Section 7
References and Glossary of Terms, Acronyms, Symbols and Units

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GLOSSARY OF TERMS

acoustic shielding – a natural or artificial structure (e.g. a hill or a bund) that inhibits the transmission of sound.

adverse weather conditions (in respect of noise and dust) – conditions, such as high wind, that assist the movement of dust or propagation of noise away from the site towards receptors.

air pollutant – a substance in ambient atmosphere, resulting from the activity of man or from natural processes, causing adverse effects to man and the environment (also called "air contaminant").

air quality goals – quantitative relationship between a pollutant's dose, concentration, deposition rate or any other air quality-related factors, and the related effects on receptors, e.g. humans, animals, plants, or materials. Air quality goals serve as the scientific basis for formulating ambient air quality standards or objectives.

ambient level – existing level of a phenomenon without the influence of the proposal.

amenity – the desirability of an area.

background dust level – dust level in the absence of mining and processing activities.

background noise levels – the level of the ambient sound indicated on a sound level meter in the absence of the sound under investigation (eg sound from a particular noise source; or sound generated for test purposes).

colliery – coal mine.

concentration – the amount of a substance, expressed as mass or volume, in a unit volume of air.

crusher – that part of a processing plant where the coal is mechanically crushed into smaller pieces.

crushing – the mechanical process of reducing rock size usually by pressure or impact.

cumulative – increasing by successive additions.

decibel – unit expressing difference in power between acoustic signals.

dust concentration – the amount of a substance, expressed as mass or volume, in a unit volume of air.

dust – particles of mostly mineral origin generated by erosion of surfaces and the mining and handling of materials

ecologically sustainable development (ESD) – using, conserving and enhancing the community's resources so that ecological processes on which life depends are maintained and the total quality of life, now and in the future can be increased.

emission – a discharge of a substance (e.g. dust) into the environment.

environment – a general term for all the conditions (physical, chemical, biological and social) in which an organism or group of organisms (including human beings) exists.

environmental constraints – limitations on a project by components of the environment.

Environmental Assessment (EA) – a formal description of a project and an assessment of its likely impact on the physical, social and economic environment prepared for projects considered under Part 3A of the EPA Act. It includes an evaluation of alternatives and an overall justification of the project. The EA is used as a vehicle to facilitate public comment and as the basis for analysing the project with respect to granting approval under relevant legislation.

front-end loader – machine used to lift and place soil, earth, rocks, coal into a truck.

haul truck – a truck specifically designed for hauling and tipping soil or rock within the Project Site.

inter-generational equity – the principle 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.

mitigation measures – measures employed to reduce (mitigate) an impact (such as the construction of a perimeter bund to reduce sound emissions).

mobile equipment – wheeled or tracked self propelled equipment such as trucks and front-end loaders.

monitoring – systematic sampling and, if appropriate, sample analysis to record changes over time caused by impacts such as mining.

particulate matter – small solid or liquid particles suspended in or falling through the atmosphere – sometimes expressed by the term particulates.

pollution – the alteration of air, soil, or water as a result of human activities such that it is less suitable for any purpose for which it could be used in its natural state.

precautionary principle – a principle of ESD which states that decisions about any proposed development should be guided by careful management to avoid serious and irreversible damage to the environment.

relative humidity – the ratio of actual moisture in the air to the amount the air could hold if saturated, at a given temperature.

resource – an estimate of potentially usable coal in a defined area based on preliminary information.

stockpile – a pile used to store material (such as low-grade ore) for future use.

topography – the physical relief and contour of a region.

wind direction – the direction from which the wind, averaged over a certain period of time, is blowing.

wind rose – diagrammatic representation of wind direction, strength, and frequency of occurrence over a specified period.

Glossary of Acronyms

AADT	Annual Average Daily Traffic.
AHD	Australian Height Datum
BoM	Bureau of Meteorology
DECC	NSW Department of the Environment and Climate Change
DoP	Department of Planning
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
ESD	Ecologically Sustainable Development.
FEL	Front-end Loader
INP	Industrial Noise Policy
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NO_2	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
tpa	Tonnes per Annum
ROM	Run-of-Mine
TAPM	"The Air Pollution Model"
TSP	Total Suspended Particulate
VOC	Volatile Organic Compound

Glossary of Symbols and Units

^{o}	degrees.
^oC	degrees Celsius.
%	percentage.
<	less than.
≤	less than or equal to.
>	greater than.
≥	greater than or equal to.
cm	centimetre (= 10mm).
dB	decibel, unit used to express sound intensity.
dB(A)	the unit of measurement of sound pressure level heard by the human ear, expressed in "A" scale.
g	gram (= 0.001 kilogram).
$g/m^2/month$	grams per square metre per month – unit for deposited dust.
km	kilometre (= 1 000 metres).
km/hr	kilometres per hour.
L	Litre
L_{Aeq}	the L_{Aeq} is the "equal energy" average noise levels, and is used in some instances for the assessment of traffic noise effects or the risk of hearing impairment due to noise exposures.
$L_{Aeq\ 15\ min.}$	the "equal energy" average noise level over 15 minutes – used for assessing impacts of noise from motor vehicles.
m	metre (= 100cm).
m AHD	metres Australian Height Datum.
M	million.
m^2	square metre.
m^3	cubic metre.
PM_{10}	particulate matter <10μm in diameter.
$PM_{2.5}$	particulate matter <2.5μm in diameter.
t	tonne (= 1 000kg).
$\mu g/m^3$	micrograms (1×10^{-6} grams) per cubic metre