

Collaborating with Local Government on Stormwater Management

Little Stringybark & Dobsons Creek Projects
Fact Sheet Series: 3

The Little Stringybark Creek (LSC) and Dobsons Creek projects were long-term catchment-scale experiments designed to test if Stormwater Control Measures (SCMs)—primarily rainwater tanks, raingardens and infiltration systems—applied across an urban catchment can help restore stream condition. Commencing in 2008, the projects were led by The University of Melbourne and Melbourne Water, in collaboration with local government, industry, and property owners. We monitored changes to stream water quality, hydrology, and ecology (Fact Sheet 10), and also assessed techniques for local government collaboration (Fact Sheets 3 & 4), community engagement (Fact Sheet 5), as well as SCM design, performance and maintenance (Fact Sheets 6 & 7).

About the fact sheets

These fact sheets summarise our scientific and practical findings and insights on catchment-scale stormwater management over the long-term LSC and Dobsons Creek projects. We hope that they might inform and guide the planning and delivery of future waterways management projects for improved stream health.

Collaborating with local government

Given their responsibilities for managing stormwater runoff, drainage and flooding in catchments less than 60 hectares, both Yarra Ranges Council and the City of Knox played a critical role in the delivery of the LSC and Dobsons Creek projects, respectively. Both local governments were also committed to the improvement of their local waterways. Local government staff contributed to the projects in a variety of ways, including providing technical advice on the design and construction of SCMs, providing contractual oversight for the construction of the larger SCMs on public land, supporting the education and recruitment of local residents, establishing supportive local planning controls, and maintaining public SCMs post construction. Importantly, both local governments provided public land space for the construction of SCMs.

Findings and insights

1. A project 'champion' operating within the local government is invaluable
2. A culture of knowledge exchange will produce a better result
3. Collaborative partnerships provide benefits beyond project delivery
4. Ensure there is appropriate support across all levels of local government
5. Explicitly define organisational roles and expectations at the commencement of the project
6. It takes time to establish trust and a long-term commitment between partners
7. Incorporate long-term maintenance costs into project budgets
8. Consider possible alignment with existing strategic plans and policy

See over for more details



*Stormwater harvesting for irrigation
Morrison Reserve, Mt Evelyn*

3. Local Government Engagement

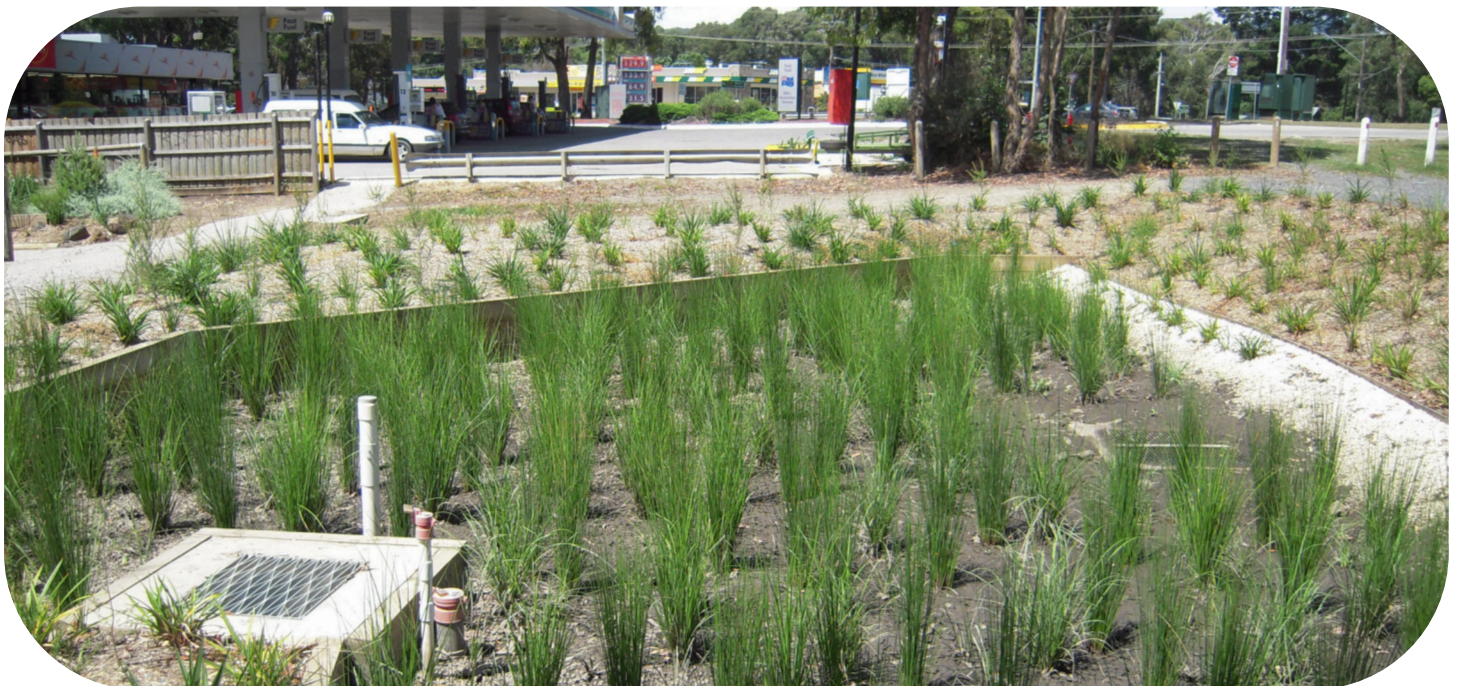
1. A project ‘champion’ operating within the local government is invaluable. Seconding an environmental drainage engineer from the research team to work in the municipal engineering department was pivotal to the success of the LSC project. This position was funded by Melbourne Water in acknowledgement of the potential benefits the role could provide, especially in the sharing and transfer of knowledge around novel stormwater management, dedicated resources to maintain project focus and momentum, and strong internal advocacy between local government departments and senior management. This investment helped build trust between participating organizations and increased local government’s confidence in using new stormwater technologies. Indeed, construction activity on SCMs ramped up significantly after this staff secondment, and it greatly improved the refinement and ongoing effectiveness of SCM maintenance programs. The success of this model saw a temporary role consolidate into an ongoing, dedicated Water Sensitive Urban Design Officer employed by the local government.

