Policy

Possible options, in no order of preference are:

- Development plans 3 options!
- Engineering service levels/standards
- Residential Code
- Building Code
- Development of Minister's
 Specifications
- A levy/offset mechanism
- SA Planning Reform Pathways?



Bioretention, Dunstone Grove, City of Norwood, Payneham and St Peters



Development Plans Option #1

Incorporation of WSUD into development plans - enforce what exists in the SA PPL!

- Most development plans already have principles of WSUD which may be specified
- Principles are qualitative, subject to interpretation and may be challenged

Development Plan

Hease refer to the Light Hegional Council page at www.sc.gov.claride.clopmemorane.to.set any omendments run consolidated.





Development Plans Option #2

- Incorporation of WSUD into development plans – Local government DPA
 - Can be conducted based on local needs
 - Time consuming process
 - May lead to varying WSUD
 policies across the state –
 inconsistency and inequity



City of Port Adelaide Enfield North Arm East Catchment Stormwater Management Plan





Development Plans Option #3

- Incorporation of WSUD into development plans – STATE driven change to the SA PPL
 - Consistent outcome which can be applied at discretion of local gov't
 - Baseline values must be demonstrably beneficial, and may not satisfy all



Modelling the impact of soakaway retrofits on combined sewage overflows in a 3 km^2 urban catchment in Copenhagen. Denmark

Maria Roldin ** Ole Fryd^a, Jan Jeppesen^k, Ole Mark^a, Thilip J. Binning^{*}, Peter Steen Mikkelsen^{*}, Marina Bergen Jersen^k

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"Technical Discourses (Chemistry Dept. of Execution in the Section 2007) Industries of 2009 (apply Demonstrate "Absended al September (Execution 2008) Industries Demonstration Network (Chemistry 2008) (Chemistry Demonstration) "Deb Agent Alle S. 2009, Invite Demonstration

Can stormwater harvesting restore pre-development flows in urban catchments in South East Queensland?

S. Ashbolt, S. Aryal, K. Petrone, B. S. McIntosh, S. Maheepala, R. Chowdhury and T. Gardner

Urban Water Journal

84.

Publication details, including instructions for authors and subscription information: http://www.fandionline.com/iol/nurw20

Rainwater harvesting to control stormwater runoff in suburban areas. An experimental case-study

"Lando Petrucci", José Frédéric Derouhaix", Bernard de Couvello **, Jean Claude Deutsch. *, Philippe Bompard * & Bouno Lastin *

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¹⁵ CSTB (Centre Scientifique et Technique des Bâtiments), Paris, France-Published centre: 76 Jan 2012.



Engineering Service Standards

- Incorporation of WSUD into minimum engineering service standards
 - E.g. City of Onkaparinga
 - Developed according to local need, implemented without state intervention
 - If WSUD is adopted independently at each local gov't, it may produce varying standards across SA



Green Roof, ANZ Building, Adelaide



Residential Code

- Incorporate WSUD into Residential Code
 - A way to address infill development uniformly
 - Must be cost effective, and limited to residential development.



Thrushgrove Creek, City of Onkaparinga. Note erosion of banks due to frequent high flows. These destructive flows are caused by urbanisation.



Building Code

- Incorporation of more WSUD requirements in the Building Code
 - Successful in 2006 (e.g. rainwater tanks)
 - Limited to housing
 development and must
 be suitable to all homes





Ministers Specifications

- Development of more Ministers Specifications for WSUD measures
 - Can be implemented in a variety of ways to produce deemed-tocomply designs consistently





Levy or Offset Approach

- An offset payment for those who cannot or prefer not to conduct on-site WSUD
 - E.g. City of Onkaparinga
 - May be used to construct
 larger, more effective WSUD
 systems or maintain them
 - Benefit must be demonstrated



Springbank Waters, downstream of Kaurna Park wetland



Planning Reform?

- Not finalised yet, but:
 - Reform 6, 7 Ensure WSUD is in statewide e-planning
 - Reform 16 Opportunity for adoption of WSUD in neighbourhood regeneration
 - Reform 17 Funding framework for '...public realm and environmental works'?
 - Reform 18 Public open space review to include green infrastructure and urban vegetation





Questions or Comments?

- Final report available SOON on Goyder Institute website!
- Project Team (Policy Review)
 - David Pezzaniti (UniSA)
 - Stephen Cook (CSIRO, Highett)
 - Peter Newland (UniSA)
 - Baden Myers (UniSA)
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