

ENVIRONMENTAL ASSESSMENT

Duralie Extension Project

SECTION 9 ABBREVIATIONS, ACRONYMS AND GLOSSARY



GLOUCESTER
COAL



ResourceStrategies

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9 ABBREVIATIONS, ACRONYMS AND GLOSSARY

9.1 ABBREVIATIONS AND ACRONYMS

AA Company	Australian Agricultural Company	CaCO ₃	calcium carbonate
ACHA	Aboriginal Cultural Heritage Assessment	CCC	Community Consultative Committee
ACHMP	Aboriginal Cultural Heritage Management Plan	CEMCC	Community Environmental Monitoring and Consultative Committee
ADG Code	<i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i>	CH ₄	methane
AEMR	Annual Environmental Management Report	CHPP	Coal Handling and Preparation Plant
AGL	AGL Gloucester LE Pty Ltd	CLM Act	<i>NSW Contaminated Land Management Act, 1997</i>
AGO	Australian Greenhouse Office	CMA	Catchment Management Authority
AHD	Australian Height Datum	cm	centimetre
AHIMS	Aboriginal Heritage Information Management System	CO ₂	carbon dioxide
AMD	acid mine drainage	CO ₂ -e	carbon dioxide equivalent
ANFO	ammonium nitrate and fuel oil	CPDP	Conceptual Project Development Plan
ANZECC	Australian and New Zealand Environmental and Conservation Council	CPRS	Carbon Pollution Reduction Scheme
AQMP	Air Quality Monitoring Program	CSIRO	Commonwealth Scientific and Industrial Research Organisation
ARD	acid rock drainage	dB	decibel
ARI	average recurrence interval	dBA	A-weighted decibel
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand	dBL	linear decibel
ARTC	Australian Rail Track Corporation	DCC	Commonwealth Department of Climate Change
AS	Australian Standard	DCM	Duralie Coal Mine
bcm	bank cubic metre	DCPL	Duralie Coal Pty Ltd
BMP	Blast Monitoring Program	DEC	NSW Department of Environment and Conservation
BoM	Commonwealth Bureau of Meteorology	DECC	NSW Department of Environment and Climate Change (formerly DEC)
		DECCW	NSW Department of Environment, Climate Change and Water (a collaboration of the DECC and DWE as of 1 July 2009)
		DEWHA	Commonwealth Department of the Environment, Water, Heritage and the Arts (formerly Department of Environment and Heritage)

DII	NSW Department of Industry and Investment (a collaboration of the DPI, and Department of State and Regional Development as of 1 July 2009)	EGi	Environmental Geochemistry International Pty Ltd
		EMPS	Environmental Management and Planning Services
DII–Fisheries	NSW Department of Industry and Investment – Fisheries	EP&A Act	NSW <i>Environmental Planning and Assessment Act, 1979</i>
DII-Minerals & Energy	NSW Department of Industry and Investment – Minerals and Energy	EP&A Regulation	NSW <i>Environmental Planning and Assessment Regulation, 2000</i>
DLWC	NSW Department of Land and Water Conservation	EPA	NSW Environment Protection Authority
DoP	NSW Department of Planning	EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act, 1999</i>
DPI	NSW Department of Primary Industries	EPI	Environmental Planning Instrument
DPI-MR	NSW Department of Primary Industries – Mineral Resources	EPL	Environment Protection Licence
DSC	NSW Dams Safety Committee	ERA	Environmental Risk Assessment
DSE	dry sheep equivalents	ESAP	Energy Savings Action Plan
DUAP	NSW Department of Urban Affairs and Planning	ESCP	Erosion and Sediment Control Plan
Duralie Coal EIS	<i>Duralie Coal Environmental Impact Statement</i>	ESD	ecologically sustainable development
Duralie Extended SEE	<i>Duralie Extended Modification Statement of Environmental Effects</i>	<i>et al.</i>	and others
Duralie SEE	<i>Proposed Alterations to Duralie Coal Project Statement of Environmental Effects</i>	ETL	electricity transmission line
		FM Act	NSW <i>Fisheries Management Act, 1994</i>
DWE	NSW Department of Water and Energy	Freshwater Wetlands on Coastal Floodplains EEC	Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community
EA	Environmental Assessment		
EARs	Director-General's Environmental Assessment Requirements		
EC	Electrical Conductivity	g/m ² /month	grams per square metre per month
ECRTN	NSW <i>Environmental Criteria for Road Traffic Noise</i>	GCL	Gloucester Coal Ltd
EEC	Endangered Ecological Community	GHG Protocol	Greenhouse Gas Protocol
		Gilbert & Associates	Gilbert & Associates Pty Ltd
e.g.	example		

