



References



References

- ABS. (2018, November 27). *Data by region*. Retrieved from Australian Bureau of Statistics: <http://stat.abs.gov.au/itt/r.jsp?databyregion>
- Alluvium. (2010). *Key ecosystem functions and their environmental water requirements*. Canberra: Murray-Darling Basin Authority.
- BOM. (2012). *Groundwater Dependent Ecosystems Atlas*. Retrieved October 09, 2018, from Australian Government Bureau of Meteorology: <http://www.bom.gov.au/water/groundwater/gde/map.shtml>
- Cottingham, Koster, Roberts and Vietz (2018). *Assessment of potential inter-valley transfers (IVT) of water from the Goulburn River, Victoria*. Goulburn Broken Catchment Management Authority.
- DELWP & VCMC. (2016). *Integrated Catchment Management in Victoria 2016-19*. Melbourne: Department of Environment, Land, Water and Planning and the Victorian Catchment Management Council.
- DELWP. (2015). *Long-term watering plan Northern Victoria*. Melbourne: The Department of Environment, Land, Water and Planning.
- DELWP. (2015). *Long-term watering plan Victorian Murray*. Melbourne: The Department of Environment, Land, Water and Planning.
- DELWP. (2015). *Ministerial guideline for Groundwater Licensing and the Protection of High Value Groundwater Dependent Ecosystems*. The Department of Environment, Land, Water and Planning. Melbourne: DELWP. Retrieved from <http://waterregister.vic.gov.au/water-entitlements/about-entitlements/take-and-use-licences#Min-Policies>
- DELWP. (2015). *Water corporation statement of obligations*. Melbourne: Department of Environment, Land, Water and Planning. Retrieved October 23, 2018, from <http://www.depi.vic.gov.au/water/governing-water-resources/water-corporations/water-corporations-statements-of-obligations>
- DELWP. (2016). *Temporary qualification of rights to surface water: Responsibilities of the proponent: a guide for water corporations*. Melbourne: The Department of Environment, Land, Water and Planning.
- DELWP. (2016). *Water for Victoria*. Melbourne: The Department of Environment, Land, Water and Planning. Retrieved October 23, 2018, from https://www.water.vic.gov.au/_data/assets/word_doc/0033/58848/Water-Plan-strategy-accessible.docx
- DELWP. (2017). *Victorian Water Accounts: 2015-2016*. Melbourne: The Department of Environment, Land, Water and Planning.
- EPA. (2018). *State Environment Protection Policy (Waters)*. Melbourne: Victoria Government Gazette.
- Department of Sustainability and Environment. (2004). *Our Water Our Future*. Melbourne: Victorian Government.
- Department of Sustainability and Environment. (2009). *Northern Region Sustainable Water Strategy*. Melbourne: The State of Victoria.
- DEPI. (2013). *Index of Stream Condition: The Third Benchmark of Victorian River Conditions ISC3*. Melbourne: The Department of Environment and Primary Industries.



- DEPI. (2013). *An overview of the Victorian waterway Management Strategy*. The Department of Environment and Primary Industries. DEPI. Retrieved from <https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/strategies-and-planning>
- DEPI. (2013). *The Victorian waterway Management Strategy*. The Department of Environment and Primary Industries. DEPI. Retrieved from <https://www.water.vic.gov.au/waterways-and-catchments/rivers-estuaries-and-waterways/strategies-and-planning>
- DEPI. (2014). *Policies for Managing Take and Use Licences*. The Department of Environment and Primary Industries. Melbourne: Victorian Government.
- DEPI. (2014). *Victorian Non-Urban Metering Policy*. https://www.water.vic.gov.au/___data/assets/word_doc/0016/52234/Non-urbanWaterMeteringPolicy_Final.docx
- EPA. (2018). *Water Compliance Report 2017-18*. Melbourne: Department of Environment, Land, Water and Planning.
- GMW. (2012). *Upper Ovens River Water Supply Protection Area Water Management Plan*. Tatura: Goulburn-Murray Water.
- Groundwater Logic. (2018). *Priority Environmental Asset Groundwater Interactions*. Melbourne: The Department of Environment, Land, Water and Planning.
- HARC. (2016). *User Manual for SoilFlux Tools*. Melbourne: Department of Environment, Land, Water and Planning.
- Jacobs. (2016). *SoilFlux User Manual*. Melbourne: Department of Environment, Land, Water and Planning.
- LREFSP. (2002). *Environmental Flow Determination of the Loddon River Catchment: Issues Paper*. Unpublished report to the North Central Catchment Management Authority and Department of Natural Resources and Environment by Loddon River Environmental Flows Scientific Panel.
- MDBA. (2001). *Basin Salinity Management Strategy 2001-2015*. Canberra: Murray-Darling Basin Authority.
- MDBA. (2006). *Evaluation of the connectivity between surface water and groundwater in the Murray-Darling Basin*. Canberra: Murray-Darling Basin Commission.
- Minister for Water. (2007). *Trading rules for declared water systems*. Melbourne: DELWP.
- Minister for Water. (2009). *Guidelines for the Development of Bulk Entitlement Metering Programs*. Melbourne: The Department of Sustainability and Environment.
- Minister for Water. (2014). *Ministerial Rules Relating to the Victorian Environmental Water Holder*. Melbourne: V. G. Printer, Producer and State of Victoria. Retrieved 2017, from <http://www.gazette.vic.gov.au/gazette/Gazettes2014/GG2014S204.pdf>
- Morden, R. (2017). A new method of accounting for runoff dams. *22nd International Congress on Modelling and Simulation* (pp. 1676 - 1682). Hobart: Victorian Department of Environment Land Water and Planning.
- Murray-Darling Basin Ministerial Council. (2015). *Basin salinity management 2030*. Canberra: MDBA.
- National Health and Medical Research Council. (2008). *Guidelines for Managing Risk in Recreational Water*.
- NHMRC, NRMCC (2011) *Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy*. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.
- North Central Catchment Management Authority. (2006). *A catchment action plan for the Coliban catchment - Part A: Background, Assets and Threats*. Huntly: North Central Catchment Management Authority.

- Sinclair Knight Merz. (2011). *STEDI: Estimating the impact of farm dams on streamflow: User Manual*. Melbourne: Department of Sustainability and Environment.
- VEWH. (2018). *Victorian Environmental Water Holder: Annual Report 2017-18*. Melbourne: V. E. Holder, Producer, and State of Victoria. Retrieved October 2018, 2018, from http://www.vewh.vic.gov.au/_data/assets/pdf_file/0006/506373/VEWH-Annual-Report-2017-18_web.pdf
- VEWH. (2018). *Water allocation trading strategy 2018-19*. Melbourne: The Victorian Environmental Water Holder.
- Victoria Government Gazette. (2013, March 7). PCV Groundwater (Goulburn-Murray Water) Amendment Order. *Victoria Government Gazette*, G10, 479-480.
- Water Technology. (2018). *Lower Ovens Wetlands Modelling Update and Monitoring Report - Draft report*. Wodonga: North East Catchment Management Authority.



Glossary





Glossary

Term	Definition
Aboriginal Victorians	An Aboriginal Victorian is a person of Aboriginal descent who identifies as an Aboriginal and is accepted as such by the Victorian Aboriginal community in which they live.
above cap water	The water available above limits on consumptive volumes of surface water and groundwater. It includes unregulated flows which cannot be kept in storage.
adaptive management	In the Murray-Darling Basin Plan, adaptive management is taken to include the following steps: <ul style="list-style-type: none"> (a) setting clear objectives; (b) linking knowledge (including local knowledge), management, evaluation and feedback over a period of time; (c) identifying and testing uncertainties; (d) using management as a tool to learn about the relevant system and change its management; (e) improving knowledge; (f) having regard to the social, economic and technical aspects of management.
algal bloom	A rapid increase in the population of algae that can occur in waterways, often caused by excess nutrients (particularly phosphorus and nitrogen).
allocation	An allocation is: <ul style="list-style-type: none"> (a) water that is actually available to use or trade in any given year, including new allocations and carryover; (b) the water that is actually in the dam in any given year is allocated against the relevant bulk entitlement and environmental entitlement (or water share where these have been issued). The seasonal allocation is the percentage of volume available under current resource conditions, as determined by the resource manager. <p>For example, in a dry year a 50% allocation of a 100 ML bulk entitlement would allow for 50 ML of water available to use or trade. A 100% allocation that the full volume is available.</p> <p>The resource manager uses seasonal determination instead of allocation when allocating water to entitlements. Seasonal determination is the term used in bulk entitlements and the Victorian Water Act in relation to water shares.</p>
annual actual take	In the Murray-Darling Basin Plan annual actual take has the meaning given in section 6.10.
annual environmental watering priorities	In the Murray-Darling Basin Plan annual environmental watering priorities has the meaning given in section 8.23.



