

Glossary

AAQ NEPM

National Environment Protection Measure for ambient air quality.

Acid soils

Soils with pH less than 7. Plant growth is usually affected at pH less than 5.5.

Airshed

A region (for example a capital city) for which a government agency has estimated pollutant emissions to air.

Albedo effect

The fraction of solar radiation reflected by a surface or object, often expressed as a percentage. Snow-covered surfaces have a high albedo, the surface albedo of soils ranges from high to low, and vegetation-covered surfaces and oceans have a low albedo. The Earth's planetary albedo varies mainly through varying cloudiness, snow, ice, leaf area and land cover changes.

Algal blooms

Algal blooms are dense congregations of algae or cyanobacteria (blue-green algae) that can form over lakes, dams or streams.

Alkaline soils

Soils with pH greater than 7.

Alpine bog

Vegetation community at high elevation, dominated by hummock forming sphagnum moss associated with sedges, rushes and wetland heaths.

Ambient Air Quality

The external air environment. Does not include the air environment inside buildings or structures.

Amphibians

A group of animals that begin life in the water and generally transform to land-dwelling adults; frogs, toads, and salamanders.

Anabranch

A minor stream that leaves and rejoins the main river.

Annual plant species

Plant species that complete their lifecycle (germination, growth, flowering, seed set and death) in one year.

Anomaly

Denotes the departure of an element from its long-period average value for the location concerned.

Anoxic

Without oxygen.

Antarctic firn

Compressed snow, generally with a density greater than 550 kg per m³. Firn is formed in the transition of snow to compressed ice, such as that found in glaciers.

Anthropogenic

Caused by humans.

Airborne Particle Index

Used as a measure of visibility reduction.

Aquatic

Describes areas or species dominated by water or reliant on water.

Aquifer

A layer of underground sediments that holds water and allows water to flow through it.

Arboreal

Species that inhabits or spends large amounts of time in trees.

Asset-based approach

A rational approach to environmental management that rates assets according to values (ecological, social and economic) and assigns management programs based on risk to those values.

Bankfull

Flows that completely fill the channel.

Base load

The minimum constant amount of electricity required to meet demand at a given time of day.

Baseflow

The quantity of groundwater contributing to streamflow.

Benthic

Associated with the sea floor.

Bioaccumulation

Concentration of substances, especially toxins, in the tissue of a plant or animal.

Biocapacity

Refers to the capacity of a given biologically productive area to generate an on-going supply of renewable resources and to absorb its spillover wastes. Unsustainability occurs if the area's ecological footprint exceeds its biocapacity.

Bioclimate

The climatic component of a species' ecological niche.

Biodiversity

The variety of all life forms, including the different plants, animals, and micro-organisms, the genes which they contain and the ecosystems of which they form a part.

Biogenic habitat

Habitats that are produced through the actions of living organisms.

Biomagnification

The increase in the concentration of bioaccumulated toxic chemicals in organisms higher in the food web.

Biomass

The total mass, at a given time, of living organisms of one or more species per unit area.

Bioregion

Broad scale mapping units for biodiversity planning.

Biosequestration

Storage of atmospheric carbon in living biomass, for example in vegetation.

Biota

The total assemblage of living organisms in an area.

Bog

Alpine vegetation community occurring in permanently wet sites in poorly drained slopes and in the bottom of valleys, containing predominantly mosses.

Carbon dioxide fertilisation effect

Stimulation of plant growth by elevated concentrations of atmospheric carbon dioxide.

Carbon sequestration

Capture and long-term storage of carbon in forests, soils and the ocean, reducing atmospheric carbon dioxide concentrations.

Catchment

An area of land where runoff from rainfall goes into a single river system.

Centre-pivot irrigation

Irrigation technique whereby water is applied from large overhead booms revolving around a central pivot.

Cetacean

Baleen whales and toothed whales (including dolphins and porpoises).

CFC

Chlorofluorocarbons. Organic compounds made up of atoms of chlorine, fluorine and carbon. They were commonly used as refrigerants in refrigerators and air conditioners, as blowing agents in foam plastics, and as cleaners for computer circuit boards.

Chlorophyll-a

A green pigment found in plants that is a crucial component of photosynthesis. Its presence in marine environments is indicative of algal growth.

