

Darryl Low Choy¹

¹Griffith University, Australia

Catchment management through the lens of water sensitive urbanism

Key words: catchment planning and management; water sensitive urbanism; whole of landscape

Abstract:

This presentation will present some initial findings from research examining how an integrated approach to whole-of-catchment planning and management, that is capable of linking cities ecologically and hydrologically to their region whilst accommodating urban and peri-urban growth that is adapted to climate change, can be delivered through statutory and non-statutory planning processes. Under the umbrella of this research intent, the project is addressing the following research questions:

1. Can the city-scale urban metabolism framework extended to the city-region scale be incorporated into an evaluation process to support a scenario planning approach seeking to highlight strategic options of future growth in greenfield, peri urban and rural landscapes for growing city regions in an environment of uncertainty with particular regard to climate change adaptation leading to resilient landscapes?
2. Can scenario planning, utilising a city-region metabolism framework, provide insight into growth implications for the case study areas and demonstrate the integral links that need to be addressed through a science-based planning approach for growth management?
3. Will a regional (catchment) scale values-led planning approach ensure that ecological, hydrological and ecosystem services values are incorporated into the statutory and non-statutory planning processes of Local and State governments?
4. What planning methodologies need to be developed in order to establish a science-based planning approach for city-regional scale planning?
5. What roles can an integrated regional greenspace framework that incorporates natural ecosystems and green infrastructure, play in achieving a whole-of-landscape approach that respects critical hydrological connections between cities and their regional catchments and between natural and built environments?

This four year research project is being undertaken under the auspices of the Cooperative Research Centre for Water Sensitive Cities, a Commonwealth Government funded CRC.