

Monitoring, Evaluation, Reporting and Improvement (MERI) for Riparian Revegetation

project summary

Melbourne
Waterway
Research
Practice
Partnership

Project A2a

This project will improve understanding of the outcomes of Melbourne Water's riparian revegetation programs and the drivers of success.

Expected outputs & impacts

Updated conceptual Healthy Waterways Strategy models for riparian vegetation. Improved understanding of the positive and negative interactions of environmental conditions on riparian revegetation outcomes. Changes of practice for assessing the outcomes of riparian revegetation programs. A robust data set of appropriate measurements for analysis and understanding of vegetation intervention effectiveness. Understanding of social drivers, norms and interactions that influence vegetation restoration effectiveness in incentive programs.

Background

Riparian revegetation is one of Melbourne Water's key interventions for maintaining and/or improving riparian and waterway habitat and conditions. It involves high investment by Melbourne Water and stakeholders.

But given the region's climatic, physiographic and land use variability, there is considerable uncertainty regarding the effectiveness, efficiency and/or consistency of achieving the desired outcomes across the region. While some monitoring programs have sought to track changes of interest over time as a result of management interventions, such as the Works Monitoring (WM) program, considerable uncertainty around the critical drivers of intervention effectiveness remains.

This project will address this uncertainty, by improving the understanding of the factors that influence vegetation management intervention outcomes and developing a robust monitoring program of vegetation management intervention effectiveness for the range of conditions within the Melbourne Water region.

Progress to date

- Clarification and articulation of linkages between goals, conceptual models, essential measurements and methods to acquire robust data needed to ef-

fectively monitor and evaluate vegetation management intervention outcomes in capital works investment

- Critical review and practical support in developing improved methods and tools for vegetation management and monitoring
- Ongoing support of HWS mid-term review

Methods

Progress will continue in 2022, with an emphasis on:

- Implementation of ROMP for monitoring and evaluation of vegetation management interventions.
- Investigation into social drivers of revegetation success and opportunities for improvement in incentive programs.
- Resurvey of select Works Monitoring sites to assess potential constraints to revegetation outcomes using the ROMP method.
- Exploration of LiDAR-derived vegetation metrics for efficient multi-site vegetation structure assessment.

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