CH₄

Methane.

Clean coal

A term used to describe a range of new technologies intended to reduce the greenhouse emissions from coal-fired electricity generation to levels below those of current coal-fired power stations.

Climate

Synthesis of weather conditions in a given area, characterised by long-term statistics (mean values, variances, probabilities of extreme values, etc.) of the meteorological elements in that area.

Climate change

Term used to denote a significant change in the long-term statistics of a meteorological element (in particular temperature or amount of precipitation) in the course of a certain period of time, where the means are taken over periods of the order of a decade or longer.

Climate variability

Term used to denote deviations of climate statistics over a given period of time (such as a specific month, season or year) from the long-term climate statistics relating to the corresponding calendar period. In this sense, climate variability is measured by those deviations, which are usually termed anomalies.

Climatic envelope

Spatial representation of the climate range encompassing the distribution of a population or species.

CO

Carbon monoxide.

CO₂

Carbon dioxide.

CO₂-e

Carbon dioxide equivalent: A standardised measure to express the total global warming potential of greenhouse emissions, based on their different global warming potentials as a factor of the global warming potential of carbon dioxide.

Conservation farming

Farming techniques that minimise erosion and soil structure decline.

Consumption

This section considers only major consumer classes of harvested water (surface water, groundwater or recycled). Rainfall that is directly consumed, for example by dryland crops and pasture, or by crops in an irrigation area, is excluded. Important uses of water (e.g. hydro-electricity generation or recreational pursuits) are excluded as they do not divert water from its location nor change its condition for other uses, although there may be environmental impacts such as cold water pollution. In the case of water supplied for irrigation, a distinction has been drawn between water harvested for consumption (the volume at the commencement of the distribution system) and consumption (the volume delivered to the farm gate).

Conventional tillage/cultivation

Cropping technique whereby soil is cultivated multiple times before crop is sown.

Conversion

The processes by which primary energy, such as the chemical energy contained within coal, is transformed into more useable forms of energy such as electricity.

Consumer Price Index

A financial index that measures quarterly changes in the price of a 'basket' of typical household goods and services.

Critically Endangered

A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Species Survival Commission 2001), and it is therefore considered to be facing an extremely high risk of extinction in the wild.

Crustaceans

A type of arthropod; an invertebrate that is mainly aquatic, with a segmented body and a chitinous exoskeleton (hard external shell). Examples include shrimp and yabbies.

Cyanobacteria

The scientific term for blue-green algae.

Dam

The dam is the wall that holds the water in and the reservoir is the water. Commonly, the term 'dam' includes the reservoir.

Data Deficient

Inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate.

Decapod

A member of the Order Decapoda, meaning '10 feet'. Examples of decapods in Victoria include crustaceans such as the yabby and the threatened alpine spiny freshwater crayfish.

Demand management

In economics, demand management is the art or science of controlling economic demand to avoid a recession. In natural resources management and environmental policy more generally, it refers to policies to control consumer demand for goods such as water and energy.

Dematerialisation

A decrease in the material content of a service unit of a product.

Demersal

Found at or near the bottom of the sea, yet capable of active movement.

Demographic

The study of the characteristics of a population; for example: age, gender, income.

Denitrification

The natural removal of nitrogen via biological processes, essential to the health of marine waters.

Depleted

Greater than 30% and up to 50% of pre-European extent remains (or a combination of depletion, loss of quality, current threats and rarity that gives a comparable status e.g. greater than 50% pre-European extent remains and moderately degraded over a majority of this area).

De-snagging

The removal of trees and branches that have fallen into and lodged in a waterway.

Diadromous fishes

Fish species that migrate between fresh and sea water as part of their life cycle.

Diffuse point pollution

Non-point sources of pollution such as sediment or nutrients from catchment runoff, groundwater inputs or atmospheric fall-out.

Direct drilling

Sowing of crop seeds directly into uncultivated soil.

Dissolved oxygen

Oxygen (from the atmosphere or as a by-product of metabolic processes) dissolved in the water and available for animal and plant uptake.

Distributed generation

Where electricity generators are located near to the energy demand, rather than centralised within a single district such as the Latrobe Valley.

Distribution

Substations convert high-voltage electricity carried by transmission lines from power stations into low-voltage electricity for distribution within local areas.

