




Table 2: Assessments Report Card

Legend




Status

<p>N/A Not Applicable</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> Unknown</p> <p>Data is insufficient to make an assessment of status and trends.</p>	<p> Poor</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> Fair</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> Good</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>N/A Not applicable</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> Unclear</p>	<p> Deteriorating</p>	<p> Stable</p>	<p> Improving</p>
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Data quality

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

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
CC:01 Observed average rainfall						 DATA QUALITY Good
CC:02 Snow cover						 DATA QUALITY Good
CC:03 Observed surface temperature						 DATA QUALITY Good
CC:04 Projected changes in temperature						 DATA QUALITY Good
CC:05 Projected changes to average rainfall						 DATA QUALITY Fair
CC:06 Regional climate projections						 DATA QUALITY Good
CC:07 Observed sea level						 DATA QUALITY Fair
CC:08 Projected sea level						 DATA QUALITY Good
CC:09 Sea-surface temperature						 DATA QUALITY Good

CLIMATE CHANGE IMPACTS

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
CC:10 Annual greenhouse gas emissions						 DATA QUALITY Good
CC:11 Victorian ecosystem carbon stocks						 DATA QUALITY Fair <small>Stable for land sector and Unknown for marine and coastal ecosystems</small>
CC:12 Occurrence and impacts of extreme weather						 DATA QUALITY Good
CC:13 Extent and condition of key climate-sensitive ecosystems						 DATA QUALITY Fair
CC:14 Community awareness of climate risks and associated responsibilities						 DATA QUALITY Fair <small>Good (for awareness of climate risks and mitigation) and Unknown (for adaptation to climate change)</small>
CC:15 Councils (or other organisations) with urban forestry plans or urban greening or cooling-related strategies						 DATA QUALITY Fair
CC:16 Considering climate change risks in land use planning (including in the coastal zone)						 DATA QUALITY Fair <small>Generally Poor for inland councils and Fair for coastal councils</small>
CC:17 Percentage of agri-businesses using long-term weather and climate change projections						 DATA QUALITY Fair

AIR

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
A:01 Ambient ozone levels (summer smog)					→	 DATA QUALITY Good
A:02 Carbon monoxide and nitrogen dioxide					↗	 DATA QUALITY Good
A:03 Particle pollution (PM ₁₀ and PM _{2.5})	 Elsewhere in Victoria	 Brooklyn	 Geelong, the Latrobe Valley and most of Melbourne		→	 DATA QUALITY Fair
A:04 Sulfur dioxide					→	 DATA QUALITY Good
A:05 Stratospheric ozone					→	 DATA QUALITY Good
A:06 Odour and noise					↘	 DATA QUALITY Fair
A:07 Light pollution					?	 DATA QUALITY Poor
A:08 Emissions of major air pollutants by sector					?	 DATA QUALITY Fair
A:09 Health impacts of air pollution					?	 DATA QUALITY Poor
A:10 Health impacts of noise pollution			 Fair for Melbourne and Unknown for the rest of Victoria		?	 DATA QUALITY Poor
A:11 Indoor air quality					?	 DATA QUALITY Poor

BIODIVERSITY

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
B:01 Invasive freshwater plants and animals					?	 DATA QUALITY Poor
B:01A Trend in carp (<i>Cyprinus carpio</i>) distribution					↘	 DATA QUALITY Good
B:02 Invasive terrestrial plants					↘	 DATA QUALITY Good
B:03 Invasive terrestrial animals					↘	 DATA QUALITY Poor
B:03A Trend in deer populations and their distributions					↘	 DATA QUALITY Poor
B:03B Trend in horse populations and their distributions					↘	 DATA QUALITY Fair
B:04 Trend in populations and distributions of threatened freshwater species in the wild.					?	 DATA QUALITY Poor
B:04A Trend in population number and distribution of trout cod (<i>Maccullochella macquariensis</i>)					→	 DATA QUALITY Fair
B:04B Trend in population number and distribution of Macquarie perch (<i>Macquaria australasica</i>)					→	 DATA QUALITY Good

