

Environment Aotearoa 2019 Glossary

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Ahikāroa	Connection with place identity; traditionally relates to having title to land by occupation, signified by 'long-burning fires'.
Acidification	The process of a substance becoming more acid (below pH7).
Aesthetic values	The natural or physical features of an area or thing that contribute to people's appreciation of it, such as its visual appeal.
Agricultural intensification	An increase in agricultural production per unit of inputs (which may be labour, land, time, fertiliser, seed, feed, or cash).
Agriculture	The cultivation and breeding of animals, plants, and fungi for food, fiber, biofuel, medicinal plants, and other products used to sustain and enhance human life.
Airshed	Area formally notified in the <i>New Zealand Gazette</i> that is likely or known to have unacceptable levels of pollutants, or may require air-quality management.
Algae	Small, often microscopic plants. Freshwater algae grow in the water or on rocks on river and lake beds and shores.
Allocation	The maximum volume of water that may be taken from freshwater sources by resource consent holders.
Ammoniacal nitrogen	Covers two forms of nitrogen: ammonia and ammonium. Animal waste is the major source in New Zealand waterways.
Annual average	The average of all values in a range of samples or measurements over a given year.
Aquaculture	The practice of farming aquatic organisms such as fish, crustaceans, or molluscs in marine and freshwater environments.
Aquifer	An underground layer of water-bearing rock or sand from which groundwater can be extracted.
Arsenic	A heavy metal, which in New Zealand comes mainly from burning timber treated with preservative copper-chromate-arsenic. Can be emitted into the air by burning offcuts of treated timber from building projects for home heating. Some industrial processes also emit arsenic.
At-risk species	Species assessed according to the New Zealand Threat Classification System as being at risk of extinction. Includes four subcategories: declining, recovering, relict, and naturally uncommon.
Atua	Ancestor with continuing influence.
Bacteria	Microorganisms, some of which are harmful to humans.
Ballast water	Fresh or salt water held in tanks and cargo holds of ships to increase stability and manoeuvrability during a voyage, and which can include a multitude of small marine organisms.

Benthic species	Organisms who live on, in, or near the bottom of a riverbed, estuary, lake, or ocean.
Biodiversity	The variability among living organisms, and the ecological systems they are part of. Includes the diversity within species, between species, and of ecosystems.
Biomass	Total weight of the organisms of a population inhabiting a given area.
Biophysical	The biological and physical features of the environment.
Biota	The animal and plant life of a particular region, habitat, or geological period.
Black carbon	A component of fine particulate matter associated with incomplete combustion. Black carbon has implications for human health and for climate change.
Bycatch	Species not targeted by a fishery but caught incidentally during fishing operations. Once caught, they can be landed, discarded, or released.
<i>Campylobacter</i>	<i>Campylobacter</i> infection (Campylobacteriosis) is caused by bacteria found in the gut of birds and other animals. It is the most common bacteria causing food-borne illness, passed on in the faeces of infected animals and humans.
Carbon monoxide	Colourless and odourless gas produced by incomplete burning of carbon-containing fuels such as wood, coal, petrol, and diesel.
Carbon sink	A forest, ocean, soil, or other natural feature of the environment that accumulates and stores carbon, including carbon dioxide emitted into the atmosphere from human activities.
Catchment	Area of land in which rainfall drains toward a common stream, river, lake, or estuary.
Climate change	Change in global or regional climate patterns, evident over an extended period (typically decades or longer). May be due to natural factors or human activities.
Coastal waters	Seawater extending from the coast to 12 nautical miles offshore. Coastal waters also include seawater in estuaries, fords, inlets, harbours, and bays.
Combustion	The process of burning, or more technically, the chemical process in which substances mix with oxygen in the air to produce heat and light.
Compaction	The destruction of soil structure by heavy vehicles (such as tractors) or by livestock.
Concentration	Measure of the relative quantity of a given substance contained within a specified medium (eg the amount of pollution in the air). Stated as mass per unit volume of air.
Conservation	Preserving, guarding, or protecting a resource, and/or keeping it safe or intact.
Contact recreation	Recreational activities that bring people physically in contact with water, involving a risk of involuntary ingestion or inhalation of water.
Contaminant	Any substance (including gases, odorous compounds, liquids, solids, and microorganisms) or energy (excluding noise), or heat, that results in an undesirable change to the physical, chemical, or biological environment. Also called pollutant.

