Aquifer Interference Policy Considerations and Water Licensing Addendum





CONTENTS

A6	AQUIFER INTERFERENCE POLICY CONSIDERATIONS AND WATER LICENSING ADDENDUM A6-				
				A0-1	
	A6.1		R INTERFERENCE POLICY DERATIONS	A6-1	
		A6.1.1	Aquifer Interference Policy Overview	A6-1	
		A6.1.2	Aguifer Interference Policy		
			Requirements	A6-2	
	A6.2	WATER	MANAGEMENT ACT, 2000	A6-4	
		A6.2.1	Objects of the Act	A6-4	
		A6.2.2	Water Management Principles	A6-12	
		A6.2.3	Access Licence Dealing		
			Principles	A6-13	
		A6.2.4	Hunter Unregulated and Alluvia	al	
			Water Sharing Plan 2009	A6-14	
	A6.3	WATER	ACT, 1912	A6-16	
	A6.4	REFERE	ENCES	A6-17	

LIST OF TABLES

Table A6-1	Existing Groundwater Licensing Summary
Table A6-2	Estimated Groundwater Licensing Requirements for the Project
Table A6-3	Minimal Impact Considerations for Highly Productive Alluvial Aquifers
Table A6-4	Minimal Impact Considerations for Less Productive Alluvial Aquifers
Table A6-5	Minimal Impact Considerations for Less Productive Porous and Fractured Rock Aquifers

LIST OF FIGURES

Figure A6-1 Highly Productive Aquifer and Reliable Surface Water at Wilpinjong Coal Mine

LIST OF ATTACHMENT

Attachment A6-A Groundwater Licences



A6 AQUIFER INTERFERENCE POLICY CONSIDERATIONS AND WATER LICENSING ADDENDUM

This attachment provides further discussion on the requirements and application of relevant water licensing and associated approvals under the New South Wales (NSW) Water Management Act, 2000 and the NSW Water Act, 1912. It also provides a discussion of relevant requirements of the NSW Aquifer Interference Policy (the AIP) (NSW Government, 2012).

References to Sections 1 to 7 in this attachment are references to the sections of the Main Report of the Environmental Impact Statement (EIS). Internal references within this attachment are prefixed with 'A6'.

A6.1 AQUIFER INTERFERENCE POLICY CONSIDERATIONS

A6.1.1 Aguifer Interference Policy Overview

The AIP (NSW Government, 2012) has been developed by the NSW Government as a component of the NSW Government's *Strategic Regional Land Use Policy*. The AIP applies state wide and details water licence and impact assessment requirements.

The AIP has been developed to ensure equitable water sharing between various water users and proper licensing of water that is taken by aquifer interference activities to ensure that the take is accounted for in the water budget and water sharing arrangements.

The *Water Management Act, 2000* defines an aquifer interference activity as that which involves any of the following:

- the penetration of an aquifer,
- the interference with water in an aquifer,
- the obstruction of the flow of water in an aquifer,
- the taking of water from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations, and
- the disposal of water taken from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations.

Examples of aquifer interference activities include mining, coal seam gas extraction, injection of water, as well as commercial, industrial, agricultural and residential activities that intercept the watertable or interfere with aquifers (NSW Government, 2012).

The AIP applies to all aquifer interference activities but has been developed in particular to address the following high risk activities (NSW Government, 2012):

- mining activities such as open cut voids, underground mine workings and the disposal of water taken from an aquifer including water taken as part of coal seam gas extraction;
- other extractive industries, such as sand and gravel extraction...:
- coal seam gas activities, including those related to both exploration and production
- other large projects which require dewatering such as for the construction and maintenance of associated works, such as buildings, roads and other civil works:
- injection works used to transmit water into an aquifer: and'
- activities with the potential to contaminate groundwater or result in unacceptable loss of storage or structural damage to an aquifer.

Licensing Requirements

The AIP requires all water taken by aquifer interference activities to be accounted for within the extraction limits set by the relevant Water Sharing Plan. A water licence is required, where water is taken either incidentally or for consumptive use, or where any act by a person carrying out an aquifer interference activity causes (NSW Government, 2012):

- the removal of water from a water source; or
- the movement of water from one part of an aquifer to another part of an aquifer; or
- the movement of water from one water source to another water source, such as:
 - from an aquifer to an adjacent aquifer; or
 - from an aquifer to a river/lake; or
 - from a river/lake to an aquifer.

The AIP also requires consideration of the continued take of water from groundwater or connected surface waters following cessation of an aquifer interference activity. For example, the post-closure inflow that occurs until a groundwater system reaches equilibrium following cessation of open cut mining must be considered.



Licences are required to be held to adequately account for the ongoing take of water until the system returns to equilibrium, or alternatively, sufficient licences are required to be surrendered to the Minister administering the *Water Management Act, 2000*.

Minimal Impact Considerations

In addition to licensing requirements, the *Water Management Act, 2000* includes the concept of ensuring "no more than minimal harm" is caused to a water source. In this regard, the AIP includes minimal impact considerations relating to watertable and groundwater pressure drawdown and changes in groundwater and surface water quality.

The AIP provides that (NSW Government, 2012):

Aquifer interference approvals are not to be granted unless the Minister is satisfied that adequate arrangements are in force to ensure that no more than minimal harm will be done to any water source, or its dependent ecosystems, as a consequence of its being interfered with in the course of the activities to which the approval relates.

While aquifer interference approvals are not required to be granted, the minimal harm test under the Water Management Act 2000 is not activated for the assessment of impacts. Therefore, this Policy establishes and objectively defines minimal impact considerations as they relate to water-dependent assets and these considerations will be used as the basis for providing advice to either the gateway process, the Planning Assessment Commission or the Minister for Planning.

The AIP establishes minimal impact considerations for groundwater categories of both 'highly productive' and 'less productive' groundwater. 'Highly productive groundwater' is defined by the AIP as groundwater which (NSW Government, 2012):

...is defined in this Policy as a groundwater source that is declared in the Regulations and will be based on the following criteria:

- a) has total dissolved solids of less than 1,500 mg/L, and
- b) contains water supply works that can yield water at a rate greater than 5 L/sec.

The AIP further groups 'highly productive groundwater' into the following categories:

- Alluvial.
- Coastal sands.

- Porous rock, including:
 - Great Artesian Basin Eastern Recharge and Southern Recharge;
 - Great Artesian Basin Surat, Warrego and Central: and
 - other porous rock.
- Fractured rock

The AIP similarly defines categories for less productive groundwater which includes the following:

- Alluvial.
- Porous rock.
- Fractured rock.

A6.1.2 Aquifer Interference Policy Requirements

An assessment of the Wilpinjong Extension Project (the Project) against the licensing requirements and minimal impact considerations of the AIP is provided in the sub-sections below.

Water Licensing Requirements

As discussed in Section A6.1.1, the AIP requires all water taken by aquifer interference activities to be accounted for within the extraction limits set by the relevant water sharing plan. The water sharing plan relevant to the Project is the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009* (Water Sharing Plan). Therefore, licensing under the Water Sharing Plan is required to account for any additional loss of flow to the alluvium resulting from the Project.

Licensing under the NSW Water Act, 1912 is also required to account for water taken from the coal seams and adjacent hardrock as a result of any additional pit inflows from the porous rock aquifer.

Details of the current groundwater licences held by Wilpinjong Coal Pty Ltd (WCPL) and Peabody Energy¹ under the *Water Act, 1912* and the *Water Management Act, 2000* are summarised in Table A6-1 – with respect to the Wilpinjong Coal Mine.

References to Peabody Energy in this attachment are references to Peabody Energy Australia Pty Ltd or its subsidiary Peabody Pastoral Holdings Pty Ltd.



Table A6-1 Existing Groundwater Licensing Summary for the Project

Licence Number	Description	Valid to	Extraction Limits
Licences under the M	ater Management Act, 2000 (Alluvial Aquifer)	
WAL 21499 ¹	Alluvial Aquifer Licence	Perpetuity	474 units ²
Licences under the W	ater Act, 1912 (Porous Rock Aquifer)		
20BL173517 ³		10 June 2020	
20BL173516 ³		10 June 2020	
20BL173514 ³	Excavation – Groundwater (Mining)	10 June 2020	2021 units
20BL173515 ³		10 June 2020	
20BL173513 ³		10 June 2020	
20BL170063	20BL170063 Water Supply Bore (GWs10)		110 ML/year
20BL170059 Water Supply Bore (GWs14)		18 December 2016	110 ML/year

Source: After HydroSimulations (2015).

Note: WCPL also holds a number of licences for monitoring bores and test bores that are not included in this table. ML/year = megalitres per year.

Table A6-1 indicates that WCPL and Peabody Energy currently hold licence entitlements of 474 units under the Water Sharing Plan and 2,021 ML/year for water extracted from porous rock, which is required by the *Water Act, 1912*.