BIODIVERSITY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
B:04C Trend in population number and distribution of Murray crayfish (<i>Euastacus armatus</i>)						 DATA QUALITY Fair
B:04D Trend in population number and distribution of spotted tree frog (<i>Litoria spenceri</i>)						 DATA QUALITY Good
B:04E Trends in population number and distribution of Booroolong tree frog (<i>Litoria booroolongensis</i>)						 DATA QUALITY Good
B:04F Trends in population number and distribution of Baw Baw frog (<i>Philoria frosti</i>)						 DATA QUALITY Good
B:05 Threatened species that are wetland dependent						 DATA QUALITY Poor
B:06 Trends in populations and distributions of threatened terrestrial species						 DATA QUALITY Poor
B:06A Vascular plants						 DATA QUALITY Fair
B:06B Vertebrates						 DATA QUALITY Fair
B:06C Invertebrates						 DATA QUALITY Fair

BIODIVERSITY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
B:07 Private land conservation						 DATA QUALITY Good
B:08 Conservation of Victorian ecosystems						 DATA QUALITY Good
B:09 River health						 DATA QUALITY Good
B:10 Riparian vegetation habitat extent						 DATA QUALITY Poor
B:11 Area of functional floodplain						 DATA QUALITY Poor
B:12 Distribution and abundance of frogs						 DATA QUALITY Good
B:13 Distribution and abundance of fish						 DATA QUALITY Good
B:14 Distribution and abundance of waterbirds in the Murray Darling Basin						 DATA QUALITY Fair
B:15 Distribution and abundance of macroinvertebrates						 DATA QUALITY Fair

BIODIVERSITY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
B:16 Wetland extent and condition					?	 DATA QUALITY Poor
B:17 Health and status of Ramsar wetlands in Victoria					?	 DATA QUALITY Poor
B:18 Net gain in extent and condition of native vegetation					↘	 DATA QUALITY Good
B:19 Landscape scale change					↘	 DATA QUALITY Fair
B:20 Change in suitable habitat					→	 DATA QUALITY Good
B:21 Area of management in priority locations					→	 DATA QUALITY Fair
B:22 Victorians value nature					?	 DATA QUALITY Poor
B:23 Number of Victorian Government organisations that manage environmental assets that contribute to DELWP Standard Output Data					?	 DATA QUALITY Poor

LAND

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
L:01 Land use types in Victoria					N/A	 DATA QUALITY Good
L:02 Changes in major land uses in Victoria					→	 DATA QUALITY Good
L:03 Changes in land tenure					→	 DATA QUALITY Good
L:04 Greenfield versus infill development					→	 DATA QUALITY Good
L:05 Soil carbon content					?	 DATA QUALITY Fair
L:06 Area affected by salinity					↗?	 DATA QUALITY Fair <small>Improving for the river catchments that drain to the Murray River and Unclear elsewhere</small>
L:07 Soil acidification					?	 DATA QUALITY Fair
L:08 Soil erosion					↘	 DATA QUALITY Poor
L:09 Contaminated sites					?	 DATA QUALITY Fair

LAND

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
L:10 Land management activities						 DATA QUALITY Fair
L:11 Participation in natural resource management activities						 DATA QUALITY Good
L:12 Use of best practice on agricultural lands						 DATA QUALITY Poor
L:13 Proportion of agricultural area under productive and sustainable agriculture						 DATA QUALITY Poor

FORESTS

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
Fo:1.1A Area of forest by type and tenure - forest canopy cover					?	 DATA QUALITY Poor
Fo:01B Area of forest by type and tenure - forest type					↗	 DATA QUALITY Good
Fo:01C Area of forest by type and tenure - plantation forest					→	 DATA QUALITY Good
Fo:02 Area of forest type by growth stage					↗	 DATA QUALITY Good
Fo:03 Area of forest type by growth stage distribution in protected zones					↗	 DATA QUALITY Fair
Fo:04 Fragmentation of native forest cover					?	 DATA QUALITY Fair
Fo:05 Number of in-situ and ex-situ conservation efforts for forest dependent species					?	 DATA QUALITY Poor
Fo:06 The status of forest dependent species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment					↘	 DATA QUALITY Good
Fo:07 Degree of disturbance to native forest species caused by invasive species					↘	 DATA QUALITY Good