Dobson units

A measure of atmospheric ozone. 100 DU is equivalent to a 1 millimetre thick layer of pure ozone at both sea level temperature and pressure. In the stratosphere, the same amount of ozone would occupy a much larger space.

Drought refugia

Areas where animals or plants take refuge in time of drought. These areas are often waterways, wetland or pools.

Dryland agriculture

Agricultural enterprises utilising only rainfall, not irrigation.

Dryland salinity

Secondary salinity occurring in dryland agricultural areas.

Ecological vegetation class (EVC)

An ecological vegetation class consists of one or a number of floristic communities that appear to be associated with a recognisable environmental niche, and which can be characterised by a number of their adaptive responses to ecological processes that operate at the landscape scale level.

Ecosystem

A dynamic complex of plant, animal, fungal and micro-organism communities and the associated non-living environment interacting as an ecological community.

Ecosystem services

The processes and conditions by which natural environments sustain and fulfil human life. Broadly, ecosystem services include a stable climate, clean air, water cycling and purification, nutrient cycling, soil formation, biomass production, waste disposal, crop pollination, provision of food and minerals, and the maintenance of genetic diversity.

EESC

Effective Equivalent Stratospheric Chlorine values are a measure of the potential for ozone depletion in the stratosphere obtained by summing over adjusted amounts of all chlorine and bromine-containing gases. The adjustments account for the different rates of decomposition of the gases and the greater per-atom effectiveness of bromine in destroying ozone compared to chlorine. (cf CO₂-e in Part 4 Atmosphere: Climate Change).

Efficiency

Two concepts of efficiency are used in this report. Efficiency is the average ratio between water output and input where both the input and output are measured in physical units. In the second context, 'water use efficiency' describes the product (e.g. agricultural produce), divided by the water applied.

El Niño

Translates from Spanish as 'the boy-child'. Peruvian fisherman originally used the term - a reference to the Christ child - to describe the appearance, around Christmas, of a warm ocean current off the South American coast. Nowadays, the term El Niño refers to the extensive warming of the central and eastern Pacific that leads to a major shift in weather patterns across the Pacific. In Australia (particularly eastern Australia), El Niño events are associated with an increased probability of drier conditions.

Ecologically sustainable development

Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.

Electrical conductivity (EC)

A measure of salinity. The higher the electrical conductivity of a stream, the higher the salinity.

Embayment

A semi-enclosed coastal water body whose opening to the ocean is restricted.

Emission Inventory

A stocktake across Victoria of the mass of pollutants emitted into the air environment by different sources.

Encrusting species

Marine species that attach to rocks, seaweed and artificial structures.

Endangered

A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Species Survival Commission 2001), and it is therefore considered to be facing a very high risk of extinction in the wild.

Endemic, endemism

Referring to a species which is native to a single geographic region and is found nowhere else.

Enhanced greenhouse effect

An increase in the natural process of the greenhouse effect, brought about by human activities, whereby greenhouse gases such as carbon dioxide, methane, chlorofluorocarbons and nitrous oxide are being released into the atmosphere at a far greater rate than would occur through natural processes and thus their concentrations are increasing. Also called anthropogenic greenhouse effect or climate change.

Environmental bulk entitlement

A water entitlement held by the Minister for the Environment that permits the use of water in a river or storage for a purpose that benefits the environment.

Environmental sustainability

Environmental sustainability is the ability to maintain the qualities that are valued in the physical environment.

Erosion

The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building or logging.

Erythema

Redness of the skin caused by capillary congestion. Exposure to ultraviolet radiation can cause erythema.

Estuarine

The zone where a river meets, influenced by river flows and tides and characterised by a gradient from fresh to salt water.

Eutrophication

The process that occurs when a waterbody is subjected to high levels of nutrients. The nutrients cause excessive plant and algal growth. As the organisms decay, the waterbody is depleted of oxygen.

Evapotranspiration

Transfer of water as water vapour to the atmosphere from unvegetated (evaporation) and vegetated (transpiration) land surfaces.

Exogenous pressures

Pressures that originate outside the area itself.

Externalisation

Transfer of the costs of an action to the environment without fully accounting for the costs of environmental harm.

