Glossary

Adhesion: the attraction of different molecules to one another.

Altitude: the height of an object or point, especially above sea level on Earth.

Aquifer: an underground layer of permeable rock or other geological formation that holds water, especially one that supplies the water for wells, springs, etc.

Atmosphere: the gaseous envelope surrounding Earth; the air.

Billabong: a dead-end body of water extending from a river that forms a backwater or stagnant pool.

Bore water: water accumulated in aquifers below ground but available for farm use by sinking a bore pipe in the aquifer. May discharge naturally to the surface or need to be pumped.

Brackish: a mixture of seawater and freshwater.

Capillary action: the movement of water within the spaces of a porous material due to the forces of adhesion, cohesion and surface tension.

Catchment (open): a public area of land that collects rainfall and directs it to a low lying body of water. The water only needs minimal treatment before it can be distributed as drinking water.

Catchment (closed): an area of land that is closed to public access, where rainfall water is collected and directed to a low lying body of water. The water only needs minimal treatment before it can be distributed as drinking water.

Channel: a natural or man-made course through any shallow body of water to ensure a lane of safe travel for vessels. This body of water is sometimes referred to as a canal.

Climate: the prevailing weather conditions of a region: temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds throughout the year, averaged over a series of years.

Cloud: a visible collection of particles of water or ice suspended in the air, usually at an elevation above the Earth's surface.

Cohesion: the intermolecular attraction that holds molecules together.

Condensation: the change of the physical state of matter from a vapour into liquid; when vapour cools, the molecular structure changes and it becomes a liquid.

Dam: a barrier built across a stream or river to control the flow or raise the level of water; small man-made water storages on farmland that capture stormwater run-off and groundwater that can be used in times of low or no rainfall for stock and domestic use or irrigation purposes.

Drought: a period of dry weather that is inadequate for the needs of crops, animals and humans, generally due to an extended period of low rainfall.

Ecosystem: a system formed by the interaction of a community of organisms with their environment.

Embodied water: the water used in the production of goods or services, e.g. 4,650 litres of water is required to produce 300 g of beef; this number considers preparation of food required to feed the beef, transportation, land management, etc.

Erosion: the process by which the surface of the Earth is worn away by the movement of water, glaciers, winds, waves, etc.

Estuary: the tidal mouth of a river where the river meets the sea; a mix of freshwater and saltwater (aka brackish).

Evaporation: the change of a substance from a liquid state to a gaseous state. This process is accelerated by an increase in temperature and a decrease in atmospheric pressure.

Flood: inundation of normally dry land by overflow of water from a usually confined area.

Freshwater: water with less than 500 parts per million (ppm) of dissolved salts. Freshwater can be found on Earth as icecaps, glaciers, billabongs, dams, lakes, rivers and streams, and underground as groundwater in aquifers and underground streams.

Groundwater: the water beneath the surface of the ground, consisting largely of surface water that has seeped down; the source of water in springs and wells.

Impermeable: a material through which substances, such a liquids or gases, cannot pass.

Infiltration: the seepage of water into soil or rock.

Infographic: a graphic representation of an idea or message that presents complex information clearly and efficiently.

Lake: a large body of relatively still water surrounded by land.

Molecule: the smallest physical unit of an element or compound.

Natural disaster: any event or force of nature that has catastrophic consequences, such as avalanche, earthquake, flood, forest fire, hurricane, lightning, tornado, tsunami and volcanic eruption.

Natural hazard: the threat of a naturally occurring event that will have a negative effect on people or the environment.

Ocean: the continuous body of saltwater that covers over 70% of the Earth's surface, including the Atlantic, Pacific, Indian, Arctic and Antarctic oceans.

Organic: derived from living matter; natural.

pH: the measure of acidity or alkalinity of a chemical solution. Anything neutral, for example, has a pH of 7. Acids have a pH lower than 7, bases (alkaline) have a pH higher than 7.

Pollution: the introduction of harmful substances or products into the environment.

Potable: water that is suitable for drinking.

Precipitation: any form of water, such as rain, snow, sleet or hail, that falls to the earth's surface.

Puddle: a small body of standing water (often rainwater) on the ground.

Reservoir: a natural or artificial place where water is collected and stored for use, especially water for supplying a community, irrigating land, furnishing power, etc.

River: a large natural stream of freshwater flowing along a definite course, usually into another body of water (ocean, lake, sea, river), being fed by tributary streams. Small rivers may also be called a stream, creek, brook or tributary.