Term	Definition
annual permitted take	In the Murray-Darling Basin Plan annual permitted take has the meaning given in section 6.10.
ANZECC Guidelines	The Australian and New Zealand Guidelines for Fresh and Marine Water Quality published by the Australian and New Zealand Environment and Conservation Council and the Agriculture and Resource Management Council of Australia and New Zealand.
aquifer	An underground layer of rock or sediment that holds water and allows water to flow through it.
aquitard	An underground layer of clay, silt or rock with low permeability which restricts the movement of groundwater between aquifers.
assets	Assets are resources that provide benefit. This includes, for example, infrastructure such as treatment plants, pipes and pumps, water assets such as dams, bores and wetlands, and community assets such as sporting facilities, public gardens and street trees. Natural assets are assets of the natural environment, for example waterways and vegetation, also known as natural capital.
Australian Drinking Water Guidelines	Published by the National Health and Medical Research Council and the Natural Resource Management Ministerial Council in 2011.
Australian Height Datum (AHD)	<p>In 1971 the mean sea level for 1966-68 was assigned the value of zero on the Australian height datum at 30 tide gauges around the coast of the Australian continent.</p> <p>The resulting datum surface, with minor modifications in two metropolitan areas, was termed the Australian height datum and was adopted by the National Mapping Council of Australia as the datum to which all vertical control for mapping is to be referred. Elevations quoted using this datum are normally followed with the acronym 'AHD'.</p>
Australian National Committee on Large Dams	A voluntary association of organisations and individual professionals with an interest in dams in Australia.
Authority	An Authority in relation to a bulk entitlement holder under the Victorian Water Act, includes a water corporation, the Minister for Environment and Climate Change, and a power generation company.
barriers	Artificial instream structures, such as dams, weirs, causeways and culverts that restrict the migration and movement of fish or other biota and can interrupt transport of organic material and sediment.
baseline	Conditions regarded as a reference point for the purpose of comparison.
baseline diversion limit	<p>In the Murray-Darling Basin Plan the baseline limit of take from a SDL resource unit is:</p> <p>(a) for a surface water SDL resource unit – the quantity of water calculated in accordance with column 2 of the table in Schedule 3 for that SDL resource unit; and</p> <p>(b) for a groundwater SDL resource unit – the quantity of water specified in column 3 of the table in Schedule 4 for that SDL resource unit.</p>

Term	Definition
basic right	In the Murray-Darling Basin Plan a basic right means any of the following: <ul style="list-style-type: none"> (a) a right under State water management law to take water for domestic or stock purposes; (b) a harvestable right under the Water Management Act 2000 (New South Wales); (c) a native title right.
Basin (river basin)	The area of land into which a river and its tributaries drain. In the Victorian Water Accounts, river basins are consistent with those defined by the Australian Water Resources Council. The exception is the Murray Basin which, for the purposes of this report, includes the Upper Murray Basin as defined by AWRC and areas in Victoria supplied from the Murray River downstream of Lake Hume.
Basin annual environmental watering priorities	In the Murray-Darling Basin Plan the basin annual environmental watering priorities has the meaning given in section 8.27.
Basin Plan	The Basin Plan 2012 made under the Commonwealth Water Act that was registered on the Federal Register of Legislative Instruments on 23 January 2017 with reference F2017C00078.
Basin State	For the purposes of the Basin Plan, the Basin States are defined in the Commonwealth Water Act as New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.
Basin water resources	Under the Commonwealth Water Act, Basin water resources are within or beneath the Murray-Darling Basin, but do not include water resources within or beneath the Basin that are prescribed by the regulations, or groundwater that forms part of the Great Artesian Basin.
Basin-wide environmental watering strategy	In the Murray-Darling Basin Plan the Basin-wide environmental watering strategy has the meaning given in section 8.13.
beneficial use	The use to which water resources are applied including environmental, consumptive, Aboriginal and social.
best available information and methods	Those methods expertly judged to be the most appropriate and technically sound for the purpose. These judgments may be informed by peer review. If there is no available knowledge or analysis, it is expected that water planning agencies will use their own expertise to reach a position or seek expert advice from reputable sources.
biodiversity	The numbers and variety of plants, animals and other living beings, including microorganisms, across our land, rivers and oceans. It includes the diversity of their genetic information, the habitats and ecosystems in which they live and their connections with other life forms.
blackwater	Occurs when accumulations of organic matter, such as leaves, twigs and nutrients, decays in wetlands or waterways after being washed in by a flood, drawing oxygen from the water. The water turns to a black colour and can have a very low level of dissolved oxygen, which can cause stress to fish, crayfish and other animals.



Term	Definition
bore	<p>Usually a hole constructed by a licensed driller to reach groundwater.</p> <p>Bores can also include a well or artificial excavation.</p> <p>Any person who wants to drill a bore must have a works licence.</p>
brackish water	<p>Water that is saltier than freshwater, but not as salty as seawater. It may result from the mixing of seawater with freshwater, as in estuaries.</p>
bulk entitlement	<p>The right to water held by the Authorities defined in section 34 of the Victorian Water Act. A bulk entitlement sets the amount of water from a river or storage to which an Authority is entitled, and may include the rate at which it may be taken and the reliability of the entitlement.</p> <p>Bulk entitlements also define a right to use and supply water in a waterway, water in storage works of a water corporation, and groundwater.</p> <p>A bulk entitlement sets out the amount of water that can be taken or stored under specific conditions or specifications, up to a maximum volume.</p> <p>Water corporations and other specified bodies defined in the Victorian Water Act can hold bulk entitlements, as a source bulk entitlement (an entitlement to harvest water directly from a water source) or a delivery bulk entitlement (an entitlement to be supplied water from another water corporation's dam or within a system regulated by the works of another corporation).</p> <p>Bulk entitlements can be traded temporarily or permanently.</p>
bulk entitlement conversion order	<p>The statutory instrument used to issue a bulk entitlement under the provisions of section 47 of the Victorian Water Act where the entitlement holder had a long standing legal right to water in a waterway.</p>
bulk entitlement holder	<p>Water corporations, the Victorian Environmental Water Holder and other bodies specified in the Victorian Water Act, such as electricity generation companies, can hold a bulk entitlement. Bulk entitlement holders have to meet conditions and obligations set out under the Act and in their bulk entitlements.</p>
bundled entitlement	<p>A take and use licence that allows the take and use of water.</p>
cap	<p>An upper limit for the diversion of water from a waterway, catchment, basin or aquifer.</p>
Cap (the Cap on diversions)	<p>A limit, implemented in 1997, on the volume of surface water that can be diverted from rivers for consumptive use. Under the Basin Plan, the Cap will be replaced by long-term average sustainable diversion limits.</p>
carryover	<p>An authorisation by the Minister for Water that allows irrigators manage their water entitlement more flexibly by taking a portion of water unused in one season in the next water season.</p>
catchment	<p>The region from which all rainfall flows, other than that removed by evaporation, into waterways and then to the sea or terminal lake.</p>