FORESTS

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
Fo:08A Scale and impact of agents and processes affecting forest health and vitality – mortality, dieback, canopy health sub-section					?	 DATA QUALITY Fair
Fo:08B Scale and impact of agents and processes affecting forest health and vitality – bushfire affected area and climate sub-section					↘	 DATA QUALITY Good
Fo:09A Area and type of human-induced disturbance – planned burns					?	 DATA QUALITY Good
Fo:09B Area and type of human-induced disturbance – grazing					→	 DATA QUALITY Poor
Fo:10 Total forest ecosystem biomass and carbon pool by forest type, age class and successional stages					?	 DATA QUALITY Fair
Fo:11 Contribution of forest ecosystems to the global greenhouse gas balance					↗	 DATA QUALITY Good
Fo:12 Area and percentage of forest and net area of forest available and suitable for wood production					↘	 DATA QUALITY Good
Fo:13 Area of native forest harvested					→	 DATA QUALITY Good
Fo:14 Annual production of wood products from State forests compared to sustainable harvest levels					↘	 DATA QUALITY Good

FORESTS

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
Fo:15 Proportion of timber harvest area successfully regenerated by forest type					→	 DATA QUALITY Good
Fo:16 Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests					↗	 DATA QUALITY Fair
Fo:17 Extent to which the institutional framework supports the conservation and sustainable management of forests					↘	 DATA QUALITY Fair
Fo:18 Extent to which the economic framework supports the conservation and sustainable management of forests					?	 DATA QUALITY Fair
Fo:19 Capacity to conduct and apply research and development aimed at improving forest management, including development of scientific understanding of forest ecosystem characteristics and functions					→	 DATA QUALITY Good
Fo:20 Investment and expenditure in forest management					→	 DATA QUALITY Good
Fo:21 Value (\$) of forest derived ecosystem services					?	 DATA QUALITY Fair

FIRE

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
Fi:01 Area of native vegetation burnt in planned fires and bushfires					↘	 DATA QUALITY Good
Fi:02 Impacts of bushfires					?	 DATA QUALITY Poor
Fi:03 Actual fire regimes compared to optimal fire regimes					↘	 DATA QUALITY Good
Fi:04 Bushfire risk					↘	 DATA QUALITY Poor

List of acronyms for Marine and Coastal Environments indicators:

All Gippsland Lakes (GLA)
 Beware Reef Marine Sanctuary (BRMS)
 Corangamite Catchment Management Authority (CCMA)
 Corner Inlet (CI)
 East Gippsland Catchment Management Authority (EGCMA)
 Glenelg Hopkins Catchment Management Authority (GCMA)
 Marine National Parks and Sanctuaries (MNPS)
 Nooramunga Marine & Coastal Park (NMCP)
 Northern Port Phillip Bay (NPPB)
 Other Marine & Coastal Areas (OMAC)
 Port Phillip Bay (PPB)
 Phillip Island (PI)
 Southern Port Phillip Bay (SPPB)
 St Kilda (STK)
 West Gippsland Catchment Management Authority (WGCMA)
 Western Port (WPT)

MARINE AND COASTAL ENVIRONMENTS

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
MC:01 Mangrove extent			 CI NMCP	 WPT OMAC	?	 DATA QUALITY Good
MC:02 Saltmarsh extent	 OMAC		 PPB	 GLA WPT	OMAC ? PPB → GLA ? WPT ↘	 DATA QUALITY Fair - PPB & WPT Poor - GLA & OMAC
MC:03 Seagrass condition	 WPT OMAC		 GLA CI	 PPB	WPT ? GLA ? PPB → OMAC ? CI ↘	 DATA QUALITY Fair
MC:04 Seagrass-dependent fish	 PPB WPT OMAC GLA				?	 DATA QUALITY Poor

