



CRC for
Water Sensitive Cities

Water Sensitive Urban Design (WSUD) Voluntary Contribution Scheme for Moonee Valley City Council

Location:
Melbourne,
VIC



Case Study — Prepared by Cooperative Research Centre for Water Sensitive Cities, September 2020



Business
Cooperative Research
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Insight

Voluntary contribution schemes can reduce compliance costs for developers and increase stormwater quality improvements. Local government can learn from each other, and as a result achieve better stormwater treatment outcomes from new developments and deliver broader community benefits

Project description

Moonee Valley City Council launched a Water Sensitive Urban Design (WSUD) voluntary contribution scheme (VCS) for planning applicants to help them meet their development's on-site stormwater quality obligations from 1 July 2019. Applicants for new developments can choose to achieve 100% stormwater treatment compliance on-site, or meet a minimum 80% treatment on-site and pay a financial contribution in lieu of the remaining portion of the requirements.

The council uses the money collected through the scheme to fund large-scale WSUD projects, such as the Woodlands Park Stormwater Harvesting System and a new wetland for the Rosehill Park Stormwater Harvesting System.

The contribution scheme is generally applied to smaller- and medium-density developments, although it is available to all developments (subject to council approval). In the first year, 52 developments used the scheme. The scheme has addressed a total impervious area of 18,600 m² of new development, and generated approximately \$125,000 for WSUD projects to treat the equivalent pollutant loads

The drivers

Delivering more effective WSUD outcomes on-site and across the catchment by building on existing frameworks

- The council introduced a WSUD planning policy in 2014, which requires developers to meet their stormwater requirements on-site. ([You can read about the policy in our case study here.](#)) Building on this policy, the council implemented an offset scheme as part of its long term plan for its MV2040 Strategy.
- While the development industry is improving its application of WSUD, many developers struggle to achieve more than 80% compliance on-site using a rainwater tank. And they are less confident about alternative on-site initiatives that could achieve the remaining requirements.
- The council learned from the experience of the City of Kingston, which introduced a Stormwater Quality Contribution Payments scheme in 2017.



Woodlands Park in the City of Moonee Valley. Image courtesy of Moonee Valley City Council.

What does this case study demonstrate?

Each case study has been selected to demonstrate specific solutions, benefits or enabling structures that support the creation of water sensitive cities. This case study focuses on:

Urban planning

Water sensitive homes and buildings

The innovations

Flexible and efficient options for developers can achieve effective stormwater treatment outcomes on-site and contribute to large-scale initiatives that deliver broader community benefits

- **Working together for greater impact** – The City of Kingston played an integral role by sharing its knowledge, resources and experience of developing a similar scheme. Other councils, such as Moonee Valley, benefit from this work and can develop a scheme that suits the local development community and the broader community.
- **A flexible approach** – While the council prefers full on-site compliance for new developments, the voluntary nature of the scheme appeals to developers and provides a flexible option to overcome any difficult treatment issues.
- **Streamlined process** – The scheme creates a more efficient and easier planning process for both the applicant and council, which saves both time and transaction costs.
- **Large-scale projects support private action** – The scheme balances the opportunity for developers to install effective WSUD initiatives on private land, and funding large-scale council WSUD projects that benefit the wider community. The financial contributions generated through the scheme also allow the council to bring forward its capital investment in stormwater quality treatment projects.

The lessons

- **Test the process** – Ensure council officers and developers understand detailed operational aspects and constraints of the scheme, so that it is robust, transparent, efficient and accountable. Testing also ensures the various planning, environmental, engineering and administrative departments within council (as well as partner agencies, such as water corporations) have buy-in to the process and can work together towards the same project outcomes.
- **Contact developers early** – Consult with a cross-section of the local development industry early to inform, clarify and manage expectations of the proposed scheme. It is also important to receive developer feedback on suggested contribution rates (and associated likely buy-in) and identify support needed for adoption.
- **Communicate the stormwater quality and quantity benefits** – Raise developer awareness of the role of stormwater quality and quantity within the scheme, and explain the cost differences involved in achieving




the ultimate goal of better community WSUD outcomes. This point is particularly important if developers are paying existing contributions or working in areas without such a scheme.