The predicted annual groundwater licensing volumes required for the Project are summarised in Table A6-2.

Based on the groundwater modelling (conducted by HydroSimulations [2015]), Peabody Energy and WCPL currently hold sufficient licences to cover the modelled groundwater inflows from the alluvial and porous rock groundwater sources (Table A6-2).

Relevant entitlements under these licences could be retired at the completion of the Project to account for groundwater inflows to the final voids post-mining.

The numerical groundwater model would be refined over the progression of the mine life in order to more accurately calculate the post-closure licensing requirements associated with the Wilpinjong Coal Mine.

Table A6-2
Estimated Groundwater Licensing Requirements for the Project

	Existing Peabody	Total Licensing Requirement (units)			
Groundwater Source	Energy/WCPL Licences (units)	During Mining	Post Mining (2033-2045)	Post Mining (2045-2100)	
Wollar Creek Alluvium ¹	474	171	143	147	
Porous Hard Rock ²	2,021	1,016	Nil	Nil	

Source: After HydroSimulations (2015).

Assigned to the Wollar Creek Water Source.

One unit is currently equivalent to 1.0 ML as per the Available Water Determination Order for Various NSW Unregulated and Alluvial Water Sources (No. 1) 2014.

WCPL have recently consolidated the five Excavation or Pit licences into this single site-wide 2021 unit entitlement.

Wollar Creek Water Source under the Water Sharing Plan.

² Currently licensed under the Water Act, 1912. These licence entitlements will be transferred to the Sydney Basin – Upper Hunter groundwater source once the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources commences.



Minimal Impact Considerations

As discussed above, the AIP established minimal impact considerations for 'highly productive' and less productive groundwater.

The NSW Department of Primary Industries [DPI] Water has identified a portion of the alluvial aquifer associated with Wilpinjong Creek and lower Wollar Creek as 'highly productive' (Figure A6-1). It is noted that in the vicinity of the Project this 'highly productive' aquifer is largely confined to land owned by Peabody Energy.

HydroSimulations (2015) concluded that it is unlikely that the current 'highly productive' classification for this area of the alluvial water source is valid on the basis of the available data, including NSW Pinneena database records and water quality data. This conclusion was made in the context of the recorded lithology and thickness of alluvium, the fact that no bores intersecting the declared 'highly productive' alluvium along Wilpinjong Creek or Wollar Creek have a recorded bore yield of greater than 5 litres per second in the Pinneena bore database and the distribution of groundwater salinity (Appendix C).

The Permian porous rock aquifer within the Project area is regulated under the *Water Act, 1912*, as no applicable water sharing plan has commenced to date for this water source. This aquifer is classified as 'less productive' by DPI Water.

In accordance with the definitions provided by the Strategic Regional Land Use Policy, Wilpinjong Creek downstream of the confluence of Cumbo Creek meets the definition of a 'reliable water supply' as it is a fifth order stream according to the Strahler system (Figure A6-1). However, there is no privately-owned land or water access licences (WALs) on the reach of Wilpinjong Creek downstream of the confluence with Cumbo Creek.

Tables A6-3, A6-4 and A6-5 provide an assessment of the watertable, water pressure and water quality minimal impact considerations for the following water sources associated with the Wilpinjong Coal Mine:

- highly productive alluvial water source;
- less productive alluvial water source; and
- less productive porous rock or fractured rock water source.

A6.2 WATER MANAGEMENT ACT, 2000

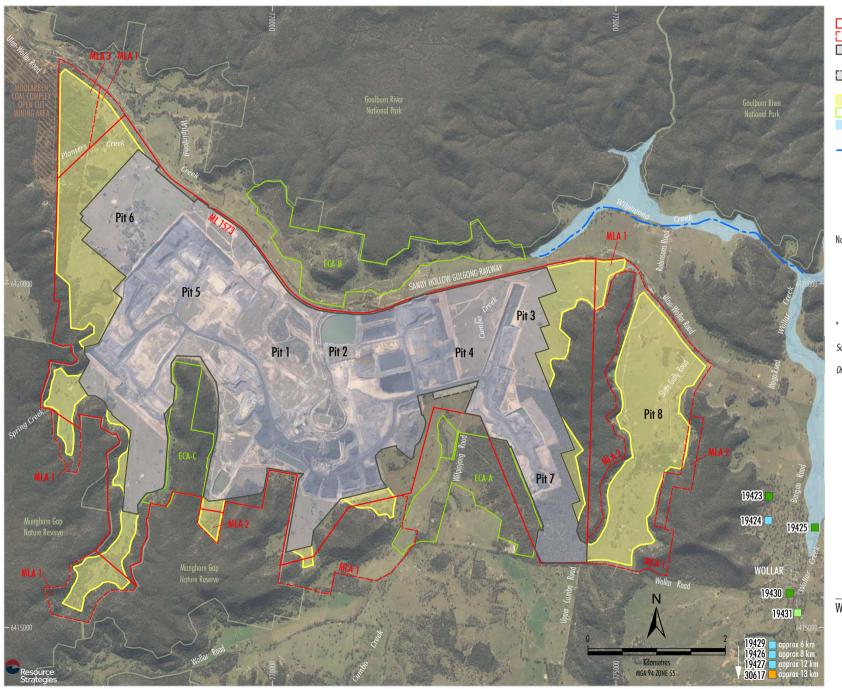
Consideration of the Project against the objects, water management principles and access licence dealing principles under the *Water Management Act, 2000* and a discussion of the licences and approvals required for the water source associated with the Project is provided below.

A6.2.1 Objects of the Act

Section 3 of the *Water Management Act, 2000* outlines the objects of the Act:

The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations and, in particular:

- (a) to apply the principles of ecologically sustainable development, and
- (b) to protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality, and
- (c) to recognise and foster the significant social and economic benefits to the State that result from the sustainable and efficient use of water, including:
 - (i) benefits to the environment, and
 - benefits to urban communities, agriculture, fisheries, industry and recreation. and
 - (iii) benefits to culture and heritage, and
 - (iv) benefits to the Aboriginal people in relation to their spiritual, social, customary and economic use of land and water.
- (d) to recognise the role of the community, as a partner with government, in resolving issues relating to the management of water sources,



LEGEND

Mining Lease Boundary

Mining Lease Application Boundary Approved/Existing Open Cut and Contained Infrastructure Area

Relocated Block Bank and Cumbo Creek
Disturbance Area

Proposed Open Cut Extension Area Enhancement and Conservation Area DPI Water - Mapped Highly Productive

Alluvial Aquifer
"Reliable Surface Water" (Wilpinjong Creek)*
Water Access Licences (Approximate Location)

Aquifer

Domestic and Stock

Domestic and Stock [Domestic]

Unregulated River

Note: WCPL and Moolarben Coal Water Access Licences not shown. Domestic and Stock [Domestic] Water Access Licence 36398 not shown as no location is registered for Work Approval 20CA212768. Water Access Licence 36398 has a total allocation of one unit.

* As defined by DPI Water.

Source: WCPL (2015); DPI Water (2015); NSW Dept of Industry (2015) Orthophoto: WCPL (Jun 2015; Jun 2014)

<u>Peabody</u>

WILPINJONG EXTENSION PROJECT

Highly Productive Aquifer and Reliable Surface Water at Wilpinjong Coal Mine



Table A6-3 Minimal Impact Considerations for Highly Productive Alluvial Aquifers

Aquifer		Alluvial Aquifer		
Category Highly Productive Water Source		Highly Productive Water Source		
Minimal	l Impact	Considerations	Assessment	
Watertable 1. Less than or equal to a 10% cumulative variation in the watertable, allowing for typical climatic "poot water sharing plan" variations, 40 m from any:		equal to a 10% cumulative variation in the watertable, allowing for typical climatic sharing plan" variations, 40 m from any:	The closest high priority groundwater dependent ecosystem listed in the Water Sharing Plan is approximately 130 kilometres (km) north-east of the Wilpinjong Coal Mine and would not be affected by drawdown from the Project.	
1		ority groundwater dependent ecosystem; or	There are no high priority culturally significant sites listed in the Water Sharing Plan.	
(b)	high pri	ority culturally significant site;	The Groundwater Assessment for the Project (Appendix C) predicted that no privately-owned registered bores accessing alluvial aquifers from the water source would	
		schedule of the relevant water sharing plan; or	incur more than 2 metres (m) drawdown due to the Project.	
		of a 2 m decline cumulatively at any water supply work.		
		10% cumulative variation in the watertable, allowing for typical climatic sharing plan" variations, 40 m from any:		
(a)	(a) high priority groundwater dependent ecosystem; or			
(b)	(b) high priority culturally significant site;			
dem	onstrate	schedule of the relevant water sharing plan then appropriate studies will need to to the Minister's satisfaction that the variation will not prevent the long-term e dependent ecosystem or significant site.		
If more than 2 m decline cumulatively at any water supply work then make good provisions should apply.				
Water pressure			No groundwater drawdown exceeding the AIP minimal harm criterion of 2 m at a water	
pres		e pressure head decline of not more than 40% of the "post-water sharing plan" ad above the base of the water source to a maximum of a 2 m decline, at any work.	supply work such as a bore or well accessing the alluvial aquifers is predicted to occur on any privately-owned land (Appendix C).	
stud	lies are re	ted pressure head decline is greater than requirement 1. above, then appropriate required to demonstrate to the Minister's satisfaction that the decline will not long-term viability of the affected water supply works unless make good provisions		