Contaminated land	Land or a site that has been exposed to a hazardous substance that has the potential to damage the environment.
Cryptosporidium	Parasite found in the gut of animals and humans. It is passed on in the faeces of infected animals and humans. <i>Cryptosporidium</i> is widespread in New Zealand.
Deepwater	In technical terms, water that is 200 metres deep or deeper.
Deforestation	The removal of forest from a landscape.
Dissolved reactive phosphorus	The soluble form of the nutrient phosphorus, which is readily available for use by plants.
Distribution	In biology, the geographical area within which a species can be found.
<i>E. coli</i> (<i>Escherichia coli</i>)	Bacteria normally found in the gut of warm-blooded animals and people. Some types can cause illness, such as <i>Campylobacter</i> , which can be transmitted through contaminated water or food, or through contact with infected animals or people.
Ecosystem	A community of plants, animals, and microorganisms in a particular place or area, interacting with the non-living components of their environment (like air, water, and mineral soil).
Effluent	Liquid waste that enters the environment from a farm, factory, commercial establishment, or household. It can refer to livestock's urine or manure, but generally refers to wastewater from a sewage treatment plant.
Electricity generation	The process of producing electricity by transforming other forms of energy.
Emission	The release of a pollutant into the atmosphere; its concentration in the air will depend on how the pollutant disperses in the atmosphere.
Endemic	A plant or animal that occurs naturally only in one place or region.
Energy	Power derived from physical or chemical resources to produce light, heat, or movement.
Erosion	The wearing away of land by the actions of water, wind, or ice.
Eutrophication	The result of nutrients built up in a body of water, frequently due to run-off from land, which causes dense growth of periphyton.
Exceedance	Where the concentration of a pollutant exceeds a standard or a guideline. A 'likely exceedance' is when screening methods are used and the results cannot be used to determine compliance with a standard or guideline.
Exclusive economic zone (EEZ)	Area of ocean extending from 12 to 200 nautical miles from shore, including the seabed and subsoil. New Zealand has jurisdiction over exploration and extraction of marine resources in its EEZ.
Exotic	Introduced from another country.
Exposure	Contact with a chemical, physical, or biological agent that can have either a harmful or beneficial effect.

Extinction	The loss of a species. The moment of extinction is generally considered to be marked by the death of the last individual of that species.
Fauna	All animal species present, especially in a particular country, region, or time.
Fish stock	Any fish, seaweed, or other aquatic life of one or more species that are treated as a unit for the purposes of fisheries management.
Fisheries	A general term that covers the fishers, vessels, and fishing gear involved in catching fish from a particular fish stock. It also refers to the fishing grounds and catch.
Flora	All plant species present, especially in a particular country, region, or time.
Food chain	The feeding relationships (also called food webs and food networks) between species in an ecological community. It graphically represents the transfer of material and energy from one species to another within an ecosystem.
Fossil fuel	Coal, natural gas, liquefied petroleum gas (LPG), crude oil, or a fuel derived from crude oil (including petrol and diesel), so called because they have been formed from ancient organic matter over long periods of time.
Genetic diversity	The genetic variety found among individuals of a single species.
Glacier	A slow-moving mass of ice formed by accumulated and compacted snow on mountains or near the North or South poles.
Greenhouse gases	Carbon dioxide, nitrous oxide, methane, ozone, water vapour, and chlorofluorocarbons occurring naturally and resulting from human (production and consumption) activities, and contributing to the greenhouse effect (global warming).
Gross domestic product (GDP)	The value of all goods and services produced in New Zealand during a specified time period.
Ground-level ozone	A colourless and odourless gas produced by other gases reacting in the presence of sunlight. Examples of pollutants that form ozone are oxides of nitrogen and volatile organic compounds caused by transport, home heating, and industrial processes.
Groundwater	Water located beneath Earth's surface in pore spaces (the spaces within a rock body that are not occupied by solid material) and fractures of rock formations.
Habitat	A combination of environmental factors that provides food, water, cover, and space that a living thing needs to survive and reproduce.
Heavy metal	Subset of elements that exhibit metallic properties and have relatively high atomic weight. Heavy metals can be emitted from human activities, such as vehicle tyre/brake wear and battery and steelmaking facilities, but some also occur naturally in the air.
Hapū	Sub-tribe.
Inter-tidal	The area where land and sea meet, which is covered by seawater at high tide, and exposed at low tide.
Iwi	Extended kinship group, tribe, nation, people, nationality, race – often refers to a large group of people descended from a common ancestor and associated with a distinct territory.

