

# SUMMARY REPORT Part I SoE 2018 Report Card

## Legend

### Status

<p><b>N/A Not Applicable</b></p> <p>The indicator assessment is based on future projections or the change in environmental condition and providing a status assessment is not applicable. Only a trend assessment is provided.</p>	<p> <b>Unknown</b></p> <p>Data is insufficient to make an assessment of status and trends.</p>	<p> <b>Poor</b></p> <p>Environmental condition is under significant stress, OR pressure is likely to have significant impact on environmental condition/human health, OR inadequate protection of natural ecosystems and biodiversity is evident.</p>	<p> <b>Fair</b></p> <p>Environmental condition is neither positive or negative and may be variable across Victoria, OR pressure is likely to have limited impact on environmental condition/human health, OR moderate protection of natural ecosystems and biodiversity is evident.</p>	<p> <b>Good</b></p> <p>Environmental condition is healthy across Victoria, OR pressure is likely to have negligible impact on environmental condition/human health, OR comprehensive protection of natural ecosystems and biodiversity is evident.</p>
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### Trend

<p><b>N/A Not applicable</b></p> <p>This indicator assessment is based on current environmental condition only and it is not applicable to provide a trend assessment. Only a status assessment is provided.</p>	<p> <b>Unclear</b></p>	<p> <b>Deteriorating</b></p>	<p> <b>Stable</b></p>	<p> <b>Improving</b></p>
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### Data quality

		
<p><b>Poor</b></p> <p>Evidence and consensus too low to make an assessment</p>	<p><b>Fair</b></p> <p>Limited evidence or limited consensus</p>	<p><b>Good</b></p> <p>Adequate high-quality evidence and high level of consensus</p>

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:01** Invasive freshwater plants and animals

## Region

Victoria

## Measures

Change in types and extent of freshwater invasive plants and animals  
Threatening processes impacting on native freshwater plants and animals

## Data custodian

DELWP & DEDJTR

Aside from Carp (*Cyprinus carpio*), there is a lack of comprehensive and accurate statewide data on population numbers and trends of invasive freshwater pest plants and animals, and their threatening processes.



DATA QUALITY

Poor

## Indicator

**B:01A** Trend in Carp (*Cyprinus carpio*)  
Distribution

## Region

Victoria

## Measures

Population distribution

## Data custodian

DELWP & DEDJTR

Carp are a highly successful, invasive fish species, abundant in south-east Australia. They dominate Victorian freshwater environments to the detriment of native fish species and other parts of the freshwater ecosystem.



DATA QUALITY

Good

## Indicator

**B:02** Invasive terrestrial plants

## Region

Victoria

## Measures

Change in number, types and extent of terrestrial invasive plants

## Data custodian

DELWP & DEDJTR

The number of naturalised plants and environmental weeds established in Victorian native vegetation between 1909-18.



DATA QUALITY

Good

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:03** Invasive terrestrial animals

## Region

Victoria

## Measures

Number, type and extent of invasive animals

## Data custodian

DELWP & DEDJTR

Statewide invasive animal population numbers in Victoria are currently unknown. However, it is thought that populations and their distribution, are expanding across Victoria.



DATA QUALITY

Poor

## Indicator

**B:03A** Trend in deer populations and their distributions

## Region

Victoria

## Measures

Number, type and extent of deer species

## Data custodian

DELWP & DEDJTR

Four deer species have been expanding their distribution across Crown and private land. There is limited understanding of deer ecology to guide deer management.



DATA QUALITY

Poor

## Indicator

**B:03B** Trend in horse populations and their distributions

## Region

Alpine National Park and Barmah National Park

## Measures

Number and extent of feral horses

## Data custodian

DELWP & DEDJTR

Significant populations of feral horses occur in two Victorian National Parks (see Region). Feral horse population surveys in the Alpine National Park across two decades have shown that without management control, and severe natural events such as fire, feral horse populations can increase by 10-20% every 2-4 years.



DATA QUALITY

Fair

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:04** Trend in populations and distributions of threatened freshwater species

Since European settlement, three freshwater fish are known to have become extinct and 55% of freshwater fish are considered threatened. There is a lack of statewide data for the majority of threatened freshwater animal and plant species.



DATA QUALITY

Poor

## Region

Victoria

## Measures

Change in conservation status of freshwater species based on FFG Act

Trends in populations of threatened freshwater species.