Table A6-3 (Continued) Minimal Impact Considerations for Highly Productive Alluvial Aquifers

Aquif	er	Alluvial Aquifer	
Categ	ory	Highly Productive Water Source	
Minim	Minimal Impact Considerations		Assessment
Minim Water 1. (a (b) (c) 2. If sa th 1. sa	quality) Any of the g e) No in conn Redessupp abov) No m top of alluving water e) Not m in this top of that if condition attisfaction edepende (d) are no attisfaction ource will et, then a	change in the groundwater quality should not lower the beneficial use category of roundwater source beyond 40 m from the activity; and acrease of more than 1% per activity in long-term average salinity in a highly ected surface water source at the nearest point to the activity. Sesign of a highly connected surface water source that is defined as a "reliable water ly" is not an appropriate mitigation measure to meet considerations 1.(a) and 1.(b)	Assessment The Groundwater Assessment for the Project (Appendix C) concludes there would be no discernible deterioration in groundwater quality as a result of mining, including in the long-term. The northern boundary of the existing/approved Pit 3 at its closest points is located approximately 180 m from Wilpinjong Creek, downstream of the Cumbo Creek confluence. The Project Pit 3 open cut extension would be located approximately 190 m from Wilpinjong Creek at its closest point, and would also be within 200 m of Wilpinjong Creek for approximately 60 m of its northern boundary. The remainder of the Project open cut extensions (including the majority of the Pit 3 open cut extension and all of the Pit 8 open cut extension area) are located further than 200 m from Wilpinjong Creek, downstream of Cumbo Creek. Geotechnical advice obtained for the Project (Attachment 8) states that the Project does not result in any additional material geotechnical issues. Therefore, the risk of the Project causing river bank instability on Wilpinjong Creek is considered negligible. The Wilpinjong Coal Mine (incorporating the Project) is located outside the extent of flooding from Wilpinjong Creek in the 1 in 1,000 Annual Exceedance Probability (AEP) design flood. Low permeability barriers are not required for the Project as the proposed pit extensions do not intercept the Wilpinjong Creek alluvium based on the extent interpreted by HydroSimulations (2015) from transient electromagnetic surveys. There is no privately-owned land or any WALs on the reach of Wilpinjong Creek downstream of the confluence with Cumbo Creek.
-		the activity's operation and post-closure, levee banks and landform design should	
-	prever low-pe will be effecti	nt the Probable Maximum Flood from entering the activity's site; and ermeability barriers between the site and the highly connected surface water source appropriately designed, installed and maintained to ensure their long-term veness at minimising interaction between saline groundwater and the highly coted surface water supply;	



Table A6-4 Minimal Impact Considerations for Less Productive Alluvial Aquifers

Aquifer	Alluvial Aquifer	
Category	Less Productive Water Source	
Minimal Impact Considerations		Assessment
1. Loss than or equal to a 10% sumulative variation in the watertable, allowing for typical		The closest high priority groundwater dependent ecosystem listed in the Water Sharing Plan is approximately 130 km north-east of the Wilpinjong Coal Mine and would not be affected by drawdown from the Project.
	iority groundwater dependent ecosystem; or	There are no high priority culturally significant sites listed in the Water Sharing Plan.
` ,	iority culturally significant site;	The Groundwater Assessment for the Project (Appendix C) predicted that no privately-owned registered bores accessing alluvial aquifers from the water source would incur more than
listed in the	schedule of the relevant water sharing plan; or	2 m drawdown due to the Project.
A maximum	of a 2 m decline cumulatively at any water supply work.	
	10% cumulative variation in the watertable, allowing for typical climatic sharing plan" variations, 40 m from any:	
(a) high pı	iority groundwater dependent ecosystem; or	
(b) high pr	iority culturally significant site;	
to demonstr	schedule of the relevant water sharing plan then appropriate studies will need ate to the Minister's satisfaction that the variation will not prevent the long-term be dependent ecosystem or significant site.	
If more than 2 m decline cumulatively at any water supply work then make good provisio should apply.		
Water pressure		No groundwater drawdown exceeding the AIP minimal harm criterion of 2 m at a water supply
	we pressure head decline of not more than 40% of the "post-water sharing plan" ead above the base of the water source to a maximum of a 2 m decline, at any ly work.	work such as a bore or well accessing the alluvial aquifers is predicted to occur on any privately-owned land (Appendix C).
appropriate decline wil	cted pressure head decline is greater than requirement 1. above, then estudies are required to demonstrate to the Minister's satisfaction that the not prevent the long-term viability of the affected water supply works unless provisions apply.	



Table A6-4 (Continued) Minimal Impact Considerations for Less Productive Alluvial Aquifers

Aquifer			Alluvial Aquifer			
Ca	ategory	/	Less Productive Water Source			
М	inimal l	Impact (Considerations	Assessment		
	ater qu	-		The Groundwater Assessment for the Project (Appendix C) concludes there would be no discernible deterioration in groundwater quality as a result of mining, including in the long-term.		
1.	` '	•		The portion of Wilpinjong Creek that is defined as a 'reliable water supply' is located co-incident with the 'highly productive' alluvial aquifer (Figure A6-1) and is considered further in Table A6-3		
	(b)		rease of more than 1% per activity in long-term average salinity in a highly cted surface water source at the nearest point to the activity.	(i.e. 'reliable water supply' is not relevant to 'less productive' alluvial aquifers).		
		water s	Ign of a highly connected surface water source that is defined as a "reliable supply" is not an appropriate mitigation measure to meet considerations 1.(a) (b) above.			
	(c)	the top	ning activity to be below the natural ground surface within 200 m laterally from of high bank or 100 m vertically beneath (or the three dimensional extent of avial water source - whichever is the lesser distance) of a highly connected water source that is defined as a "reliable water supply".			
2. If condition 1.(a) is not met then appropriate studies will need to demonstrate to the Minister's satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecosystem, significant site or affected water supply works. If condition 1.(b) or 1.(d) are not met then appropriate studies are required to demonstrate to the Minister's satisfaction that the River Condition Index category of the highly connected surface water source will not be reduced at the nearest point to the activity. If condition 1.(c) or (d) are not met, then appropriate studies are required to demonstrate to the Minister's satisfaction that:		disfaction that the change in groundwater quality will not prevent the long-term be dependent ecosystem, significant site or affected water supply works. If b) or 1.(d) are not met then appropriate studies are required to demonstrate to a satisfaction that the River Condition Index category of the highly connected or source will not be reduced at the nearest point to the activity. If condition the not met, then appropriate studies are required to demonstrate to the				
	 there will be negligible river bank or high wall instability risks; during the activity's operation and post-closure, levee banks and landform design should prevent the Probable Maximum Flood from entering the activity's site; and low-permeability barriers between the site and the highly connected surface water source will be appropriately designed, installed and maintained to ensure their long-term effectiveness at minimising interaction between saline groundwater and the highly connected surface water supply; 		Il be negligible river bank or high wall instability risks;			
			, , , , , , , , , , , , , , , , , , , ,			
			will be appropriately designed, installed and maintained to ensure their long- ectiveness at minimising interaction between saline groundwater and the			



Table A6-5 Minimal Impact Considerations for Less Productive Porous and Fractured Rock Aquifers