Indigenous	Belonging naturally to a given region or ecosystem, as opposed to an animal or plant that is exotic or introduced. Also referred to as 'native'.
Intensification	In agriculture, an increase in the stocking rate of animals, or an increase in the level of production from a given area of land.
Introduced species	A species that is not native to a given place, but has been transported there as a result of human activity.
Invasive species	Non-indigenous species of plants or animals that adversely affect the habitats they invade economically, or environmentally, or in another way.
Invertebrate	An animal without a backbone or spinal column. Insects, spiders, worms, slaters, and many marine animals such as corals, sponges, and jellyfish are examples of invertebrates.
Irrigation	In horticulture and agriculture, water provided by a sprinkler system to promote plant growth.
Kaimoana	Seafood; traditional foods.
Kaitiaki	Agent or guardian carrying out the act of tiaki, of benefit to the resource or taonga, can be a human, animal, or spiritual being; for example, taniwha (a mythical or spiritual creature, can take many forms, for example, large tuna).
Kaitiakitanga	Stewardship, guardianship – particularly for the natural environment.
Kākāpō	Ground parrot, <i>Stripops habroptilus</i> .
Kapa haka	Haka group; performance.
Karakia	Prayer; blessing; chant.
Kaumātua	Elder, a person of status within the whānau.
Kauri	<i>Agathis australis</i> .
Kawa	Marae protocol – customs of the marae and wharenui (meeting house), particularly those related to formal activities.
Kererū	New Zealand pigeon, <i>Hemiphaga novaeseelandiae</i> .
Ki uta ki tai	From the mountains to the sea.
Land cover	The physical material at Earth's surface, including grass, asphalt, trees, bare ground, and water.
Landscape	The visible features of an area of land, including physical landforms, living flora and fauna, abstract elements such as light and weather conditions, and human effects.
Leaching	The process by which dissolved materials are filtered through soil by a liquid (usually water) and often end up in rivers, streams, lakes, and groundwater.
Livestock	Domesticated animals, which may be kept or raised in pens, houses, on pastures, or on farms as part of an agricultural or farming operation, for commercial or private use.

Macroinvertebrate	Small animal that has no backbone and can be seen with the naked eye (eg insects, freshwater crayfish, snails, and worms).
Macroinvertebrate community index (MCI)	An indicator of general river health: excellent >119; good 100–119; fair 80–99; poor <80.
Mahinga kai	Food-gathering area.
Mana	Prestige, authority, control, power, influence, status, spiritual power, charisma.
Manaakitanga	Acts of giving and caring for; hospitality and generosity.
Maramataka	Māori lunar calendar.
Mānuka	Tea-tree, <i>Leptosperum scoparium</i> .
Marae	Traditional gathering area, open area at front of meeting house.
Marine mammal	A warm-blooded animal that breathes through lungs, gives birth to live young, nurses its young with milk from mammary glands, and has adapted to living all or part of their life in the ocean. For example, seals, sea lions, whales, dolphins, sea otters, walruses, and polar bears.
Matariki	Beginning of the Māori year, after the first appearance of the Pleiades.
Mātauranga Māori	The knowledge, comprehension, or understanding of everything visible and invisible existing in the universe, and often used to mean 'wisdom'. Often includes present-day, historic, local, and traditional knowledge; systems for transferring and storing knowledge; and goals, aspirations, and issues from an indigenous perspective.
Mauri	The essential essence of all beings, the life force which is in everything; the binding force between spiritual and physical elements.
Median	The midpoint of a series when the data are listed in ascending order. Half the numbers or values are above the midpoint, and half are below it.
Micrometres (µm)	A unit of length equal to one-thousandth of a millimetre. Also called a micron.
Moa	Large extinct flightless bird.
Monitoring site	Site where equipment is deployed to sample and/or measure the quality of air or water.
Mōteatea	Sung poetry, traditional chant.
Native	Belonging naturally to a given region or ecosystem, as opposed to an animal or plant that is exotic or introduced. Also referred to as 'indigenous'.
Naturally uncommon	Species whose distribution is naturally confined to specific habitats or geographic areas, or which naturally occur in small and widely scattered populations.
Nitrate-nitrogen	Highly soluble form of nitrogen that is both a nutrient and, in excess quantities, a toxic substance.

