



# BULLI SEAM OPERATIONS

## SECTION 10 ABBREVIATIONS, ACRONYMS AND GLOSSARY

## 10 ABBREVIATIONS, ACRONYMS AND GLOSSARY

### 10.1 ABBREVIATIONS AND ACRONYMS

		CCL	Consolidated Coal Lease
		CH <sub>4</sub>	methane
		CL	Coal Lease
AACWG	Appin Area Community Working Group	CLM Act	<i>Contaminated Land Management Act, 1997</i>
AADT	annual average daily traffic	cm	centimetre
ADG Code	<i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i>	CNTA	<i>Commonwealth Native Title Act, 1993</i>
AEMR	Annual Environmental Management Report	CO <sub>2</sub>	carbon dioxide
AGO	Australian Greenhouse Office	CO <sub>2</sub> -e	carbon dioxide equivalent
AHD	Australian Height Datum	CPP	Coal Preparation Plant
AHIMS	Aboriginal Heritage Information Management System	CRG	Community Reference Group
AHP	Aboriginal Heritage Plan	CSIRO	Commonwealth Scientific and Industrial Research Organisation
ANZECC	Australian and New Zealand Environmental and Conservation Council	dba	A-weighted decibel
AQMP	Air Quality Management Plan	dBL	linear decibel
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand	DCC	Commonwealth Department of Climate Change
ARTC	Australian Rail Track Corporation	DEC	NSW Department of Environment and Conservation
AS	Australian Standard	DECC	NSW Department of Environment and Climate Change (formerly DEC)
AUSRIVAS	Australian River Assessment Scheme	DECCW	NSW Department of Environment, Climate Change and Water (a collaboration of the DECC and DWE as of 1 July 2009)
AUTH	Authorisation	DEH	Commonwealth Department of the Environment and Heritage
BACI	Before, After, Control, Impact	DET	NSW Department of Education and Training
BHPBIC	BHP Billiton Illawarra Coal Pty Ltd	DEWHA	Commonwealth Department of the Environment, Water, Heritage and the Arts (formerly DEH)
BoM	Bureau of Meteorology	DII	NSW Department of Industry and Investment (a collaboration of the DPI, DWE and Department of State and Regional Development as of 1 July 2009)
Campbelltown Contributions Plan	<i>Campbelltown City Council Section 94A Development Contributions Plan</i>		
CCC	Campbelltown City Council		

DITRDLG	Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government	EP&A Act	<i>Environmental Planning and Assessment Act, 1979</i>
		EP&A Regulation	<i>Environmental Planning and Assessment Regulation, 2000</i>
DMR	NSW Department of Mineral Resources	EPA	Environment Protection Authority
DoP	NSW Department of Planning	EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act, 1999</i>
DPI	NSW Department of Primary Industries	EPI	Environmental Planning Instrument
DPI–Agriculture	NSW Department of Primary Industries – Agriculture	EPL	Environment Protection Licence
DPI–Fisheries	NSW Department of Primary Industries – Fisheries	ERA	Environmental Risk Assessment
DPI-MR	NSW Department of Primary Industries – Mineral Resources (formerly DPI-MR)	ERM	Environmental Resources Management
Drinking Water Catchments REP	<i>Drinking Water Catchments Regional Environmental Plan No 1</i>	ESD	Ecologically Sustainable Development
DSC	Dams Safety Committee	ESAP	Energy Savings Action Plan
DUAP	NSW Department of Urban Affairs and Planning	ESI	Environmental Simulations Incorporated
DWE	NSW Department of Water and Energy	<i>et al.</i>	and others
EA	Environmental Assessment	EWG	Executive Working Group
EARs	Director-General's Environmental Assessment Requirements	g/m <sup>2</sup> /month	grams per square metre per month
EC	Electrical Conductivity	GHG Protocol	Greenhouse Gas Protocol
ECRTN	<i>NSW Environmental Criteria for Road Traffic Noise</i>	GL	gigalitre
EDAW	EDAW Australia Pty Ltd	GPS	global positioning system
EDL	Energy Development Limited	Greater Metropolitan REP	<i>Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment</i>
EEC	Endangered Ecological Community	GRP	Gross Regional Product
EGP	Eastern Gas Pipeline	Gt	Gigatonnes
EL	Exploration Licence	ha	hectare
ENCM	<i>NSW Environmental Noise Control Manual</i>	HCPL	Helensburgh Coal Pty Limited
		HFC	hydrofluorocarbon