Aquifer	Porous Rock or Fractured Rock		
Category Less Productive Water Source			
Level 1 Minimal Impact Consideration		Assessment	
Watertable 1. Less than or equal to a 10% cumulative variation in the watertable, allowing for typical climatic "post-water sharing plan" variations, 40 m from any:		There is no water sharing plan relevant to the porous rock aquifer and therefore there are no listed high priority groundwater dependent ecosystems or high priority culturally significant sites in the vicinity of the Project.	
(a) high p (b) high p listed in the A maximul 2. If more tha "post-wate (a) high p (b) high p listed in the to demonse	riority groundwater dependent ecosystem; or riority culturally significant site; e schedule of the relevant water sharing plan; or m of a 2 m decline cumulatively at any water supply work. In 10% cumulative variation in the watertable, allowing for typical climatic r sharing plan" variations, 40 m from any: priority groundwater dependent ecosystem; or priority culturally significant site; e schedule of the relevant water sharing plan then appropriate studies will need that to the Minister's satisfaction that the variation will not prevent the long-term	The 'Drip' and associated water features, located on the Goulburn River about 11 km to the north-northwest of the Wilpinjong Coal Mine, has been listed by the National Trust as a culturally significant site. Given the nature and location of the Drip, it would not be affected by groundwater drawdown from Wilpinjong Coal Mine (incorporating the Project) (Appendix C). No groundwater drawdown exceeding the AIP minimal harm criterion of 2 m at a water supply work such as a bore or well is predicted to occur on any privately-owned land (Appendix C). Drawdown exceeding the AIP minimal harm criterion of 2 m is however predicted at one bore in the porous rock aquifer located on Crown land at the Wollar Public School (Appendix C). In accordance with the Wilpinjong Coal Mine Surface and Groundwater Response Plan, WCPL would continue to implement appropriate contingency measures (i.e. make good provisions) for Project related drawdown greater than 2 m at a groundwater bore. Appropriate contingency measures for an impact on a groundwater supply user may include:	
viability of the dependent ecosystem or significant site. If more than 2 m decline cumulatively at any water supply work then make goo should apply.		 deepening the affected groundwater supply; construction of a new groundwater supply; or provision of a new alternative water supply. 	
work. 2. If the prediction appropriated decline will	ve pressure head decline of not more than a 2 m decline, at any water supply cted pressure head decline is greater than requirement 1. above, then e studies are required to demonstrate to the Minister's satisfaction that the I not prevent the long-term viability of the affected water supply works unless d provisions apply.	No groundwater drawdown exceeding the AIP minimal harm criterion of 2 m at a water supply work such as a bore or well is predicted to occur on any privately-owned land (Appendix C). Drawdown exceeding the AIP minimal harm criterion of 2 m is however predicted at one bore in the porous rock aquifer located on Crown land at the Wollar Public School (Appendix C). In accordance with the Wilpinjong Coal Mine Surface and Groundwater Response Plan, WCPL would continue to implement appropriate contingency measures for Project related drawdown greater than 2 m at a groundwater bore.	



Table A6-5 (Continued) Minimal Impact Considerations for Less Productive Porous and Fractured Rock Aquifers

Aquifer	Porous Rock or Fractured Rock		
Category	Less Productive Water Source		
Level 1 Minimal Impact Consideration		Assessment	
Water quality 1. Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40 m from the activity.		The Groundwater Assessment for the Project (Appendix C) concludes there would be no discernible deterioration in groundwater quality as a result of mining, including in the long-term.	
 If condition 1 is not met then appropriate studies will need to demonstrate to the Minister's satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecosystem, significant site or affected water supply works. 			



- (e) to provide for the orderly, efficient and equitable sharing of water from water sources, (f) to integrate the management of water sources with the management of other aspects of the environment, including the land, its soil, its native vegetation and its native fauna.
- (g) to encourage the sharing of responsibility for the sustainable and efficient use of water between the Government and water users,
- (h) to encourage best practice in the management and use of water.

The Project would be consistent with the principles of ecologically sustainable development (Section 6.7.4).

A cumulative assessment of potential impacts of the Project on groundwater and surface water has been conducted as part of this EIS (Appendices C and D). Potential groundwater inflows and surface water containment requirements are described in Sections 2.12, 4.7 and 4.8. Water licensing and approval requirements for the Project are described in Section A6.1.2.

Mitigation measures, management and monitoring would be implemented to minimise potential impacts on downstream surface water flows, aquifers, water quality, soils, groundwater dependent ecosystems and biodiversity (Sections 2.12 and 4).

The benefit cost analysis in the Economic Assessment (Appendix M) indicates a significant net economic benefit would be forgone if the Project's use of these water resources was not to occur. No material adverse impacts on urban communities, regional agriculture, fisheries, industry or recreation is predicted to arise due to the Project water use or water management.

The existing Wilpinjong Coal Mine Water Management Plan (Sections 4.7 and 4.8) describes measures/procedures to respond to potential exceedances of water-related criteria, and contingent mitigation/compensation/offset options that are enacted in the event that downstream surface water users or groundwater users are adversely affected by the Wilpinjong Coal Mine (incorporating the Project). This plan would be reviewed and updated to address the Project, subject to the conditions of any Development Consent for the Project.

Community consultation regarding the Project is described in Section 3, including, where relevant, feedback received from the community regarding Project water use and water management.

A6.2.2 Water Management Principles

Section 5 of the *Water Management Act, 2000* outlines the principles of water management:

- 5 Water management principles
 - (1) The principles set out in this section are the water management principles of this Act
 - (2) Generally:
 - (a) water sources, floodplains and dependent ecosystems (including groundwater and wetlands) should be protected and restored and, where possible, land should not be degraded, and
 - (b) habitats, animals and plants that benefit from water or are potentially affected by managed activities should be protected and (in the case of habitats) restored, and
 - (c) the water quality of all water sources should be protected and, wherever possible, enhanced, and
 - (d) the cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems, should be considered and minimised, and
 - (e) geographical and other features of indigenous significance should be protected, and
 - geographical and other features of major cultural, heritage or spiritual significance should be protected, and
 - (g) the social and economic benefits to the community should be maximised, and
 - (h) the principles of adaptive management should be applied, which should be responsive to monitoring and improvements in understanding of ecological water requirements.



- (3) In relation to water sharing:
 - (a) sharing of water from a water source must protect the water source and its dependent ecosystems, and
 - (b) sharing of water from a water source must protect basic landholder rights, and
 - (c) sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).

As described above, cumulative assessments for impacts on groundwater and surface water have been conducted (Appendices C and D) as part of this EIS. Mitigation measures, management and monitoring would be implemented to minimise potential impacts on water sources (Sections 2.12, 4.7.3 and 4.8.3). With the proposed management and monitoring measures in place, dealings associated with the Project are not expected to adversely affect the ability of a person to exercise their basic landholder rights.

Section 5 presents the rehabilitation strategy for the Project.

Sections 4.9 and 7 summarise the Project biodiversity offset strategy and compensatory measures that would assist in maintaining the biodiversity of the region, including consideration of native vegetation and fauna species.

Sections 4.7, 4.8 and 4.10 summarise the potential impacts of the Project on groundwater, surface water and Aboriginal heritage and outline the proposed management and mitigation measures where relevant.

Sections 4.16 and 6.7.8 summarise the expected economic outcomes if the Project is approved.

A6.2.3 Access Licence Dealing Principles

The Access Licence Dealing Principles Order, 2004 outlines the access licence dealing principles which prevail over the access licence dealing rules in the Water Sharing Plan to the extent of any inconsistency.

Clause 7 of the Access Licence Dealing Principles Order, 2004 relevantly states:

- 7 Impacts on water sources
 - (1) Dealings should not adversely affect environmental water and water dependent ecosystems as identified in any relevant management plan.
 - (2) Dealings should be consistent with any strategies to maintain or enhance water quality identified in any relevant management plan.
 - (3) In unregulated river water sources, dealings should not increase commitments to take water from water sources or parts of water sources identified in any relevant management plan as being of high conservation value.
 - (4) In unregulated river water sources or a groundwater source, dealings should not increase commitments to take water from water sources above sustainable levels identified in any relevant management plan.
 - (6) In this clause, commitments to take water refers, in relation to all access licences with nominated works in that water source or part of a water source, to:
 - the total volume of water allocations in water allocation amounts, or
 - (b) where relevant, the sum of limits on rates of extraction in extraction components.

Based on the groundwater modelling, Peabody Energy and WCPL currently hold licences sufficient to cover the modelled groundwater inflows from the alluvial and porous rock groundwater sources. Therefore, the Project would not require the acquisition of any further share components (Section A6.1.2).

The Project would not adversely affect high priority groundwater dependent ecosystems identified in the relevant Water Sharing Plans.

The Groundwater Assessment for the Project (Appendix C) concludes there would be no discernible deterioration in groundwater quality as a result of mining, including in the long-term.



With the implementation of management measures in the existing Wilpinjong Coal Mine Water Management Plan, the potential adverse effects of the Project on downstream water quality would be negligible (Appendix D). In addition, based on the successful implementation of management strategies and monitoring recommended in the Geochemistry Assessment (Geo-Environmental Management, 2015), the risks of elevated dissolved solids and other contaminants impacting downstream waters is considered to be low (Appendix D).

Mitigation measures, management and monitoring to minimise potential impacts on water quality are described in Sections 4.7.3 and 4.8.3.

The Project would not involve extraction from water sources identified in any relevant water sharing plan as being of high conservation value.