Term	Definition
catchment dam	A pond, lake or basin, whether natural or artificial, for the storage, regulation and control of water in an area of land where runoff from rainfall goes into one river system.
catchment management authorities (CMAs)	Statutory bodies established under the <i>Catchment and Land Protection Act 1994</i> . CMAs have responsibilities under both that Act and the Victorian Water Act for river health; regional and catchment planning and coordination; and waterway, floodplain, salinity and water quality management.
cause	An event that can lead to a threat.
climate change	An extended period (typically decades or longer) where there is a statistically significant change to the expected characteristics (averages and/or variability) of a region's climate.
commercial plantation	In the Murray-Darling Basin Plan a commercial plantation means an area of land on which perennial woody plants are planted primarily for commercial purposes (other than the production of food). Some examples of commercial purposes are the production of timber, woodchip, oil or biofuel, or the commercial exploitation of the carbon sequestration capacity of the plants.
Commonwealth Water Act	Means the <i>Water Act 2007</i> (Commonwealth). The legislation that established the Murray-Darling Basin Authority to manage the Basin's water resources and prepare the Basin Plan. It also established the Commonwealth Environmental Water Holder to manage the Commonwealth's environmental water, charged the Australian Competition and Consumer Commission to develop and enforce water charges and water market rules, and gave the Bureau of Meteorology powers to collect and publish water information.
community	Includes individuals, public and private landholders, community groups and business owners.
condition of water resource	Includes the water quality and the health of water-dependent ecosystems and condition of the physical habitats.
connectivity	Connections between natural habitats, such as a river channel and adjacent wetland areas. Connectivity is a measure or indicator of whether a waterbody (river, wetland, floodplain) has water connections or flow connections to another body.
consequence	The impact of a threat on a beneficial use of water.
consistent	Agreeing or accordant; compatible; not self-opposed or self-contradictory.
constraints	Anything that affects the delivery of environmental water. It can include physical aspects such as low-lying bridges or river channel capacity, but can also include operational aspects such as river rules or operating practices that impact on when and how much water can be delivered.
consumption	Water that is provided for all human uses; that is, non-environmental water.



Term	Definition
consumptive entitlement	A water entitlement that permits the holder to use the water taken under the entitlement for the purposes of consumption.
consumptive use	Use of water for irrigation, industry, urban, domestic and stock use, or for other private consumptive purposes.
Country	Aboriginal culture revolves around relationships to the land and water. For Traditional Owners, Country is a part of who they are, just as they are a part of it.
critical human water needs	<p>Under the Commonwealth Water Act, the minimum amount of water required to meet core requirements of communities dependent on Basin water resources. The definition also includes non-human requirements that, if not met, would cause prohibitively high social, economic or national security costs.</p> <p>In Victoria, as a matter of practise, this means the amount of water required to supply stage 4 restricted demand in urban areas, supply domestic and stock needs and operate the distribution system to deliver that water.</p>
Crown land	Land that is owned by the Crown. Often referred to as public land (although not all public land is actually Crown land).
Dam	A structure built across a river or creek to obstruct the flow of water and form a water storage.
declared water system	A water system that has been declared in accordance with section 6A of the Victorian Water Act. In these water systems, the old water rights and take and use licences have been converted into unbundled entitlements (water shares and associated products). Current declared water systems are: Broken, Bullarook, Campaspe, Goulburn, Loddon, Murray and Ovens, which were all declared in July 2007, and the Werribee and Thomson/Macalister (July 2008).
delivery bulk entitlement	Provides a set volume of water each year to the entitlement holder, subject to defined rules for restricting supply during periods of water shortages.
delivery system/network	The infrastructure or river system that enables water to get to entitlement holders. This means an irrigation area, or for a river reach for private diverters, a catchment or aquifer.
dissolved oxygen	The oxygen dissolved in water and freely available for use by aquatic organisms. It is vital for the survival of fish, invertebrates, bacteria, and underwater plants.
distribution system operating water	Water used to operate the irrigation distribution system from river off-take to the farm gate, including evaporation, seepage, leakage, outfalls and meter error (see also system operating water).
diversions	The removal of water from a waterway, for example via a pump.
domestic and stock	Water used in households and for pets, other animals, fire prevention, and for irrigating a kitchen garden.
drought response plans	Used by urban water corporations to manage water shortages, including implementation of water restrictions.

Term	Definition
Drought Support Fund	A cross-government initiative to provide support to drought-affected farmers.
ecological objective	Under the Basin Plan an ecological objective means an objective for the protection, and if necessary restoration, of a priority environmental asset or ecosystem function.
ecological target	Under the Basin Plan an ecological target means a target that must be met in order to achieve an ecological objective.
ecosystem	A dynamic complex of plant, animal, fungal and microorganism communities and the associated non-living environment interacting as an ecological unit.
efficiency measure	These measures provide more water for the environment by making water delivery systems for irrigation more efficient. This can include replacing or upgrading on-farm irrigation, or lining channels to reduce water losses within an irrigation network.
electrical conductivity	<p>Expressed in microsiemens per centimetre ($\mu\text{S}/\text{cm}$). Water and soil salinity levels are measured by passing an electric current between the two electrodes of a salinity meter. Electrical current (EC) is influenced by the concentration and composition of dissolved salts.</p> <p>Salts increase the ability of a solution to conduct an electric current, so a high EC indicates a high salinity level. Freshwater above 800 EC becomes marginal for drinking, above 1,600 EC it is brackish, and above 4,800 EC it is saline.</p>
entitlement (or water entitlement)	<p>Authorisation to take water issued in accordance with the Victorian Water Act. It includes bulk entitlements, environmental entitlements, water shares, and surface water and groundwater licences (also known as take and use licences).</p> <p>In Victoria, a take and use licence is a right to take water and which may be limited by conditions. Different entitlements are necessary depending on where and how water is taken, and what it is used for. The most common types of entitlements for individuals are water shares, and take and use licences. These are included in the definition of water access right in the Commonwealth Water Act.</p>
environment	Surroundings in which an organisation operates including air, water, land, natural resources, flora, fauna, humans and their interdependence.
environmental asset (in the context of the 'asset-based approach')	A spatially defined, biophysical component of the environment (for example, a river reach, an estuary or an individual wetland or wetland complex) that has particular values associated with it.
environmental contribution	Funds collected by water corporations under the <i>Water Industry Act 1994</i> to promote the sustainable management of water or address adverse water-related environmental impacts.



Term	Definition
environmental entitlement	<p>A right to take water granted to the Victorian Environmental Water Holder to maintain an environmental water reserve or to improve the environmental values and health of the water ecosystems and other users depending on the condition of the environment.</p> <p>The <i>Water (Resource Management) Act 2005</i> amended the Victorian Water Act and created the foundation for water to be set aside to maintain environmental values of rivers and streams.</p> <p>The Minister for Water issues environmental entitlements under the Act so that water can be managed to meet environmental needs including fish-spawning or maintaining critical habitats during drought.</p>
environmental flow	<p>Any river flow pattern provided with the intention of maintaining or improving river health.</p> <p>In practice in Victoria this means the streamflow required to maintain appropriate environmental conditions in a waterway.</p>
environmental flow studies	<p>The study of the flow requirements of a particular basin's river and wetland systems used to inform policy decisions on the management and allocation of water resources.</p>
environmental manager	<p>The government agency, such as the Department of Environment, Land, Water and Planning or catchment management authority, responsible for environmental outcomes for a relevant waterway.</p>
environmental water	<p>Water to support environmental values and ecological processes.</p>
environmental water manager	<p>The government agency responsible for the management of held environmental water including the VEWH, CEWH, MDBA and CMAs.</p>
Victorian Environmental Water Holder	<p>A body established to hold and manage environmental entitlements.</p>
environmental water requirements	<p>The amount of water needed to meet an ecological or environmental objective.</p>
environmental water reserve	<p>The share of water resources set aside to maintain the environmental values of a water system and other water services that depend on the environmental condition of the system.</p>
Environmental Watering Plan	<p>A plan to restore and sustain the wetlands and other environmental assets of the Murray-Darling Basin and to protect biodiversity dependent on the Basin water resources.</p>
environmental watering requirements	<p>Under the Basin Plan, environmental watering requirements means the environmental watering requirements of a priority environmental asset or priority ecosystem function, as the case may be, identified using the methods set out in Part 5 of Chapter 8.</p>