i.e.	that is	Major Projects SEPP	<i>State Environmental Planning Policy (Major Projects) 2005</i>
IBRA	Interim Biogeographic Regionalisation for Australia	MCP	Mine Closure Plan
ICHPL	Illawarra Coal Holdings Pty Ltd	MDBC	Murray-Darling Basin Commission
Illawarra BFMC	Illawarra Bush Fire Management Committee	Metropolitan PAC Report	<i>Metropolitan Coal Project Review Report (Planning Assessment Commission, 2009)</i>
Illawarra REP	<i>Illawarra Regional Environmental Plan No 1</i>	mg/L	milligram per litre
Illawarra SD	Illawarra Statistical Division	Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
INP	<i>NSW Industrial Noise Policy</i>	ML	megalitre
<i>Interim Requirements</i>	<i>Part 6 Approvals – Interim Community Consultation Requirements for Applicants</i>	ML/day	megalitre per day
IPCC	Intergovernmental Panel on Climate Change	MLA	Mining Lease Application
kL	kilolitre	mm	millimetre
kL/day	kilolitres per day	mm/m	millimetres per metre
km	kilometre	mm/s	millimetre per second
km <sup>2</sup>	square kilometre	MOP	Mining Operations Plan
kV	kilovolt	MREMP Guidelines	<i>Guidelines to the Mining, Rehabilitation and Environmental Management Process</i>
L <sub>Aeq</sub>	equivalent continuous noise level	MSB	Mine Subsidence Board
L <sub>AN</sub>	noise exceedance level	MSDS	Material Safety Data Sheet
LDP	licensed discharge point	MSEC	Mine Subsidence Engineering Consultants
LEP	Local Environment Plan	Mt	million tonnes
LGA	Local Government Area	Mtpa	million tonnes per annum
m	metre	MVA	megavolt amperes
M	million	MW	megawatt
m <sup>3</sup>	cubic metre	NGA Factors	<i>National Greenhouse Accounts Factors</i>
m <sup>3</sup> /s	cubic metre per second	NGER Act	<i>National Greenhouse and Energy Reporting Act, 2007</i>
Macarthur BFMC	Macarthur Bush Fire Management Committee		

NHMRC	National Health and Medical Research Council	RTA	NSW Roads and Traffic Authority
NMP	Noise Management Plan	SB BMP	Southern Brown Bandicoot Management Plan
N <sub>2</sub> O	nitrous oxide	SCA	Sydney Catchment Authority
NPWS	NSW National Parks and Wildlife Service	SCPR	Southern Coalfield Panel Report
NSESD	National Strategy for Ecologically Sustainable Development	SEPP	State Environmental Planning Policy
NSW	New South Wales	SEPP 33	<i>State Environmental Planning Policy No. 33 (Hazardous and Offensive Development)</i>
NTU	Neophelometric Turbidity Units	SEPP 44	<i>State Environmental Planning Policy No. 44 (Koala Habitat Protection)</i>
OTDR	Optical Time Domain Reflectometer	SEPP 55	<i>State Environmental Planning Policy No. 55 (Remediation of Land)</i>
OU	odour unit	SEPP 55	<i>State Environmental Planning Policy No. 55 (Remediation of Land)</i>
OSWS SSD	Outer South-Western Sydney Statistical Subdivision	SESI AHS	South East Sydney and Illawarra Area Health Service
PAC	Planning Assessment Commission	SF <sub>6</sub>	sulfur hexafluoride
PAD	potential archaeological deposit	SIDRA	Signalised and unsignalised Intersection Design and Research Aid
PED	personal emergency device	SLA	Statistical Local Area
PFC	perfluorocarbon	SMP	Subsidence Management Plan
PHA	Preliminary Hazard Analysis	SOHI	Statement of Heritage Impact
PKCT	Port Kembla Coal Terminal	SSWAHS	Sydney South West Area Health Service
PM <sub>10</sub>	particulate matter less than 10 microns in size	SWCM Act	<i>Sydney Water Catchment Management Act, 1998</i>
PoEO Act	<i>Protection of the Environment Operations Act, 1997</i>	Sydney REP No. 20	<i>Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River (No 2 - 1997)</i>
PRP	Pollution Reduction Program	t	tonne
RBL	rating background level	t/m <sup>3</sup>	tonne per cubic metre
RMP	Risk Management Plan	TARP	Trigger Action Response Plan
rms	root mean square	the Endeavour Project	Endeavour Project Surface Components
RMZ	Risk Management Zone	the Project	Bulli Seam Operations
RO	Reverse Osmosis		
ROM	run-of-mine		
RoTAP	Rare or Threatened Australian Plants		

