

Glossary 21



21 GLOSSARY

The following terms are commonly used throughout this Environmental Impact Statement. Further explanation or description may be provided in the main report or appendices.

TERM	DEFINITION
Aboriginal Freehold Land	Land declared under <i>Aboriginal Land Rights (Northern Territory) Act 1976</i> (ALRA) to be Aboriginal Land, held as freehold tenure. On Groote Eylandt, this land is held by a Land Trust as established under ALRA
Alkaline	Basic, or having a pH of 7.0 or higher. Pure water has a pH value around 7 and is neutral
Alluvium	Sediment deposited by a flowing stream, consisting of unconsolidated materials including gravel, clay, silt and sand
Aquifer	Rock or sediment in a formation, group of formations, or part of a formation that is saturated and sufficiently permeable to transmit economic quantities of water to wells and springs
Aquitard	A body of rock or stratum of sediment that retards but does not prevent the flow of groundwater from one aquifer to another
Archipelago	A group of many islands in a large body of water
Average Recurrence Interval	The long-term average number of years between the occurrences of a flood as big as, or larger than, the selected event
Background Noise	The total noise present and continuous at a given location, excluding extraneous noise and the noise source of interest. Commonly measured using the statistical parameter, LA ₉₀ , the A-weighted noise level that was exceeded for ninety per cent of the monitoring period
Biodiversity	The diversity of different species of plants, animals and micro-organisms
CALPUFF	Relating to air quality, CALPUFF is a transport and dispersion model that advects 'puffs' of material emitted from modelled sources, simulating dispersion and transformation processes
Cainozoic	The current and most recent of the three geological eras and covering the period from 65 million years ago to the present
Carbon Dioxide Equivalent (CO ₂ e)	A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential
Catchment	The surface drainage area from which a river, stream or reservoir receives its water
Clan	A group of people generally related by blood or marriage. It is an important unit in Aboriginal society, having its own name and territory, and is the land-owning unit
Cretaceous	Relating to or denoting the last period of the Mesozoic era, between the Jurassic and Tertiary periods
dB, Decibel	A noise level unit based on a logarithmic scale of pascals (Pa) of sound pressure above and below atmospheric pressure
dBA	Decibel (A-weighted), where the A weighting means frequencies below 500 Hz and above 10 kHz are artificially reduced to approximate the frequency response of an average human ear

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dB _L	Linear decibels, the same as dB but used to explicitly define a decibel scale in the absence of any frequency weighting
Decommission	Safe removal of plant and equipment following the completion of mining operations
Dewater	To drain or remove water
Diurnal	Animals that are active during the day
Ecosystem	An interacting system of animals, plants, other organisms with non-living parts of the environment
Ephemeral	Relating to a watercourse with defined bed and banks, which flows only intermittently after rain
Erosion	The wearing away of land surface by wind or water
Fluvial	Of, relating to, or happening in, a river
Freeboard	A factor of safety to compensate for uncertainties in the estimation of flood levels across a floodplain or within a water storage
Geochemical	Chemical compositions related to the geology of an area or sample
Geological	Relating to the earth, the rocks of which it is composed, and the changes which it has undergone or is undergoing
Geomorphology	The study of the characteristics, origin, and development of landforms
Greenhouse Gas	A gas that may contribute to the total global warming effect. Includes carbon dioxide, methane, nitrous oxide and some fluorine containing compounds
Groundwater	Water found beneath the surface of the ground
Habitat	The native environment where a given animal or plant lives or grows, often described in terms of geography, climate and vegetation
Haul Road	A road formation designed for large haul trucks and other mining equipment
Humbugging	An Aboriginal cultural obligation to provide money, goods or favours to relatives
Indigenous	Defined as Aboriginal and Torres Strait Islander (ATSI)
LA _{90,15min}	A noise level exceeded 90% of the time, equivalent to the noise level representing the quietest 10% of the time, in a 15 minute period and is widely recognised as the background noise level
LA _{eq}	The A-weighted equivalent continuous, or logarithmic average, noise level over a defined time period either measured or predicted at a specific location
LA _{max}	The predicted maximum noise level
Laterite	A soil type rich in iron and aluminium, formed in hot and wet tropical areas
Leachate	The process of removing soluble matter(s) from soil or rock by water
Macassan	The term Macassan is generally used to apply to traditional fishermen who came to Australia in the eighteenth century from Indonesia and other islands in the Indonesian Archipelago, including Timor, Rote and Aru

