



## Merri and Edgars Creek Constructed Wetland Project

Delivering liveability and environmental outcomes through water sensitive urban design (WSUD)

Coburg North, Moreland City Council, Victoria



### Key Messages

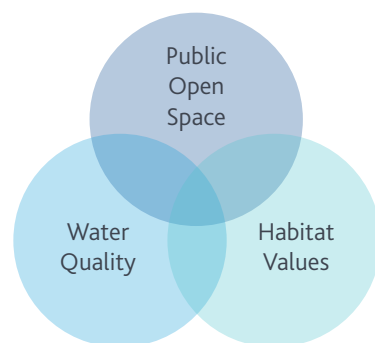
- WSUD projects present an opportunity for Councils to learn from consultants, the community and to share knowledge between Council departments.
- Using a skilled contractor that can effectively implement WSUD designs is key to achieving successful outcomes.
- Community consultation and involvement in the planning and design process is beneficial.
- Having design consultants on site during key construction points provides guidance to contractors and assurance that construction is completed as per design.
- Having projects “dig ready” and accurately costed improves funding viability.

### Project Overview

Moreland City Council, in partnership with Melbourne Water’s Living Rivers Program and local community groups, established a new stormwater treatment wetland at the confluence of Merri and Edgars Creeks.

The purpose of the wetland is to:

- Improve habitat values and assist in the reintroduction of a range of locally native plants and animals.
- Improve the quality of stormwater entering Merri Creek and Edgars Creek.
- Enhance the existing natural open space and its recreation value.



Construction of the wetland was recommended by the *Edgars Creek Conservation and Development Plan 2013*. Moreland City Council endorsed the project in 2013 and provided initial funding for site investigations (i.e. soil testing and cultural heritage) and concept design development. These stages were completed in 2014, which meant the project was “dig ready” when Council obtained funding for construction through the Living Rivers program. Construction began in December 2015 and was completed on time and within budget in June 2016.

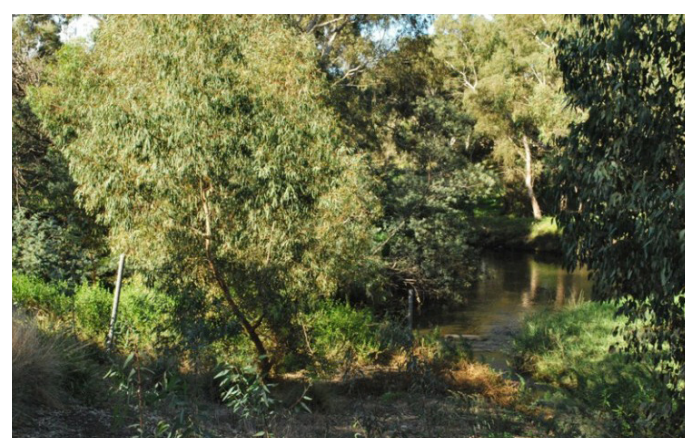
### Outcomes

#### Stormwater Treatment

The major components of the wetland include a sediment basin, macrophyte zone (main wetland area) and an outlet channel. A gross pollutant trap installed before sediment basin inlet removes litter before entering the wetland. The wetland improves the quality of stormwater by diverting low flow events from the adjacent urbanised catchment (~ 22 ha) into the wetland for treatment prior to entering the creek. In order to manage flood risks higher flows continue to bypass the wetland and discharge into Edgars Creek via the existing drainage network.



Merri and Edgars Creek Wetland, April 2016. (Photo Credit: Friends of Edgars Creek)



#### Project Working Group

A project working group was established to revise and select a preferred wetland design option. The working group was made up of representatives from a range of council departments (i.e. engineering, local laws, recreation, natural resource management and transport) and the local community (i.e. members of the Edgars Creek and Merri Creek Friends groups). The working group gave the community an opportunity to be involved in decision making at a high level and allowed Council representatives to share knowledge and gain insight into the multi-faceted benefits of the project. Perhaps more importantly, this process cemented a sense of project ownership across Council as a whole.

#### Community engagement

Extensive community consultation was undertaken during the development of the Edgars Creek Conservation and Development Plan 2013. This established the community’s values and opinions about development around the Creek and showed an interest in the construction of a stormwater treatment wetland at the confluence. The Friends of Edgars Creek and Merri Creek groups provide ongoing maintenance assistance to Council, carrying out weeding, planting and litter removal working bees to sites surrounding the wetland.

