

State of the Environment



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Introduction

4.0 Introduction

Key findings

- The wellbeing of Victorians is ultimately dependent upon the health of the natural environment. The ecosystem services upon which we depend have been compromised through a long history of management actions taken for short term benefits that have left a legacy of poor environmental condition.
- Despite improved understanding of environmental issues and processes, the policies and initiatives implemented in recent decades, and extensive investment in the environment, the condition of Victoria's natural environment has continued to decline.
- Society is dependent on the natural environment which is characterised by the interconnectedness of air, land, biodiversity, inland waters, coasts and the sea. Actions of society, and in any of these natural systems, are likely to have consequences in another, so it is essential that they be managed as interlinked environmental systems.
- Climate change will exacerbate existing pressures on Victoria's natural environment. It has significant implications not only for a stable climate but also for biodiversity, river health, coastal integrity and air quality as well as the social and economic implications as activities such as agriculture are forced to change due reduced rainfall and new temperature regimes.
- A lack of consistent, co-ordinated and repeated data collection and reporting limits the ability to assess and report on the condition of Victoria's environments at the statewide level.

Victoria's natural environment

This core part of the report represents the entirety of a traditional state of the environment report. However, this report provides added value to the community by considering not only the current state and trends in environmental condition, but also the causes and consequences. It is only through this understanding that real progress can be made in improving the state of Victoria's environment.

Part 4 evaluates the condition and trends of Victoria's natural environment through the use of indicators within the broad themes of atmosphere, land and biodiversity, inland waters, and coasts, estuaries and the sea. The impacts of the direct pressures acting on the environment, some of which result from the processes of production, consumption and waste of energy, water and materials as identified in Part 3, are reported. The implications of the current condition of the environment is also discussed, along with societal responses. As this report considers the causes and consequences of environmental issues the Commissioner provides recommendations against each of the issues reported.

The Atmosphere section discusses the science of climate change as a global phenomenon. It considers the implications for Australia in general and Victoria specifically. It reports on climate trends as well as short and long-term impacts of climate predictions. Part 3.1 Energy provides important context for an understanding of the climate change debate for Victoria. The Atmosphere section also includes a discussion on the trends in air quality and also stratospheric ozone, the well known "hole" in the ozone layer that can lead to skin cancer. Both of these issues are showing positive trends, however, with climate change some of the trends may reverse.

The section on Land and Biodiversity illustrates the importance of ecosystem services provided by the Victorian landscape. The condition of the land and soil, so critical in supporting both biodiversity and agriculture, is described. This section shows that despite much effort from the community, the condition of many of Victoria's land and biodiversity assets continues to decline. However, an area where Victoria is leading the way in ecosystem management is through the use of market-based instruments. These tools are considered in the context of land stewardship, as landholders take on responsibility to manage ecosystem services on their land for the whole community.

Inland Waters are reported through a focus on the condition and quality of rivers, wetlands and groundwater. This section continues on from the discussion on water resources in Part 3. The impacts of long-term drought and competing uses for water are described in detail through an assessment of river, wetland and groundwater health using a range of indicators. The importance of environmental flows is shown as an essential component of healthy inland waters. One of the key themes in this section is the interconnectedness of land, water and the sea. Activities on the land can degrade river health, which in turn can have negative impacts on the coast.

The final section in Part 4 covers Coasts, Estuaries and the Sea. Victoria's coast is highly modified by human activity, such as through recent trends to coastal residential developments, and it is also the most popular place to visit. Some of the Victoria's most prized marine ecosystems are protected through a series of marine and coastal parks. However, there are many threats to the health of coastal, estuarine and marine environments. The implications of these threats for the future health of Victoria's coasts are discussed, particularly in light of climate change, which is predicted to have direct effects on the coast through sea level rises and the impacts of damaging storms.

The final chapter of this report, Part 5 Living Well Within Our Environment, further considers the implications of the state of the environment as detailed in this chapter. It proposes some new directions and describes the importance of finding realistic ways in which Victorians can live well and improve the state of the natural environment.

Recommendations

SoE1 The Victorian Government should reinforce its commitment to significantly improving the health of Victoria's land, biodiversity, rivers, coasts, and other environments as set out in *Our Environment, Our Future, Our Water Our Future*, and other initiatives, and take urgent action to reverse the poor trends in environmental health.

SoE2 Ecosystem services should be recognised as a component of the value of the landscape, so that landholders are supported in taking active stewardship of Victoria's landscape. Knowledge of the interaction between ecosystems and the services they provide to human settlements should be improved.

SoE3 The *Flora and Fauna Guarantee Act 1988* has failed and should be reviewed. Future management frameworks for Victoria's natural environment should be funded for long-term improvement in the condition of Victoria's unique flora and fauna.

