

**Stream:** Flood Management and Streamflow – Managing and Designing and Recovering Waterways

**Abstract: Future Water Management Targets -Reducing the Quantity of Flow to Waterways**

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#### **ABSTRACT**

Expected future revisions to best practice stormwater management guidelines along with evolving expectations for development areas will increase the design challenge for water management; requiring better stormwater treatment, increased use of alternative water supplies and better management of flows to protect streams and manage flooding. In particular, a focus on managing quantities (as well as qualities) of stormwater runoff entering our waterways is coming into play, particularly in peri-urban growth areas where waterways are in relatively good condition.

The effects of urban excess on waterway health are well documented, often fundamentally changing the geomorphology of streams and the seasonal variation of flow which species rely on. A shift of focus to reducing flow will naturally place emphasis on rainwater and stormwater harvesting along with increased infiltration and evaporation techniques. These ambitions are in keeping with wider integrated water management objectives to create new local water supplies and to retain water to support urban greening through irrigation.

This presentation will examine case studies in New South Wales and Victoria to explore the benefits possible strategies for advanced flow reduction using stormwater harvesting and local infiltration techniques to reduce annual flows to waterways in an attempt to replicate pre-developed conditions and to minimise erosive flows. Life-cycle cost examples will be included to allow comparison of performance.