

Abbreviations, Acronyms and Symbols

%	percent
<	less than
>	greater than
µg/L	micrograms per litre
µS/cm	microSiemens per centimetre
°C	degrees celsius
µg/m ³	micrograms per cubic metre
µm	micrometre
AADT	Average Annual Daily Traffic
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ACH Act	<i>Aboriginal Cultural Heritage Act 2003 (Qld)</i>
AEC	DPI Animal Ethics Committee
AFC	Armoured Face Conveyor
AGO	Australian Greenhouse Office
AHD	Australian Height Datum
ANZECC	Australia and New Zealand Conservation Council
APCT	Abbott Point Coal Terminal
ARI	Average Recurrence Interval
AS	Australian Standard
AS/NZS	Australian Standard/New Zealand Standard
ATSIC	Aboriginal and Torres Strait Islander Commission
AUL	Auxiliary Left Turn
BBKY	Barada Barna Kabalbara & Yetimarla People
BBKY#3	Barada Barna Kabalbara & Yetimarla People #3
BBKY#4	Barada Barna Kabalbara & Yetimarla People #4
bcm	Bank Cubic Metres
BLCM	Broadlea Coal Mine
BLM	Bureau of Land Management
BoM	Bureau of Meteorology
Bonn Convention	Convention on the Conservation of Migratory Species of Wild Animals.
BPF	Belt Press Filters
BSL	Beam Stage Loader
Ca	Calcium
CAMBA	China-Australia Bird Agreement
CDCM	Carborough Downs Coal Mine
CEC	Cation Exchange Capacity
CH ₄	methane
CHD	coronary heart disease
CHMP	Cultural Heritage Management Plan
CHPP	Coal Handling and Preparation Plant
CHR	Channelised Right Turn
CLR	Contaminated Land Register
CMSH Act	<i>Coal Mine Safety and Health Act 1999</i>

CMSH Regulation	<i>Coal Mine Safety and Health Regulation 2001</i>
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ -e	carbon dioxide equivalents
CO ₂ -e/y	CO ₂ equivalent per year
CoG	The Coordinator-General of the State of Queensland
COPD	chronic obstructive pulmonary disease
CPPC	Coal Preparation Plant Capacity
CPRS	Carbon Pollution Reduction Scheme
CQCN	Central Queensland Coal Network
CQSS2 (what is the 2 part?)	Central Queensland Strategy for Sustainability – 2004 and Beyond
CRC	Co-operative Research Centre
CSG	Coal Seam Gas
CSIRO	Commonwealth Scientific and Industrial Research Organisation
dB	Decibels
dB(A)	Decibels- A weighted
DBCT	Dalrymple Bay Coal Terminal
DEET	Department of Employment, Education, and Training
DEOs	desired environmental outcomes
DES	Department of Emergency Services
DEWHA	Department of the Environment, Water, Heritage and the Arts (formerly DEH)
DEWR	Commonwealth Department of Environment and Water Resources
DGS	Ditton Geotechnical Services
DHCS	Department of Health and Community Services
DIDO	drive-in, drive-out
DIP	Department of Infrastructure and Planning
DIPE	Department of Infrastructure, Planning and Environment
DMC	Dense Medium Cyclone
DME	Department of Mines and Energy
DMR	Department of Main Roads
DNRW	Department of Natural Resources and Water
DO	Dissolved oxygen
DPI	Queensland Department of Primary Industries
DPI&F	Queensland Department of Primary Industries and Fisheries
DSA	design storage allowance
e.g.	for example
EA	Environmental Authority
EC	Electrical Conductivity
ECMP	Ellensfield Coal Mine Project
EIS	Environmental Impact Statement
EM Plan	Environmental Management Plan
EMR	Environmental Management Register
EP Act	<i>Environmental Protection Act 1994</i>
EP Regulation	<i>Environmental Protection Regulations 1998</i>
EPA	Queensland Environmental Protection Agency
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPC	Exploration Permit Coal