- **Consider community acceptance** – If necessary, raise local community awareness about the importance of council projects to secure their willingness and acceptance. Large-scale council WSUD projects are usually more cost-effective for removing stormwater pollutants than small-scale on-site systems. The community receives the other benefits that WSUD assets provide including passive irrigation and urban cooling. Often, it's easy to garner support if a community is closely connected to a significant waterbody such as a river, lake or the sea.
- **Clarify council projects** – Confirm and prioritise the council projects to be funded by the scheme and consider development rates, and forecast income, capital and operational costs to ensure stormwater quality treatment is timely and effective. In particular, it is essential that councils invest adequate time, funds and research to determine the location of these assets before discussing a funding approach.



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Rosehill Park in the City of Moonee Valley.
Image courtesy of Moonee Valley City Council.

The outcomes

 Cities providing ecosystem services	 Cities as water supply catchments	 Cities comprising water sensitive communities
<ul style="list-style-type: none"> • Large-scale effectiveness – Council can incorporate greening, urban cooling, habitat provision and biodiversity considerations into larger municipal projects funded by the scheme’s in-lieu contributions. 	<ul style="list-style-type: none"> • Effective on-site initiatives – A minimum requirement of 80% stormwater treatment compliance on site using solutions such as rainwater tanks provides a substitute for potable water. • Stormwater harvesting and water quality treatment systems – Large-scale council-led projects funded by the scheme provide stormwater harvesting systems for potential reuse and improve the quality of water entering Port Phillip Bay and local waterways. 	<ul style="list-style-type: none"> • Raising awareness of WSUD – Large-scale council projects located in high profile areas with clear signage raise community awareness about the role and importance of WSUD. Requiring developers to implement some on-site WSUD also progresses industry understanding of WSUD opportunities. • Sharing knowledge – Councils and developers can benefit from the experience and lessons of others to create stronger water sensitive cities.

Business case

Costs	Benefits
<ul style="list-style-type: none"> • Approximately \$130,000 in external professional services to support the establishment of the Moonee Valley City Council contribution scheme framework, including prioritisation of large-scale projects, economic analysis, developer consultation and development of administrative and reporting frameworks • Costs were significantly reduced because the City of Kingston shared information about its contribution scheme. • Council’s current \$55 per m2 in-lieu contribution rate includes administration, construction and maintenance of large-sale projects. This cost will be reviewed annually. 	<ul style="list-style-type: none"> • Simplifying the development approval process, and providing flexible options for developers to meet their stormwater treatment requirements • Cost-effective and efficient stormwater management on site and across the broader municipality • Additional funds to major council stormwater harvesting projects that contribute broader community WSUD outcomes, including potential reuse for urban cooling, better landscape amenity and greener spaces for the surrounding community • Reducing incidence of poor on-lot WSUD outcomes on constrained sites • Supporting Moonee Valley to be a water sensitive city

Transferability

The framework for this project is highly transferable, particularly across urban councils. The City of Kingston created a robust concept and methodology for its contribution scheme, which Moonee Valley City Council built on and modified to create an alternative approach. This project provides a blueprint that other councils can adopt and adapt including:

- a straightforward model for financial contribution that provides a price signal to encourage smaller (often more problematic) developments to opt in, based on a sound economic analysis
- insight into the positive attitude of local developers towards the scheme (this may vary regionally and depend on scheme pricing) and their challenges with WSUD implementation more broadly
- a blueprint for administration, monitoring, reporting and review of such schemes.

The framework should be adapted to suit each council's requirements. The cost to developers and council will differ across cities and regions, as will the council's ability to build large-scale stormwater treatment projects.

In cases where the scheme may not be suitable or viable for certain private developments (for example, if the new development adjoins a waterway or where there is insufficient available land for a council project), 100% on-site compliance may be required.

Project collaborators

- Moonee Valley City Council
- City of Kingston
- Melbourne Water
- Marsden Jacob Associates (economic consultants)
- Jamie Comley Environmental Consulting (project management, local development industry consultation, administration and reporting framework)
- DesignFlow (WSUD)

Additional information

[Moonee Valley City Council website](#)

[Kingston City Council website](#)

[Rosehill Park Master Plan](#)

[Woodlands Park and Salmon Reserve Master Plan](#)

[Water quality offsets framework final report](#)

[Industry note: Victorian urban stormwater offsets – implementing best-practice with councils](#)

