

## 6 Aspirations for Soil Health; Resource Condition and Management Action Targets

**The SHS aims to guide investment in a range of actions that will enhance natural and built assets in the Corangamite region and protect them from a number of soil-based threats or threatening processes.**

The Corangamite Regional Catchment Strategy, individual sub-strategies and action plans are required to comply with the National Framework for Natural Resource Management Standards and Targets.

The National Framework requires three tiers of targets to be set: *aspirational targets, resource condition targets and management action targets*. These three categories of targets have been set in the Corangamite Soil Health Strategy.

Targets should enable the effectiveness of implementing the SHS to be quantified over a period of time. Monitoring actions are required by the National Framework to enable assessment of progress towards meeting these targets. These monitoring actions have also been set in this Soil Health Strategy.

Importantly, the framework requires that the targets set in regional strategies – such as the Corangamite Soil Health Strategy – should help guide investment towards reducing the impact of soil-related threatening processes on regional assets. The framework also gives direction on which regional targets are required, with guidelines and protocols for target setting, monitoring and reporting.

The framework contains aspirational statements about 'national outcomes' expressed in terms of outcomes for natural resource management. This Soil Health Strategy will make a significant contribution to meeting some of these national outcomes, including:

- the impact of salinity on land and water resources is minimised, avoided or reduced
- the impact of threatening processes on locations and systems, which are critical for the conservation of biodiversity, agricultural production, towns, infrastructure and cultural and social values, are avoided or minimised
- sustainable production systems are developed and management practices are in place, which maintain or rehabilitate biodiversity and ecosystems services, maintain or enhance resource quality, maintain productive capacity and prevent and manage degradation.

The National Framework also outlines a number of 'standard' resource condition and management action targets which regional strategies and sub-strategies must address. From these standard targets, this Soil Health Strategy has developed resource condition targets for '*soil conditions*' and management action targets for '*improved land and water management practices adopted*'.

### 6.1 Aspirational target

This is a vision for desired conditions of the Corangamite region's natural resources and assets in the longer term (50+ years). It is intended to guide regional planning and set a context for measurable and achievable targets required under the National Framework.

The aspirational target was developed by the Corangamite Sustainable Agriculture and Land Management Implementation Committee (SALMIC) in November 2003 as the community's aspiration for soil health in the region:

*'Bring about an improvement in the health and protection of soil resources and regional assets through positive processes and partnerships that allow individuals, communities and organisations to sustainably manage their soils.'*

### 6.2 Resource condition targets

Resource condition targets (RCTs) are specific, time-bound and measurable targets relating to the resource condition over a timeframe of 10 to 20 years. The targets must be pragmatic and achievable. An example may be: *average soil loss of (X) t/ha at a specific catchment health site (Z) by a specific year*.

Resource condition targets (*Table 6.1*) have been developed for the SHS that relate to and are dependent on the management action targets (MATs) described in the next section. However, these RCTs are forecast for revision in coming years of the strategy's implementation.

The key reason for this forecast is that the strategy is not yet informed by a time series of data in regard to the trends of the various threats to assets. A key component of the strategy's R&D plan is the development of such a time series.

Consequently, the RCTs that are listed should be recognised and accepted at the present time for their central characteristics – although specific and time bound, they are more general than particular.

Resource Condition	Target
1: All new urban or infrastructure developments in priority landscape zones will be planned and designed to reduce landslide risks.	2011-2012
2: No net gain in area affected by sheet or rill erosion in priority landscape zones from 2005 erosion levels.	2011-2012
3: No net gain in area affected by gully or tunnel erosion in priority landscape zones from 2005 erosion levels.	2011-2012
4: No potential acid sulphate soils will be disturbed and become acid sulphate soils in the Corangamite region.	2008-2012
5: In conjunction with the Corangamite Salinity Action Plan, no net gain in area affected by secondary salinity in priority landscape zones from 2005 salinity levels.	2010-2012

Table 6.1: Resource condition targets for the Corangamite Soil Health Strategy

### 6.3 Management action targets

Management action targets (MATs) are short-term targets (one to five years), relating to management actions or capacity building. Ideally, these targets contribute progress towards the resource condition targets. An example may be: *X hectares of waterlogged areas within cropping region Y to be converted to bed farming by year Z.*

MATs for the Soil Health Strategy are outlined in Table 6.2 and correspond with the actions detailed in Section 5.1.

The management action targets listed are believed to be valid and realistic, given the current state of knowledge and understanding of threats and the various risks to assets. However, as for the resource condition targets, these MATs are forecast to change in line with the evolution of the RCTs.

Currently, the foundations of these MATS are:

- validated investment priorities – where there is community capacity to address threatening processes posing risk to its assets
- community engagement and what was learnt
- knowledge and understanding of the Corangamite community's tendencies to adopt various practises and incorporate them into land management activities over a longer term
- where risk to asset(s) is high and therefore there is urgency for the community to adopt appropriate management actions.

Implicit in this approach are several weaknesses in the MATs. The MATs were developed from limited community engagement processes. There is an assumption that many asset managers in priority areas will be willing to partner with the Corangamite CMA in addressing threats posing risk to their assets. Factors such as drought, fire and market values may also adversely impact on the adoption of actions outlined in the SHS.

Refinement of MATs can be made throughout the life of the strategy. Experience gained from the implementation of the strategy and the implementation of research and development actions will make significant contributions to knowledge and understanding of the trends in the threats, providing confidence for resetting RCTs and MATs.