Salinity: the salt or dissolved salt content found in a body of water or soil.

Saltwater: water that contains 35,000 parts per million (ppm) of dissolved salts; approximately 97% of Earth's water is saltwater, held in the major ocean areas of the Atlantic, Antarctic, Indian, Pacific and Arctic.

Secondary treatment plant: a series of machines and equipment that filter and remove contaminants from water intended for drinking.

Sewage treatment plant: a series of machines and equipment that remove contaminants from wastewater to produce environmentally safe liquid and solid bi-products to dispose of or reuse.

Solvent: a substance that dissolves another to form a solution.

Spring: underground water that is held in the soil and in pervious rocks that flows freely out of the ground.

States of matter: the distinct forms that different phases of matter take on, such as solid, liquid and vapour.

Terrarium: a glass container, chiefly or wholly enclosed, for growing and displaying plants.

The Dreaming: an ancient time of the creation of all things by sacred ancestors, whose spirits continue into the present, as conceived in the mythology of the Australian Aborigines.

Transpiration: the passage of water through a plant from the roots through the vascular system to the atmosphere.

Turbidity: not clear or transparent because of stirred-up sediment or the like; clouded; opaque; obscured.

UV: ultraviolet; electromagnetic radiation with a wavelength shorter than visible light, hence invisible to humans; emitted by the sun's rays.

Volume: the amount of space, measured in cubic units, that an object or substance occupies.

Water cycle: the continuous movement of water on, above and below the earth's surface.

Water table: the level below which the ground is saturated with water.

Water quality: the physical, chemical and biological characteristics of water; drinking water in Australia must reach the standards outlined in the Australian Drinking Water Guidelines (ADWG).

Weather: the state of the atmosphere with respect to wind, temperature, cloudiness, moisture, pressure, etc.

Wetland: a lowland area, such as a marsh or swamp, which is saturated with moisture, especially when regarded as the natural habitat of wildlife.

Xylem: a compound tissue in vascular plants that helps provide support and that conducts water and nutrients upward from the roots, consisting of tracheids, vessels, parenchyma cells and woody fibres.

Glossary

Aquifer: an underground layer of permeable rock or other geological formation that holds water, especially one that supplies the water for wells, springs, etc.

Atmosphere: the gaseous envelope surrounding the earth; the air.

Bore water: water accumulated in aquifers below the earth's surface, but available for use by sinking a bore pipe in the aquifer. May discharge naturally to the surface or need to be pumped.

Brackish: a mixture of seawater and freshwater.

Catchment (open): a public area of land that collects rainfall and directs it to a low-lying body of water. Once the water is treated, it can be used as drinking water.

Catchment (closed): an area of land that is closed to public access, where rainfall water is collected and directed to a low-lying body of water. The water only needs minimal treatment before it can be distributed as drinking water.

Chlorine: a chemical element that helps to destroy disease-causing bacteria that can be found in water naturally.

Climate: the prevailing weather conditions of a region: temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds throughout the year, averaged over a series of years.

Condensation: the change of the physical state of a substance from a vapour into liquid; when vapour cools, the molecular structure changes and it becomes a liquid.

Dam: a barrier built across a stream or river to control the flow or raise the level of water; small man-made water storages on farmland that capture stormwater run-off and groundwater that can be used in times of low or no rainfall for stock and domestic use or irrigation purposes.

Drought: a period of dry weather that is inadequate for the needs of crops, animals and humans, generally due to an extended period of low rainfall.

Ecosystem: a system formed by the interaction of a community of organisms with their environment.

Effluent: a stream or discharge from a body of water; often relating to liquid waste or sewage discharge.

Embodied water: the water used in the production of goods or services, e.g. 4,650 litres of water is required to produce 300 g of beef; this number considers preparation of food required to feed the beef, transportation, land management, etc.

Erosion: the process by which the surface of the earth is worn away by the movement of water, glaciers, winds, waves, etc.

Evaporation: the change of a substance from a liquid state to a gaseous state. This process is accelerated by an increase in temperature and a decrease in atmospheric pressure.

Flood: inundation of normally dry land by overflow of water from a usually confined area.

Fluoride: a chemical element that is added to drinking water to improve dental health and prevent tooth decay.

Freshwater: water with less than 500 parts per million (ppm) of dissolved salts. Freshwater can be found on Earth as ice caps, glaciers, billabongs, dams, lakes, rivers and streams, and underground as groundwater in aquifers and underground streams.

