
| | |
|--------------------|---|
| % | percent |
| µg/m ³ | micrograms per cubic metre |
| µm | microns |
| < | less than |
| > | greater than |
| µg/g | Microgram per gram |
| µg/L | micrograms per litre |
| µS/cm | microseconds per centimetre |
| °C | Degrees Celsius |
| AAPA | Aboriginal Areas Protection Authority |
| AASS | Actual Acid sulphate soils |
| ABS | Australian Bureau of Statistics |
| AC | Acid consuming |
| Accretionary wedge | Sedimentary rocks accreted onto a plate boundary through tectonic movement. |
| ACHA | <i>Aboriginal Cultural Heritage Act 2003</i> |
| ADCP | acoustic doppler current profilers |
| AEP | annual exceedance probability |
| AGO | Australian Greenhouse Office |
| AHD | Australian Height Datum |
| AIM | Alternative Investment Market |
| AKAU | Aker Kvaerner Australia |
| Al | Aluminium |
| alluvium | Unconsolidated sediment deposited in a fluvial system. |
| ALRA | Commonwealth <i>Aboriginal Land Rights Act</i> |
| AMC | Australian Magnesium Corporation |
| AMSA | Australian Maritime Safety Authority |
| Amsul | Ammonium Sulphate |
| ANC | Acid neutralising capacity |
| animal taxa | Taxa are taxonomic units describing organisms in a hierarchical grouping. The level of taxa commonly referred to in the description of flora and fauna are: Family, <i>Genus</i> and <i>species</i> |
| ANZECC | Australia and New Zealand Conservation Council |
| APIA | Australian Pipeline Industry Association |
| AQIS | Australian Quarantine Inspection Service |
| Aquifer | any geological formation containing or conducting ground water, esp. one that supplies the water for wells, springs, etc. |
| Aquitard | An aquitard is a zone within the earth that restricts the flow of groundwater from one aquifer to another |
| ARI | Average Recurrence Interval |
| AS | Australian Standards, Standards Australia |
| As | Arsenic |

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|----------------------------|---|
| AS/NZS | Australian Standards/New Zealand Standards |
| ASS | Acid sulphate soils |
| ASU | Air separation unit |
| ATSIC | Aboriginal and Torres Strait Islander Commission |
| Autodock | System utilised to secure the vessel in position against the wharf using a hydraulic claw and swing arm. |
| av | Average |
| BBKY | Darumbal and Barada, Barna, Kabalbarra and Yetimarla |
| Beneficiation | Beneficiation is a combination of processes through which ore is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. |
| Berm | Horizontal strip or shelf built into an embankment or cut to break the continuity of the slope. |
| Bioregion | A specific bio-geographic zone with a repeating or similar pattern biotic (flora and fauna) and abiotic (soils, terrain, geography, climate and rainfall) factors. |
| BMR | Bureau of Mineral Resources |
| BoM | Bureau of Meteorology |
| Bonn Convention | Convention on the Conservation of Migratory Species of Wild Animals. |
| BRIC countries | Brazil, Russia, India and China |
| Bund | Raised bank around tanks and containers, designed to capture all contained liquids in a spill. |
| Ca | Calcium |
| CaCO ₃ | Calcium carbonate |
| CAMBA | China-Australia Bird Agreement |
| CAR | Comalco Alumina Refinery |
| CASA | Civil Aviation Safety Authority |
| Cathodic Protection system | A technique utilised to control the corrosion of a metal surface by making that surface the cathode of an electrochemical cell. |
| CCD | Counter-current decantation |
| CCRMP | Curtis Coast Regional Management Plan |
| Cd | Cadmium |
| CDEP | Community Development Employment Program |
| CG | Coordinator-General |
| CHAZOP | Control Hazard and Operability Study |
| CHEM Services | Chemical Hazards and Emergency Management Services |
| CHIMA | Cultural Heritage Investigation Management Agreement |
| CHMP | Cultural Heritage Management Plan |
| CHMS | Cultural Heritage Management Strategy |
| Cl | Chlorine |
| CLR | Contaminated Land Register |
| Co | Carbon monoxide and Cobalt particulate |
| CO ₂ | Carbon dioxide |