		<b>10.2 GLOSSARY</b>
TKN	Total Kjeldahl Nitrogen	
TSC Act	<i>Threatened Species Conservation Act, 1995</i>	Alluvial
TSP	total suspended particulate	A general term for clay, silt, sand and gravel transported by water and deposited, on the bed of a flood plain, river or stream.
UNFCCC	<i>United Nations Framework Convention on Climate Change</i>	Ambient air quality
USDA-FS	United States Department of Agriculture – Forestry Service	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.
VAMP	Ventilation Air Methane Project	
VDV	Vibration Dose Value	
WBCSD	World Business Council for Sustainable Development	Amenity
WCC	Wollongong City Council	Useful and enjoyable quality.
WestVAMP	West Cliff Ventilation Air Methane Project	Aquatic
WIRES	NSW Wildlife Information and Rescue Service	Living in or on water, or concerning water.
Wollondilly BFMC	Wollondilly Bush Fire Management Committee	Aquifer
Wollondilly Contributions Plan	<i>Wollondilly Development Contributions Plan, 2005</i>	A sub-surface rock formation containing water in recoverable quantities.
Wollongong Contributions Plan	<i>Wollongong City Council Section 94A Development Contributions Plan</i>	Background
WRI	World Resources Institute	The condition (e.g. noise levels) already present in an area before the commencement of a specific activity.
WSC	Wollondilly Shire Council	Baseline monitoring
WTP	Water Treatment Plant	Monitoring conducted over time to collect a body of information to define specific characteristics of an area (e.g. species occurrence or noise levels) prior to commencement of a specific activity.
µm	micrometre	
µg/m <sup>3</sup>	microgram per cubic metre	
µS/cm	microSiemen per centimetre	Biological diversity
%	percent	The diversity of different species of plants, animals and micro-organisms, including the genes they contain, in the ecosystem of which they are part.
°	degree	
°C	degrees Celsius	