Nitrogen	Nutrient essential for plant and animal life. Too much can cause large amounts of weeds and algae to grow, harming river health. In some forms can be toxic to fish and other aquatic animals.
Nitrogen dioxide	Reddish-brown, pungent gas produced mainly from the combustion of fossil fuels (coal, gas, diesel, and oil) and some industrial processes. It can be emitted directly into the air but is most often formed when nitric oxide emissions react with other chemicals in the air. Collectively, nitrogen dioxide and nitric oxide are referred to as nitrogen oxides.
Nitrogen oxides	Collective term for nitrogen dioxide and nitric oxide. Nitric oxide often makes up the larger component, but is readily converted to nitrogen dioxide in the environment.
Nutrient	Chemicals needed by plants and animals for growth, especially nitrogen and phosphorus.
Nutrient cycling	The continuous cycling through an ecosystem of minerals, compounds, or elements that promote biological growth or development.
Nutrient enrichment	When sediment becomes enriched as a result of nutrients being leached or deposited.
Oranga	Health and well-being.
Ozone	A pale blue gas found in two different layers in the atmosphere. The ozone layer in the stratosphere forms a protective shield, absorbing the ultraviolet wavelengths of sunlight that can have a negative effect on human health. In contrast, ground-level ozone is a pollutant that can have serious effects on human health.
Pao	Song.
Papatūānuku	Earth Mother in Māori mythology.
Particulate matter	Small airborne particles composed of solid and/or liquid matter.
Pastoral	Land used for keeping and grazing livestock.
Pāua	Abalone.
Percentile	A statistic that indicates the relative rank of a value (or measurement) among a range of values. For example, the 95th percentile is the value below which 95 percent of all values in a range will lie (and only 5 percent of values will exceed).
Periphyton biomass	The amount, cover, or volume of algae, cyanobacteria, microbes, and detritus that occur in a water body.
Pesticide	A chemical substance used to kill unwanted animals and plants, including herbicides (which kill vegetation), insecticides (which kill insects), and fungicides (which kill fungi).
Phosphorus	Nutrient essential for plant and animal life. Too much can cause large amounts of weeds and algae to grow, harming river health.
Pīngao	Golden sand sedge, <i>Ficinia spiralis</i> .
PM₁₀	Airborne particle 10 micrometres or less in diameter (about one-fifth the thickness of a human hair). Produced by the combustion of wood and fossil fuels, as well as by various industrial and natural processes.