### Lessons Learnt

#### Project funding

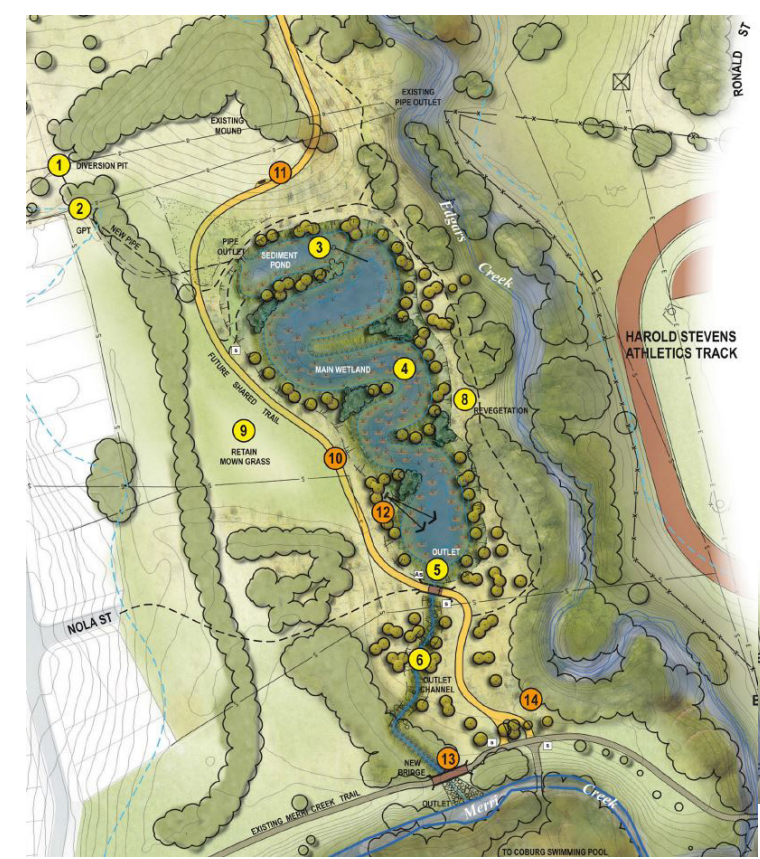
Council projects are typically designed and constructed in less than 12 months. However, seasonal planting requirements and the need to conduct community consultation often makes delivering WSUD projects in these short timeframes difficult. Consequently, getting large scale WSUD projects funded by council can be challenging. Receiving the Living Rivers grant for this project gave Council an opportunity to demonstrate what can be achieved with more timeline flexibility. “We weren’t tied to such a narrow period of spending”. This project also demonstrated that “dig ready” projects have a high chance of being funded. Initial funding for background studies, concept designs and community consultation is crucial in developing a project that can be delivered successfully.

Completing so many elements of the project prior to costing also improved the accuracy of cost estimates and minimised the risk of incurring unexpected costs. This gave Melbourne Water confidence that the project would be completed within budget.

*“Knowing the ins and outs of the project before applying for funding was worthwhile. Our cost estimates were excellent. The project was completed on time and on budget”* (Vince Andreana, NRM Officer).

#### Relationship with consultants

Council officers viewed this project as a learning opportunity. Part of the consultants brief was that they engage with Council staff during the project to improve their understanding of water sensitive urban design and asset construction. The consultants saw the value in engaging more with Council and having a range of departments being informed throughout the design process. Catch up meetings between the Council, consultants and contractors took place prior to significant project milestones.



Merri and Edgars Creek wetland concept design

Design consultants also worked closely with the contractor throughout construction to ensure design specifications were adhered to, any changes were agreed too and the wetland was built as intended. This communication allowed misconceptions to be dealt swiftly and reduced the likelihood of mistakes being made during construction.

### Future Projects

Future works to be completed at the Merri and Edgars Creek wetland include: completion of an all-weather access shared path, interpretive signage and further revegetation works in surrounding areas. Using the “dig ready” approach to project funding Moreland City Council obtained funding from Living Rivers to complete another wetland project (Herbert St. Pascoe Vale), where by supporting documents such as feasibility and scoping studies were completed at the time of the grant application.

#### More Information

For more information visit <https://www.melbournewater.com.au/livingrivers>

#### Contact

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Merri and Edgars Creek wetland 2016