

A8: Understanding ecological risks from pesticide spraying activities on or near waterways and suitable management alternatives

Objective(s)

To investigate risks and potential continuous improvement opportunities for vegetation management activities conducted by Melbourne Water on or near waterways.

Why this research is important

This project seeks to understand the environmental risks of chemicals used by Melbourne Water on or near waterways, as well as potential alternatives. Melbourne Water manages diverse and complex environments. Vegetation management in these areas is essential to protect local biodiversity and maintain assets. Herbicides, particularly glyphosate, are used in vegetation management globally, however, growing concern about the potential risks of glyphosate has led Melbourne Water to reassess the risks of glyphosate use and investigate reduction opportunities. This work will inform Melbourne Water's herbicide use policies and practices and support obligations under the EPA Act General Environmental Duty.

Contribution to Melbourne Water research priorities

HWS Key Research Area: Understanding the environmental impacts of pollutants, including contaminants of concern and litter, to inform risk-based management of waterways across the region.

Approach

This research will be delivered in two studies. Year 1 will focus predominantly on Study 1, with some initial data synthesis around spraying activities at WTP also undertaken for Study 2. Year 2 would then focus further on Study 2.

Study 1: Assessment of alternative instream vegetation management activities in Westernport

Complementary assessments of the impacts of alternative management practices, identified by Jacobs, to waterway health will be undertaken. Measurements may include chemical concentrations in water and sediments and assessments of biological measures e.g.: macroinvertebrates, functional bioindicators.

Study 2: Assessment of risks from herbicide spraying to waterway health and environmental values at WTP.

Key outputs

- Knowledge of potential waterway health impacts of alternative instream vegetation management strategies in Westernport
- Knowledge synthesis of spray activities undertaken at the Western Treatment Plant.
- Paper on reducing impacts to waterways from instream spraying for vegetation control.

Expected benefits

- Guidance on effective vegetation management practices to reduce risks to environmental values.
- Scientific foundation for use of certain instream vegetation management approaches in the Melbourne region to underpin Melbourne Water policy and practice documentation.
- Actions to support the Draft Growing Grass Frog Guideline for Species Management at Western Treatment Plant

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