PM_{2.5}	Airborne particle 2.5 micrometres or less in diameter and mostly comes from combustion sources (see PM ₁₀). Most particulate matter from natural sources is larger than 2.5 µm in diameter.
Ponga	Silver fern, <i>Cyathea dealbata</i> .
Pōhutukawa	New Zealand Christmas tree, <i>Metrosideros excelsa</i> , <i>Metrosideros kermadecensis</i> , <i>Metrosideros bartlettii</i> .
Pollutant	Any substance (including gases, odorous compounds, liquids, solids, and microorganisms) or energy, or heat, that causes an undesirable change to the physical, chemical, or biological environment.
Precipitation	Primary mechanism for transporting water from the atmosphere to Earth's surface. Includes rain, sleet, snow, and hail.
Predator	An organism that feeds on another living organism (its prey).
Quota management system	System established in 1986 to control the total commercial catch for most of the main fish stocks in New Zealand's exclusive economic zone.
Raranga	Weaving.
Rātā	<i>Metrosideros robusta</i> (Northern), <i>Metrosideros umbellātā</i> (Southern).
Resident	Species that breed in New Zealand.
Riparian	Relating to, or situated on, the bank of a river or other water body.
Rohe	Boundary, territory, geographic location, typically of iwi/hapū.
Rohe moana	Coastal and marine area over which an iwi or a hapū exercises its mana and its kaitiakitanga.
Rongoā	Remedy, medicine.
Run-off	Water that is not absorbed by soil but drains off the land into bodies of water.
Saltwater intrusion	The movement of salt water (seawater) into fresh water (usually groundwater near the coastline).
Screening method	Any non-standard method that provides indicative data for a particular contaminant. It uses low-resolution instruments and cannot be used to determine compliance with a standard or guideline.
Seabed trawling	Process of dragging a trawl net behind a fishing vessel, along or just above the seabed.
Seamount	A mountain under the sea.
Sediment	Particles or clumps of particles of sand, clay, silt, or plant or animal matter carried in water.
Sedimentation	Particles or clumps of particles of sand, clay, silt, or plant or animal matter carried in water.
Sequestering (of carbon)	In forestry, the uptake of carbon dioxide by trees.

Soil	The layer of minerals and organic matter that forms Earth's crust. It is formed over time by the interaction of climate and living organisms on parent material, which can be a mixture of inorganic and organic materials.
Species	A basic unit of biological classification, comprising individual organisms that are very similar in appearance, anatomy, physiology, and genetics, due to having relatively recent common ancestors. Species can interbreed.
Species diversity	The variety (or number) of species within a particular geographic area.
Stormwater	Rainwater run-off that is channelled through drains from roads and urban properties into waterways and the sea.
Subspecies	Geographically isolated population that interbreeds and is part of a species.
Sulphur dioxide	Colourless gas with a pungent smell, produced during the combustion of fuels containing sulphur, such as coal and diesel.
Surface water	Water on the land surface that flows in channels (rivers and streams) and lies in depressions (lakes).
Tā moko	Traditional tattooing.
Tangata whenua	Local people, people born of the whenua, people who have authority in a particular place.
Taonga	All things prized or treasured, tangible and intangible, treasured resource, possession or cultural item, including te reo, culturally significant species.
Taonga puoro	Instrumental music.
Te ahurea o te reo	The growth and evolution of the Māori language.
Te ao Māori	The Māori world, Māori world view.
Territorial sea	Area of sea extending from the coast to the 12 nautical mile limit.
Threshold	The dose or exposure below which a significant adverse effect is not expected.
Tikanga	Custom, protocols, rules, ethics.
Tohu	Signs.
Topography	The natural surface features of a land area, including its shape and relief.
Toxic	The quality or degree of being poisonous or harmful to plant, animal, or human life.
Trophic level index	An indication of the level of nutrient enrichment (excessive amounts of nutrients) of a lake, based on the growth of plants and algae.
Tūrangawaewae	Place of being, origin, homeland.
Ture	Laws.
Urupā	Burial site.

Vascular plants	Plants that have developed a system to transport water and nutrients. These include plants with flowers and cones, ferns, horsetails, and clubmosses. They exclude algae, hornworts, liverworts, and mosses.
Vegetation	A general term for the plant life of a region; the ground cover provided by plants.
Volatile organic compound	Any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) that participates in atmospheric photochemical reactions.
Waiata	Song.
Wairua	Representation of traditional thought; spirituality.
Waka	Canoe.
Waste	Any material (solid, liquid, or gas) that is unwanted, unvalued, or both, and discarded or discharged.
Water quality	The 'health' of fresh water, as defined by measures of its physical, biological, and chemical properties, as well as other attributes valued by users (such as its aesthetic quality).
Weed	A plant that is considered to be unwanted or a nuisance. The term is often used to describe native or non-native plants that grow and reproduce aggressively.
Wetland	Wet area of land or shallow water that supports plants and animals that have specifically adapted to living in those conditions.
Whakaheke kōrero	Opportunities for inter-generational transfer of mātauranga/knowledge.
Whakairo	Carving.
Whakapapa	Genealogy, ancestry, interconnectedness.
Whānau	Extended family.
Whanaungatanga	Community relationships and networks.
Whenua	Land, homeland.