Term	Definition
environmentally sustainable level of take	Defined by section 4 of the Commonwealth Water Act as the level at which water can be taken from a water resource which, if exceeded, would compromise: <ul style="list-style-type: none"> (a) key environmental assets of the water resource, or (b) key ecosystem functions of the water resource, or (c) the productive base of the water resource, or (d) key environmental outcomes for the water resource.
estimate	To form an approximate judgment or opinion regarding the value, amount, size, weight, etc. of; calculate approximately. The key requirements for an estimate to be made are that it needs to be done by a competent and experienced person; it needs to be capable of being estimated and needs to be reasonable; and it needs to be revised from time to time in the light of available information.
evaporation	The process by which water changes from a liquid to a gas or vapour.
evapotranspiration	The sum of transpiration by plants, evaporation from soil and open water surfaces, and evaporation from the wet surfaces of plants soon after rainfall.
extraction licence	Better referred to as a works licence, or a works operating licence.
farm dam	An on-farm water storage managed by the landowner or occupier.
fit-for-purpose (water quality)	Water of a quality that is appropriate for its intended use.
floodplain	Low-lying land next to a river or stream with unique ecosystems dependent on overflow from flooding.
floodplain harvesting	The taking of water from a floodplain, including after it leaves a watercourse during a flood.
flow	Movement of water – the rate of water discharged from a source, given in volume with respect to time.
flow regime	The range of flows experienced by a waterway throughout the seasons and years, which may include base flows, low flows, high flows, overbank flow and cease to flow (drying) events.
form of take	In the Murray-Darling Basin Plan form of take means any of the following: <ul style="list-style-type: none"> (a) take from a watercourse; (b) take from a regulated river; (c) take by floodplain harvesting; (d) take by runoff dams; (e) net take by commercial plantations; (f) take from groundwater; (g) take under basic rights.



Term	Definition
gigalitre	One thousand megalitres or One billion (1,000,000,000) litres.
greywater	Household water that has not been contaminated by toilet discharge, and can be reused for non-drinking purposes. Typically includes water from bathtubs, dishwashing machines and clothes washing machines.
groundwater	Water occurring naturally below ground level (in an aquifer or otherwise).
groundwater basin	A groundwater basin is made up of one or more groundwater catchments within a geological basin. The basin may extend offshore or across state boundaries. In some cases, a basin may be broken into one or more sub-basins to reflect administrative management boundaries.
groundwater catchment	A groundwater catchment is an area containing a connected groundwater resource(s), bringing together the input (recharge) areas, use (demand) areas and discharge areas.
groundwater-dependent ecosystem	Natural ecosystems that require access to groundwater to meet all or some of their water requirements in order to maintain their ecological processes.
groundwater entitlement limit	The total volume of water which can be allocated in an aquifer under licences. May be defined by a permissible consumptive volume (PCV) declared by the Minister for Water.
groundwater management area (GMA)	An area where groundwater resources of a suitable quality for irrigation, commercial or domestic and stock use have been developed (or have the potential to be developed) and warrant careful management. It has a defined boundary, depth limits and a permissible consumptive volume.
groundwater management plan	A groundwater management plan is developed by rural water corporations consistent with guidelines specified by the Minister for Water, and signed off by the Minister. A groundwater management plan is for an area with a permissible consumptive volume and includes appropriate tools for management such as trading rules, triggers for restrictions and monitoring requirements.
groundwater management unit	A discrete area – either a groundwater management area, a water supply protection area or an unincorporated area – identifying an aquifer or group of aquifers.
groundwater resource	In the Murray-Darling Basin Plan a groundwater resource means a Basin water resource consisting of: (a) groundwater; or (b) an aquifer (whether or not it has water in it).
groundwater SDL resource unit	In the Murray-Darling Basin Plan a groundwater SDL resource unit has the meaning given in section 6.03.

Term	Definition
Guidelines for Managing Risks in Recreational Water	The Guidelines for Managing Risks in Recreational Water published by the National Health and Medical Research Council.
habitat	The natural home or environment of an animal, plant, or other organism.
have regard to	Discussed in the note in section 1.07 of the Basin Plan: A number of provisions of the Basin Plan require decision-makers to 'have regard to' certain matters when performing functions and making decisions. The phrase 'have regard to' and similar phrases are intended to be interpreted consistent with case law, as it develops from time to time and as applied with appropriate regard to the circumstances. This note is intended to reflect the case law and not to limit its application or development. When a decision-maker is required to 'have regard to' particular matters, it is expected that the decision-maker will give those matters proper, genuine and realistic consideration, even if not ultimately bound to act in accordance with those matters. A requirement to 'have regard to' a particular matter or matters does not mean that the decision-maker cannot have regard to other relevant matters.
headworks	Large dams, weirs and associated works used for the harvest and supply of water.
hectare	Ten thousand square metres or approximately 2.47 acres
held environmental water	Defined by section 4 of the Commonwealth Water Act as water available under: (a) a water access right, or (b) a water delivery right, or (c) an irrigation right for the purposes of achieving environmental outcomes (including water that is specified in a water access right to be for environmental use).
heritage river	A river protected in Victoria for its special features under the <i>Heritage Rivers Act 1992</i> .
high-reliability water share	An entitlement to a defined share of water as governed by the water-sharing rules. Water shares are classed by their reliability, which is defined by how often full seasonal allocations are expected to be available. Allocations are made to high-reliability water shares before low-reliability shares.
historical climate conditions	The climatic conditions for the period July 1895 to June 2009 represented by the best available records of hydrological and meteorological information for that period.
hydrogeological assessment	An assessment of the groundwater resource that has to be done before a new licence is issued or a transfer of a licence is approved.
hydrological modelling	Simplified, conceptual representations of a part of the hydrologic cycle, used primarily for prediction of water behaviour within catchments and associated water supply systems.



Term	Definition
hydrological regime	Changes with time in the rates of flow of rivers and in the levels and volumes of water in rivers, lakes, reservoirs and wetlands. The hydrologic regime is closely related to seasonal changes in climate.
hydrology	The scientific study of water and its movement, distribution and quality.
Indigenous uses	In the Murray-Darling Basin Plan Indigenous uses has the meaning given in section 10.52.
Indigenous values	In the Murray-Darling Basin Plan Indigenous uses values has the meaning given in section 10.52.
inflows	Water flowing into a storage or waterway.
instream	The component of a river within the river channel, including pools, riffles, woody debris, the river bank and benches.
integrated catchment management	The coordinated management of land, water and biodiversity resources based on catchment areas. It incorporates environmental, social, cultural and economic considerations. This approach seeks to ensure the long-term viability of natural resource systems and human needs across current and future generations.
integrated water management	A collaborative approach to planning that brings together all elements of the water cycle including sewage management, water supply, stormwater management and water treatment, considering environmental, economic and social benefits.
interception activity	Defined by section 4 of the Commonwealth Water Act as the interception of surface water or groundwater that would otherwise flow, directly or indirectly, into a watercourse, lake, wetland, aquifer, dam or reservoir that is a Basin water resource
irrigation area	A geographic area with defined boundaries where water is distributed using pipes and channels operated by a water corporation.
irrigation district	An area declared under the Victorian Water Act that is supplied with water by channels and pipelines used mainly for irrigation purposes.
levee	An embankment that is built in order to prevent a river from overflowing.
licensing authority	Administers diversion of water from unregulated waterways and extraction of groundwater on behalf of the Minister for Water. Also known as a water corporation and referred to in the Victorian Water Act as an 'Authority'.
likelihood	The combination of the probability of a cause occurring and the susceptibility of the threat to that cause
listed threatened ecological community	In the Murray-Darling Basin Plan listed threatened ecological community has the meaning given in section 528 of the <i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i> .
listed threatened species	In the Murray-Darling Basin Plan Listed threatened species has the meaning given in section 528 of the <i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i> .