Management Action	Target
1: Engage and communicate with all relevant asset managers on their current knowledge and skills in addressing priority risks to assets. Inform asset managers of the outcomes of relevant research and development projects and work with them to use this information to help reduce risk.	2006-2012
2. Extension and education programs to be delivered to asset managers responsible for assets at risk from landslides, erosion, ASS and secondary salinity in priority landscape zones. The objective is to stimulate demand for services – to create a platform of awareness and understanding of the threats and the options for their amelioration so that asset managers will actively seek assistance through the Corangamite CMA.	2006-2012
3. 20 landslide sites stabilised per year in either the Gellibrand, Curdies, Otway Coast, Upper Barwon and Aire landscape zones (may change subject to trend data still to be completed). The objective is to reduce the risk to the subject sites and flow-on effects to other assets.	2006-2012
4. 40 sheet or rill erosion sites stabilised per year in either the Woody Yaloak, Thompsons, Moorabool, Upper Barwon and Leigh landscape zones (may change subject to trend data still to be completed). The objective is to reduce the risk to the subject sites and flow-on effects to other assets.	2006-2012
5. 25 gully or tunnel erosion sites stabilised per year in either the Woody Yaloak, Moorabool, Upper Barwon and Leigh Landscape Zones (may change subject to trend data still to be completed). The objective is to reduce the risk to the subject sites and flow-on effects to other assets.	2006-2012
6. Co-invest with those municipalities whose boundaries fall within the location of the validated investment priorities in regard to landslides, erosion and ASS. The objective will be to develop and implement appropriate policies and asset management tools, within the framework of local planning schemes, that will enable a reduction in risk of these threats to new urban and infrastructure developments.	2006-2012
7. 90% adherence to the Forest Code of Practices in forestry plantation establishment and harvesting by private and public operators with the objective of reducing the risks of landslides and erosion. The objective is to reduce the risk to the subject sites and flow-on effects to other assets.	2009-2012
8. Trials established that investigate alternative, more cost-effective treatment options for addressing the risk caused by landslides, sheet/rill erosion and gully/tunnel erosion. The objective is to expand the number of treatment options, and thus costs for the asset manager, thereby growing the number of potential adopters.	2007-2010
9. Municipalities, water authorities, VicRoads, Parks Victoria and other key asset managers are made aware of the location of high risks for landslides, erosion, potential ASS and secondary salinity and provided with advice on appropriate actions. The objective is to provide evidence-based stimulation for action to selected asset managers on a site-specific basis. Action taken will reduce the risk to the subject sites and flow-on effects to other assets.	2006-2008
10. Corangamite Soil Health Strategy adapted to changing guiding principles and policies and improved information when applicable. The objective is to keep the strategy in line with current knowledge, enabling RCTs, MATs and investment partnerships to be aligned with the full state of knowledge and understanding of threats to assets.	2006-2012

Table 6.2: Management action targets for the Corangamite Soil Health Strategy

## 6.4 Monitoring progress and achievements

Ongoing, periodic monitoring of progress towards the achievement of resource condition targets and the adoption of management action targets is essential for assessing the Soil Health Strategy.

The resource condition and management action targets in this strategy provide realistic benchmarks to work towards throughout its implementation.

Monitoring of progressive achievements and the results of the strategy will help develop and build confidence among investors that funds are being spent wisely and are providing positive outcomes in line with the national, state and regional frameworks. Building confidence among investors will help secure ongoing investment.

Monitoring activities have been defined to measure the effectiveness of implementation. These activities are outlined in *Table 6.3*. Monitoring activities will become progressively more specific throughout the implementation of the strategy as targets become more specific.

Monitoring sites will be established in target areas. These monitoring sites will help measure the changes in resource conditions as a result of the adoption of best management practices. For example, monitoring water quality in a selected area of a river will help indicate whether the stabilisation of active erosion sites upstream has reduced the sediment loads in the waterway.

Monitoring Activity	MAT being monitored	RCT being monitored
1. Develop a database and record all training, workshops and field days that aim to promote the adoption of various practises that will reduce the risk to assets ( <i>Appendix G</i> ).	1, 9	1-5
2. Develop a database that records categories of information, tools and policies that asset managers are using to reduce the risk of landslides, erosion, ASS and secondary salinity.	1, 9	1-5
3. Use the Catchment Activity Management System (CAMS) database to record the distribution and use of incentive payments for the amelioration of high-risk landslide, erosion, ASS and secondary salinity sites.	2	1-5
4. Develop and implement tools that monitor the effectiveness of on-ground treatment works in protecting and enhancing assets from landslides, erosion, ASS and secondary salinity threats.	3, 4, 5, 8	1-5
5. Determine the trends of landslides, erosion, ASS and secondary salinity in target areas. Continue to measure the trends of these threats throughout the implementation of the strategy.	3, 4, 5, 8	1-5
6. Develop a database of the major impacts on high-value assets from landslides, erosion, ASS and secondary salinity.	9	1-5
7. Monitor the changes in guiding principles and policies set by investors, Corangamite CMA, state and Australian governments and adapt them to the SHS if applicable.	10	N/A
8. Monitor the outcomes of soil-based research and make appropriate changes to the SHS with new research findings that are available.	10	N/A

*Table 6.3: Monitoring activities to measure progress towards and achievement of resource condition targets (Table 6.1) and management action targets (Table 6.2)*