Extinct

A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Extinct in the Wild

A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Fallow

Period when no crop is sown on farm land. In Victoria this is usually over summer and autumn, the period between harvesting one year's crop and sowing the next.

Feldmark

Low alpine vegetation community occurring in exposed, windy, rocky areas at the highest elevations.

Fen

A low, open sedgeland of pools within bogs, or within some valley floor heathlands, in high rainfall alpine areas of Victoria.

Fire cycle

Interval between fires at a given site.

Fire regime

Sequence and severity of fires over a prolonged period.

Floodplain

Lands adjacent to streams that are subject to flooding.

Flow regime

Each freshwater system has its own individual flow regime, with its own pattern of changes in the season, timing, frequency, and volume, rates of rise and fall, and duration of flows. The flow regime or hydrology influences the physical nature of river channels, the biological diversity, and the key processes which sustain the aquatic ecosystem and ecosystem services.

Flow stress ranking

A measure of the difference between the current flow conditions of a waterway and the flow conditions that would exist if no water were extracted.

Food miles

The transport distance travelled by food products between production and consumption.

Fresh

A flow pulse in a river that is higher than the median flow at that time of the year. It may occur naturally or as a result of a decision to release water from a reservoir. A fresh can occur at any time of year.

Freshwater

Freshwater systems include rivers, streams, wetlands and groundwater which are not salty- they have electrical conductivity levels below 800 $\mu\text{S}/\text{cm}$.

Fugitive emissions

The incidental emissions which escape during energy related activities. For example, coal seam methane which escapes during mining for brown coal, or gas which leaks out of gas pipelines.

Full fuel cycle emissions

Emissions which account for the total direct and indirect emissions associated with the extraction, conversion, distribution and combustion of energy attributable to the activity.

Gigalitre (GL)

One billion litres.

Gillnet

A type of passive fishing net, set vertically and often affixed to the sea bed, that entangles fish, usually via their gills.

Global warming

Global warming is the increase in the average measured temperature of the Earth's near-surface air and oceans since the mid-20th century, and its projected continuation.

Goal

An air quality target used in the SEPP (AAQ) and AAQ NEPM. It specifies a maximum allowable number of days per year (exceedences) when the objectives can be exceeded and a timeframe in which this goal must be met (by 2008). The goals guide the formulation of strategies to improve air quality. An evaluation of performance against the goal is made for each monitoring station in a region.

Greenhouse effect

The Greenhouse effect refers to the change in the thermal equilibrium temperature of a planet or moon by the presence of an atmosphere containing gas that absorbs infrared radiation. Greenhouse gases warm the atmosphere by efficiently absorbing thermal infrared radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. As a result of its warmth, the atmosphere also radiates thermal infrared in all directions, including downward to the Earth's surface. Thus, greenhouse gases trap heat within the surface-troposphere system. This mechanism is fundamentally different from the mechanism of an actual greenhouse, which instead isolates air inside the structure so that heat is not lost by convection and conduction.

Gross State Product

The total value added by production in the State economy in a year.

Groundwater

Water that infiltrates into the earth and is stored in the rock and soil below the earth's surface.

Groundwater discharge

Emergence of groundwater at soil surface or into waterway.

Groundwater recharge

Movement of water from soil surface through the soil to the water table.

Habitat

The environment, including physical and biological features, in which an animal or plant lives.

Hazardous waste

Waste substances which can pose a substantial or potential hazard to human health or the environment when improperly managed. See toxic chemicals below.

Hectopascal

A measure of air pressure.

Hidden flows

Displacement of environmental assets without absorption into the economic sphere.

House size

The floor area of a dwelling.

Household

A group of people living together in a house or other dwelling.

Household size

The number of people living in a house or other dwelling.

Human-induced climate change

The alteration to the earth's climate due to human activities.

Humus

Organic matter in soil which has broken down to a point of stability where it is resistant to further decay.

Hydrology

The movement, distribution and quality of water through the landscape.

In situ conservation

The process of protecting an endangered species in its natural habitat by protecting or improving the habitat.

Incipiently naturalised

Where the taxon is known to be not indigenous in Victoria and is replaced by one or more populations, but the extent of naturalisation is uncertain and there is doubt whether it has become truly naturalised.