Term	Definition
local management plan or local management rules	A local management plan or local management rules have been made for many areas with a permissible consumptive volume. They refer to appropriate tools such as trading rules, triggers for restrictions and monitoring requirements. Local management plans or rules are developed and adopted by rural water corporations.
local reduction amount, for an SDL resource unit	In the Basin Plan local reduction amount, for an SDL resource unit means: (a) the quantity of water identified in column 2 of Schedule 2 as the local reduction amount for the unit; or (b) if no quantity is identified – zero.
long-term annual diversion limit	Item 7 of section 22 of the Commonwealth Water Act provides the following: definition for the long-term annual diversion limit: For the water resources, or particular parts of the water resources, of each water resource plan area, the long term annual average quantities of water that may, on a temporary basis, be taken year by year from the water resources, or particular parts of the water resources, in addition to the long-term average sustainable diversion limit for those water resources or that particular part. The average is the temporary diversion provision for those water resources or that particular part. The sum of: (a) the long-term average sustainable diversion limit; and (b) the temporary diversion provision
long-term average sustainable diversion limit	Defined by section 23 of the Commonwealth Water Act (1) A long-term average sustainable diversion limit for the Basin water resources, for the water resources of a particular water resource plan area or for a particular part of those water resources must reflect an environmentally sustainable level of take. (2) A long-term average sustainable diversion limit for the Basin water resources, for the water resources of a particular water resource plan area or for a particular part of those water resources may be specified: (a) as a particular quantity of water per year, or (b) as a formula or other method that may be used to calculate a quantity of water per year, or (c) in any other way that the Authority (ie the MDBA) determines to be appropriate.
long-term watering plan	In the Murray-Darling Basin Plan long-term watering plan has the meaning given in section 8:18 of the Commonwealth Water Act.
low flow	Flows that provide a continuous flow over the bottom of the channel, but do not fill the channel to any great depth. The term is most often used in relation to baseflows that occur over the drier periods of the year that are sustained for some period (weeks to months), due to short bursts of rain.



Term	Definition
lowland	Lowland rivers and streams are slow flowing and found in relatively flat areas.
low-reliability water share	A water share with a relatively low reliability of supply. In northern Victoria, these shares are allocated from the available water once there is enough water to meet higher-reliability water shares in the current year, and, with minimum inflows, to meet higher-reliability water shares in the following year.
macroinvertebrate	An animal without a backbone that is large enough to be seen without magnification.
major storages	In the Murray-Darling Basin Plan major storage has the meaning given in clause 2 of the Murray-Darling Basin Agreement that is: "Lake Victoria, the Menindee Lakes Storage and the storages formed by Dartmouth Dam and Hume Dam".
megalitre (ML)	One million (1,000,000) litres.
Millennium Drought	The drought in Victoria from 1997 to 2009.
modelling	Application of a mathematical process or simulation framework (such as a mathematical or econometric model) to describe various phenomena and to analyse the effects of changes in some characteristics on others.
Murray Lower Darling Rivers Indigenous Nations (MLDRIN)	A confederation of Indigenous Australian nations in the southern part of the Basin.
Murray-Darling Basin cap	The climatically adjusted limit on surface water diversions in the Murray-Darling basin, agreed by a Ministerial Council under the Murray-Darling Basin Agreement.
Nephelometric Turbidity Unit	A measure of turbidity in water
net take	In the Murray-Darling Basin Plan in the context of a commercial plantation net take is the difference between the take by a commercial plantation and the take by the vegetation existing at the plantation site before the plantation commenced.
overbank flows	Flows that spill over the channel on to the floodplain.
passing flow	Flows that a water corporation must allow to pass at a dam or weir before it can take any water for consumptive use. Passing flow requirements are specified as obligations in bulk entitlements, and entitlement holders must report on their compliance with these requirements.
pathogens	Disease-causing microorganisms, such as bacteria, fungi and viruses, found commonly in sewage, hospital waste, runoff water from farms, and in water used for swimming.
percent full	The volume of water in storage as a percentage of the accessible storage capacity. Note that the percentage full may exceed 100, for example due to floods.

Term	Definition
permanent trade	Permanent transfer of a bulk entitlement, water share or licence.
permissible consumptive volume	The total amount of water that can be taken in a specified water system. A permissible consumptive volume, or PCV, is declared by the Minister by Order published in the Victoria Government Gazette. PCVs can apply to surface water, groundwater or both.
planned environmental water	<p>Section 6 of the Commonwealth Water Act says:</p> <p>(1) For the purposes of this Act, planned environmental water is water that:</p> <ul style="list-style-type: none"> (a) is committed by: <ul style="list-style-type: none"> (i) the Basin Plan or a water resource plan for a water resource plan area; or (ii) a plan made under a State water management law; or (iii) any other instrument made under a law of a State; <p>to either or both of the following purposes:</p> <ul style="list-style-type: none"> (iv) achieving environmental outcomes; (v) other environmental purposes that are specified in the plan or the instrument; and <p>(b) cannot, to the extent to which it is committed by that instrument to that purpose or those purposes, be taken or used for any other purpose.</p> <p>(2) For the purposes of this Act, planned environmental water is water that:</p> <ul style="list-style-type: none"> (a) is preserved, by a law of a State or an instrument made under a law of a State, for the purposes of achieving environmental outcomes by any other means (for example, by means of the setting of water flow or pressure targets or establishing zones within which water may not be taken from a water resource); and (b) cannot, to the extent to which it is preserved by that instrument for that purpose or those purposes, be taken or used for any other purpose. <p>(3) The water may be committed to, or preserved for, the purpose or purposes referred to in paragraph (1)(a) or (2)(a) either generally or only at specified times or in specified circumstances.</p> <p>(4) Without limiting paragraph (1)(b) or (2)(b), the requirements of paragraph (1)(b) or (2)(b) are taken to have been met even if the water is taken or used for another purpose in emergency circumstances in accordance with:</p> <ul style="list-style-type: none"> (a) the instrument referred to in that paragraph; or (b) the law under which the instrument is made; or (c) another law.
point source	Any single identifiable source of pollution from which pollutants are discharged, such as a pipe, ditch, ship or factory smokestack.
potable	Water of suitable quality for drinking.



Term	Definition
pre-release	Controlled releases from a storage made on the expectation that forecast inflows will replenish the volume released. Pre-releases are used to control the rate of discharge and to provide some space in the dam to capture floodwaters.
priority ecosystem function	In the Murray-Darling Basin Plan priority ecosystem function has the meaning given in section 8.50.
priority environmental asset	In the Murray-Darling Basin Plan priority environmental asset has the meaning given in section 8.49.
private right	The Victorian Water Act allows individuals to take water for domestic and stock purposes from a range of surface water and groundwater sources without a licence in specified circumstances. These domestic and stock rights are defined under section 8(1) and section 8(4)(c) of the Act.
probability	The chance that a cause will occur.
qualification of rights	<p>The Minister for Water has the power (under section 33AAA of the Victorian Water Act) to qualify rights to water temporarily to maintain essential supplies where the Minister has declared that a water shortage exists in an area or water system.</p> <p>Where the water shortage is due to a long-term change to water availability, a permanent qualification of rights may be declared under section 33AAB of the Act but only following a long-term water resources assessment which finds the long-term water availability will have a disproportionate effect on water allocated for consumptive purposes or the Environmental Water Reserve.</p>
rainwater	Water that has fallen as rain or has been collected from rainfall.
Ramsar convention	Defined by section 4 of the Commonwealth Water Act as the Convention on Wetlands of International Importance especially as Waterfowl Habitat done at Ramsar, Iran, on 2 February 1971.
Ramsar site	Wetlands of international importance, designated under the Ramsar convention.
Ramsar wetlands	Wetlands of international importance, designated under the Ramsar convention.
raw water	In the Murray-Darling Basin Plan raw water is water in its natural state prior to any treatment.
reach	A length of stream, typically 20 to 30 km, which is relatively homogenous with regard to the hydrology, physical form, water quality and aquatic life.
REALM model	A computer-based water supply system model used by DELWP in the allocation of Victoria's water resources. It is an abbreviation of REsource ALlocation Model.
recharge (groundwater)	The process where water moves downward from surface water to groundwater due to rainfall infiltration or seepage/ leakage.