A cumulative assessment of potential impacts on groundwater and surface water has been conducted as part of this EIS (Appendices C and D). WALs required for the Project are within Peabody Energy and WCPL existing entitlements under the Water Sharing Plan and the *Water Management Act, 2000*, and therefore the Project is unlikely to increase commitments to take water from water sources above sustainable levels (i.e. the sustainable use of water is integrated in the objects of the *Water Management Act, 2000* and the visions and objectives of the Water Sharing Plan).

A6.2.4 Hunter Unregulated and Alluvial Water Sharing Plan 2009

Under the *Water Management Act*, 2000, the Water Sharing Plan commenced on 1 August 2009.

Applicable Waters

Subclause 4(3) of the Water Sharing Plan provides that the plan applies to the following waters:

- (3) Subject to subclause (4), these water sources include:
 - (a) all water occurring naturally on or below the surface of the ground shown on the Plan Map for these water sources, and
 - (b) all water in rivers, lakes and wetlands in these water sources, and

(c) all water contained within all alluvial sediments below the surface of the land shown on the Plan Map for these water sources (hereafter the alluvial sediments in these water sources), including any water contained in those unconsolidated alluvial sediments underlying the waterfront land within 1 metre of works taking water pursuant to licences issued under Part 5 of the Water Act 1912 or their equivalent aquifer access licence issued under the Act, that are not part of the Hunter Regulated River Water Source.

Note. The Hunter Regulated River Water Source is defined in the Water Sharing Plan for the Hunter Regulated River Water Source 2003

The Wilpinjong Coal Mine (incorporating the Project) is located wholly within the Wollar Creek Water Source.

Clause 4(4)(c) of the Water Sharing Plan provides that the plan does not apply to any water contained in fractured rock aquifers and basement rocks in the water sources (together referred to as porous rock aquifers). Discussion of the licensing requirements for the proposed extraction of water from porous rock aquifers under the *Water Act*, 1912, as a component of the Project, is provided in Section A6.3.

There are a total of 12 WALs in the Wollar Creek Water Source with a total licensed allocation of 880 units. Peabody Energy and WCPL jointly hold WAL 21499 with a licensed allocation of 474 units and Moolarben Coal also holds WAL 36340 for 218 units. Therefore, only 188 units remain licensed for irrigation and stock and domestic purposes in the Wollar Creek catchment.

WAL 21499 is included in Attachment A6-A.

Surface Water Extraction

As no surface water is proposed to be directly extracted from Wilpinjong Creek for the Project, unregulated river licences are not required for the Project.

Surface Water Containment

As described in Section 2.12.2, an objective of the water management on-site throughout the Project life is to maintain separation between runoff from areas undisturbed by mining and water generated within active mining areas.



Schedule 5, clause 12 of the *Water Management* (General) Regulation, 2011 provides that a WAL is not required for water take by an 'excluded work' as outlined in Schedule 1.

Schedule 1 lists a number of exemptions, two of which potentially apply to this Project:

- Dams solely for the capture, containment and recirculation of drainage and/or effluent, consistent with best management practice to prevent the contamination of a water source, that are located on a minor stream.
- Dams solely for the control or prevention of soil erosion:
 - from which no water is reticulated (unless, if the dam is fenced off for erosion control purposes, to a stock drinking trough in an adjoining paddock) or pumped;
 - the structural size of which is the minimum necessary to fulfil the erosion control function; and
 - that are located on a minor stream.

All streams potentially diverted by the Project open cut extension areas are second order and below according to the Strahler stream order system. On this basis, all water captured in the site water management system is considered to fall within the above 'excluded works' and therefore be exempt from licensing requirements (Appendix D).

Notwithstanding that all water captured in the site water management system is considered to be exempt from licensing requirements, consideration of Peabody Energy's potentially available harvestable rights is presented in Appendix D.

Water from Alluvial Sediments

Based on the groundwater modelling, Peabody Energy and WCPL currently hold licences sufficient to cover the modelled groundwater inflows from the Wollar Creek Water Source (Table A6-2). Sufficient licence allocations could be retired at the completion of the Project to account for groundwater inflows to the final voids post-mining.

Water Supply Works

Section 89J(1) of the NSW Environmental Planning and Assessment Act, 1979 states that a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the NSW Water Management Act, 2000 are not required for a State Significant Development that is granted development consent under Division 4.1 of Part 4.

Notwithstanding, clause 39 of the Water Sharing Plan provides that water supply work approval shall not be granted under section 95 of the *Water Management Act, 2000* or amended under section 107 of the *Water Management Act, 2000*, where a water supply work is to be constructed or used to take water from the alluvial sediments in these water sources is located within set distances of an existing water supply work, property boundary or Departmental observation or monitoring bore.

However, subclause 39(6) relevantly states:

- (6) The distance restrictions specified in subclauses (1), (3) and (4) do not apply where:
 - (a) a hydrogeological study undertaken by the applicant, and assessed as adequate by the Department, demonstrates that the water supply work will have no more than minimal impacts on the existing licenced taking of water from the water source,
 - (b) all potentially affected persons in the near vicinity of the water supply work, holding an access licence or having a right under the Act to take water, have been notified by the applicant, and
 - Note. These persons may include neighbouring access licence, approval holders or other persons having a right to take water in the near vicinity of the water supply work.
 - (c) any approval granted contains conditions setting out a process for remediation in the event that any more than minimal impact on existing extraction from the water source occurs in the future.

Note. In some water sources the general size of properties means that the application of exclusion distances would result in no new or replacement bores being able to be installed.

Applicants must apply to the Department for special consideration in these instances.



The groundwater modelling has been undertaken in accordance with the Secretary's Environmental Assessment Requirements as well as the Murray-Darling Basin Commission Groundwater Flow Modelling Guideline (Murray-Darling Basin Commission, 2000) and Australian Groundwater Modelling Guidelines (Barnett *et al.*, 2012).

No groundwater drawdown exceeding the AIP minimal harm criterion of 2 m at any water supply work is predicted to occur on any privately-owned land (Appendix C).

Drawdown exceeding the AIP minimal harm criterion of 2 m is however predicted at one bore in the porous rock aquifer located on Crown land at the Wollar Public School (Appendix C). The Wollar Public School is located well beyond the distances described in clause 39 of the Water Sharing Plan.

In accordance with subclause 39(6)(c), WCPL would continue to implement appropriate contingency measures (i.e. make good provisions) for Project related drawdown greater than 2 m at a groundwater bore located on private or Crown land.

Appropriate contingency measures for an impact on a groundwater supply user may include:

- deepening the affected groundwater supply;
- construction of a new groundwater supply; or
- provision of a new alternative water supply.

Access Licences and Dealing Rules

The Project would not require the acquisition of any further share components in the Wollar Creek Water Source and WAL 21499 is assigned to the Wilpinjong Coal Mine through Work Approval 20MW065002. Therefore, as no further licences are required, the access licences and dealing rules of the Water Sharing Plan would not apply to the Project.

Management of Surface and Groundwater Connectivity

Under subclause 68(2) of the Water Sharing Plan any aquifer access licence in the Wollar Creek Water Source are subject to the same access rules as unregulated river access licences. Total daily extraction limits have not been established for the Wollar Creek Water Source.

Appendices C and D have assessed the potential impacts of the Project on surface water and groundwater resources, including impacts on surface and groundwater connectivity and interflow (Sections 4.7 and 4.8).

The Wilpinjong Coal Mine is estimated to result in approximately 37% more days with less than 0.1 megalitres per day (ML/day) flow relative to pre-mining conditions. However, the Wilpinjong Coal Mine results in negligible changes to the frequency of higher flows (e.g. greater than 1 ML/day).

The maximum incidence of days with less than 0.1 ML/day flow for the Wilpinjong Coal Mine incorporating the Project would be effectively unchanged from the impacts of the existing/approved Wilpinjong Coal Mine. The Project would therefore have no measurable incremental impact on flow in Wilpinjong Creek (Appendix D).

While the Project is anticipated to have some small incremental increase in the baseflow losses of Wollar Creek and the Goulburn River, the significant additional catchment of these larger streams means potential impacts on flow frequency are expected to be negligible (Appendix D).

As there are no private surface water users on Wilpinjong Creek or Wollar Creek downstream of the Wilpinjong Coal Mine, any impact on other private water users (i.e. downstream on the Goulburn River) would be too small to measure (Appendix D).

A6.3 WATER ACT, 1912

Clause 4(4)(c) of the Water Sharing Plan excludes any water contained in fractured rock aquifers and basement rocks in the water sources. Because no separate water sharing plan that is applicable to these aquifers has yet commenced, the *Water Act, 1912* remains the relevant Act for licensing and approval of groundwater extraction from aquifers other than alluvial aquifers in the vicinity of the Project.

