

Vickery Coal Project

Environmental
Impact
Statement

SECTION 9

ABBREVIATIONS,
ACRONYMS AND
GLOSSARY

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9 ABBREVIATIONS, ACRONYMS AND GLOSSARY

9.1 ABBREVIATIONS AND ACRONYMS

AEMR	Annual Environmental Management Report	CCC	Community Consultative Committee
AEP	Annual Exceedance Probability	CHPP	Coal Handling and Preparation Plant
AHD	Australian Height Datum	CL	Coal Lease
AHIMS	Aboriginal Heritage Information Management System	cm	centimetre
AIS	Agricultural Impact Statement	CMA	Catchment Management Authority
Ambient Air - NEPM	<i>National Environment Protection (Ambient Air Quality) Measure</i>	CO ₂ -e	carbon dioxide equivalent
ANFO	ammonium nitrate and fuel oil	Commonwealth Minister	Commonwealth Minister for Sustainability, Environment, Water, Population and Communities
ANZECC	Australian and New Zealand Environmental and Conservation Council	CSIRO	Commonwealth Scientific and Industrial Research Organisation
Approved Methods	<i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC, 2005)</i>	dB	decibel
ARI	average recurrence interval	dBA	A-weighted decibel
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand	dB	linear decibel
ARTC	Australian Rail Track Corporation	DCCEE	Commonwealth Department of Climate Change and Energy Efficiency
AS	Australian Standard	DEC	NSW Department of Environment and Conservation (now OEH)
AUTH	Authorisation	DECC	NSW Department of Environment and Climate Change (now OEH)
AWS	automatic weather station	DECCW	NSW Department of Environment, Climate Change and Water (now OEH and NOW)
BCA	benefit cost analysis	DGRs	Director-General's Requirements
BoM	Bureau of Meteorology	DNR	NSW Department of Natural Resources
Box-Gum Woodland EEC	<i>White Box Yellow Box Blakely's Red Gum Woodland Endangered Ecological Community</i>	DP&I	NSW Department of Planning and Infrastructure
BSAL	Biophysical Strategic Agricultural Land	DPI	NSW Department of Primary Industries
CCA	Coordinated Conservation Area	DPI-MR	NSW Department of Primary Industries – Mineral Resources (now DRE)
		DRE	NSW Division of Resources and Energy (within the DTIRIS)

DTIRIS	NSW Department of Trade and Investment, Regional Infrastructure and Services	GHG Protocol	Greenhouse Gas Protocol (WBCSD and WRI, 2004)
DUAP	NSW Department of Urban Affairs and Planning	Gunnedah LEP	<i>Gunnedah Local Environmental Plan 2012</i>
EC	electrical conductivity	H	horizontal
EEC	Endangered Ecological Community	ha	hectare
EEO	Energy Efficiency Opportunities	HVAS	high volume air sampler
EEO Act	<i>Commonwealth Energy Efficiency Opportunities Act, 2006</i>	ICOMOS	International Council on Monuments and Sites
e.g.	example	i.e.	that is
EIS	Environmental Impact Statement	IEA	International Energy Agency
EL	Exploration Licence	Infrastructure SEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
EP&A Act	<i>NSW Environmental Planning and Assessment Act, 1979</i>	INP	<i>NSW Industrial Noise Policy (EPA, 2000)</i>
EP&A Regulation	<i>NSW Environmental Planning and Assessment Regulation, 2000</i>	kg	kilogram
EPA	NSW Environment Protection Authority	km	kilometre
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act, 1999</i>	km ²	square kilometre
EPL	Environment Protection Licence	km/hr	kilometre per hour
EPRG	Environmental Protection and Regulation Group	kV	kilovolt
ERA	Environmental Risk Assessment	L	litre
ESD	ecologically sustainable development	L/s	litres per second
ETL	electricity transmission line	L _{Aeq}	equivalent continuous noise level
<i>et al.</i>	and others	LALC	Local Aboriginal Land Council
FM Act	<i>NSW Fisheries Management Act 1994</i>	L _{AN}	noise exceedance level
g/m ² /month	grams per square metre per month	L _{A10}	noise exceeded by 10% of the measured period
GEM	Geo-Environmental Management	LEP	Local Environmental Plan
		LGA	Local Government Area
		m	metre
		M	million
		m ³	cubic metre
		Mbcm	million bank cubic metres

