

# Appendix I: Background reports for the Soil Health Strategy

## 1. Risk to Assets Analysis for Soil-Related Threatening Processes in the Corangamite Region (Dahlhaus & Clarkson 2006)

This study forms the basis for the risk to assets analysis in the Corangamite SHS. It outlines the methodology used and all results developed from the investigation.

## 2. Verification of Priority Areas for the Corangamite Soil Health Strategy (Clarkson & Miner 2006)

This study verifies the risk to assets caused by erosion, landslides, acid sulphate soils and secondary salinity. Landscape zones were assessed where threatening processes have been identified as priority areas according to the Corangamite Soil Health Strategy. It uses field assessments for erosion and landslides, and assesses previous investigations carried out on secondary salinity and acid sulphate soils to justify their impact to assets. The aim of the study was to justify the priority areas identified by the Corangamite Soil Health Strategy and to use the results from the verification process to re-rank the priority areas according to proven risk to assets.

## 3. The Mapping of Potential Acid Sulfate Soils in the City of Greater Geelong (CSIRO 2005 – Cox)

This study mapped all potential acid sulphate soils in the City of Greater Geelong. It also examined the growth areas for development and carried out an overall risk assessment. The report covers the processes and management of acid sulphate soils. This study was used to verify the real risk of potential acid sulphate soils in the Bellarine Landscape Zone.

## 4. Salinity Action Plan (Nicholson *et al.* 2006)

The Corangamite SHS will work closely with the SAP to address secondary salinity in the Corangamite region. The implementation principles for the SAP and SHS are similar as they both will be the responsibility of the Soil and Salinity Operational Portfolio Group. The SHS also links closely with other sub-strategies under the Regional Catchment Strategy as outlined in Chapter 1.

## 5. Corangamite CMA Landslide and Erosion Database (Feltham 2005)

This report identifies the location of sheet/rill erosion, gully/tunnel erosion and landslides in the Corangamite region. The study has used ortho-photograph interpretation to identify the location of landslide and erosion sites throughout the region. Feltham (2005) has conducted ground 'truthing' and has worked with DPI to engage with the community on its knowledge of where erosion and landslides are found. The information from this study was used in the Corangamite SHS as part of the risk to assets analysis for sheet/rill erosion, gully/tunnel erosion and landslides.

## 6. Economic Analysis of the Corangamite Soil Health Strategy (URS 2005 – Hamilton and Branson)

The economic analysis was conducted for the Corangamite SHS to help prioritise soil-threatening processes for investment. The study developed the benefit-cost analysis for soil health actions for private and public-based threatening processes. The study was conducted with the best information provided at the time, but did not consider environmental and social factors in its analysis.

## 7. Landslides and Erosion: Background information for the development of the Corangamite Soil Health Strategy (Dahlhaus 2003)

This report was written by Dahlhaus in 2003 and outlines the condition and processes for landslides and erosion in the Corangamite region. It investigates management options for landslides and assesses the potential impact if no amelioration was carried out.

## 8. Land Resource Assessment (Robinson *et al.* 2003)

The Land Resource Assessment (LRA) for the Corangamite region report undertook a soils and landforms inventory to develop a spatial dataset for the region. It also provided hazard susceptibility for soil-related threatening processes at a 1:100 000 scale. The report provides information on a land capability assessment for the catchment, which aims to increase the efficiency and effectiveness of natural resource utilisation in the region.

## 9. Soil Health Strategy for the Corangamite Region (MacEwan 2003)

This report aimed to justify the need for a Soil Health Strategy for the Corangamite region. It discusses the soil-related threatening processes and explains how they are a risk to regional assets. It also discusses the complications associated with setting targets for soil health. Essentially, this document formed the foundation of the Corangamite Soil Health Strategy.