EPP	Environmental Protection Policy
EPP (Air)	Environmental Protection (Air) Policy
EPP (Noise)	Environmental Protection (Noise) Policy
EPP (Waste)	Environmental Protection (Waste Management) Policy 2000
EPP (Water)	Environmental Protection (Water) Policy
EPP (Water)	Environmental Protection (Water) Policy 1997
ERA	environmentally relevant activity
EREs	Endangered Regional Ecosystems
ERP	Emergency Response Plan
ERP	estimated resident population
ESD	ecologically sustainable development
EVR	Endangered, Vulnerable, Rare
FEL	Front End Loading
FIFO	fly-in/fly-out
FoS	Factor-of-Safety
FTE	full-time equivalent
GAP	Goonyella Abbott Point (rail line)
GARID	Guidelines for Assessment of Road Impacts of Development
GBRWHA	Great Barrier Reef World Heritage Area
GDE	Groundwater Dependent Ecosystem
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GJ	Gigajoule
GJ/y	Gigajoules per year
GL	Gigalitre
QQAL	Good Quality Agricultural Land in State Planning Policy 1/92: Development and the Conservation of Agricultural Land.
GRP	Gross Regional Product
GSP	Gross State Product
GWh	Gigawatt hours
H	Horizontal
H ₂ O	Water
ha	Hectares
HAZMAT	Hazardous Materials
HAZOP	Hazard and Operability
HB	Hand Book
HCl	Hydrochloric acid
HERBRECS	Queensland EPA Herbarium flora database
HPCT	Hay Point Coal Terminal
HSEC	Health, Safety, Environment and Community
i.e.	that is,
IAS	Initial Advice Statement, as defined by Part 4 of the <i>State Development & Public Works Organisation Act 1971</i>
IDAS	Integrated development assessment system
IEA	International Energy Agency
IGCC	Integrated Gasification Combined Cycle
IPA	<i>Integrated Planning Act 1997</i> (Qld)
IPCC	Intergovernmental Panel for Climate Change

IRC	Isaac Regional Council
ISO	International environmental management standard
IUCN	International Union for the Conservation of Nature
JAMBA	Japan-Australia Migratory Bird Agreement
JSA	Job Safety Analysis
K	potassium
kg	kilogram
kg/ha	kilogram per hectare
kL	kilolitres
kL/day	kilolitres per day
km	kilometre
km/h	kilometre per hour
km ²	square kilometre
KPIs	key performance indicators
kV	kilovolts
L	litre
L/s	Litres per second
L/y	litres per year
LCZ	Landscape Character Zone
LGAs	Local Government Areas
LHD	Load haul dump vehicles
LNG	Liquefied Natural Gas
LOM	Life of Mine
LOX	Limit of Oxidation
LPG	liquid petroleum gas
LW	Longwall
m	metre
M	million
m AHD	metres Australian Height Datum
m/d	metres per day
m/s	metres per second
m ²	square metres
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
mD	millidarcies
MDL	Mineral Development Licence
MDLA	Mineral Development Licence Application
mg	milligram
Mg	magnesium
mg/L	milligrams per litre
MIA	mining infrastructure area
MIRSA	Mining Industry Road Safety Alliance
ML	million litres or megalitre
MLA	Mining Lease Application
mm	millimetre

mm/day	millimetres per day
Mm ³	million cubic metres
MNES	Matters of National Environmental Significance
MOU	Memorandum of Understanding
MR Act	<i>Mineral Resources Act 1989</i>
MRCSD	Mackay Regional Council for Social Development Ltd
MRL	mandatory reporting levels
MSDSs	Material Safety Data Sheets
Mt	million tonnes
Mtpa	million tonnes per annum
MW	megawatt
MWh	megawatt hours
MWTP	Moranbah Water Treatment Plant
N	nitrogen
N ₂ O	Nitrous oxide
Na	Sodium
NAC	Northern Archaeology Consultancies Pty Ltd
NATA	National association of testing authorities
NB	Nominal Bore
NC Act	<i>Nature Conservation Act 1992 (Qld)</i>
NEPC	National Environmental Protection Council
NEPM	National Environment Protection Measure
NES	National Environmental Significance. (was on last page MNES)
NGER Act	National Greenhouse and Energy Reporting Act 2007
NGS	National Greenhouse Strategy
No.	Number
NO ₂	Nitrogen dioxide
NOHSC	National Occupational Health and Safety Commission
NOI	Notice of Intent
NO _x	Oxides of nitrogen
NPI	National pollution inventory
NRW	Department of Natural Resources and Water
NT Act	<i>Native Title Act 1993</i>
NTRB	Native Title Representative Body
NZS	New Zealand standard
O ₂	Oxygen
O ₃	Ozone
OEF	Overburden emplacement facility
OHS	Occupational health and safety
P	phosphorous
P&G Act	<i>Petroleum and Gas (Production and Safety Management) Act 2004 (Qld)</i>
PAF	Potential Acid Forming
PCI	pulverised coal injection
PCQ	Ports Corporation Queensland
pH	measure of acidity (<7) or alkalinity (>7) of a sample.
PHA	preliminary hazard assessment
PHMP	Principal Hazard Management Plan