WCPL and Peabody Energy hold various existing groundwater licences under the *Water Act, 1912* for activities at the existing/approved Wilpinjong Coal Mine (Table A6-1). These existing entitlements would be assigned to the Project open cut extension areas as required in consultation with DPI Water.



Copies of the *Water Act, 1912* licences relevant to open cut excavation are provided in Attachment A6-A.

Based on the groundwater modelling, Peabody Energy and WCPL currently hold licences sufficient to cover the modelled groundwater inflows from the porous rock groundwater sources (Table A6-1).

A6.4 REFERENCES

- Barnett, B, Townley, L.R., Post, V., Evans, R.E., Hunt, R.J., Peeters, L., Richardson, S., Werner, A.D., Knapton, A. and Boronkay, A., (2012) *Australian Groundwater Modelling Guidelines*. Waterlines report 82, National Water Commission, Canberra.
- Department of Planning and Infrastructure (2012) Strategic Regional Land Use Policy.
- Geo-Environmental Management (2015) Wilpinjong Extension Project Environmental Geochemistry Assessment of Overburden, Interburden and Coal Rejects.
- HydroSimulations (2015) Wilpinjong Extension Project Groundwater Assessment.
- Murray-Darling Basin Commission (2000)

 Groundwater Flow Modelling Guideline.
- NSW Government (2012) NSW Aquifer Interference Policy: NSW Government policy for the licensing and assessment of aquifer interference activities.



ATTACHMENT A6-A GROUNDWATER LICENCES

AND TOUR

CONTRIBER

NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED



WAL11TLE REFERENCE
WAL21499

EDITION

30/1/2015

CERTIFICATE AUTHENTICATION CODE

Z5H3-XR-Q42J



TENURE TYPE: CONTINUING

HOLDER (S)

PEABODY PASTORAL HOLDINGS PTY LTD

IN 100/474 SHARE

WILPINJONG COAL PTY LTD

IN 374/474 SHARE

AS TENANTS IN COMMON

(T AI430630)

ENCUMBRANCES

1. TERM TRANSFER: NIL

ACCESS LICENCE DETAILS

CATEGORY: AQUIFER

SHARE COMPONENT: SHARE - 474 UNITS

WATER SOURCE - WOLLAR CREEK WATER SOURCE

WATER SHARING PLAN - HUNTER UNREGULATED AND ALLUVIAL WATER SOURCES 2009

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER ACCESS LICENCE

EXTRACTION FROM - AQUIFER

EXTRACTION ZONE - WHOLE WATER SOURCE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 20CA211216, 20MW065002

INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM THE NSW OFFICE OF WATER (NOW).

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE NSW OFFICE OF WATER (NOW) AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE. NOW WEBSITE WWW.WATER.NSW.GOV.AU, PHONE 1800 353 104, EMAIL INFORMATION@WATER.NSW.GOV.AU
NOW REFERENCE NUMBER: 20AL211215

END OF PAGE 1 CONTINUED OVER

PAGE 2

NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL21499

EDITION

3

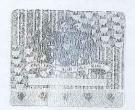
30/1/2015

DATE OF ISSUE

CERTIFICATE AUTHENTICATION CODE

Z5H3-XR-Q42J





This certificate is issued under s87B of the Water Management Act, 2000.

NOTES (CONTINUED)

PREVIOUS WATER ACT LICENCE NUMBER(S): 20PT910774, 20BL012149, 20BL167919.

**** END OF CERTIFICATE ****

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 20BL173513 RENEWED UNDER PART V OF THE WATER ACT, 1912 ON 11-Jun-2015

(1) THE FOLLOWING DEFINITIONS APPLY TO THIS LICENCE:

ALLUVIAL WATER INFLOW MEANS WATER CONTAINED WITHIN AN ALLUVIUM WHICH, IF INTERCEPTED BY MINING ACTIVITY, WILL GIVE RISE TO AN INFLOW OF WATER INTO A MINE WORK.

AEMR MEANS THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT, WHICH COMPRISES:

I) THE ANNUAL REVIEW REQUIRED BY CONDITION 3, SCHEDULE 5 OF THE PROJECT APPROVAL (05-0021); AND

II) THE ENVIRONMENTAL MANAGEMENT REPORT REQUIRED BY CONDITIONS 28 AND 29 OF ML 1573.

THE ALLUVIUM IS DEFINED AS AN EXTENSIVE STREAM-LAID DEPOSIT OF UNCONSOLIDATED MATERIAL, INCLUDING GRAVEL, SAND, SILT AND CLAY.

MINE WORKS MEANS ANY EXTRACTION OF MATERIAL FROM LAND OR EXCAVATION RELATING TO THE CONSTRUCTION AND/OR OPERATION OF UNDERGROUND AND/OR OPEN-CUT MINING AT WILPINJONG COAL MINE.

- (2) THE LICENCE HOLDER MUST IMPLEMENT THE METHODOLOGY TO ESTIMATE THE ANNUAL VOLUME OF ALLUVIAL WATER INFLOW (WATER BUDGET), THE LICENCE HOLDER IS LIKELY TO EXTRACT DURING THE WATER YEAR. THIS ESTIMATE MUST BE REPORTED ANNUALLY IN THE AEMR.
- (3) THE LICENCE HOLDER MUST INCLUDE IN THE AEMR A MAP WHICH SHOWS THE LICENSED SITE AND THE CURRENT AREAS THAT MINE WORKS HAVE INTERFERED WITH ALLUVIAL SEDIMENT.
- (4) THE LICENCE HOLDER MUST REPORT IN THE AEMR:
- I) THE MONITORING RESULTS OF ANY GROUNDWATER MONITORING WITH RESPECT TO THIS LICENCE; II) AN ASSESSMENT OF COMPLIANCE WITH THIS LICENCE, REGARDING PIT EXTRACTION,
- III) A SUMMARY OF NEW BORES OR PITS CONSTRUCTED DURING THE YEAR:
- IV) THE TREND GRAPHS FOR MONITORING DATA COLLECTED FOR EACH BORE THAT IS NEAR TO THE LICENSED SITE;
- V) A SUMMARY OF ANY CONTINGENCY EVENT (EVENT) THAT IMPACTED ON GROUNDWATER DURING THE LAST REPORT PERIOD, INCLUDING ACTIONS TAKEN TO REMEDY THE EVENT AND ANY ADDITIONAL MONITORING CARRIED OUT ON THE EVENT.
- VI) PROVIDE ANY RECOMMENDATIONS FOR IMPROVEMENTS FOR THE NEXT REPORTING PERIOD.
- (5) AN EXTRACTION MEASUREMENT DEVICE MUST BE INSTALLED AND MAINTAINED ON EACH EXTRACTION DEVICE (PUMP) USED FOR EXTRACTION OF WATER UNDER THIS LICENCE, AND SUCH DEVICES MUST BE OF A TYPE AND STANDARD, AND MUST BE MAINTAINED IN A MANNER, WHICH IS ACCEPTABLE TO THE OFFICE OF WATER.
- (6) THE LICENCE HOLDER MUST ENSURE THAT AN INDEPENDENT ENVIRONMENTAL (WATER) AUDIT IS CARRIED OUT AT THE END OF THE 5-YEAR LICENCE PERIOD AND SUBMITTED TO THE OFFICE OF WATER AS A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT). THE AUDIT MUST:

 A) BE CARRIED OUT IN ACCORDANCE WITH GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND PROCEDURES FOR ENVIRONMENTAL AUDITING APPROVED BY THE OFFICE OF WATER:
- B) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE, INCLUDING THE GROUNDWATER MONITORING AND CONTINGENCY PLAN;
- C) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT

ECO-SYSTEMS AND ANY STREAMS IN THE AREA;

- D) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS); E) PROVIDE RECOMMENDATIONS AS TO WORKS THAT OUGHT TO BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT OUGHT TO BE IMPOSED IN ORDER TO RECTIFY ANY IMPACTS ON GROUNDWATER. F) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY THE OFFICE OF WATER; AND G) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.
- (7) NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.
- (8) THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORKS AUTHORISED BY THIS LICENSE AND BY LICENSE(S) 20BL173514, 20BL173515, 20BL173516 AND 20BL173517 SHALL NOT EXCEED 2021 MEGALITRES IN ANY 12 MONTH PERIOD COMMENCING 1ST JULY.

End Of Conditions

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 20BL173514 RENEWED UNDER PART V OF THE WATER ACT, 1912 ON 11-Jun-2015

(1) THE FOLLOWING DEFINITIONS APPLY TO THIS LICENCE:

ALLUVIAL WATER INFLOW MEANS WATER CONTAINED WITHIN AN ALLUVIUM WHICH, IF INTERCEPTED BY MINING ACTIVITY, WILL GIVE RISE TO AN INFLOW OF WATER INTO A MINE WORK.