Index of Stream Condition

An integrated measure of the overall condition of a stream reach, based on the assessment of five components; hydrology, water quality, physical form, riparian zone and aquatic life.

Index of Wetland Condition

A method of assessing the quality of naturally-occurring wetlands without a marine hydrological influence.

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In-stream habitat

A waterway's physical form and features and the habitat it provides for plants and animals.

Invertebrate

Any animal lacking a backbone.

Joule

Unit of energy measuring heat, electricity and mechanical work.

Keystone species

Species that underpin and play a greater role in ecosystem function than their abundance would imply.

Kilolitre

One thousand litres.

KWH

Kilowatt hour. The amount of power consumed/generated over a period of one hour.

Lagoon

Any large pond or holding used to contain wastewater while treatment processes including sedimentation and biological oxidation occur.

La Niña

Translates from Spanish as "the girl-child". The term "La Niña" has recently become the conventional meteorological label for the opposite of the better known El Niño. The term La Niña refers to the extensive cooling of the central and eastern Pacific Ocean. In Australia (particularly eastern Australia), La Niña events are associated with increased probability of wetter conditions.

Large woody habitat

Branches and limbs of vegetation that have fallen into waterways and consequently provide habitat for a range of species.

Least concern

Greater than 50% or pre-European extent exists and subject to little to no degradation over a majority of this area.

Levee bank

Structure to reduce flooding and to protect property from flooding.

Longitudinal continuity

The degree to which an organism can move across the landscape through suitable habitat.

Lost

Lost or unaccounted water.

Macroalgae

Large benthic algae, common in coastal marine environments. Known as seaweed.

Macro-invertebrate

An invertebrate that can be seen with the naked eye. They include species such as insects, snails and worms.

Megalitre (ML)

One million litres.

µ/m³

Micrograms per cubic metre.

Mid-latitudes

Regions of the Earth between the Polar Circles and the Tropics of Capricorn and Cancer.

Minimum tillage

Cropping techniques whereby soil cultivation is kept to a minimum.

Molluscs

Animals, such as snails and slugs, with soft bodies, a muscular foot and a mantle (a flap of tissue covering the body). They use gills for breathing. Most molluscs have an external shell, but some have an internal shell or no shell at all.

Natural ecosystems

Ecosystems that are predominantly unmodified or that contain large areas of native vegetation.

Naturalised plants

Alien plants that sustain self-replacing populations without direct intervention by people or in spite of human intervention, by recruitment or seeds or vegetative propagules or by vegetative spread.

Near shore environment

The part of the marine environment that is located close to the shoreline, usually within a few hundred metres.

Near Threatened

A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

N₂O

Nitrous oxide.

NO₂

Nitrogen dioxide.

NO_x

Oxides of nitrogen.

O₃

Ozone.

Objective

Concentrations specified in the SEPP (AAQ) and AAQ NEPM against which air quality can be assessed. In general, the objectives have been set to allow for adequate protection of human health and well-being. Also known as a standard.

Oceanography

The study of the chemical and physical parameters of the sea; for example tides, currents and salinity.

ODS 'banks'

Ozone-depleting substances that exist in containers prior to deployment or after reclamation, in existing equipment (for example, air conditioners) or materials (for example, foams), either in use, or buried in landfills.

Ozone-depleting substances

ODSs include but are not limited to CFCs, halons, carbon tetrachloride, methyl bromide, HCFCs methyl chloroform and methyl bromide.

Ozone Monitoring Instrument

An instrument that can distinguish between aerosol types, such as smoke, dust, and sulfates, and measures cloud pressure and coverage which provide data to derive tropospheric ozone.

Organochlorines

Organic compounds that contain chlorine and can mimic the hormone oestrogen.

Ozone hole

A region of the ozone layer where there is a pronounced thinning, where where total ozone levels are atypically low, usually defined as less than 220 Dobson units.

Ozone layer

A relatively thin layer of ozone found in the stratosphere that absorbs harmful ultraviolet radiation.

Pb

Lead.

Pelagic birds

Sea birds.

Perennial plant species

Plant species that persist in vegetative form over a number of years.

Permafrost

Soil that has remained below zero degrees for at least two years, containing large amounts of carbon dioxide and methane trapped in frozen vegetation.