PIFU	Planning and Information Unit
PM	Particulate matter (fine dust)
PMF	Probable Maximum Flood
PPE	Personal Protection Equipment
PPP	public-private partnerships
PSI	Preliminary Site Investigation
QAS	Queensland Ambulance Service
QDT	Department of Transport
QFRS	Queensland Fire and Rescue Service
QMRS	Queensland Mines Rescue Service
QPWS	Queensland Parks and Wildlife Service
QR	Queensland Rail
QRNA	Queensland Rail Network Access
QRSIS	Queensland Regional Statistical Information System
QWQG	Queensland Water Quality Guidelines 2006
RAAG	Road Accident Action Group
RLO	Rail Load-Out
REDD	Regional Ecosystem Description Database
REIQ	Real Estate Institute of Queensland
REs	Regional Ecosystems
RL	Reduced level (relative height compared to Australian Height Datum)
ROM	Run-of-mine
RoW	Right of Way for pipeline
RPDs	real property descriptions
rpm	Revolutions per minute
RUMP	road use management plan
SCR	State-Controlled Road
SD	Statistical Division
SDPWO Act	<i>State Development & Public Works Organisation Act 1971</i> (Qld)
SFIA	Social Facilities Infrastructure Audit Report
SIA	social impact assessment
SIS	Surface In-Seam
SLA	Statistical Local Area
SMS	Safety Management System
SO ₂	sulphur dioxide
SO ₄	sulphate
SOPs	Standard Operating Procedures
SPP	State planning policies
SPP 1/03	State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide
SSD	Statistical Subdivision
Sustainable Futures Framework	Sustainable Futures Framework for Queensland Mining Towns
t	tonnes
TAPM	The Air Pollution Model
TDS	Total dissolved solids
TES	Terrenus Earth Sciences
TLO	Truck Load-Out

ToR	Terms of Reference
TOs	traditional owners
tpa	tonnes per annum
tph	tonnes per hour
TSP	total suspended particulates
TSS	total suspended solids
UCM	underground coal mine
UG	underground
UIS	Underground In-Seam
ULP	unleaded fuel
UNFCC COP3	Conference of the Parties to UNFCCC
UNFCCC	United Nations Framework Convention on Climate Change
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
WEF	Waste Emplacement Facility
WHAM Regional Plan	Whitsunday Hinterland and Mackay Regional Plan
WHO	World Health Organisation
WHO Guideline	World Health Organisation Guidelines for Community Noise
WMP	waste management plan
WONS	Weed of National Significance
Woorra	Woorra Consulting Pty Ltd
yr	year

Glossary

Aquifer	An aquifer is defined as a groundwater bearing formation sufficiently permeable to transmit and yield water in useable quantities.
Brackish	Salty
carbon dioxide equivalents	The global warming potential is a measure of the amount of infrared radiation captured by a gas in comparison to an equivalent mass of CO ₂ , over a fixed lifetime.
Confined aquifers	Groundwater that is bounded between layers of impermeable (resistant) substances like clay or dense rock and is generally under pressure.
Environmental Values	The EP Act defines what an environmental values as “a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation”.
Exchangeable Cations	Exchangable cations include sodium, potassium, calcium and magnesium
Groundwater Dependent Ecosystem	Those parts of the environment the species composition and natural ecological process of which are determined by the permanent or temporary presence or influence of groundwater, <i>Department of the Environment and Heritage, (Nov, 2001)</i> .
Hydraulic conductivity	The rate at which water can move through a material
Hydrogeological	The area of geology that deals with the occurrence, distribution, and effect of ground water.
Interburden	rock material positioned between the coal seams.
JORC Code	Australian Code for Reporting of Mineral Resources and Ore Reserves
LA _{1, 10, 90}	Noise levels exceeded 1%, 10% or 90% of the time
Overburden	soil and rock material overlying the coal deposit
Permeability	rate of flow of groundwater through a porous material
Permeability Testing	Consists of determining the voume of water passing through a specimen in a known time, under known conditions of effective stress and hydraulic gradient.
PM _{2.5} and PM ₁₀	Particulate matter less than 2.5 or 10 microns in diameter
Recharge Rates	Deep drainage of rainfall to the aquifer
Regolith	The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
Subartesian	water rising naturally in a well to a height above that of the surrounding water table but not flowing out of the well.
Subcrop	where a rock type comes close to or is exposed to the surface.
Value-added	(at market prices), represents the sum of wages, profits and indirect taxes, and is the standard measure used in Australia to represent the size of an economy.
Yield	the amount of water able to be generated from an aquifer in a unit of time