2. A culture of knowledge exchange will produce a better result. It was important that all parties (researchers, local government staff, and waterway managers) were willing to learn from each other with regards to practical knowledge and constraints and that they were willing to adapt accordingly. Each project partner contributed specific expertise toward the project’s outcomes. For example, researchers were well placed to advise on designs and treatment objectives for SCMs, which ensured systems would provide maximum efficiency and benefit. Local government staff across multiple departments involved in the construction and maintenance of drainage assets lent their considerable practical experience to the design and construction of SCMs, especially around ongoing maintenance for effective

long-term performance. This co-development resulted in SCMs that were better designed, more efficient to operate, and easier to maintain. In turn, this helped build confidence in the assets across local government departments.

3. Collaborative partnerships provide benefits beyond project delivery. The relationships fostered through the LSC project helped to build partner trust in the use of new approaches and technologies for stormwater management and demonstrated that, when designed and constructed well, SCMs could function successfully. As a result, the LSC project contributed to the adoption of new approaches to stormwater control in other areas of the local government area. More broadly, collaboration and sharing of knowledge helped build the internal capacity of all organisations involved in the projects. Dissemination of project findings across industry and academia has helped to foster a broader trust in the use of new approaches and technologies for stormwater management.

4. Ensure there is appropriate support across all levels of local government. Having support and leaders at various levels of local government was critical to the ongoing success of the projects, since the delivery of the projects required input from multiple local government departments and staff and at different levels of management. For the LSC project, endorsement by councilors and senior management was achieved early, along with strong support from the local government’s environmental department. However, the project did not initially engage sufficiently with the Yarra Ranges Council’s project delivery teams - the project level officers and middle level management critical to the project’s delivery. This is especially true for the engineering team, who had responsibility for the



Infiltration raingarden (converted stormwater retarding basin), Hereford Road, Mount Evelyn

3. Local Government Engagement

construction and maintenance of SCMs. As a result, the LSC project initially encountered barriers to the installation of SCMs and had SCMs working at reduced capacity (or not at all) due to insufficient maintenance. A conscious effort at wider collaboration led to more expedient planning and delivery of SCM construction, as well as better ongoing maintenance of assets (See Fact Sheet 7).

5. Explicitly define organisational roles and expectations at the commencement of the project.

At the commencement of the LSC project, there was a lack of clarity and shared understanding between researchers and local government staff about project objectives and roles within respective organisations. For example, the researchers assumed that once SCMs were installed, local government would take responsibility for the ongoing maintenance of SCMs on public land and the associated costs of management. However, local government was not aware of this expectation. This resulted in an extended period in the LSC project where SCMs were under-maintained and performance outcomes were reduced. We recommend that any collaborative agreement spell out the roles and responsibilities of each party, as well as include a clear governance framework.

6. It takes time to establish trust and a long-term commitment between partners. Be prepared to invest the time to establish a good and sustain a working relationship between project partners and across relevant departments and levels of management. Similarly to working with the community (see Fact Sheet 5), trust between project partners was gradually built over years of collaboration. Targeted and regular communication, shared objectives, and mutual respect were all important in achieving this, as was the opportunity to collaborate on some smaller components of the projects (e.g. co-delivering

pilot SCMs before expanding to broader implementation). Once established, a relationship of trust was found to facilitate further collaborative work, like developing planning policies to better protect investments in stormwater management (see Fact Sheet 4).

7. Incorporate long-term maintenance costs into project budgets. The decision to implement SCMs should take account of the capital and operational costs and the burden this imposes on the management agency/asset owner (for the LSC and Dobsons projects, this was primarily local governments and residents). All assets, including SCMs, have an operational cost. If not properly resourced, local governments may not have the capacity to adequately maintain the SCM in the long term. One strategy to guarantee ongoing maintenance could be to include (and set aside for later use) the cost of initial maintenance as part of the total project cost. Similarly, the required maintenance procedures should also be established early in the design phase, so that, in addition to being adequately resourced (including funding, staff and equipment), the local government can add SCMs to their annual maintenance program.

8. Consider possible alignment with existing strategic plans and policy. Most local governments have strategies or plans (e.g. Integrated Water Management or Stormwater Management strategies or plans) that influence their culture and approach to stormwater management. Such strategies can be a mechanism for driving change, aligning the organisation, directing its capital works planning, guiding education and internal communications, and providing the clear mandate needed to invest in solutions to stormwater impacts. Recognising the contribution of a stormwater project to such strategies and policy can significantly help to facilitate council involvement.

For more details on the outcomes of this project, please refer to:

- Burns, M. J., Wallis, E., & Matic, V. (2015). Building capacity in low-impact drainage management through research collaboration. *Freshwater Science*, 34(3), 1176-1185.
- Walsh, C. J., D. G. Bos, M. J. Burns, M. Imberger and T. D. Fletcher (2023), "Restoring the health of urban streams through stormwater management: A synthesis of the Little Stringybark and Dobsons Creek research projects", Technical report 23.2, Melbourne Waterway Research-Practice Partnership.
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