mg/L	milligram per litre	NATA	National Association of Testing Authorities
m/s	metres per second		
MIA	Mine Infrastructure Area	NGA Factors	<i>National Greenhouse Accounts Factors</i> (DCCEE, 2012)
MIC	maximum instantaneous charge	NGER Act	<i>National Greenhouse and Energy Reporting Act, 2007</i>
Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>	NGERS	National Greenhouse and Energy Report System
ML	Mining Lease	NOW	NSW Office of Water
ML	megalitre	NO _x	nitrogen oxide
ML/annum	megalitre per annum	NPWS	NSW National Parks and Wildlife Service
ML/day	megalitre per day	NSESD	National Strategy for Ecologically Sustainable Development (Commonwealth of Australia, 1992)
MLA	Mining Lease Application		
mm	millimetre	NSW	New South Wales
mm/s	millimetre per second		
MOC	Ministerial Oversight Committee	NTSCORP	Native Title Services Corporation limited
MOP	Mining Operations Plan	NTU	nephelometric turbidity unit
Mpa	million per annum	NW Act	<i>NSW Noxious Weeds Act, 1993</i>
MREMP	Mining, Rehabilitation and Environmental Management Process	OEH	NSW Office of Environment and Heritage
MRRT	Minerals Resource Rent Tax	PAF	potentially acid forming
MRRT Act	<i>Minerals Resources Rent Tax Act, 2012</i>	PFM	Planning Focus Meeting
MSDS	Material Safety Data Sheet	PHA	Preliminary Hazard Analysis
Mt	million tonnes	PoEO Act	<i>NSW Protection of the Environment Operations Act, 1997</i>
Mt CO _{2-e}	million tonnes of carbon dioxide equivalent	PVS	Peak Vector Sum
Mtpa	million tonnes per annum	RBL	Rating Background Level
NAF	non-acid forming	REMP	Rehabilitation and Environmental Management Plan
Namoi CAP	<i>Namoi Catchment Action Plan</i> (Namoi CMA, 2007).	RMS	NSW Roads and Maritime Services
Narrabri LEP	<i>Narrabri Local Environmental Plan 1992</i>	RNP	<i>NSW Road Noise Policy</i>

ROM	run-of-mine	TSP	total suspended particulate
RPS	RPS Harper Somers O'Sullivan Pty Ltd	TSR	Travelling Stock Reserve
RTA	NSW Roads and Traffic Authority	TSS	total suspended solid
Semi-evergreen Vine Thicket EEC	<i>Semi-evergreen Vine Thicket in the Brigalow Belt South and Nandewar Bioregions</i> Endangered Ecological Community	V	vertical
SEPP	State Environmental Planning Policy	WAL	water access licence
SEWPaC	Commonwealth Department of Sustainability, Environment, Water, Population and Communities	WBCSD	World Business Council for Sustainable Development
SLA	Statistical Local Area	Weeping Myall Woodland EEC	<i>Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions Endangered Ecological Community</i>
State and Regional Development SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>	Whitehaven	Whitehaven Coal Limited
t	tonne	WRI	World Resources Institute
t CO ₂ -e	tonnes per carbon dioxide equivalent	µm	micrometre
t CO ₂ -e/t	tonnes per tonne of carbon dioxide equivalent	µg/m ³	microgram per cubic metre
TCPL	Tarrawonga Coal Pty Ltd	µS/cm	microSiemen per centimetre
TDS	total dissolved solid	%	percent
TEOM	Tapered Element Oscillating Microbalance	°	degree
the FMP	<i>Carroll to Boggabri Floodplain Management Plan</i>	°C	degrees Celsius
the Minister	NSW Minister for Planning and Infrastructure	9.2 GLOSSARY	
the New England North West SRLUP	<i>the New England North West Strategic Regional Land Use Plan</i>	Alluvial	A general term for clay, silt, sand and gravel transported by water and deposited on the bed of a floodplain, river or stream.
the Project	Vickery Coal Project	Ambient air quality	The all-encompassing air quality associated with a given environment. It is the cumulative result of emissions (e.g. dust, particulates) from many sources, both near and far.
tpa	tonnes per annum	Amenity	Useful and enjoyable quality.
TSC Act	NSW <i>Threatened Species Conservation Act, 1995</i>		