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|----------------------|--|
| CO _{2-e} | CO ₂ equivalent |
| CO _{2-e} /y | CO ₂ equivalent per year |
| CO ₃ | Carbonate |
| Colloidal material | Finely divided solids which will not settle but which may be removed by coagulation |
| colluvium | loose earth material that has accumulated at the base of a hill, through the action of gravity |
| CQRGMF | Central Queensland Regional Growth Management Framework |
| CQGP | Central Queensland Gas Pipeline |
| CQPA | Central Queensland Ports Authority |
| CQU | Central Queensland University |
| Cr | Chromium |
| CSC | Calliope Shire Council |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| Cu | Copper |
| DAFF | Commonwealth Department of Agriculture, Fisheries and Forestry |
| dB | Decibel |
| dd | data deficient |
| DEH | Department of Environment and Heritage; formerly Environment Australia (Commonwealth Government) |
| DES | Department of Emergency Services |
| DFS | Definitive Feasibility Study |
| DGSM Act | <i>Dangerous Goods Safety Management Act 2001</i> |
| DGT | Diffuse Gradients in Thin films (passive samplers) |
| DHCS | Department of Health and Community Services |
| DLGPSR | Department of Local Government Planning and Sport and Recreation |
| DME | Department of Mines and Energy |
| DMR | Department of Main Roads |
| dmt | dry metric tonnes |
| dmt/y | dry metric tonnes per year |
| DNRW | Department of Natural Resources and Water |
| DO | Dissolved oxygen |
| DoH | Department of Housing |
| DOS | Degree of saturation |
| DPA | Dugong Protection Area |
| DPIF | Department of Primary Industries and Fisheries |
| DSL | Digital Subscriber Line technology transmits data over phone lines without interfering with voice service. |
| DWT | Dead weight tonnes |
| e.g. | for example |
| EC | Electrical conductivity. A measure of mineral salt content of groundwaters |
| EDL | Energy Developments Limited |

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|------------------------------|--|
| EEO | Energy efficiency operations |
| EHS | Environment, health, and safety |
| EIA | Environmental Impact Assessment |
| EIL | environmental investigation levels |
| EIS | Environmental Impact Statement |
| EMP | Environmental Management Plan |
| EMR | Environmental Management Register |
| EMS | Environmental Management System. |
| endemic | Native to or confined to a certain region. |
| ENM | Noise modelling program |
| EP Act | <i>Environmental Protection Act 1994</i> |
| EPA | Environmental Protection Agency |
| EPAV | Environmental Protection Agency for Victoria |
| EPBC Act | <i>Environmental Protection and Biodiversity Conservation Act 1999.</i> |
| Ephemeral | Running fresh water channels that are periodically inundated |
| EPM | Exploration Permit for Minerals |
| EPP | Environmental Protection Policy |
| ERA | Environmentally Relevant Activity |
| ESA | Equivalent standard axle |
| ESD | Ecologically sustainable development |
| ESN | Enhanced saprolite neutralisation |
| ESP | Exchangeable Sodium Percentage; the proportion of sodium adsorbed onto a material surface as a proportion of the total cation exchange capacity. |
| Eutrophic, Eutrophication | The reduction of oxygen in a water body due to high levels of nitrification and subsequent consumption by biota |
| EVR | Endangered , Vulnerable and/or Rare species |
| FBA | Fitzroy Basin Association |
| Fe | Iron |
| FeS ₂ | Pyrite |
| FHA | Fish Habitat Areas |
| FIFO | fly-in/fly-out |
| FoS | Factor-of-Safety |
| g/m ² /month | grams per metre squared per month |
| g/t | grams per tonne |
| gabions | Permeable heavy barriers to assist in the protection of soil banks by preventing erosion |
| GAIN | Gladstone Area Industry Network |
| GAMS | Gladstone Airshed Modelling System |
| GAPDL | Gladstone Area Promotion and Development Limited |
| GAWB | Gladstone Area Water Board |
| GBR Coast MP | Great Barrier Reef Coast Marine Park |
| GBRMP | Great Barrier Reef Marine Park |

