



# NATURE CONSERVATION REVIEW: OVERVIEW & CONTEXT

**Six years in the making, the VNPA's fourth Nature Conservation Review, Natural Victoria – Conservation priorities for Victoria's natural heritage, 2014 was released.**

The review highlights the urgent need for a renewed focus by all political parties on environmental governance if Victoria's natural areas and biodiversity are to be healthy and protected into the future.

Its objectives are:

- To review new information, knowledge and approaches to nature conservation as applied to Victoria.
- To identify priority areas for nature conservation and national parks.
- To review threatening processes and identify reforms to improve nature conservation in Victoria.

The 300-page full report identifies key priorities for nature conservation, and has 163 detailed recommendations covering gaps and issues such as fire management, completion and management of the national park estate, native vegetation protection, invasive species, forestry, biosecurity, and stewardship and restoration programs.

The detailed chapter on environmental governance focuses on failings like inadequate data, weak laws, poor leadership and coordination, inadequate enforcement, and lack of transparency and funding.

As well as the full report, there is a 50-page Public Summary available on the VNPA website.

When our first review was published 42 years ago, in 1972, only 1.2% of Victoria's land area was protected in national parks. There were no marine parks, the annual management budget for protected areas was just \$141,000, and little was known about the state's biodiversity.

We know a great deal more now, and about 17% of Victoria's land area and 5% of state waters are protected in the national park estate.

But pressures on nature have also grown. On current trajectories they condemn our seas, lands and waters to growing biological poverty and ecological dysfunction.

For this fourth review, the VNPA commissioned seven

expert reviews of Victoria's environmental history and of conservation values and issues in marine, coastal, terrestrial and freshwater ecosystems.

The report synthesises those reviews, supplemented by information from a wide range of other publications, and with recommendations developed by a VNPA reference group. The focus is primarily the state of Victoria and state government responsibilities.

After a brief outline of Victoria's environmental history and major trends and drivers of environmental change, the Public Summary focuses on values, conservation gaps and priorities, and future recommended directions for marine, coastal, terrestrial and freshwater ecosystems. Details relating to these ecosystems will be featured in future Park Watch editions.

The summary concludes with an analysis of the flaws in environmental governance that underpin Victoria's failure to arrest environmental decline, and proposed reforms.

## VICTORIA: A SHORT ENVIRONMENTAL HISTORY

Understanding the Victorian environment requires knowledge of its past and how it has been shaped by people over more than 40,000 years of human habitation. The following brief history, compiled by environmental historian Associate Professor Don Garden, focuses only on the short and turbulent period since European colonisation, less than 1% of the duration of Aboriginal settlement.

In the introduction to the Review, the VNPA acknowledges the many Traditional Owners of Victoria's natural areas as follows, while acknowledging that the Review focuses on the period since European occupation.

This review starts with an historical perspective, for many of today's problems are legacies of the past. This is not to lay blame, but to recognise that conserving Victoria's natural heritage is not just about managing

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the impacts of what we do now, but also the dramatic impacts 'European' settlement has had in the past. This ecological debt is profound in Victoria and one we need to address, particularly in the face of a changing climate, if future generations are to enjoy the bush as we do. Each phase of development has impacted on different parts of the state, different habitat and species

## EUROPEAN COLONISATION, 1800-1970

### 1800s–1840s: Sealing and whaling

The discovery of large fur seal colonies brought sealers to exploit the seals' fur and oils. But the industry drove itself to extinction by the 1830s. The whaling industry, which killed right whales migrating each winter from Antarctica, followed a similar pattern. The industry ceased to operate from Victorian stations in the 1840s after whale populations crashed.

### 1834–1851: Pastoral settlement

Sheep grazing became the major industry in eastern Australia in the 1830s and 1840s. By mid-century, sheep and cattle were grazing over much of central and western plains of Victoria. Pastoralists regularly burned the land to clear it of scrub and promote fresh grasses. Land degradation soon became apparent.

### 1851–1870: The gold era

Gold took over from wool as the principal export industry, and the state's population surged in 20 years to nearly 750,000. But it was at great environmental cost particularly in central Victoria. Creeks were dammed and diverted, arsenic-contaminated tailings accumulated and vast woodlands were stripped for timber for mining from deep shafts. Concern about timber losses drove the first efforts at forest conservation in the 1860s, but increased demand for food led to large-scale land clearing. Harmful new plants and animals were introduced, like blackberries, foxes and rabbits. Only the arid country of the Wimmera and Mallee and the dense Gippsland forest and Alps were not heavily occupied.

### 1870–1901: Selection, agriculture and Marvellous Melbourne

Under selection laws, land used for grazing was subdivided for small farms. By 1900, almost half of

Victoria's land had been privatised and millions of hectares had been cleared particularly in Northern Plains, Goulburn Valley, Gippsland and Wimmera. But fragile soils, low fertility, rabbits and an irregular climate made survival tenuous. Wetlands were drained and rivers dammed, and there was pollution from industrial waste and sewage. Victoria became increasingly urban, Melbourne reaching a population of half a million. Tower Hill became Victoria's first conservation reserve in 1866; others followed at Fern Tree Gully (1882) and Mount Buffalo and Wilsons Promontory in 1898.

### 1901-1945: Closer settlement, irrigation, forestry

Under various settlement schemes, large areas continued to be cleared particularly in the Mallee and northern irrigation areas. There were great efforts to develop irrigation, and the area under crops more than doubled. The 1930s brought massive dust storms due to large-scale clearing, rabbit plagues and damaged soils. Timber cutters worked their way into the hills and mountains surrounding Melbourne. But mounting concerns about exploitation stimulated some conservation advocacy, which led to the establishment of timber reserves. Bird protection and bushwalking became popular, and naturalist and bushwalking clubs lobbied the government to establish national parks.