Groundwater: the water beneath the surface of the ground, consisting largely of surface water that has seeped down; the source of water in springs and wells.

Impermeable: a material through which substances, such a liquids or gases, cannot pass.

Infiltration: the seepage of water into soil or rock.

Infographic: a graphic representation of an idea or message that presents complex information clearly and efficiently.

Innovation: the development of an action, item or process that intends to make a current version of something better.

Invention: the development of an action, item or process that is newly created.

Irrigation: the supply of water to dry land and crops via a water system that may include ditches, pipes or streams.

Lime: a caustic alkaline substance used to reduce acidity in water to make the water more palatable and to minimise corrosion of pipes and equipment.

Natural disaster: any event or force of nature that has catastrophic consequences, such as avalanche, earthquake, flood, forest fire, hurricane, lightning, tornado, tsunami and volcanic eruption.

Natural hazard: the threat of a naturally occurring event that will have a negative effect on people or the environment.

Organic: derived from living matter; natural.

Permeate: to spread throughout something.

pH: the measure of acidity or alkalinity of a chemical solution. Anything neutral, for example, has a pH of 7. Acids have a pH lower than 7, bases (alkaline) have a pH higher than 7.

Pollution: the introduction of harmful substances or products into the environment.

Potable: water that is suitable for drinking.

Precipitation: any form of water, such a rain, snow, sleet or hail, that falls to the earth's surface.

Pumping station: a piece of equipment used to pump fluid from one place to another.

Reservoir: a natural or artificial place where water is collected and stored for use, especially water for supplying a community, irrigating land, furnishing power, etc.

Reverse osmosis: a process where a solvent is forced to pass through a porous membrane to remove any impurities or unwanted elements.

River: a large natural stream of freshwater flowing along a definite course, usually into another body of water (ocean, lake, sea, river), being fed by tributary streams. Small rivers may also be called a stream, creek, brook or tributary.

Run-off: the overflow of water that is not absorbed by the ground or other surfaces.

Salinity: the salt or dissolved salt content found in a body of water or soil.

Saltwater: water that contains approximately 350,000 parts per million (ppm) of dissolved salts; approximately 97% of Earth's water is saltwater, held in the major ocean areas of the Atlantic, Antarctic, Indian, Pacific and Arctic.

Secondary Treatment Plant: a series of machines and equipment that filter and remove contaminants from water intended for drinking.

Sewage Treatment Plant: a series of machines and equipment that remove contaminants from wastewater to produce environmentally safe liquid and solid bi-products to dispose of or re-use.

Solvent: a substance that dissolves another to form a solution.

Stormwater: water that originates from precipitation (rain, hail, snow). It may also include the debris or anything else the water carries with it. Stormwater flows through stormwater drains and into water bodies.

Trade waste: Liquid waste from any business industry, trade or manufacturing industry, other than 'domestic' waste from showers, baths, toilets and basins.

Transpiration: the passage of water through a plant from the roots through the vascular system to the atmosphere.

Turbidity: not clear or transparent because of stirred-up sediment or the like; clouded; opaque; obscured.

UV: ultraviolet; electromagnetic radiation with a wavelength shorter than visible light, hence invisible to humans; emitted by the sun's rays.

Volume: the amount of space, measured in cubic units, that an object or substance occupies.

Water cycle: the continuous movement of water on, above and below the Earth's surface.

Water table: the level below which the ground is saturated with water.

Water quality: the physical, chemical and biological characteristics of water; drinking water in Australia must reach the standards outlined in the Australian Drinking Water Guidelines (ADWG).

Wastewater: water that has been used, e.g. sewage.

Weather: the state of the atmosphere with respect to wind, temperature, cloudiness, moisture, pressure, etc.

Glossary

Agriculture: the cultivation of animals and crops for human use; farming.

Atmosphere: the gaseous envelope surrounding Earth; the air.

Audit: an evaluation or inspection used to review the different aspects that contribute to a system, process or organisation.

Bore water: water accumulated in aquifers below the earths' surface but available for use by sinking a bore pipe in the aquifer. May discharge naturally to the surface or need to be pumped.

Catchment (open): a public area of land that collects rainfall and directs it to a low-lying body of water. Once the water is treated, it can be used as drinking water.

Catchment (closed): an area of land that is closed to public access, where rainfall water is collected and directed to a low-lying body of water. The water only needs minimal treatment before it can be distributed as drinking water.

Climate: the prevailing weather conditions of a region: temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds throughout the year, averaged over a series of years.