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|--------------------------------|---|
| GBRMPA | Great Barrier Reef Marine Park Authority |
| GBRWHA | Great Barrier Reef World Heritage Area |
| GCC | Gladstone City Council |
| GDP | Gross Domestic Product |
| GEA | Gladstone Engineering Alliance |
| GEIDB | Gladstone Economic and Industry Development Board |
| genset | Generator set |
| GHG | Greenhouse Gas |
| GHIMA | Cultural Heritage Investigation Management Agreement |
| Gilgai | Black soil substrate with small localised depressions that are ephemerally inundated, usually associated with Brigalow vegetation |
| GIS | Global Information System |
| GJ | Giga Joule |
| GJ/y | Giga Joules per year |
| GL | Giga litre |
| GNP | Gladstone Nickel Project |
| GNL | Gladstone Pacific Nickel Limited |
| GPS | Gladstone Power Station |
| GQAL | Good quality agricultural land |
| GRP | Gross Regional Product |
| GSDA | Gladstone State Development Area |
| GSP | Gross State Product |
| GWDB | Groundwater Resource Information |
| GWh | Gigawatt hours |
| H | Horizontal |
| H ₂ O | Water |
| H ₂ O ₂ | Hydrogen peroxide |
| H ₂ S | Hydrogen sulphide |
| H ₂ SO ₄ | Sulphuric acid |
| ha | Hectares |
| HAT | Highest Astronomical Tide |
| HAZID | hazard identification |
| Hazmat truck | Emergency services vehicle with specialised hazardous material treatment capabilities |
| HAZOP | Hazard and Operability Study |
| HCO ₃ | Bicarbonate ion |
| HDD | Horizontal directional drilling |
| HDPE | High Density Polyethylene |
| Heavy vehicle hardstands | Parking areas for heavy vehicles |
| Hg | Mercury |
| HIL | health-based investigation level |

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|--------------------------------------|---|
| HIRARC | Hazard identification, risk assessment and risk control methodology |
| HMS | High magnesium saprolite |
| HP | High pressure |
| HPAL | High pressure acid leach |
| HPAL | High-pressure acid leach |
| HPZ | Habitat Protection Zones |
| HSE | Health, Safety and Environment |
| HSEC | Health, Safety, Environment and Community. |
| HSEMP | Health, Safety and Environment Management Plan |
| HSIS | Hazardous Substances Information System |
| HW | Highly weathered |
| i.e. | that is |
| IAS | Initial Advice Statement |
| ICHA | Initial Cultural Heritage Assessment |
| IDAS | Integrated Development Assessment System |
| ILUA | Indigenous Land Use Agreement |
| IMO | International Maritime Organisation |
| Intertidal | between high and low water |
| IP Act | <i>Integrated Planning Act 1997</i> |
| IRMS | integrated risk management system |
| IRSA | Inter-ramp slope angle |
| ISO | International environmental management standard |
| IUCN | International Union for the Conservation of Nature |
| JAMBA | Japan-Australia Migratory Bird Agreement |
| JORC | Australasian Joint Ore Reserves Committee |
| JSA | Job Safety Analysis |
| K | Potassium |
| kg | kilogram |
| Kg H ₂ SO ₄ /t | kg of sulphuric acid per tonne |
| kg/ha | kilogram per hectare |
| kL | kilolitres |
| kL/day | kilolitres per day |
| km | kilometre |
| km/h | kilometre per hour |
| km ² | square kilometre |
| KP | Kilometre point |
| kPa | Kilo Pascal |
| KPIs | key performance indicators |
| kV | kilo volts |
| kVA | Kilo Volt Amps |
| L | litre |