Term	Definition
reconfiguration or decommissioning work	Under the Murray-Darling Basin Plan reconfiguration or decommissioning work has the meaning given in section 12.29.
recovery of environmental water	Under the Murray-Darling Basin Plan recovery of environmental water means the acquisition of a water access right for the purpose of achieving an environmental outcome.
recreational benefits or recreational values	The objectives and benefits that recreational users and community members associate with the use of water, reservoirs and waterways for recreational activities. These objectives and benefits include wellbeing and enjoyment, derived from social interaction, physical activity and relaxation associated with activities including sporting events, fishing, water skiing and rowing, camping, walking and gathering with friends and family. It also includes flow-on economic benefits to local communities from visitors to regional areas to make the most of these opportunities.
recreational fishing	Fishing of aquatic animals (mainly fish) for pleasure or competition.
recreational users	Victorians and other visitors that use Victorian waters for fishing, water skiing, rowing, camping, walking, bird watching, sporting events, social gatherings and other activities on or near waterways.
recreational water	Water allocated in a regulated water system for recreational purposes.
recycled water	Water (derived from sewerage systems or industry processes) that is treated to a standard appropriate for its intended use.
refuge	Areas where plants and animals can take refuge, during times of climatic or biological stress and which support the individuals that will recolonise the surrounding landscape when conditions improve. Refuges provide conditions suitable for survival of species that may be declining elsewhere.
registration licence	A registration licence is an ongoing entitlement to take and use water from a catchment dam, spring or soak. Registration licences were issued between 1 July 2002 and 30 June 2003 based on historical use of water. Registration licences are not tradeable.
regulated flows/ systems	Systems where the flow of the river is regulated through the operation of large dams or weirs.
regulated river	A river containing structures such as dams or major diversion weirs which control the flow of water in the river for licensed diverters or users in an irrigation district.
regulated system	Systems where the flow of the river is regulated through the operation of large dams or weirs.
reliability	Water shares are classed according to their reliability, which is defined by the frequency with which full seasonal allocations are expected to be available. Most water shares are classified as high-reliability or low-reliability water shares.
reserve policy	Setting water aside on regulated water systems for use the following season before full allocations are made on all entitlements.



Term	Definition
reserve rules	Rules that govern the balance between water allocated to entitlement holders in a given year and water kept in reserve for the following year.
reservoir	Natural or artificial dam or lake used for the storage and regulation of water.
resource manager	The Minister for Water may appoint a resource manager to allocate water on regulated river systems in accordance with Victorian water sharing rules. A resource manager makes seasonal determinations for regulated water systems based on water availability and water sharing rules. The resource manager is usually the water corporation responsible for that area.
restrict	In relation to trade, includes refuse, prevent, deter, delay or impose a condition or a barrier on, and restriction has a corresponding meaning.
reticulated supply	The network of pipelines or channels used to deliver water to end users.
return flows	The portion of water that 'returns' to the river (or water supply) system after a watering event.
riparian	Refers to land or vegetation that adjoins a river, creek, estuary, lake or wetland.
risk	The product of the likelihood and consequence. For the purpose of the risk assessment conducted when developing the WRP, it is the combination of the impact of a cause on a threat and the impact of a threat on a beneficial use.
river	Large stream of water flowing to the sea, a lake, a marsh or another river.
river basin	The land into which a river and its tributaries drain. See also 'basin'.
Murray River system	The Murray River system extends from Hume Dam, at Albury, New South Wales, downstream to the Coorong, Lower Lakes and Murray Mouth in South Australia. It includes connected anabranches, creeks and major tributaries such as the Murrumbidgee, Edward-Wakool, Kiewa, Ovens, Goulburn, Broken, Campaspe, Loddon, Avoca and the lower Darling River (south of Menindee Lakes). The system is highly regulated and requires complex river management operations.
river operating water	Water used to operate regulated rivers (in accordance with bulk entitlements) and deliver water to off-take points for distribution systems, including evaporation, seepage and water to provide passing flows for riparian rights and maintain environmental and other assets.
runoff	Precipitation or rainfall that flows from a catchment into streams, lakes, rivers or reservoirs.
runoff dam	In the Murray-Darling Basin Plan a runoff dam means a dam or reservoir that collects surface water flowing over land. In New South Wales, a runoff dam may also collect water from a first or second-order stream.
salinity	The total amount of water-soluble salts present in the soil or a stream.

Term	Definition
salt interception scheme	Large-scale groundwater pumping and drainage projects that intercept saline groundwater inflowing to rivers, and dispose of the saline waters by evaporation and aquifer storage at more distant locations.
scenario	<p>When performing the risk assessment, a range of possible future situations that affect whether a cause is realised we developed and applied. The criteria adopted include:</p> <ul style="list-style-type: none"> • a plausible scenario that produces the highest risk (e.g. extreme drought); and • an extrapolation of past trends (e.g. farm dams, land use); or • scenarios that are adopted in recognised literature (e.g. median climate change).
SDL resource unit	In the Murray-Darling Basin Plan the SDL resource unit means the water resources, or particular parts of the water resources, of a Water Resource Plan area that is either a surface water SDL resource unit or groundwater SDL resource unit.
seasonal allocation	Volume of water available to an entitlement holder for a water year, as determined by the relevant water corporation and often expressed as a percentage of the entitlement volume. Sometimes shortened to 'allocation'.
seasonal determination	The percentage of water share volume available under current resource conditions determined by the resource manager for unbundled systems. Since 1 July 2012 the resource manager has used seasonal determination instead of the previously used 'seasonal allocation'. This is to distinguish between water available under current resource conditions and that which the water customers have available because of carryover.
section 40 assessment	Section 40 of the Victorian Water Act contains a list of matters that must be taken into account when a new licence is applied for or a licence transfer is being considered. For example, section 40 matters include consideration of other people's rights and the environment. Section 53 also sets out matters to be taken into account.
section 51 licence	A section 51 licences (otherwise known as a take and use licence) is a fixed term to take and use water from a waterway, catchment dam, spring, soak or aquifer. Each licence includes conditions set by the Minister for Water.
sensitivity	The strength of the relationship between a threat and a beneficial use.
sewage	The waterborne wastes of a community.
sewerage	The system of pipes and plants that collect, remove, treat and dispose of liquid urban waste.
shared benefits	Water that is managed primarily to meet the needs of the entitlement holder but provides other benefits through decision-making that deliberately targets other outcomes.



Term	Definition
significant hydrological connection	<p>Hydrologic connectivity is the physical ability for water to move between locations, and includes the effect of the losses and constraints on flow along the way. A significant hydrological connection is one that is of consequence to the matter to be addressed through a specific requirement. Hydrologic connectivity may occur in a number of ways, including:</p> <ul style="list-style-type: none"> • longitudinally along rivers and laterally between rivers and their floodplains (and associated wetlands) and anabranches • laterally and longitudinally with connected rivers • between surface water and groundwater, or between groundwater systems • by way of infrastructure that connects water resources. <p>For the purposes of Chapter 10 of the Basin Plan, such a connection will be considered significant if the connection is of consequence to the effective management of Basin water resources and is relevant to the requirements of Chapter 10.</p>
small catchment dam	A farm dam that is filled from its own catchment and not located on a waterway. This includes dams used for domestic and stock purposes which are not required to be licensed and dams used for commercial and irrigation use, which are now required to be registered (under the Victorian Water Act).
source bulk entitlement	A type of bulk entitlement held by water corporations to provide a share of inflows, storage capacity (if applicable) and releases.
South Australia/ Victoria Designated Area	Area extending 20 km either side of the border between South Australia and Victoria, as set out under the Groundwater (Border Agreement) Act 1985, established for the cooperative management and equitable sharing of groundwater resources between the states.
Statement of Obligations	Statements made under section 41 of the <i>Water Industry Act 1994</i> that specify the obligations of Victoria's water corporations in relation to the performance of their functions and the exercise of their powers.
storage losses	Water lost from storages through evaporation, seepage and spills.
storage manager	The water corporation that manages water storage. A storage manager may be appointed under section 122ZK of the Victorian Water Act where water in the storage is shared between entitlement holders.
stormwater	Runoff from urban areas. The net increase in runoff from urban development due to water not being able to seep into the ground because of impervious surfaces, such as roofs and roads.
stream	A body of water flowing in a bed, river or brook.
streamflow management plan	Prepared for a water supply protection area to manage the surface water resources of the area.
supply by agreement	An agreement made under section 124(7) of the Victorian Water Act between a water corporation and a person to supply water from the works of the water corporation.