Management of freshwater threatened species

Recovery & action plans for freshwater threatened species

Re-established threatened freshwater species in the wild

## Data custodian

DELWP

## Indicator

**B:04A** Trend in population number and distribution of trout cod (*Maccullochella macquariensis*)

Since 2010, trout cod (*Maccullochella macquariensis*) have been stable or increasing their abundance and distribution across four waterways (see Region).



DATA QUALITY

Fair

## Region

Ovens River, Murray River, Goulburn River and Seven Creeks.

## Measures

Population abundance and distribution.

## Data custodian

DELWP

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:04B** Trend in population number and distribution of Macquarie perch (*Macquaria australasica*)

Since 2012, Macquarie perch (*Macquaria australasica*) have been stable or increasing their abundance and distribution across ten waterways (see Region).



DATA QUALITY

Good

## Region

Ovens River, Lake Dartmouth, Seven Creeks, King Parrot Creek, Hughes Creek, Yea River, Hollands Creek, Yarra River, Broken River and Buffalo (upper) River.

## Measures

Population abundance and distribution

## Data custodian

DELWP

## Indicator

**B:04C** Trend in population number and distribution of Murray crayfish (*Euastacus armatus*)

Abundance and distribution of Murray crayfish, *Euastacus armatus*, in the southern Murray-Darling Basin have been decreasing due to cumulative pressures of recreational harvesting, river regulation, pesticides and pollutants, habitat change and events of low dissolved oxygen (hypoxic 'blackwater' disturbance).



DATA QUALITY

Fair

## Region

Southern Murray-Darling

## Measures

Population abundance and distribution

## Data custodian

DELWP

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:04D** Trend in population number and distribution of spotted tree frog (*Litoria spenceri*)

## Region

Ovens River, Murray River, Goulburn River and Seven Creeks.

## Measures

Population abundance and distribution

## Data custodian

DELWP

Spotted tree frog (*Litoria spenceri*) populations have been declining due to the infectious disease chytridiomycosis and introduction of predatory fish, specifically the brown trout (*Salmo trutta*) and rainbow trout (*Onchorhynchus mykiss*) predating on tadpoles.



DATA QUALITY

Good

## Indicator

**B:04E** Trends in population number and distribution of Booroolong tree frog (*Litoria booroolongensis*)

## Region

Victoria

## Measures

Population abundance and distribution

## Data custodian

DELWP

Booroolong tree frog (*Litoria booroolongensis*) populations have been declining due to the infectious disease chytridiomycosis and the introduction of predatory fish, specifically European carp (*Cyprinus carpio*), Redfin perch (*Perca fluviatilis*) and Mosquito fish (*Gambusia hobrooki*) predating on tadpoles.



DATA QUALITY

Good

## Indicator

**B:04F** Trends in population number and distribution of Baw Baw frog (*Philoria frosti*)

## Region

Mt Baw Baw plateau and escarpment

## Measures

Population abundance and distribution

## Data custodian

DELWP

The Baw Baw frog (*Philoria frosti*) is the only Victorian endemic frog species. Reasons for decline in population numbers and distribution include: habitat loss and degradation of their restricted range on the Baw Baw plateau and escarpment area (totalling only 135km<sup>2</sup>) and spread of the infectious disease chytridiomycosis.



DATA QUALITY

Good

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:05** Threatened species that are wetland dependent

## Region

Victoria

## Measures

Species population abundance and distribution

## Data custodian

DELWP

Due to a lack of statewide data, five fauna groups from the Threatened Species Advisory Lists for Victoria have been used as a proxy for the percentage of Victoria's wetland dependent threatened species.



DATA QUALITY

Poor

## Indicator

**B:06** Trends in populations and distributions of threatened terrestrial species

## Region

Victoria.

## Measures

For B6 – B6C:

Conservation status of terrestrial threatened species, which measures changes in the status of threatened terrestrial species

Trends in population and distribution of selected threatened terrestrial species over time

Threatening processes impacting and affecting native terrestrial threatened species

## Data custodian

DELWP

See B6A, B6B and B6C below.



DATA QUALITY

Poor

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:06A** Vascular Plants

## Region

Victoria

## Measures

Conservation status of terrestrial threatened species, which measures changes in the status of threatened terrestrial species

Trends in population and distribution of selected threatened terrestrial species over time

Threatening processes impacting and affecting native terrestrial threatened species

## Data custodian

DELWP

There has been an increasing trend in the number of endangered, vulnerable and rare vascular plants in Victoria.