GLC	Great Lakes Council	LGA	Local Government Area
Great Lakes LEP	<i>Great Lakes Local Environmental Plan, 1996</i>	Lowland Rainforest on Floodplain EEC	Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion Endangered Ecological Community
GRP	Gross Regional Product		
GSC	Gloucester Shire Council	m	metre
H	horizontal	M	million
ha	hectare	m ³	cubic metre
Heggies	Heggies Pty Ltd	Major Projects SEPP	<i>State Environmental Planning Policy (Major Projects) 2005</i>
HFC	hydrofluorocarbon	Mbcm	million bank cubic metre
Hunter-Central Rivers CAP	Hunter-Central Rivers Catchment Action Plan	MCP	Mine Closure Plan
HVAS	high volume air sampler	mg/L	milligram per litre
IBRA	Interim Biogeographic Regionalisation for Australia	MIC	Maximum Instantaneous Charge
i.e.	that is	Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
IIA	Invertebrate Identification Australasia		
IMP	Irrigation Management Plan	ML	Mining Lease
INP	NSW <i>Industrial Noise Policy</i>	ML	megalitre
<i>Interim Requirements</i>	<i>National Parks and Wildlife Act 1974: Part 6 Approvals Interim Community Consultation Requirements for Applicants</i>	ML/day	megalitre per day
JCCC	Johnsons Creek Conservation Committee	MLA	Mining Lease Application
kg	kilogram	mm	millimetre
kg/bcm	kilograms per bank cubic metre	mm/s	millimetre per second
km	kilometre	MOP	Mining Operations Plan
km ²	square kilometre	MREMP	Mining, Rehabilitation and Environmental Management Process
km/h	kilometre per hour	MREMP Guidelines	<i>Guidelines to the Mining, Rehabilitation and Environmental Management Process</i>
kV	kilovolt	MSDS	Material Safety Data Sheet
L/sec	litre per second	Mt	million tonnes
L _{Aeq}	equivalent continuous noise level	Mtpa	million tonnes per annum
L _{AN}	noise exceedance level	MW	megawatt
LEP	Local Environment Plan	MWD	Main Water Dam
LFA	Landscape Function Analysis		

NAF	non-acid forming	River-Flat Eucalypt Forest EEC	River-Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community
NAG	net acid generation		
NGA Factors	<i>National Greenhouse Accounts Factors</i>		
NGER Act	<i>National Greenhouse and Energy Reporting Act, 2007</i>	RL	relative level
		ROM	run-of-mine
NHMRC	National Health and Medical Research Council	RTA	NSW Roads and Traffic Authority
NMP	Noise Monitoring Program	RSC	residual sodium carbonate (bicarbonate)
N ₂ O	nitrous oxide	SAR	sodium adsorption ratio
NOW	NSW Office of Water within the DECCW	SCM	Stratford Coal Mine
NPWS	NSW National Parks and Wildlife Service	SCPL	Stratford Coal Pty Ltd
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>
pa	per annum	SEPP 44	<i>State Environmental Planning Policy No. 44 (Koala Habitat Protection)</i>
PAF	potentially acid forming	SEPP 55	<i>State Environmental Planning Policy No. 55 (Remediation of Land)</i>
PAFMMP	Potentially Acid Forming Material Management Plan		
PEL	Petroleum Exploration Licence	SF ₆	sulphur hexafluoride
PFC	perfluorocarbon	SLA	Statistical Local Area
PFM	Planning Focus Meeting	t	tonne
PHA	Preliminary Hazard Analysis	TEC	threatened ecological community
pKLinear	peak linear	the alluvial aquifer embargo	<i>Coastal Floodplain Alluvial Groundwater Sources and Highly Connected Alluvial Groundwater Sources of Coastal Catchments – Regional NSW</i>
PM ₁₀	particulate matter less than 10 microns in size	the Minister	NSW Minister for Planning
PoEO Act	<i>NSW Protection of the Environment Operations Act, 1997</i>	the Project	Duralie Extension Project
PVS	Peak Vector Sum	the Water Sharing Plan	<i>Water Sharing Plan for the Karuah River Water Source, 2003</i>
QR	Queensland Rail		
RBL	rating background level		
RFS	Rural Fire Service		

