

# Winery wastewater management

This national, collaborative project aims to provide an integrated, 'systems approach' to sustainable wastewater management for wineries across Australia.

A holistic approach to winery wastewater management will consider: wastewater production; treatment; and finally, reuse or dispersal in the environment. At each stage there are issues to consider and potential opportunities for improvement (see figure).

The project is consulting existing winery wastewater managers. Researchers will be visiting wineries in the different wine regions of Australia, taking samples and reviewing current practices.



## Objectives

- Review current winery wastewater management practices
- Audit winery wastewater production in representative wineries
- Investigate methods that reduce wastewater production
- Investigate current wastewater treatment technology and options for wineries, evaluate their efficacy and cost
- Characterise water quality in ponds and impact on groundwater
- Develop and test novel wastewater treatment options and technology
- Identify key indicators of wastewater quality for specific intended reuse or dispersal
- Recommend management options to reduce environmental impacts
- Develop an integrated systematic approach to wastewater management addressing:
  - salt management
  - groundwater protection
  - beneficial reuse of wastewater.



## Benefits – to Industry and the Community

As costs of wastewater treatment and disposal are high, any improvement will bring considerable benefits including:

- **Economic benefits** – reduced capital and running costs
- **Environmental benefits** – rather than polluting land and waterways, wastewater can be put to productive use or recycled appropriately
- **Social benefits** – demonstrating environmental responsibility, reducing odours.

## Management Tools

This project will research an array of practical, cost effective treatment methods for the Australian wine industry including decision-support tools for the wastewater management systems designed to meet sustainability criteria.

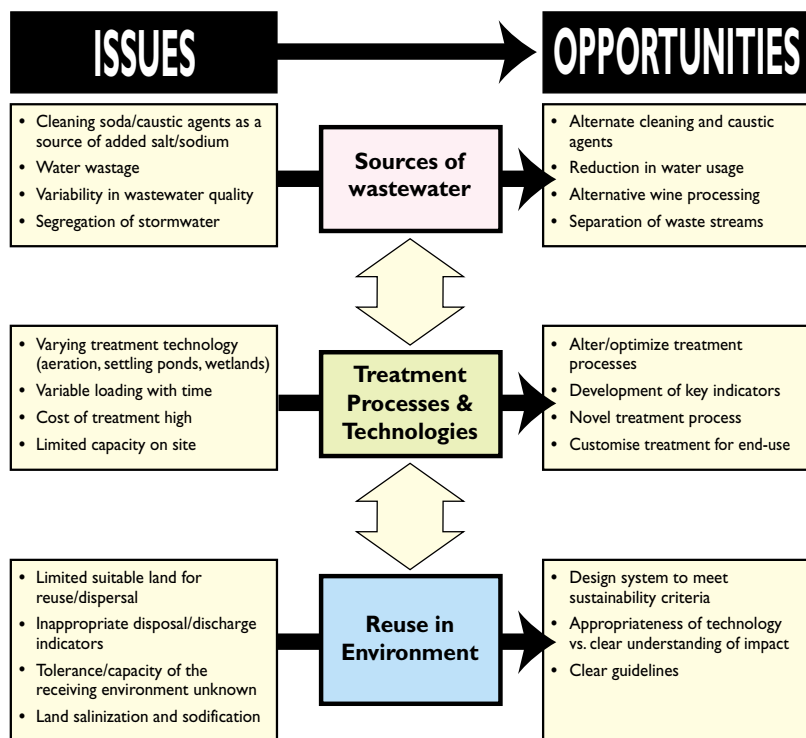
**Reduce the costs of wine production and demonstrate environmental leadership with a sustainable wastewater management strategy**





## Methodology

Through a series of strategic audits, survey, reviews, laboratory and field experimentation the project intends to profile the wastewater management of the industry. It will investigate small, medium and large scale wineries across the geographic, cultural and climatic spread of Australia's winegrowing regions.



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