Catchment	The entire land area from which water (e.g. rainfall) drains to a specific watercourse or water body.	Drift	An underground passage driven through rock to access or intersect a coal seam.
Coal Wash	By-product of the coal washing process generally comprising a mixture of carbonaceous shale and mudstone with minor quantities of sandstone and low quality coal.	Dyke	A sheetlike vertical intrusion of igneous rock cutting across the strata of older rocks.
Coking Coal	Self coking coal with ash of less than 10% and volatile matter of 21-23%, excellent capacity for carrying 'soft' coking coals in a blend.	Ecologically Sustainable Development (ESD)	Development that improves the quality of life, in a way that maintains the ecological processes on which life depends.
Conveyor	Fixed mechanical apparatus consisting of a continuous moving belt used to transport coal from one place to another.	Ecosystem	An interacting system of animals, plants, other organisms and non-living parts of the environment.
Cross-section	A two-dimensional diagram of an object presented as if the object had been cut along its length.	Electrical Conductivity (EC)	The ability of a substance (either solid, liquid or gas) to transmit electricity.
Crusher	That part of a preparation plant where material is mechanically crushed into smaller pieces.	Emission	The discharge of a substance (e.g. dust) into the environment.
Cyclone	A conical vessel that uses centrifugal action to separate particulate matter of differing specific gravity.	Endemic	Native plant or animal restricted to a specific locality or geographic region.
dB	Decibel; unit used to express sound intensity.	Energy Coal	High calorific content thermal coal with ash of between 15% and 20%, low total moisture and excellent handleability.
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.	Fault	Major fracture of the earth's crust caused by the relative movement of the rock masses on either side.
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.	Floristics	The study of the geography of plants, particularly their distribution at different taxonomic levels, i.e. family, genus and species. Patterns of distribution are interpreted in terms of climatic and anthropogenic influence, but above all in terms of earlier continental configurations and migration routes.

Fracturing	Fractures formed in a stream bed or rockbar which result in water diversion and reduced pool water levels.	Income	The amount of money or its equivalent received during a period of time in exchange for labour or services, from the sale of goods or property, or as profit from financial investments.
Gate roads	An underground roadway (tunnel) that provides access to a working longwall for continuous mining.	Indirect Regional Output	The gross value of business turnover that arises in other enterprises through production-induced linkages (other businesses supplying inputs to production) and consumption-induced linkages (other businesses supplying goods and services demand by employees of the enterprise).
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.		
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.	Infrastructure	The supporting installations and services that supply the needs of the Project.
Habitat	The particular local environment occupied by an organism.	<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.
Hardstand areas	Flat or gently sloping surface that has been engineered such that it is suitable for trafficking by vehicles and/or infrastructure.	Inter-generational equity	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.
Herpetofauna	Collective term for reptiles and amphibians.		
Hopper	A container/bin used for holding coal material.	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.
Hydraulic properties	Parameters which measure the rate at which water moves through a soil/rock mass.		
Igneous	A rock which originated as molten magma from beneath the earth's surface and subsequently came to the surface as an extrusion, or remained below ground as an intrusion.	$L_{Aeq}$	The equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.



Land capability	A method of land use assessment used to estimate the ability of the land to support a particular land use. Classification is based on an assessment of the land's biophysical characteristics.	Relative humidity	The ratio of actual moisture in the air to the amount the air could hold if saturated, at a given temperature.
Macroinvertebrate	Larger invertebrates (animals without backbones) which can be studied without a microscope.	Remnant vegetation	Native vegetation remaining after widespread clearing has taken place.
Minor fracturing	Fractures formed in a stream bed or rockbar that do not result in measurable water diversion or reductions in pool water levels.	Riparian	Pertaining to, or situated on, the bank of a body of water, especially a watercourse such as a river.
Permeability	The ability of a rock or soil to allow fluid to pass through it.	Run-of-mine (ROM)	Raw coal, stockpiled and used to feed the crusher in the coal preparation plant.
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).
Portal	The surface entry or exit point of an underground access passage.	Seepage	Liquid or fluid such as water, seeping or flowing from beneath the ground to the surface.
Potable water	Water of quality suitable for human consumption.	Spontaneous Combustion	Self heating and ignition of a combustible material such as coal.
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.	Stratigraphic	Stratigraphy – The branch of geology concerned with the origin, composition, sequence, and correlation of rock strata.
Rehabilitation	The restoration of a landscape and especially the vegetation following its disturbance.	Substrate	An underlying layer (e.g. of sediment under water).

Terrestrial

Living or growing on the land.

Total suspended particulates (TSP)

Particulate matter suspended in solution of air.

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).

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.

Ventilation Shaft

An opening on the land surface down to the underground workings in which fresh air is introduced or ventilation air is exhausted.