DATA QUALITY

Fair

## Indicator

**B:06B** Vertebrates

## Region

Victoria

## Measures

Conservation status of terrestrial threatened species, which measures changes in the status of threatened terrestrial species

Trends in population and distribution of selected threatened terrestrial species over time

Threatening processes impacting and affecting native terrestrial threatened species

## Data custodian

DELWP

There has been an increasing trend in the number of critically endangered and vulnerable vertebrate groups, specifically reptiles. To a lesser extent, there has been an increase in the number of endangered vertebrates.

There is limited trend information on the number of threatened invertebrates, where currently 178 known species are considered to be threatened.



DATA QUALITY

Fair

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:06C** Invertebrates

## Region

Victoria

## Measures

Conservation status of terrestrial threatened species, which measures changes in the status of threatened terrestrial species

Trends in population and distribution of selected threatened terrestrial species over time

Threatening processes impacting and affecting native terrestrial threatened species

## Data custodian

DELWP



DATA QUALITY

Fair

## Indicator

**B:07** Private Land Conservation

## Region

Victoria

## Measures

Conservation on private land which assesses the area of private land under conservation agreements

Management of biodiversity on private land which assesses activities taken to conserve species, conserve communities and maintain, improve or restore habitat on private land

## Data custodian

Trust for Nature

Trust for Nature has assisted with the permanent protection of more than 100,000 hectares of native habitat on private land using a range of conservation tools, including conservation covenants, land acquisition, donations of land and its Revolving Fund. There are 1416 voluntary conservation covenants and 43 Trust for Nature properties and/or reserves.



DATA QUALITY

Good

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:08** Conservation of Victorian Ecosystems

## Region

Victoria

## Measures

Victorian conservation categories, their area in hectares and threatened species in conservation areas

## Data custodian

PV & DELWP

Conservation categories across the Parks Victoria Estate has remained stable but the number and type of threatened native plants and animals have been increasing.



DATA QUALITY

Good

## Indicator

**B:09** River Health

## Region

Victoria

## Measures

Percentage of major rivers that remain in a near pristine or largely unmodified state

Assessment of freshwater biodiversity information

Area of management in priority locations

Restoration of habitat

## Data custodian

DELWP

There is no update for the Index of Stream Condition (ISC) data due to the revised assessment regime. National Assessment of River Condition (ARC) program and the national Assessment of River Condition and River Monitoring and Assessment Program (RiverMAP) found that Victorian river health was influenced by grazing, land clearing for agriculture, timber production and urban development causing disturbance to natural river drivers.



DATA QUALITY

Good

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:10** Riparian Vegetation Habitat Extent

## Region

Victoria

## Measures

Riparian vegetation cover and extent

## Data custodian

DELWP

Twenty one of 29 Victorian river basins had less than 50% of assessed river length with riparian vegetation in good condition. Riparian zone removal and degradation in Victoria is due to agricultural activity that occurs alongside rivers and the channelisation of drainage (through drainage channels) from agriculture and urban land rather than using naturally-formed stream channels.



DATA QUALITY

Poor

## Indicator

**B:11** Area of functional floodplain

## Region

Victoria

## Measures

Change to floodplain area as a natural approach to mitigate, and reduce the risk, of flood and drought impacts and provide refuge to plants and animals during extreme weather events

## Data custodian

DELWP

Data at state-scale is currently not available to determine floodplain functionality.



DATA QUALITY

Poor

## Indicator

**B:12** Distribution and abundance of frogs

## Region

Victoria

## Measures

Population abundance and distribution

## Data custodian

DELWP

There have been declines in the population number of native frog species (threatened and non-threatened species) over the past few decades.



DATA QUALITY

Good

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# SUMMARY REPORT Part I SoE 2018 Report Card

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## Indicator

**B:13** Distribution and abundance of fish

## Region

Victoria

## Measures

Population abundance and distribution

## Data custodian

DELWP

Distribution and abundance of fish data is only available for regulated rivers that receive environmental watering through the VEFMAP program.



DATA QUALITY

Good

## Indicator

**B:14** Distribution and abundance of waterbirds in the Murray Darling Basin

## Region

Murray Darling Basin

## Measures

Population abundance and distribution

## Data custodian

DELWP

Distribution and abundance of waterbird for the Murray Darling Basin through the Eastern Australian Waterbird Survey.