| | |
|--------------------------------|---|
| L/s | Litres per second |
| L/y | litres per year |
| L _{A1, 10, 90} | Noise levels exceeded 1%, 10% or 90% of the time |
| LAT | Lowest Astronomical Tide |
| Lateritic Nickel, Laterites | Nickel ores formed through weathering of lateritic soils |
| lc | least concern |
| LCZ | landscape character zones |
| LGA | Local government area |
| Liquor, Residue liquor | a liquid substance (water) that is a solution (or emulsion or suspension) used to carry the minerals of interest in the process |
| lithology | The microscopic study, description, and classification of rock |
| LMS | Low magnesium saprolite |
| LOM | Life of mine |
| LP | Low pressure |
| LP(P&SR) Act | <i>Land Protection (Pest and Stock Route) Management Act 2002</i> |
| LR | Low risk |
| m | metre |
| M | million |
| m/d | metres per day |
| m/m | metres/metre |
| m/s | metres per second |
| m ² | square metre |
| m ³ | cubic metres |
| m ³ /h | cubic metres per hour |
| m ³ /s | cubic metres per second |
| m ³ /y | cubic metres per year |
| mbgl | Metres below ground level |
| MEB | Medical Entomology Branch |
| mg | milligram |
| Mg | Magnesium |
| mg/L | milligrams per litre |
| MHF | major hazard facility |
| ML | million litres or megalitre |
| ML | Mineral Lease |
| ML/d | Megalitre per day |
| ML/y | million litres or megalitre per year |
| mm | millimetre |
| mm | millimetre |
| mm/day | millimetres per day |
| Mm ³ | million cubic metres |

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|------------------|--|
| Mn | Manganese |
| MnO ₂ | manganese dioxide |
| MNPL | Marlborough Nickel Pty Ltd |
| MOU | Memorandum of Understanding |
| MP | Medium pressure |
| MPA | Maximum potential acid |
| MPF | Major Project Facilitation |
| MSDSs | Material Safety Data Sheets |
| MSP | Mixed sulphide precipitation |
| MSQ | Maritime Safety Queensland |
| Mt | million tonnes |
| Mt/y | million tones per year |
| Mtpa | million tonnes per annum |
| MW | megawatt |
| MWh | megawatt hours |
| MWQP | Marine Water Quality Program |
| N ₂ O | Nitrous oxide |
| Na | Sodium |
| NAF | Non-acid forming |
| NAG | Net acid generation |
| NAPP | Net acid producing potential |
| NATA | National association of testing authorities |
| NC Act | <i>Nature Conservation Act 1992</i> |
| NDT | Non-destructive testing |
| NEPC | National Environmental Protection Council |
| NEPM | National Environmental Protection Measure |
| NES | National Environmental Significance |
| NGS | National Greenhouse Strategy |
| NHMRC | National Health and Medical Research Council |
| Ni | Nickel |
| NO | Nitric oxide |
| NO ₂ | Nitrogen dioxide |
| NOHSC | National Occupational Health and Safety Commission |
| NO _x | Oxides of nitrogen |
| NPI | National pollution inventory |
| NSW EPA | New South Wales Environmental Protection Agency |
| nt | near threatened |
| NT Act | Native Title Act 1993 |
| NTU | Nephelometric turbidity units |
| NZS | New Zealand standard |
| O ₂ | Oxygen |

| | |
|--|--|
| O ₃ | Ozone |
| OD | Outside diameter |
| OHS | Occupational health and safety |
| OLS | Obstacle Limitation Surface |
| OPP | Ore preparation plant |
| OPSIM | Operation simulation model |
| PABX | Private Automatic Branch Exchange typically hosting multiple phone extensions and a main site dial in number. |
| PAF | Potentially acid forming |
| PAMs | Pre-assembled modules |
| PASS | Potential acid sulphate soils |
| Pathogens | An agent that causes infection or disease, especially a micro-organism, such as a bacterium or protozoan, or a virus |
| Pb | Lead |
| PbS | Galena |
| PCCC | Port Curtis-Coral Coast |
| PCIMP | Port Curtis Integrated Monitoring Program |
| PCs | Personal computers |
| pH | measure of acidity (<7) or alkalinity (>7) of a (water) sample. |
| Phreatic Surface | The top of the water table in a soil structure |
| Piezometric level | Measurement of potential groundwater pressure in aquifers |
| PIFU | Planning Information Forecasting Unit |
| PJ/a | PetaJoules per annum |
| PM | Particulate matter (fine dust) |
| PM _{2.5} and PM ₁₀ | Particulate matter less than 2.5 or 10 microns |
| PMF | Probable Maximum Flood |
| PMG | Pearce Matheson Group Pty Ltd |
| PPE | Personal Protection Equipment |
| Prill/pastille sulphur | Sulphur powder that has been compacted into a pellet or tablet form |
| PSSA | 'Particularly Sensitive Sea Area' |
| QAS | Queensland Ambulance Service |
| QFRS | Queensland Fire and Rescue Service |
| QPS | Queensland Police Service |
| QR | Queensland rail |
| QRA | quantitative risk assessments |
| RAMSAR | Ramsar sites are wetlands of international importance designated under the Ramsar Convention |
| REs | Regional Ecosystems |
| RIFA | red imported fire ants |
| Riparian | Pertaining to the riverine zone or area of vegetation associated with a water course |
| Riprap | Rock or other material used to stabilize shore. |