Peri-urban

Areas at fringes of urban areas.

pH

A measure of the acidity or alkalinity of a solution. A pH of less than 7 is considered acidic, while a pH greater than 7 is considered basic (alkaline).

Photosynthesis

The process by which green plants use light, carbon dioxide and water to synthesize organic compounds.

Phytoplankton

Microscopic, free-floating marine plants.

Point source pollution

Pollution from a single point of discharge. For example, effluent from a sewage treatment plant or an industrial wastewater treatment plant.

Polar vortex

A circumpolar wind that isolates the Antarctic continent during the winter.

Polar zone

The regions of the Earth that are south of 60° south latitude and north of 60° north latitude.

Polychlorinated biphenyls

A group of toxic, carcinogenic organic compounds used in the manufacture of plastics and as insulating fluids in electrical transformers and capacitors.

Port Phillip Region

The area surrounding Port Phillip Bay and Western Port, including Melbourne and Geelong.

ppb

Part per billion by volume.

ppm

Part per million by volume.

Presumed extinct

Probably no longer present in the bioregion OR if present, below the resolution of available mapping.

Primary treatment

Wastewater treatment involving sedimentation (sometimes preceded by screening and grit removal) to remove large and suspended solids.

Pristine estuaries

Estuaries that have not been impacted upon by humans in significant ways and are considered to exist in an essentially natural state.

Protists

Microscopic single cell or simple multicellular organisms that comprise a component of the larger group known as plankton.

Rainfall deficit

The amount by which rainfall is less than average rainfall.

Ramsar wetlands

Wetlands listed as internationally significant under the Ramsar Convention on Wetlands 1971.

Rare

Rare but not considered otherwise threatened - there are relatively few known populations or the taxon is restricted to a relatively small area.

Reach

A length of river that has similar hydrological, vegetation and landscape characteristics.

Regionally Extinct

As for Extinct but within a defined region (in this case the State of Victoria) that does not encompass the entire geographic range of the taxon. A taxon is presumed Regionally Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout the region have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Regulated/ unregulated waterway

Regulated rivers are artificially manipulated using infrastructure such as dams or weirs. Unregulated rivers do not have this artificial manipulation.

Reservoir

A major body of water created in a river valley by building a dam.

Resilience

The capacity of a system to absorb disturbance and re-organise so as to retain essentially the same function, structure and feedbacks – to have the same identity.

Resource efficiency

The process of using fewer resources (energy, water and / or materials) to achieve the same outcome. Increasing resource efficiency equates to a decrease in resource intensity.

Resource intensity

The rate of use of resources that is required to achieve an outcome. Decreasing the resource intensity of a process results in greater resource efficiency.

Rhodolith

Colourful, unattached, branching, benthic marine red algae that resembles coral.

Riffles

A reach of stream that is characterised by shallow, fast moving water broken by the presence of rocks and boulders.

Riparian

Relating to or located on the banks of a river or stream.

River basin

The catchment of a large river or group of rivers.

River bed

The bottom of a river channel.

Riverbank

The generally steep part of a stream channel's cross-section, generally considered as being above the usual water level.

Riverine

Referring to a waterway, often used synonymously with riparian.

Robustness

A related concept to resilience, it is the ability to maintain some desired characteristics in the behaviour of its component parts or its environment.

Salinity – primary

Presence of salt in soil and watercourses as result of natural processes.

Salinity – secondary

Movement of salt from saline groundwater to surface soil or watercourses as result of human modification of landscape and disruption of the hydrological cycle, e.g. tree clearing.

Salvage harvesting

Timber harvesting operations conducted in burnt environments to recover timber from trees damaged by fire.

Scansorial

Species capable of or adapted to climbing.

Seasonality

A measure of the shift in maximum and minimum flow months between natural and current conditions.

Secondary treatment

In water treatment: Generally, a level of treatment that removes 85% of biological oxygen demand and suspended solids via biological or chemical treatment processes.

Sedimentation

Process where solid particles in water sink to the bottom forming a sediment.

Scenario B1/ Low emissions

Global population peaking in mid-century and declining thereafter. Storyline describing rapid changes in economic structures towards a service economy, less material intensive and with more resource efficient technologies.