MARINE AND COASTAL ENVIRONMENTS

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
MC:05 Estuarine condition					?	 DATA QUALITY Poor
MC:06 Mobile invertebrates on intertidal reefs					WPT ? OMAC ? PPB ? MNPS →	 DATA QUALITY Good MNPS DATA QUALITY Poor OMAC, PPB & WPT
MC:07 Sessile invertebrates on intertidal reefs					OMAC ? MNPS →	 DATA QUALITY Good MNPS DATA QUALITY Poor OMAC
MC:08 Mobile megafaunal invertebrates on subtidal reefs					OMAC ? MNPS ? NPPB ↘ SPPB →	 DATA QUALITY Good MNPS, NPPB, SPPB DATA QUALITY Poor OMAC
MC:09 Subtidal reef fish					OMAC ? NPPB ? MNPS ? SPPB ↗	 DATA QUALITY Good SPPB & MNPS DATA QUALITY Fair NPPB DATA QUALITY Poor OMAC

MARINE AND COASTAL ENVIRONMENTS

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
MC:10 Macroalgae-dominated subtidal reefs	OMAC		NPPB	SPPB MNPS	OMAC ? NPPB ? MNPS ? SPPB ↓	<p>DATA QUALITY</p> <p>Good - SPPB & MNPS</p> <p>DATA QUALITY</p> <p>Poor - NPPB & OMAC</p>
MC:11 Macroalgae on intertidal reefs	OMAC			PPB MNPS	OMAC ? PPB → MNPS →	<p>DATA QUALITY</p> <p>Good - PPB & MNPS</p> <p>DATA QUALITY</p> <p>Poor - OMAC</p>
MC:12 Migratory shorebirds	OMAC		PBB CI		OMAC ↓ PBB ↓ CI ↓	<p>DATA QUALITY</p> <p>Fair - PBB & C I & OMAC</p>
MC:13 Little penguins	OMAC			STK PI	OMAC ? STK → PI →	<p>DATA QUALITY</p> <p>Good - STK & PI</p> <p>DATA QUALITY</p> <p>Poor - OMAC</p>
MC:14 Piscivorous (fish-eating) birds	OMAC			CI WPT	OMAC ? CI ↗ WPT ↓	<p>DATA QUALITY</p> <p>Good - CI & WPT</p> <p>DATA QUALITY</p> <p>Poor OMAC</p>
MC:15 Marine and coastal waterbirds	OMAC PPB		WPT GLA		OMAC ? WPT ↓ PPB ? GLA (Trend depends on species)	<p>DATA QUALITY</p> <p>Good - WPT & GLA</p> <p>DATA QUALITY</p> <p>Poor - OMAC & PPB</p>

MARINE AND COASTAL ENVIRONMENTS

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
MC:16 Over-abundant sea urchins on subtidal reefs	OMAC	NPPB	BRMS	SPPB NMCP	OMAC ? NPPB ↘ BRMS ? SPPB → NMCP →	 DATA QUALITY Fair - SPPB, BRMS & NMCP NPPB DATA QUALITY Poor
MC:17 Invasive marine species	OMAC	PPB			OMAC ? PPB ↘	 DATA QUALITY Fair - PPB DATA QUALITY Poor - OMAC
MC:18 Catchment inputs into coastal waters/ reefs		WPT GCMA	PPB CCMA WGCMA	EGCMA	WPT ? GCMA ? PPB ↗ CCMA ? WGCMA ? EGCMA ?	 DATA QUALITY Good - PPB & WPT & CMAs
MC:19 Point source discharges to marine waters					?	 DATA QUALITY Poor
MC:20 Harmful algae blooms reefs	OMAC		PPB GLA		OMAC ? PPB → GLA ?	 DATA QUALITY Good - PPB & GLA DATA QUALITY Poor - OMAC
MC:21 Enterococci bacteria	OMAC			PPB	OMAC ? PPB →	 DATA QUALITY Good - PPB DATA QUALITY Poor - OMAC

MARINE AND COASTAL ENVIRONMENTS

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
MC:22 Impacts of fisheries production					?	 DATA QUALITY Poor
MC:23 Conservation of coastal ecosystems in protected areas					→	 DATA QUALITY Fair
MC:24 Conservation of marine ecosystems in protected areas					→	 DATA QUALITY Good