AEMR MEANS THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT, WHICH COMPRISES:

1) THE ANNUAL REVIEW REQUIRED BY CONDITION 3, SCHEDULE 5 OF THE PROJECT APPROVAL (05-0021);

AND

II) THE ENVIRONMENTAL MANAGEMENT REPORT REQUIRED BY CONDITIONS 28 AND 29 OF ML 1573.

THE ALLUVIUM IS DEFINED AS AN EXTENSIVE STREAM-LAID DEPOSIT OF UNCONSOLIDATED MATERIAL, INCLUDING GRAVEL, SAND, SILT AND CLAY.

MINE WORKS MEANS ANY EXTRACTION OF MATERIAL FROM LAND OR EXCAVATION RELATING TO THE CONSTRUCTION AND/OR OPERATION OF UNDERGROUND AND/OR OPEN-CUT MINING AT WILPINJONG COAL MINE.

- (2) THE LICENCE HOLDER MUST IMPLEMENT THE METHODOLOGY TO ESTIMATE THE ANNUAL VOLUME OF ALLUVIAL WATER INFLOW (WATER BUDGET), THE LICENCE HOLDER IS LIKELY TO EXTRACT DURING THE WATER YEAR, THIS ESTIMATE MUST BE REPORTED ANNUALLY IN THE AEMR.
- (3) THE LICENCE HOLDER MUST INCLUDE IN THE AEMR A MAP WHICH SHOWS THE LICENSED SITE AND THE CURRENT AREAS THAT MINE WORKS HAVE INTERFERED WITH ALLUVIAL SEDIMENT.
- (4) THE LICENCE HOLDER MUST REPORT IN THE AEMR:
- I) THE MONITORING RESULTS OF ANY GROUNDWATER MONITORING WITH RESPECT TO THIS LICENCE; II) AN ASSESSMENT OF COMPLIANCE WITH THIS LICENCE, REGARDING PIT EXTRACTION,
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- III) A SUMMARY OF NEW BORES OR PITS CONSTRUCTED DURING THE YEAR;
- IV) THE TREND GRAPHS FOR MONITORING DATA COLLECTED FOR EACH BORE THAT IS NEAR TO THE LICENSED SITE;
- V) A SUMMARY OF ANY CONTINGENCY EVENT (EVENT) THAT IMPACTED ON GROUNDWATER DURING THE LAST REPORT PERIOD, INCLUDING ACTIONS TAKEN TO REMEDY THE EVENT AND ANY ADDITIONAL MONITORING CARRIED OUT ON THE EVENT.
- VI) PROVIDE ANY RECOMMENDATIONS FOR IMPROVEMENTS FOR THE NEXT REPORTING PERIOD.
- (5) AN EXTRACTION MEASUREMENT DEVICE MUST BE INSTALLED AND MAINTAINED ON EACH EXTRACTION DEVICE (PUMP) USED FOR EXTRACTION OF WATER UNDER THIS LICENCE, AND SUCH DEVICES MUST BE OF A TYPE AND STANDARD, AND MUST BE MAINTAINED IN A MANNER, WHICH IS ACCEPTABLE TO THE OFFICE OF WATER.
- (6) THE LICENCE HOLDER MUST ENSURE THAT AN INDEPENDENT ENVIRONMENTAL (WATER) AUDIT IS CARRIED OUT AT THE END OF THE 5-YEAR LICENCE PERIOD AND SUBMITTED TO THE OFFICE OF WATER AS A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT). THE AUDIT MUST:

 A) BE CARRIED OUT IN ACCORDANCE WITH GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND PROCEDURES FOR ENVIRONMENTAL AUDITING APPROVED BY THE OFFICE OF WATER:
- B) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE, INCLUDING THE GROUNDWATER MONITORING AND CONTINGENCY PLAN;
- C) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT ECO-SYSTEMS AND ANY STREAMS IN THE AREA;
- D) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS);

- E) PROVIDE RECOMMENDATIONS AS TO WORKS THAT OUGHT TO BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT OUGHT TO BE IMPOSED IN ORDER TO RECTIFY ANY IMPACTS ON GROUNDWATER. F) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY THE OFFICE OF WATER; AND G) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.
- (7) NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.
- (8) THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORKS AUTHORISED BY THIS LICENSE AND BY LICENSE(S) 2021 SHALL NOT EXCEED 20BL173513, 20BL173515, 20BL173516 AND 20BL173517 MEGALITRES IN ANY 12 MONTH PERIOD COMMENCING 1ST JULY.

End Of Conditions

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 20BL173515 RENEWED UNDER PART V OF THE WATER ACT, 1912 ON 11-Jun-2015

(1) THE FOLLOWING DEFINITIONS APPLY TO THIS LICENCE:

ALLUVIAL WATER INFLOW MEANS WATER CONTAINED WITHIN AN ALLUVIUM WHICH, IF INTERCEPTED BY MINING ACTIVITY, WILL GIVE RISE TO AN INFLOW OF WATER INTO A MINE WORK.

AEMR MEANS THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT, WHICH COMPRISES:
1) THE ANNUAL REVIEW REQUIRED BY CONDITION 3, SCHEDULE 5 OF THE PROJECT APPROVAL (05-0021);
AND

II) THE ENVIRONMENTAL MANAGEMENT REPORT REQUIRED BY CONDITIONS 28 AND 29 OF ML 1573.

THE ALLUVIUM IS DEFINED AS AN EXTENSIVE STREAM-LAID DEPOSIT OF UNCONSOLIDATED MATERIAL, INCLUDING GRAVEL, SAND, SILT AND CLAY.

MINE WORKS MEANS ANY EXTRACTION OF MATERIAL FROM LAND OR EXCAVATION RELATING TO THE CONSTRUCTION AND/OR OPERATION OF UNDERGROUND AND/OR OPEN-CUT MINING AT WILPINJONG COAL MINE

- (2) THE LICENCE HOLDER MUST IMPLEMENT THE METHODOLOGY TO ESTIMATE THE ANNUAL VOLUME OF ALLUVIAL WATER INFLOW (WATER BUDGET), THE LICENCE HOLDER IS LIKELY TO EXTRACT DURING THE WATER YEAR. THIS ESTIMATE MUST BE REPORTED ANNUALLY IN THE AEMR.
- (3) THE LICENCE HOLDER MUST INCLUDE IN THE AEMR A MAP WHICH SHOWS THE LICENSED SITE AND THE CURRENT AREAS THAT MINE WORKS HAVE INTERFERED WITH ALLUVIAL SEDIMENT.
- (4) THE LICENCE HOLDER MUST REPORT IN THE AEMR:
- I) THE MONITORING RESULTS OF ANY GROUNDWATER MONITORING WITH RESPECT TO THIS LICENCE; II) AN ASSESSMENT OF COMPLIANCE WITH THIS LICENCE, REGARDING PIT EXTRACTION,
- III) A SUMMARY OF NEW BORES OR PITS CONSTRUCTED DURING THE YEAR;
- IV) THE TREND GRAPHS FOR MONITORING DATA COLLECTED FOR EACH BORE THAT IS NEAR TO THE LICENSED SITE;
- V) A SUMMARY OF ANY CONTINGENCY EVENT (EVENT) THAT IMPACTED ON GROUNDWATER DURING THE LAST REPORT PERIOD, INCLUDING ACTIONS TAKEN TO REMEDY THE EVENT AND ANY ADDITIONAL MONITORING CARRIED OUT ON THE EVENT.
- VI) PROVIDE ANY RECOMMENDATIONS FOR IMPROVEMENTS FOR THE NEXT REPORTING PERIOD.
- (5) AN EXTRACTION MEASUREMENT DEVICE MUST BE INSTALLED AND MAINTAINED ON EACH EXTRACTION DEVICE (PUMP) USED FOR EXTRACTION OF WATER UNDER THIS LICENCE, AND SUCH DEVICES MUST BE OF A TYPE AND STANDARD, AND MUST BE MAINTAINED IN A MANNER, WHICH IS ACCEPTABLE TO THE OFFICE OF WATER.
- (6) THE LICENCE HOLDER MUST ENSURE THAT AN INDEPENDENT ENVIRONMENTAL (WATER) AUDIT IS CARRIED OUT AT THE END OF THE 5-YEAR LICENCE PERIOD AND SUBMITTED TO THE OFFICE OF WATER AS A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT). THE AUDIT MUST:

 A) BE CARRIED OUT IN ACCORDANCE WITH GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND PROCEDURES FOR ENVIRONMENTAL AUDITING APPROVED BY THE OFFICE OF WATER;
- B) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE, INCLUDING THE GROUNDWATER MONITORING AND CONTINGENCY PLAN;
- C) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT ECO-SYSTEMS AND ANY STREAMS IN THE AREA;

- D) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS); E) PROVIDE RECOMMENDATIONS AS TO WORKS THAT OUGHT TO BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT OUGHT TO BE IMPOSED IN ORDER TO RECTIFY ANY IMPACTS ON GROUNDWATER. F) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY THE OFFICE OF WATER; AND G) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.
- (7) NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.
- (8) THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORKS AUTHORISED BY THIS LICENSE AND BY LICENSE(S) 2021 SHALL NOT EXCEED 20BL173513, 20BL173514, 20BL173516 AND 20BL173517 MEGALITRES IN ANY 12 MONTH PERIOD COMMENCING 1ST JULY.