DATA QUALITY

Fair

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# SUMMARY REPORT Part I SoE 2018 Report Card

**Indicator**

**B:15** Distribution and abundance of macroinvertebrates

**Region**

Victoria

**Measures**

Total macroinvertebrate richness  
 Total Ephemeropter, Plecoptera and Trichoptera  
 SIGNAL2invertebrate grade number  
 AUSRIVAS O/E indicator of communities composition

**Data custodian**

EPA Victoria

At the statewide scale, the overall condition of inland aquatic macroinvertebrates across Victoria's 66 long-term monitoring sites is stable.



DATA QUALITY

Fair

**Indicator**

**B:16** Wetland extent and condition

**Region**

Victoria

**Measures**

Extent and condition

**Data custodian**

DELWP

There have not been any further statewide assessments on wetland condition using the Index of Wetland Condition since the release of the SoE 2013 report.



DATA QUALITY

Poor

**Indicator**

**B:17** Health and status of Ramsar wetlands in Victoria

**Region**

Victoria

**Measures**

Ecological condition

**Data custodian**

DELWP

Victoria has 11 Ramsar sites, of which 6 are inland and cover 98,623ha. The 2016 Victorian Auditor-General Office report, Meeting Obligations to *Protect Ramsar Wetlands*, found limited evidence that ecological character descriptions for each site were being maintained. The status of the ecological character of some sites cannot be fully determined due to limitations such as a lack of data.



DATA QUALITY

Poor

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:18** Net Gain in Extent and Condition of Native Vegetation  
**Region**

Victoria

## Measures

Estimates of the overall rate of change in extent and quality of native vegetation on public and private land in Victoria

There has been a loss in native vegetation on public and private land between 2008-2014. The largest contributor to net loss in native vegetation on private and freehold land is entitled uses (e.g. grazing, removal of trees and fallen logs for personal use), unmanaged threats beyond legislative obligations (e.g. environmental weeds) and clearing that is exempt from requiring a permit (e.g. fences and fire protection).



DATA QUALITY

Good

## Data custodian

DELWP

## Indicator

**B:19** Landscape Scale Change  
**Region**

Victoria

## Measures

Trends in native vegetation extent and land use from 1987-2015

Analysis of landscape scale change shows an increase in landscapes associated with human-based activities and an overall decrease in native vegetation and intermittent and seasonal wetlands not of a marine water source.



DATA QUALITY

Fair

## Data custodian

DELWP

## Indicator

**B:20** Change in Suitable Habitat  
**Region**

Victoria

## Measures

Estimating net improvement in suitable habitat and the most effective options for improving the future of native species across the state under climate change

The average percentage change in suitable habitat in 50 years for all native species is 5.24%. For threatened species, the average percentage change in suitable habitat in 50 years is 5.3%, based on the on-ground management actions taken. For some species, the percentage change in suitable habitat was much higher than the average.



DATA QUALITY

Good

## Data custodian

DELWP

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# SUMMARY REPORT Part I SoE 2018 Report Card

## Indicator

**B:21** Area of Management in Priority Locations

## Region

Victoria

## Measures

Achieving targets for hectares of management in priority locations, including restoration of habitat

## Data custodian

DELWP

Because this is a new indicator associated with the Biodiversity Plan 2037, it is still too early to determine if targets are on track to being achieved.



DATA QUALITY

Fair

## Indicator

**B:22** Victorians value nature

## Region

Victoria

## Measures

Measures are still to be determined

## Data custodian

DELWP

This indicator describes the relationship between people connecting with nature, valuing nature and acting to protect or enhance biodiversity while improving their health and wellbeing. This is a new indicator associated with the Biodiversity 2037 Plan. It is too early to determine if targets are on track to being achieved.



DATA QUALITY

Poor

## Indicator

**B:23** Number of Victorian Government organisations that manage environmental assets that contribute to DELWP Standard Output Data

## Region

Victoria

## Measures

Measures are still to be determined

## Data custodian

DELWP

Twelve percent of Victorian Government organisations who manage Victoria's natural assets have contributed some data. In most cases this data is not complete and does not reflect all on-ground works those organisations have delivered or funded.



DATA QUALITY

Poor

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