WATER RESOURCES

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
WR:01 Water resources and storage trends					→	 DATA QUALITY Good
WR:02 Projected runoff to dams and catchments					↘	 DATA QUALITY Good
WR:03 Condition of flow regimes					↘	 DATA QUALITY Good
WR:04 Delivering water for the environment					→	 DATA QUALITY Good
WR:05 Number of dams, weirs and levees					?	 DATA QUALITY Fair
WR:06 Surface water harvested for consumptive use					→	 DATA QUALITY Good
WR:07 Percentage of waterways and groundwater areas, subject to extraction, with a limit on extraction					→	 DATA QUALITY Good
WR:08 Water recycling					↗	 DATA QUALITY Good
WR:09 Percentage of agricultural land with approved irrigation					?	 DATA QUALITY Poor

WATER RESOURCES

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
WR:10 Groundwater ecosystems					?	 DATA QUALITY Poor
WR:11 Groundwater quality					→	 DATA QUALITY Fair
WR:12 Groundwater levels					→ ↘	 DATA QUALITY Fair
						Stable: most shallow aquifers. Deteriorating: lower aquifers in the Gippsland Basin and northern region, and confined aquifers around Western Port and the Otway Ranges
WR:13 Groundwater harvested for consumptive use					→	 DATA QUALITY Good

WATER QUALITY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
WQ:01 Occurrence of algal blooms					?	 DATA QUALITY Fair
WQ:02 Dissolved oxygen concentration in rivers					→	 DATA QUALITY Good
WQ:03 Salinity concentrations in rivers					→	<p>Poor in the Glenelg Hopkins catchment, Fair in the Wimmera and Port Phillip and Westernport catchments, Good in the other catchments</p> DATA QUALITY Good
WQ:04 Total nitrogen concentration in rivers					→	<p>Good in the North East and East Gippsland catchments, Fair in the Goulburn Broken and West Gippsland catchments, and Poor in other catchments. Unknown in the Mallee catchment.</p> DATA QUALITY Good
WQ:05 Total phosphorus concentrations in rivers					→	<p>Good in the East Gippsland catchment, Fair in the North East and West Gippsland catchments, and Poor in other catchments. Unknown in the Mallee catchment.</p> DATA QUALITY Good
WQ:06 Turbidity levels in rivers					↘	<p>Fair in the East Gippsland, North East and Glenelg Hopkins catchments, and Poor in other catchments.</p> DATA QUALITY Good
WQ:07 pH					→	 DATA QUALITY Good

WATER QUALITY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
WQ:08 Proportion of bodies of water with good ambient water quality					↘	 DATA QUALITY Good
WQ:09 Volume of sewage discharge to surface waters					?	 DATA QUALITY Poor
WQ:10 Reported inland water pollution incidents					↘	 DATA QUALITY Fair

WASTE

Indicator	Status				Trend	Data quality
	UNKNOWN	POOR	FAIR	GOOD		
W:01 Total waste generation					→	 DATA QUALITY Good
W:02 Generation of municipal waste per capita					→	 DATA QUALITY Good
W:03 Total food waste generated					→	 DATA QUALITY Good
W:04 Diversion rate					→	 DATA QUALITY Good
W:05 Litter and illegal dumping					↗	 DATA QUALITY Poor
W:06 Total hazardous waste managed					→	 DATA QUALITY Fair

TRANSPORT

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
T:01 Travel demand						 DATA QUALITY Good
T:02 Greenhouse gas emission and emission intensities from transport						 DATA QUALITY Good
T:03 Air pollution from transport						 DATA QUALITY Poor Improving for motor vehicles and Unclear for rail and shipping

ENERGY

Indicator	Status				Trend	Data Quality
	UNKNOWN	POOR	FAIR	GOOD		
E:01 Energy use per capita					↗	 DATA QUALITY Good
E:02 Total energy consumption by fuel					→	 DATA QUALITY Good
E:03 Consumption of renewable energy as a share of total energy consumption					↗	 DATA QUALITY Good
E:04 Total net energy consumption by industry sector					→	 DATA QUALITY Good
E:05 Total electricity consumption					↗	 DATA QUALITY Good
E:06 Total electricity generation by fuel					↗	 DATA QUALITY Good
E:07 Share of renewable energy generation of total electricity generation					↗	 DATA QUALITY Good
E:08 Energy used in the transport sector					↘	 DATA QUALITY Good
E:09 Per capita transport energy use					→	 DATA QUALITY Good