Term	Definition
surface water	<p>Under section 4 of the Commonwealth Water Act this includes:</p> <ul style="list-style-type: none"> (a) water in a watercourse, lake or wetland, and (b) any water flowing over or lying on land: <ul style="list-style-type: none"> (i) after having precipitated naturally, or (ii) after having risen to the surface naturally from underground.
surface water resource	<p>A Basin water resource consisting of:</p> <ul style="list-style-type: none"> (a) surface water; or (b) a watercourse, lake or wetland (whether or not it has water in it).
surface water SDL resource unit	<p>In the Murray-Darling Basin Plan Surface water SDL resource unit has the meaning given in section 6.02.</p>
susceptibility	<p>The strength of the relationship between a cause and a threat.</p>
sustainable diversion limit	<p>Generally, sustainable diversion limits are the maximum long-term average quantities of water that can be taken each year for consumptive use from the Murray-Darling Basin.</p> <p>The Commonwealth Water Act requires that the limits reflect an environmentally sustainable level of take. The final Murray-Darling Basin Plan agreed by all Basin States sets a sustainable diversion limit for each catchment and aquifer in the Basin, as well as an overall limit for the whole Basin.</p> <p>In northern Victoria (the southern Basin), this means a sustainable diversion limit is the upper limit on the amount of surface water and groundwater that can be taken for consumptive use within an unregulated river sub-catchment.</p> <p>Sustainable diversion limits will operate from 2019 and will replace the current cap system in the southern Basin.</p>
sustainable diversion limit adjustment mechanism	<p>Allows the sustainable diversion limit to be adjusted under certain circumstances.</p>
sustainable water strategies	<p>Regional long-term planning documents legislated under the Victorian Water Act, to address threats to, and identify opportunities to improve water security and river health outcomes.</p>
system operating water	<p>Water released out of storages to operate river and distribution systems (to deliver water to end users), provide for riparian rights and maintain environmental values and other community benefits (see also Storage losses, distribution system operating water, river operating water).</p>
take	<p>Take is the removal of water from, or the reduction in flow of water into, a water resource.</p>
take and use licence	<p>A take and use licence (otherwise known as a section 51 licences) is a fixed term to take and use water from a waterway, catchment dam, spring, soak or aquifer. Each licence includes conditions set by the Minister for Water.</p>



Term	Definition
take and use licence transfer	There are two types of transfer for a take and use licence: <ol style="list-style-type: none"> 1. permanent transfer; and 2. temporary transfer.
target application zone	In the Murray-Darling Basin Plan target application zone has the meaning given in section 9.16.
temporary trade	Temporary transfer of a licence or, in a declared water system, transfer of a seasonal allocation.
terminal lakes	Lakes which form the end point of all surface water flow within a basin.
thermal stratification	The formation of layers of different temperatures in a lake or reservoir.
threat	A deviation from an agreed starting point initiated by a cause that may affect a beneficial use.
trading zone	Zones that make it simpler to manage trade by defining the area where trade can occur and where there may be set conditions. Zones set out the known supply source or management arrangements and the physical realities of relevant supply systems within the zone.
trading zone source	The trading zone that determines where the water share and allocation can be traded and where the allocation can be used.
trading zone use	In a bundled system, the trading zone identified in relation to a take and use licence.
Traditional ecological knowledge	For thousands of years, Aboriginal people survived in the Australian landscape relying on their intricate knowledge of the land and its plants and animals. Aboriginal people have important knowledge of ecological processes and land and water management practices.
Traditional Owners	People who, through membership of a descent group or clan, are responsible for caring for Country. Aboriginal people with knowledge about traditions, observances, customs or beliefs associated with a particular area. A Traditional Owner is authorised to speak for Country and its heritage.
transfer	Refers to the change of holder of a water entitlement.
transpiration	The process by which water that is absorbed by plants, usually through the roots, is evaporated from the plant surface into the atmosphere.
unincorporated area	An area which contains substantial and often unquantified groundwater of varying yield and quality that has not been designated as a groundwater management area or a water supply protection area.
unregulated river	A river that does not contain any dams or major diversion weirs which control the flow of water in the river.
unregulated system	A system that does not contain any major dams or diversion weirs which control the flow of water in the system.

Term	Definition
urban water cycle	The cycle of water through urban environments. Distinguished from the natural urban water cycle by the transfer of water through built infrastructure and the high runoff rates generated by impervious surfaces.
urban water strategies	All urban water corporations in Victoria are required to develop these strategies, which detail how water supplies and water demands will be balanced over the long term. These are the next iteration of Water Supply Demand Strategies first prepared in 2007.
use (water use)	The volume of water diverted from a stream or groundwater bore. It is not the same as 'use' by the end consumer of the water.
Victorian Environmental Water Holder	An independent statutory body responsible for holding and managing Victoria's environmental water entitlements.
Victorian Water Act	<i>Water Act 1989</i> (Vic). The legislation that, amongst other things, governs the way surface water and groundwater entitlements are issued and allocated in Victoria. It defines water entitlements, establishes the mechanisms for managing Victoria's water resources and sets out arrangements for the governance and operation of rural and urban water corporations.
volumetric limit	Under the Murray-Darling Basin Plan volumetric limit has the meaning given by section 12.17.
wastewater	Water that has had its quality affected by human influence, deriving from industrial, domestic, agricultural or commercial activities.
water access right	Defined in section 4 of the Commonwealth Water Act as: <ul style="list-style-type: none"> (a) any right conferred by or under a law of a State to do either or both of the following: <ul style="list-style-type: none"> (i) hold water from a water resource (ii) take water from a water resource and (b) without limiting paragraph (a), includes the following rights of the kind referred to in that paragraph: <ul style="list-style-type: none"> (i) domestic and stock rights (ii) riparian rights (iii) a water access entitlement (iv) a water allocation and includes any other right in relation to the taking or use of water that is prescribed by the regulations for the purposes of this paragraph.
water accounting	A systematic process of identifying, recognising, quantifying, reporting and assuring information about water, the rights or other claims to water, and the obligations against water. Water accounting applies Australian Water Accounting Standards.
water allocation	The specific volume allocated to water entitlement holders in a given season, often quoted as a percentage of the volume of each entitlement. For example, a 20% allocation in a particular season allows a water user with a 100 ML entitlement to take 20 ML of water.



Term	Definition
water authorities	Now called water corporations, although sometimes referred to as Authorities in their role as a licensing authority. The Victorian Water Act uses the term 'Authority' to mean a water corporation or catchment management authority. The use of Authority in relation to bulk entitlements means a water corporation, a power generation company, the Minister administering the Conservation, Forests and Lands Act 1987, and the Victorian Environmental Water Holder.
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 corporations	State organisations or agencies established under the Victorian Water Act that provide a range of water services to customers within their service areas including water supply, sewage and trade waste disposal and treatment, water delivery for irrigation and domestic and stock purposes, drainage, and salinity mitigation services. Some water corporations have a regulatory function for the diversion of water from waterways and the extraction of groundwater. Formerly known as water authorities.
water entitlement	An entitlement under the Act to take a specified volume of water from a defined water source.
water infrastructure	Facilities, services and installations needed for the functioning of a water system.
water market	Described the market in which the trade of permanent and temporary water may occur under certain conditions.
water quality	Refers to the chemical, physical, biological and radiological characteristics of water. It is a measure of the condition of water relative to the requirements of one or more biotic species and/or to any human need or purpose.
water quality characteristic	In the Murray-Darling Basin Plan water quality characteristic means: <ul style="list-style-type: none"> (a) other than in Chapter 11 – means a characteristic of water quality for which Part 4 of Chapter 9 sets a target value; and (b) in Chapter 11 – has the meaning given by section 11.02.
water quality management plan	In the Murray-Darling Basin Plan water quality water quality management plans for a Water Resource Plan area made in accordance with Part 7 of Chapter 10.
Water Register	In Victoria, the Water Register is a public register that records water-related entitlements in Victoria. It holds water shares recorded by the Water Registrar, together with mortgages and limited-term transfers (leases) relevant to these water shares, records of licences to take and use surface water and groundwater, and records of works-related licences. The Register also holds records of water allocations available in the current season and tracks and reconciles volumes of water entitlements by water system and trading zone. It generates statistics and reports on levels of use, directions of trade, and prices paid.