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Machado Joseph Disease (MJD)	Previously referred to as 'Groote Eylandt Syndrome', Machado Joseph Disease (MJD) is a hereditary neuro-degenerative disease affecting the Aboriginal population of Groote Eylandt
Macroinvertebrates	Invertebrates large enough to be seen with the naked eye
Macrophyte	Aquatic vascular plants with stems, leaves and roots. They grow in or near water and are either emergent, submerged or floating
Manuport	A manuport is a natural object which has been moved from its original context by humans, but otherwise remains unmodified
Megachiropteran bat	A division of bats that comprises fruit bats and flying foxes
Microbat	Microbats are mammals and belong to the family order called Microchiroptera meaning "little hand-wing"
Mitigation	The act of lessening in intensity, to prevent or make less severe
Moiety	A system in Australian Aboriginal culture that divides all the members of a tribe, such as the Anindilyakwa People, into two groups. A person is born into one or other group and this does not change throughout their life
Nocturnal	Animals that are active during the night
Non-resident workers	Proportion of the workforce which does not reside permanently in the township or area in which they work. This term does not denote a specific mode of travel
Open Cut Mining	Process used to remove minerals found over a large area, close to the surface. The mine is dug downward in benches or steps
Outstation	Small, rural Aboriginal settlement with varying levels of occupation
Overburden	The surface soil and rock that must be moved away to access ore deposits below
Palustrine	Primarily small, vegetated, non-channel wetlands, which include billabongs, swamps, bogs, springs, soaks etc, and have more than 30% emergent vegetation
Perennial	Relating to a watercourse with defined bed and banks, which flows all year
Permeability	The capacity of a material to transmit fluid
Permian	The period of geological time beginning from 280 million to 230 million years ago
pH	A measure of acidity or alkalinity on a scale of 0-14. Neutral solutions have a value of 7, while acidic solutions have values less than 7, and alkaline solutions have values above 7
PM ₁₀	Particulate matter with an aerodynamic diameter of 10 micrometers or less
PM _{2.5}	Particulate matter with an aerodynamic diameter of 2.5 micrometers or less
Proterozoic	Noting or pertaining to the latter half of the Precambrian Era, from about 2.5 billion to 570 million years ago, characterized by the appearance of bacteria and marine algae
Quaternary	The period of geological time beginning two to three million years ago and extending to the present
Regional Partnership Agreements	Regional Partnership Agreements are signed agreements between the Australian Government, Aboriginal groups and other key stakeholders, often local governments or mining companies, which aim to enhance the socio-economic development of Aboriginal communities through cross-sector cooperation

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Rehabilitation	Reshaping of a disturbed area to a geotechnically and geochemically stable condition, followed by revegetation
Resident workers	The proportion of the workforce which resides permanently in the township or area in which they undertake their work, i.e. GEMCO employees who live permanently on Groote Eylandt
Riparian	Pertaining to, or situated on, the bank of a body of water, such as a river
Runoff	The portion of rainfall that is not infiltrated or evaporated, and flows along the ground surface
Sacred sites	Places in the landscape that have a special significance under Aboriginal tradition
Salinity	The concentration of dissolved salts within a body of water
Sediment	Solid particles which tend to settle in a liquid
Sensitive Receptors	Locations which may be sensitive to the impacts of the project, such as residences, recreation areas, commercial or industrial facilities
Smectite	A clay mineral (e.g. bentonite) which undergoes reversible expansion on absorbing water
Socio-economic	Of, or relating to, both social and economic considerations
Songlines	In Indigenous Australian belief systems, songlines are paths across land, sea or sky, which were travelled by the original inhabitants of an area
Sound Power	Relating to noise, sound power is the sound energy emitted by a source. Sound power levels are commonly measured in decibels (dBL)
Statistical Area	Statistical Areas are defined by the Australian Bureau of Statistics (ABS)
Strahler Stream Ordering System	A system for describing the size and complexity of a river network
Strata	Layers of rock or soil with internally consistent characteristics that distinguish it from contiguous layers
Stratigraphy	The arrangement and succession of rock layers and layering (stratification)
Taxa	Categories in the biological classification system for all living organisms
Temperature Inversion	A situation whereby temperature within the atmosphere increases with altitude rather than the normal occurrence of atmospheric temperatures decreasing with altitude. This results in a layer of dense cool air closest to the land surface
Tertiary	The period of geological time from 63 million to 2 million years ago
Topography	The surface features of an area of land
Topsoil	The upper most layer of soil where the highest concentration of organic matter and micro organisms are found. Often referred to as the "A" horizon
Traditional Owners	The Traditional Aboriginal Owners of the land
TUFLOW	Relating to surface water, TUFLOW is 1D and 2D flood simulation software that simulates the complex movement of floodwaters across a particular area of interest using mathematical approximations to derive information on floodwater depths, velocities and levels
Waste	An unwanted by-product or surplus product, including a gas, liquid, solid or energy, from an industrial, commercial, domestic or other activity