### 1945-1970: prosperity, technology and environmentalism

The boom period after World War 2 brought more degradation, but also a growing movement for environmental protection. Agriculture intensified, with new technologies, fertilisers and the damming or diversion of rivers. In 1952 the VNPA was created by a federation of conservation organisations; it led advocacy resulting in a 1956 National Parks Act that more clearly defined and protected national parks, and established a state government agency to manage them.

The rise of environmental consciousness in Victoria was boosted by a successful campaign in the late 1960s to save the Little Desert from subdivision for farms. This led to the 1971 establishment of the Land Conservation Council to investigate the best use of public lands, resulting in the declaration of many more national and other parks.

>> See Chapter 1 – Setting the Scene for more detail

## NATURE CONSERVATION REVIEWS, 1971-2001

### Nature Conservation in Victoria: A Survey (1971)

At the time of the first review, by botanist Judith Frankenberg, Victoria had few protected areas, and little was known of their values or the status or biology of the state's wildlife.

Frankenberg compiled the first systematic description of vegetation communities in Victoria, listing 62 'vegetational alliances' and recording their distribution. About 40% were assessed as reasonably well protected, while 27% required 'urgent measures'.

She warned that it could be difficult to locate 'relatively undamaged examples' of some communities, especially grasslands. She also found that 39% of native plants were not recorded in any reserve.

Highlighted threats included fire, fertilisers, invasive species, pollution, spear fishing, river improvement schemes, dams, and grazing in alpine areas.

The review recommended the establishment of large reserves in 11 regions, new and enlarged national parks, and marine reserves.

### Nature Conservation in Victoria: Study Report (1987)

The second review, by Doug Frood and Malcolm Calder, again assessed the adequacy of the reserve system and identified species and communities in need of further protection.

By this time, the Land Conservation Council (established in 1971) had completed its first round of regional studies and made over 4000 recommendations for public land. Most high priority areas identified in the 1971 review had been protected in national parks.

Frood and Calder reviewed major management issues such as fire regimes, timber harvesting, grazing, introduced species and disturbance factors. Priorities for protection were grasslands and grassy woodlands, mallee woodlands, saltbush scrublands, wetlands and riparian communities.

### Nature Conservation Review Victoria 2001

The aim of the third review, by Barry Traill and Christine Porter, was to identify gaps in the reserve system and in conservation policies and programs, and recommend

reforms to slow and reverse biodiversity losses.

Clearing controls on private land, introduced in 1989, had reduced native vegetation losses from about 15,000 hectares to 3000 ha annually. But despite this and other new measures, extinction processes were continuing largely unabated.

Less than a fifth of ecological vegetation classes (EVCs) were adequately protected and more than half were threatened or extinct. Urgent protection was needed for vegetation remnants in south-western Victoria, riverine forests and woodlands, the Strzelecki Ranges, and box-ironbark woodlands and forests.

Action was also needed to address invasive species, and climate change threats and impacts on freshwater systems.

Only 600 hectares of Victoria's marine waters were then protected. The review recommended that 20% of each major marine habitat be protected within a minimum of two national parks in each bioregion.

### Progress since 2001

Although the majority of recommendations from the 2001 review have not yet been implemented, some important progress has been made:

- Regulatory and policy reforms to reduce clearing, though these have recently been wound back.
- Establishment of 13 marine national parks and sanctuaries, protecting 5.3% of state waters.
- New national parks declared, including those protecting box-ironbark woodlands, red gum woodlands, East Gippsland forests, grasslands and the Otways.

However, since the 2010 state election many environmental reforms have been reversed or abandoned, including the 2009 White Paper for protecting biodiversity under climate change.

Controls on land clearing, forestry, firewood collection and planning have been weakened, and national parks are being opened to damaging exploitation. And cattle grazing in national parks is an ongoing issue.

>> See Chapter 1 – Setting the Scene for more detail or Appendix 1 for Don Garden's full paper

## DRIVERS AND TRENDS/ CURRENT & FUTURE PRESSURES

Victoria is still far from having a comprehensive, adequate and representative national park and conservation system, and most major threats to nature identified in past reviews are still very much with us – habitat loss and degradation, invasive species, harmful fire regimes, over-grazing, modified water flows.

Victorians must prepare for a more difficult future. Major current trends increase the urgent need to strengthen protection for nature. Some of these key pressures and trends include:

**Climate change:** Already significantly affecting life in Victoria, climate change will drive multiple cascading changes – in temperature and rainfall patterns, extreme weather events, sea level rise and ocean acidity – and exacerbate many other threats, particularly severe fire events and invasive species.

There needs to be a concerted effort to build the resilience of ecological and human communities and their potential for adaptation.

**Population growth:** Precious habitat remnants are being bulldozed for urban expansion or roads. More people are emitting more greenhouse gases, consuming more natural resources and introducing more invasive species. By mid-century Victoria's population is predicted to reach 8.7 million.

At the same time, a more indoor lifestyle is severing many Victorians from nature, undermining their health and wellbeing as well as their interest in conservation.

**Land-use intensification:** The majority of land in Victoria, and much of the sea as well, is subjected to intense human exploitation. Increasing intensification of land-use, primarily for agriculture, but also urban expansion involves clearing, simplifying habitats and increasing inputs of water, fertilisers and pesticides.

Aspirations to increase Australia's food exports are likely to drive further intensification. However, some former agricultural lands are being used for other purposes, some detrimental and some beneficial for conservation.

Some 60% of Victoria's land area is used for agriculture; and at least 80% of this land has been cleared, making Victoria one of the most cleared state in Australia.

>> See Chapter 1 – Setting the Scene