Term	Definition
water resource	<p>Defined by section 4 of the Commonwealth Water Act as:</p> <ul style="list-style-type: none"> (a) surface water or groundwater or (b) a watercourse, lake, wetland or aquifer (whether or not it currently has water in it) and includes all aspects of the water resource (including water, organisms and other components and ecosystems that contribute to the physical state and environmental value of the water resource).
water resource assessment	<p>An assessment (including one for the purpose of a determination under clause 102(c) of the Agreement) of the amount of water that will be available:</p> <ul style="list-style-type: none"> (a) for distribution to New South Wales, Victoria and South Australia during a particular period; and (b) for holding in reserve at the end of the period; <p>taking into account matters including:</p> <ul style="list-style-type: none"> (c) the volume of water held in the major storages; and (d) estimated water use during the period; and (e) assumed or forecast inflows during the period.
water resource plan	<p>For a water resource plan area as defined by section 4 of the Commonwealth Water Act, a plan that:</p> <ul style="list-style-type: none"> (a) provides for the management of the water resource plan area; and (b) is: <ul style="list-style-type: none"> (i) accredited under section 63, or (ii) adopted under section 69 <p>but only to the extent to which the water resource plan:</p> <ul style="list-style-type: none"> (c) relates to Basin water resources, and (d) makes provision in relation to the matters that the Basin Plan requires a water resource plan to include.
water resource plan area	<p>Defined by section 4 of the Commonwealth Water Act, is an area that:</p> <ul style="list-style-type: none"> (a) contains part of the Basin water resources; and (b) is specified in the Basin Plan as an area that is a water resource plan area for the purposes of this Act.
water right	<p>Previously rights to water held by irrigators. As a result of unbundling, these have now been separated into a water share, delivery share and water-use licence.</p>
water sector	<p>The broad range of entities with a stake or role in water management. For example, water corporations, catchment management authorities, local government and environmental water holders.</p>
water security	<p>The capacity of a population to access adequate quantities of acceptable quality water to sustain life, socio-economic development and human wellbeing.</p>



Term	Definition
water share	A water entitlement issued under the Victorian Water Act. It provides for access to is a share of the water available to be taken from a declared water system. Water shares were created as part of the unbundling reforms. Water shares may be high-reliability or low-reliability, and are specified as a maximum volume of seasonal allocation that may be made against that share.
water share transfer	<p>The transfer of ownership of a water share. When you buy a water share, you are not also buying the allocation. Transferring the water share does not transfer the allocation account or any water in it.</p> <p>The buyer only receives a new allocation announced to the water share after the Water Registrar has recorded the transfer.</p>
water storages	A hydrological feature in which water is stored. Surface water storages include natural and artificial ponds, lakes, reservoirs and lagoons, also the bodies of water held behind weirs and dams.
water supply protection area	An area declared under section 27 of the Victorian Water Act to protect the area's groundwater or surface water resources through the development of a management plan which aims for equitable management and long-term sustainability.
water supply system	A body of water which is managed as a unit for the purposes of supplying water users.
water system source	River basin or groundwater management unit from where the water is sourced for regulated and unregulated systems.
water system type	Includes regulated, unregulated, groundwater, recycled, stormwater, managed aquifer recharge and wetlands.
water trading rules	A set of overarching consistent rules enabling market participants to buy, sell and transfer tradeable water rights.
water year (or hydrologic year)	A continuous 12-month period starting from July, or any other month as prescribed under the water regulation or a resource operations plan, but usually selected to begin and end during a relatively dry season. Used as a basis for processing streamflow and other hydrologic data.
water-use licence (including annual use limit)	Authorises the use of water on land for irrigation, with prescribed conditions of use to avoid or minimise the environmental and off-site impacts of irrigation.
water-use registration	An authorisation to use water for purposes other than irrigation.
waterway	The Victorian Water Act defines a waterway as a river, creek, stream, watercourse and a natural channel where water regularly flows, whether or not the flow is continuous.
waterway condition or waterway health	A term for the overall state of key features and processes that underpins functioning waterway ecosystems (such as species and communities, habitat, connectivity, water quality, riparian vegetation, physical form, and ecosystem processes such as nutrient cycling and carbon storage).

Term	Definition
waterway managers	Authorities with a waterway management district under the Victorian Water Act – the nine regional catchment management authorities and Melbourne Water in the metropolitan region.
weirs	A barrier across a river designed to alter flow characteristics.
wetland	Wetlands are areas, whether natural, modified or artificial, subject to permanent or temporary inundation, that hold static or very slow moving water and develop, or have the potential to develop, biota adapted to inundation and the aquatic environment. They may be fresh or saline.
Wimmera-Mallee Pipeline Project	In the Basin Plan the Wimmera-Mallee Pipeline Project means the water infrastructure project undertaken by Grampians Wimmera Mallee Water and funded by the Commonwealth and Victoria.
winter-fill licence	A licence that permits taking water from a waterway only during the winter months (typically July to October).
works	Works refers to infrastructure including a pump or construction designed to hold or extract water including a pump, bore and dam.
works licence	A licence that authorises the construction, alteration, operation, removal or decommissioning of any works on a waterway, or a bore or dam belonging to a prescribed class of dams.
yield	The quantity of water that a storage or aquifer produces.

Acronyms and abbreviations

ABS	Australian Bureau of Statistics
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
AWRC	Australian Water Resources Council
BDL	Baseline Diversion Limit
BE	Bulk entitlement
BoM	Bureau of Meteorology
CEWH	Commonwealth Environmental Water Holder
CHW	Central Highlands Water
CMA	Catchment Management Authority
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CW	Coliban Water
Cwlth/Cth	Commonwealth
DCNR	Department of Conservation and Natural Resources
DELWP	Department of Environment, Land, Water and Planning
DICP	Dry Inflow Contingency Planning Group
DPI	Department of Primary Industries
DRP	Drought Response Plan
DSBN	Dryland Salinity Bore Network (managed by DELWP)
DSE	Department of Sustainability and Environment
EC	Electrical conductivity
EE	Environmental entitlement
ENSO	El Niño Southern Oscillation
ESC	Essential Services Commission
ESLT	Environmentally Sustainable Level of Take
EWP	Environmental Watering Plan
EWR	Environmental Water Reserve
GL	Gigalitre
GMA	Groundwater Management Area
GMP	Groundwater Management Plan
GMU	Groundwater Management Unit

GMW	Goulburn-Murray Water Corporation
GWMWater	Grampians Wimmera Mallee Water
Ha	Hectare
HEW	Held Environmental Water
HRWS	High-Reliability Water Share
ICM	Integrated Catchment Management
IWM	Integrated Water Management
LMP	Local Management Plan
LRWS	Low Reliability Water Share
LTCE	Long Term Cap Equivalent
M&E guidelines	Modernisation and Extension of Hydrologic Monitoring Systems Program guidelines
MDB	Murray-Darling Basin
MDBA	Murray-Darling Basin Authority
MDBC	Murray-Darling Basin Commission
ML	Megalitre
MLDRIN	Murray Lower Darling Rivers Indigenous Nations
NHMRC	National Health and Medical Research Council
NTU	Nephelometric Turbidity Units
PCV	Permissible Consumptive Volume
PEA	Priority Environmental Asset
PEF	Priority Ecosystem Function
PEW	Planned Environmental Water
REALM	Resource Allocation Models
RWMP	Regional Water Monitoring Partnership
D&S	Domestic and stock
SDL	Sustainable Diversion Limit
SEACI	South East Australia Climate Initiative
SGMS	State Groundwater Monitoring Strategy
SOBN	State Observation Bore Network
SoO	Statement of Obligations
SRW	Gippsland and Southern Rural Water Corporation



SWIMP	Strategic Water Information and Monitoring Plan
SWRA	Surface Water Resources Assessment
SWS	Sustainable Water Strategy
TAZ	Target Application Zones
TCSA	Tertiary Confined Sand Aquifer
TLM	The Living Murray
TO	Traditional Owners
UA	Unincorporated Area (Groundwater)
UWS	Urban Water Strategy
VEWH	Victorian Environmental Water Holder
VFWCC	Victorian Flood Warning Consultative Committee
VWQMN	Victorian Water Quality Monitoring Network
VWRDW	Victorian Water Resources Data Warehouse
W-M	Wimmera-Mallee
WQM Plan	Water Quality Management Plan
WRAP	Water Resources Assessment Program
WRP	Water Resource Plan
WSDS	Water Supply Demand Strategy
WSPA	Water Supply Protection Area