TSC Act	NSW <i>Threatened Species Conservation Act, 1995</i>	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”.
TSP	total suspended particulate		
UNFCCC	<i>United Nations Framework Convention on Climate Change</i>		
V	vertical	Background	The condition (e.g. noise levels) already present in an area before the commencement of a specific activity.
WBCSD	World Business Council for Sustainable Development		
WRI	World Resources Institute		
V	volt	Baseflow	The discharge of sub-surface water into a stream (i.e. groundwater seepages).
µm	micrometre		
µg/m ³	microgram per cubic metre	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.
µS/cm	microSiemen per centimetre		
%	percent		
°C	degrees Celsius		

9.2 GLOSSARY

Alluvial	A general term for clay, silt, sand and gravel transported by water and deposited on the bed of a floodplain, river or stream.	Berm	A low bank or steep slope built onto a slope to improve its structural stability and reduce erosion.
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.	Biological diversity	The diversity of different species of plants, animals and micro-organisms, including the genes they contain, in the ecosystem of which they are part.
Amenity	Useful and enjoyable quality.	Bund	An earth, rock or concrete wall or mound constructed to restrict the inflow or outflow of liquids or noise.
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.

Cross-section	A two-dimensional diagram of an object presented as if the object had been cut across its length.	Fault	Major fracture of the earth's crust caused by the relative movement of the rock masses on either side.
dB	Decibel; unit used to express sound intensity.	Final void	A completed (mined-out) open pit.
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.	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.
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.	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.
Decommissioning	Removal or reuse of infrastructure.	Habitat	The particular local environment occupied by an organism.
Drawdown	The localised lowering of groundwater level.	Hardstand areas	Flat or gently sloping surface that has been engineered such that it is suitable for trafficking by vehicles and/or infrastructure.
Ecologically Sustainable Development (ESD)	Development that improves the quality of life, in a way that maintains the ecological processes on which life depends.	Hydraulic conductivity	A measure of the capacity for a rock or soil to transmit water.
Ecosystem	An interacting system of animals, plants, other organisms and non-living parts of the environment.	Hydraulic gradient	The change in static head (i.e. elevation and pressure) per unit of distance in a given direction. (Units: dimensionless).
Electrical Conductivity (EC)	The ability of a substance (either solid, liquid or gas) to transmit electricity.	<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.
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.
Endemic	Native plant or animal restricted to a specific locality or geographic region.		

Intermittently	Occurring at irregular intervals.	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.
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.	Regolith	The unconsolidated mantle of weathered rock, soils and sediment material.
LA ₁₀	The noise exceeded by 10% of the measurement period. Commonly referred to as the average maximum.	Rehabilitation	The restoration of a landscape and especially the vegetation following its disturbance.
LA _{eq}	The equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.	Relative humidity	The ratio of actual moisture in the air to the amount the air could hold if saturated, at a given temperature.
Loss scenario	A scenario with an element of environmental risk.	Remnant vegetation	Native vegetation remaining after widespread clearing has taken place.
Mitigation	Measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.	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 produced at the DCM.
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.	Seepage	Liquid or fluid such as water, seeping or flowing from beneath the ground to the surface.

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.
Stream gauging	Determination of water level and velocity in a stream or river for the purpose of calculating the volume of flow.
Terrestrial	Living or growing on the land.
Total suspended particulate matter (TSP)	The mass of all particulate matter suspended in a solution (e.g. the 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).
Tributary	A smaller watercourse, which discharges into a larger watercourse.
Undulating	Used to describe topography that is wave-like in appearance.
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.