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| RL | Reduced level (relative height compared to Australian Height Datum) |
| RLMS | Resource and Land Management Services |
| RMA | Residue management area and Resource Modelling Associates |
| ROM | Run of mine |
| ROW | Right-of-way |
| rpm | Revolution per minute |
| RSF | Residue Storage Facility |
| S.L.A.M | Stop Look Assess Manage |
| SAG | Semi Autogenous Grinding |
| SAP | Sulphuric Acid Plant |
| SCADA | Supervisory Control and Data Acquisition |
| scat | Dung left by animals aiding in identification |
| SDPWO Act | <i>State Development and Public Works Organisation Act 1971</i> |
| Se | Selenium |
| SEP | Stanwell Energy Park |
| SES | State Emergency Service |
| SKM | Sinclair Knight Merz |
| SLA | Statistical Local Area |
| SLOT DTL | Specified Level of Toxicity Dangerous Toxic Load |
| SMS | Safety Management System. |
| SN | Solution neutralisation |
| SO ₂ | Sulphur dioxide |
| SO ₃ | Sulphur trioxide |
| SO ₄ | Sulphate |
| SOPs | Standard Operating Procedures |
| SPP | State Planning Policy |
| STEL | Short term exposure limit |
| Supratidal | above high water |
| t | tonnes |
| t/a, tpa, t/y | tonnes per annum |
| t/y | Tonnes per year |
| Tailings | The unwanted sand, silt, clay and a proportion of the very fine ore fractions removed in the ore mining and refining process. |
| TAPM | CSIRO's The Air Pollution Model |
| Taxa | Taxonomic units describing organisms in a hierarchical grouping. The level of taxa commonly referred to in the description of flora and fauna are: Family, <i>Genus</i> and <i>species</i> |
| TDS | Total dissolved solids |
| Ti | Titanium |
| Toolbox meeting | Meetings of personnel at the beginning of the shift to detail information, issues and hazards applicable to that days work. |
| TOR | Terms of Reference |

| | |
|----------------|---|
| TOC | Total organic carbon |
| TOs | traditional owners |
| tph | tonnes per hour |
| Transmissivity | The transmissivity of an aquifer is a measure of how much water can be transmitted horizontally |
| TSF | Tailings storage facility |
| TSP | Total suspended particles |
| TSS | Total suspended solids |
| TWA | Time weighted average |
| UNFCCC COP3 | Conference of the Parties to UNFCCC |
| UNFCCC | United Nations Framework Convention on Climate Change |
| URS | URS Australia Pty Ltd |
| V | Vertical when referring to slope angle or Volts when referring to power |
| VM Act | <i>Vegetation Management Act 1999</i> |
| VOC | Volatile organic compounds |
| Vu | Vulnerable |
| Vug | A small cavity in rock, often lined with crystals |
| WA | Western Australia |
| WAN | Wide Area Network, connects office for data communications like internal email |
| WHS Act | <i>Workplace Health and Safety Act 1995</i> |
| WHO | World Health Organisation |
| WICT | Wiggins Island Coal Terminal |
| WIW | Wiggins Island Wharfs |
| WONS | Weeds of national significance |
| WQOs | water quality objectives |
| WTP | Water treatment plant |
| y | year |
| Zn | zinc |
| ZnS | Sphalerite |