Climate change: the significant and lasting change of weather patterns over a long period of time (from decades to millions of years).

Contaminant: the presence of an unwanted substance that can have adverse effects.

Data logger: an electronic device that records data over time.

Developing country: a country with a relatively low standard of living, including issues of poverty, literacy, education and life expectancy. Developing countries generally have an undeveloped industrial base and rely on agriculture rather than manufacturing or technology.

Drought: a period of dry weather that is inadequate for the needs of crops, animals and humans, generally due to an extended period of low rainfall.

Embodied water: the water used in the production of goods or services, e.g. 4,650 litres of water is required to produce 300 g of beef; this number considers preparation of food required to feed the beef, transportation, land management, etc.

Finite: subject to limitations; not infinite.

Flood: inundation of normally dry land by overflow of water from a usually confined area.

Folklore: traditions or knowledge passed by word of mouth, usually in a particular group.

Freshwater: water with less than 500 parts per million (ppm) of dissolved salts. Freshwater can be found on Earth as ice caps, glaciers, billabongs, lakes, rivers and streams, and underground as groundwater in aquifers and underground streams.

Global warming: the continual rise of the average temperature on Earth since 1900.

Greywater: the water generated from domestic activities such as clothes washing, showering, hand washing and dish washing, that may be recycled for some household uses.

Groundwater: the water beneath the surface of the ground, consisting largely of surface water that has seeped down; the source of water in springs and wells.

Habitat: an environment where a particular species of animal or plant is found.

Hydrate: to supply water to a person in order to restore or maintain fluid balance for health and wellbeing.

Industry: a factory or business that produces goods or services for use by the community.

Infiltration: the seepage of water into soil or rock.

Infographic: a graphic representation of an idea or message that presents complex information clearly and efficiently.

Innovation: the development of an action, item or process that intends to make a current version of something better.

Invention: the development of an action, item or process that is newly created.

Organic: derived from living matter; natural.

pH: the measure of acidity or alkalinity of a chemical solution. Anything neutral, for example, has a pH of 7. Acids have a pH lower than 7, bases (alkaline) have a pH higher than 7.

Pollution: the introduction of harmful substances or products into the environment.

Recycled water: sewage that has been treated to remove solids and impurities so it can be re-used for certain practices instead of using drinking water.

Reservoir: a natural or artificial place where water is collected and stored for use, especially water for supplying a community, irrigating land, producing power, etc.

Residential: accommodations in which people live.

River: a large natural stream of freshwater flowing along a definite course, usually into another body of water (ocean, lake, sea), being fed by tributary streams. Small rivers may also be called a stream, creek, brook or tributary.

Saltwater: water that contains 35,000 parts per million (ppm) of dissolved salts; approximately 97% of Earth's water is saltwater, held in the major ocean areas of the Atlantic, Antarctic, Indian, Pacific and Artic.

Sanitation: the provision of facilities and services to promote hygienic practices and conditions.

Sewage: the water that is carried away from homes and businesses from toilets, sinks, showers, washing machines, dishwashers and drains.

Sewerage: the infrastructure (pipes) that carries sewage from homes and businesses to sewage treatment plant facilities.

Solvent: a substance that dissolves another to form a solution.

Stormwater: water that originates from precipitation (rain, hail, snow, sleet). It may also include the debris or anything else the water carries with it. Stormwater is often collected from the road. It flows through stormwater drains and into water bodies.

Sustainability: the quality of not being harmful to the environment to ensure long-term ecological balance.

Trade waste: any discharge to a sewerage system other than domestic waste from showers, baths, toilets and basins. Trade waste can include grease, oil and chemicals.

Turbidity: not clear or transparent because of stirred-up sediment or the like; clouded; opaque; obscured.

Urban heat islands: a metropolitan area that has a higher temperature than its surrounding rural area due to human activity.

Vertical gardens: garden structures created against walls or walkways used to screen areas, absorb odours and noise, generate a cooler environment, provide a relaxing ambience and create an aesthetically pleasing area when larger gardens aren't practical.

Volume: the amount of space, measured in cubic units, that an object or substance occupies.

Water cycle: the continuous movement of water on, above and below the earth's surface.

Water restrictions: a set of rules to guide people how to use water during times of low rainfall or limited water accessibility.

Water quality: the physical, chemical and biological characteristics of water; drinking water in Australia must reach the standards outlined in the Australian Drinking Water Guidelines (ADWG).

WELS: Water Efficiency Labelling and Standards; an Australia-wide rating and labelling scheme.