

Demonstrating the water quality benefits of vegetating rural waterways Project Summary

Together with Landcare groups and land owners, Melbourne Water makes a significant investment each year in works to improve runoff from rural properties, for the purpose of protecting waterway health and improving drinking water quality. One of the most common actions is revegetation along waterways and gullies. Melbourne Water seeks to demonstrate the benefits that these works provide, by monitoring a variety of revegetation projects at different stages of maturity.

This project will measure the extent to which waterway and gully revegetation in the Tarago catchment removes pollutants (such as nutrients, microbes and sediment) in rural landscapes. The Tarago catchment represents an ideal opportunity to conduct this research because:

1. It contains a diversity of land uses and land management, useful to quantify and prioritise pollutant sources.
2. A range of revegetation projects have been implemented over two decades, resulting in a range of ages from the very new to the very mature which can be monitored to compare effectiveness.

With the approval of land owners, this project seeks to establish up to 8 monitoring sites, to sample vegetation of different ages, a before/after planting and a control (e.g. site without any works). At each site, a small flow gauge (similar to those shown in the picture) will be installed to record flow. Water samples will also be taken before it is intercepted by the revegetation and again after it has passed through, to measure the effectiveness in removing pollutants. The project is a great opportunity to demonstrate the benefit of efforts by landholders, Neerim and District Landcare Group and Melbourne Water.



Examples of the monitoring equipment installed to monitor water flow (top) and quality (bottom).

The project is a partnership between Melbourne Water, Neerim & District Landcare, Monash University and The University of Melbourne. Research in this catchment will further the understanding of catchment management for waterway health and drinking water quality. Most importantly, it will help to prioritize activities to maximise environmental outcomes and maintain support for investments in rural land management.

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