Scenario A1B/ Medium emissions

Same global population as in the previous scenario. Storyline indicating very rapid economic growth where technology does not rely on just one energy source but has a more balanced approach.

Scenario A1F1/ High emissions

Same global population as in the previous two cases. Storyline indicating very rapid economic growth where technology mainly depends on fossil energy.

Silviculture

Establishment and management of trees for wood production.

Snowbank

Alpine vegetation community occurring in protected areas where the snow lasts longest.

Glossary

SO₂

Sulfur dioxide.

Sodic soil

Soil containing high levels of sodium, prone to erosion.

Southern Annular Mode (SAM)

Preferred patterns of change in atmospheric circulation corresponding to changes in the zonally averaged mid latitude westerlies in the southern hemisphere.

Spionid worms

A family of small and thin marine worms that either burrow or form fine tubes composed of sand or mud.

Stratosphere

The layer of the atmosphere between 10 km and 50 km above the Earth, located above the troposphere and below the mesosphere, where temperature increases with height.

Stubble

Stem and leaf material (also known as crop residue) remaining after harvest of a grain crop.

Stubble retention

Crop residues are left standing or incorporated into soil after grain harvest.

Surface water

All bodies of water on the surface of the earth.

Sustainability

Ensuring that society and its economy continue to have access to the services they value, while maintaining the condition and function of ecological systems so that they too continue to provide services valued by society, both now and in the future.

Sustainable development

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but in the indefinite future. The term was used by the Brundtland Commission which coined what has become the most often-quoted definition of sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs.

Taxon (plural taxa)

A name designating an organism or group of organisms in biological nomenclature.

Terrestrial

Of the land.

Thermohaline Circulation

The pattern of global ocean currents, driven by differential salinity and temperature levels.

Tillage

Cultivation of soil for purpose of sowing a crop.

Total Ozone Mapping Spectrometer

A satellite instrument used to measure ozone levels.

Topographic

The geographical features of an area of land.

Total nitrogen

Total nitrogen is a measure of all forms of dissolved and particulate nitrogen present in a water sample.

Total phosphorus

Total phosphorus is a measure of all forms of dissolved and particulate phosphorus present in a water sample.

Toxicants

Harmful substances, including heavy metals, chemical compounds and excessive concentrations of nutrients.

Trophic group

A group of organisms that play a similar role in the food web.

Trophic relationships

The relationships that exist between trophic groups in the food web.

Trophodynamic

Predator/prey patterns within the food web.

Turbidity

Cloudiness or haziness of the water caused by the suspension of individual particles that are too small to be seen without magnification.

Unaccounted water

This term is used to describe the difference between the volume of water measured entering the distribution network (i.e. harvested for consumption) and the measured volume delivered. More information on the causes of unaccounted water is provided in Water consumption, Unaccounted water.

Unreserved Crown land

Crown land that has not been reserved for a particular purpose (for example, conservation, public enjoyment).

UV

In water treatment: The disinfection of treated wastewater via ultraviolet radiation. This involves passing a film of wastewater close to a UV lamp.

Vulnerable

A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Species Survival Commission 2001), and it is therefore considered to be facing a high risk of extinction in the wild.

Water balance

A statement of the water flows in a given area and time period, in which the sum of the outflows from the area equals the sum of the inflows less the water accumulated in the area.

Water entitlement

The volume of water authorised to be taken and used by an irrigator or water authority.

Water extraction

The diversion of water from its normal or natural flow path or location in a water source, for consumptive purposes.

Water storage

Water storage is used in this report as a collective term which includes dams, weirs, reservoirs and lakes that are used to collect and store water for consumptive or non-consumptive uses (e.g. hydro-electricity generation).

Waterway

The Water Act 1989 defines a waterway as a river, creek, stream watercourse and a natural channel where water regularly flows, whether or not the flow is continuous.

Weed

Plants that are growing in places where they are not wanted.

Weir

A structure across a waterway to stop flow and raise water levels.

Wetlands

Wetlands are areas featuring permanent or temporary shallow open water that does not exceed a depth of 6 m at low tide. They include billabongs, marshes, swamps and lakes.

Zero tillage

Cropping techniques whereby soil is not cultivated prior to sowing a crop.

Zooplankton

Free-floating animals that live in aquatic environments. Most zooplankton are invertebrates and are very small.

