

Long-term effectiveness of WSUD assets on private land

Project E3:
SCM
Effectiveness

This project will improve Melbourne Water's ability to assess the benefits and risks of different approaches to co-management and governance of WSUD assets on private land.

Water sensitive urban design (WSUD) features are increasingly used in Australia to mitigate the impacts of stormwater run-off on the health of urban waterways, whilst offering additional social and ecological benefits.

In the past, public or corporatised utilities have had almost sole responsibility for managing stormwater through large scale, centralised systems. However, residential subdivisions must now meet State (and sometimes local) planning provision with regard to stormwater management. Furthermore, to achieve stormwater management objectives in the Healthy Waterways Strategy's (2018) there will continued investment by Melbourne Water in WSUD systems on private land (residential and industrial).

This decentralisation of infrastructure clearly has implications for the management of stormwater assets, which may be especially challenging in relation to assets on private land, given the likelihood of changes in ownership and the relative lack of oversight beyond the planning process.

This research project understands long-term effectiveness of WSUD assets as a socio-technical achievement. That is, the ongoing technical performance of these assets is coupled to the competencies, capacities and cooperation of a range of professional and community partners. A focus on long-term effectiveness also extends attention beyond individual assets, to the ways in which this decentralised system may be spatially and temporally coordinated through approaches to

co-management.

Methods

This research will be conducted as a combination of:

- a desktop review of academic literature related to managing WSUD assets on private land, as well as other examples of decentralised infrastructure
- a review of reports and other outputs from large scale WSUD programs on private land in Melbourne and Australia (such as Little Stringybark Creek, Dobsons Creek, and 10,000 Raingardens)
- conversations with a range of key stakeholders in Melbourne with influence and perspective on different stages of the lifecycle of WSUD assets.

Outcomes

- Systematic review of academic and grey literature related to WSUD on private land
- Submission of two academic publications to establish track record and foundation for future research grant application
- Broad mapping of the lines of influence of various professional and private stakeholders that impact on the lifecycle of WSUD assets on private land in Melbourne
- Development of external partnerships for a research proposal
- Draft ARC Linkage research proposal

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