Aquatic	Living in or on water, or concerning water.	Catchment	The entire land area from which water (e.g. rainfall) drains to a specific watercourse or water body.
Aquifer	A sub-surface rock formation containing water in recoverable quantities.	Confluence	A body of water formed by the flowing together of two or more watercourses.
Average recurrence interval (ARI)	The expected value or average value of the periods between exceedances of a given event magnitude. A term used in water engineering. Also known as “return period”.	Cross-section	A two-dimensional diagram of an object presented as if the object had been cut across its length.
Background	The condition (e.g. noise levels) already present in an area before the commencement of a specific activity.	dB	Decibel; unit used to express sound intensity.
Baseflow	The discharge of sub-surface water into a stream (i.e. groundwater seepages).	dBA	Decibels (A-weighted scale); unit used for most measurements of environmental noise; the scale is based upon typical responses of the human ear to sounds of different frequencies.
Batter	An engineered slope of soil or rock fill on either side upslope or downslope of a road, embankment or waste rock storage; the sloping banks of cut earth separating different levels in an open pit.	dBL	Linear decibels; measurable effect of an event (e.g. blast) on air pressure including measurement of generated energy which is below the limit of human hearing.
Biodiversity	The diversity of different species of plants, animals and micro-organisms, including the genes they contain, in the ecosystem of which they are part.	Decommissioning	Removal or reuse of infrastructure.
Bund	An earth, rock or concrete wall or mound constructed to restrict the inflow or outflow of liquids or noise.	Drawdown	The localised lowering of groundwater level.
		Ecologically Sustainable Development (ESD)	Development that improves the quality of life, in a way that maintains the ecological processes on which life depends.

Ecosystem	An interacting system of animals, plants, other organisms and non-living parts of the environment.	<i>in-situ</i>	A term used to distinguish material (e.g. soils, minerals, fossils, etc.) found in its original position of formation, deposition, or growth, as opposed to transported material.
Electrical Conductivity (EC)	The ability of a substance (either solid, liquid or gas) to transmit electricity.	Interburden	Rock material that separates two economically viable coal seams
Emission	The discharge of a substance (e.g. dust) into the environment.	Inter-generational equity	The concept that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
Final void	A completed (mined-out) open pit.		
Greenhouse gases	Gases with potential to cause climate change (e.g. methane, carbon dioxide and non-methane volatile organic compounds). Usually expressed in terms of carbon dioxide equivalent.	Intra-generational equity	The concept that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of their own generation.
Groundwater	All waters occurring below the land surface; the upper surface of the soils saturated by groundwater in any particular area is called the watertable.	L_{A10}	The noise exceeded by 10% of the measurement period. Commonly referred to as the average maximum.
Habitat	The particular local environment occupied by an organism.	L_{Aeq}	The equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.
Hardstand areas	Flat or gently sloping surface that has been engineered such that it is suitable for trafficking by vehicles and/or location of infrastructure.	Mitigation	Measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.
Hydraulic gradient	The change in static head (i.e. elevation and pressure) per unit of distance in a given direction (units: dimensionless).	Permeability	The ability of a rock or soil to allow fluid to pass through it.

pH	A measure of the degree of acidity or alkalinity of a solution; expressed numerically (logarithmically) on a scale of 1 to 14, on which 1 is most acid, 7 is neutral, and 14 is most basic (alkaline).	Runoff	A portion of precipitation (rain, hail and snow) that flows across the ground surface as water.
Population	A group of individuals of one species in an area.	Salinity	The total content of dissolved solids in groundwater or surface water, commonly expressed as parts of dissolved solids per million parts of solution, or milligrams of dissolved solids per litre of solution (mg/L).
Rating Background Level (RBL)	The overall single-figure sound background level representing each assessment period (day/evening/night) over the whole monitoring period, and is the level used for assessment purposes.	Stakeholder	Any individual, group or organisation that can affect, be affected by, or perceive itself to be affected by the behaviour of a company or an organisation.
Recharge	The addition of water to an aquifer, directly from the surface, indirectly from the unsaturated zone, or by discharge from overlying or underlying aquifer systems.	Subsoil	Soils that underlie the top layer of soil, typically having lower levels of organic matter and associated micro-organisms than in topsoil.
Rehabilitation	The restoration of a landscape and especially the vegetation following its disturbance.	Terrestrial	Living or growing on the land.
Remnant Vegetation	Native vegetation remaining after widespread clearing has taken place.	Topsoil	The upper or top layer of soil, that typical has higher levels of organic matter and associated micro-organisms.
Riparian	Pertaining to, or situated on, the bank of a body of water, especially a watercourse such as a river.	Total suspended particulate matter (TSP)	The mass of all particulate matter suspended in a solution (e.g. the air).
Run-of-mine (ROM)	Raw coal produced at the Tarrawonga Coal Mine.	Total suspended solids (TSS)	A common measure used to determine suspended solids concentrations in a waterbody and expressed in terms of mass per unit of volume (e.g. milligrams per litre).
		Tributary	A smaller watercourse, which discharges into a larger watercourse.

Value-added

The difference between the value of a firm's output and the cost of the inputs of raw materials, components or services brought in to produce that output.

Waste rock

Uneconomic rock extracted from the ground during mining operation to gain access to the coal.