End Of Conditions

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 20BL173516 RENEWED UNDER PART V OF THE WATER ACT, 1912 ON 11-Jun-2015

(1) THE FOLLOWING DEFINITIONS APPLY TO THIS LICENCE:

ALLUVIAL WATER INFLOW MEANS WATER CONTAINED WITHIN AN ALLUVIUM WHICH, IF INTERCEPTED BY MINING ACTIVITY, WILL GIVE RISE TO AN INFLOW OF WATER INTO A MINE WORK.

AEMR MEANS THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT, WHICH COMPRISES:

I) THE ANNUAL REVIEW REQUIRED BY CONDITION 3, SCHEDULE 5 OF THE PROJECT APPROVAL (05-0021);

AND

II) THE ENVIRONMENTAL MANAGEMENT REPORT REQUIRED BY CONDITIONS 28 AND 29 OF ML 1573.

THE ALLUVIUM IS DEFINED AS AN EXTENSIVE STREAM-LAID DEPOSIT OF UNCONSOLIDATED MATERIAL, INCLUDING GRAVEL, SAND, SILT AND CLAY.

MINE WORKS MEANS ANY EXTRACTION OF MATERIAL FROM LAND OR EXCAVATION RELATING TO THE CONSTRUCTION AND/OR OPERATION OF UNDERGROUND AND/OR OPEN-CUT MINING AT WILPINJONG COAL MINE.

- (2) THE LICENCE HOLDER MUST IMPLEMENT THE METHODOLOGY TO ESTIMATE THE ANNUAL VOLUME OF ALLUVIAL WATER INFLOW (WATER BUDGET), THE LICENCE HOLDER IS LIKELY TO EXTRACT DURING THE WATER YEAR. THIS ESTIMATE MUST BE REPORTED ANNUALLY IN THE AEMR.
- (3) THE LICENCE HOLDER MUST INCLUDE IN THE AEMR A MAP WHICH SHOWS THE LICENSED SITE AND THE CURRENT AREAS THAT MINE WORKS HAVE INTERFERED WITH ALLUVIAL SEDIMENT.
- (4) THE LICENCE HOLDER MUST REPORT IN THE AEMR:
- I) THE MONITORING RESULTS OF ANY GROUNDWATER MONITORING WITH RESPECT TO THIS LICENCE; II) AN ASSESSMENT OF COMPLIANCE WITH THIS LICENCE, REGARDING PIT EXTRACTION,
- III) A SUMMARY OF NEW BORES OR PITS CONSTRUCTED DURING THE YEAR;
- IV) THE TREND GRAPHS FOR MONITORING DATA COLLECTED FOR EACH BORE THAT IS NEAR TO THE LICENSED SITE;
- V) A SUMMARY OF ANY CONTINGENCY EVENT (EVENT) THAT IMPACTED ON GROUNDWATER DURING THE LAST REPORT PERIOD, INCLUDING ACTIONS TAKEN TO REMEDY THE EVENT AND ANY ADDITIONAL MONITORING CARRIED OUT ON THE EVENT.
- VI) PROVIDE ANY RECOMMENDATIONS FOR IMPROVEMENTS FOR THE NEXT REPORTING PERIOD.
- (5) AN EXTRACTION MEASUREMENT DEVICE MUST BE INSTALLED AND MAINTAINED ON EACH EXTRACTION DEVICE (PUMP) USED FOR EXTRACTION OF WATER UNDER THIS LICENCE, AND SUCH DEVICES MUST BE OF A TYPE AND STANDARD, AND MUST BE MAINTAINED IN A MANNER, WHICH IS ACCEPTABLE TO THE OFFICE OF WATER.
- (6) THE LICENCE HOLDER MUST ENSURE THAT AN INDEPENDENT ENVIRONMENTAL (WATER) AUDIT IS CARRIED OUT AT THE END OF THE 5-YEAR LICENCE PERIOD AND SUBMITTED TO THE OFFICE OF WATER AS A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT). THE AUDIT MUST:

 A) BE CARRIED OUT IN ACCORDANCE WITH GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND PROCEDURES FOR ENVIRONMENTAL AUDITING APPROVED BY THE OFFICE OF WATER;
- B) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE, INCLUDING THE GROUNDWATER MONITORING AND CONTINGENCY PLAN:
- C) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT ECO-SYSTEMS AND ANY STREAMS IN THE AREA;
- D) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS);

- E) PROVIDE RECOMMENDATIONS AS TO WORKS THAT OUGHT TO BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT OUGHT TO BE IMPOSED IN ORDER TO RECTIFY ANY IMPACTS ON GROUNDWATER. F) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY THE OFFICE OF WATER; AND G) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.
- (7) NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.
- (8) THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORKS AUTHORISED BY THIS LICENSE AND BY LICENSE(S) 2021 SHALL NOT EXCEED 20BL173513, 20BL173514, 20BL173515 AND 20BL173517 MEGALITRES IN ANY 12 MONTH PERIOD COMMENCING 1ST JULY.

End Of Conditions

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 20BL173517 RENEWED UNDER PART V OF THE WATER ACT, 1912 ON 11-Jun-2015

(1) THE FOLLOWING DEFINITIONS APPLY TO THIS LICENCE:

ALLUVIAL WATER INFLOW MEANS WATER CONTAINED WITHIN AN ALLUVIUM WHICH, IF INTERCEPTED BY MINING ACTIVITY, WILL GIVE RISE TO AN INFLOW OF WATER INTO A MINE WORK.

AEMR MEANS THE ANNUAL ENVIRONMENTAL MANAGEMENT REPORT, WHICH COMPRISES: I) THE ANNUAL REVIEW REQUIRED BY CONDITION 3, SCHEDULE 5 OF THE PROJECT APPROVAL (05-0021); AND

II) THE ENVIRONMENTAL MANAGEMENT REPORT REQUIRED BY CONDITIONS 28 AND 29 OF ML 1573.

THE ALLUVIUM IS DEFINED AS AN EXTENSIVE STREAM-LAID DEPOSIT OF UNCONSOLIDATED MATERIAL, INCLUDING GRAVEL, SAND, SILT AND CLAY.

MINE WORKS MEANS ANY EXTRACTION OF MATERIAL FROM LAND OR EXCAVATION RELATING TO THE CONSTRUCTION AND/OR OPERATION OF UNDERGROUND AND/OR OPEN-CUT MINING AT WILPINJONG COAL MINE.

- (2) THE LICENCE HOLDER MUST IMPLEMENT THE METHODOLOGY TO ESTIMATE THE ANNUAL VOLUME OF ALLUVIAL WATER INFLOW (WATER BUDGET), THE LICENCE HOLDER IS LIKELY TO EXTRACT DURING THE WATER YEAR. THIS ESTIMATE MUST BE REPORTED ANNUALLY IN THE AEMR.
- (3) THE LICENCE HOLDER MUST INCLUDE IN THE AEMR A MAP WHICH SHOWS THE LICENSED SITE AND THE CURRENT AREAS THAT MINE WORKS HAVE INTERFERED WITH ALLUVIAL SEDIMENT.
- (4) THE LICENCE HOLDER MUST REPORT IN THE AEMR:
- I) THE MONITORING RESULTS OF ANY GROUNDWATER MONITORING WITH RESPECT TO THIS LICENCE; II) AN ASSESSMENT OF COMPLIANCE WITH THIS LICENCE, REGARDING PIT EXTRACTION,
- III) A SUMMARY OF NEW BORES OR PITS CONSTRUCTED DURING THE YEAR;
- IV) THE TREND GRAPHS FOR MONITORING DATA COLLECTED FOR EACH BORE THAT IS NEAR TO THE LICENSED SITE;
- V) A SUMMARY OF ANY CONTINGENCY EVENT (EVENT) THAT IMPACTED ON GROUNDWATER DURING THE LAST REPORT PERIOD, INCLUDING ACTIONS TAKEN TO REMEDY THE EVENT AND ANY ADDITIONAL MONITORING CARRIED OUT ON THE EVENT.
- VI) PROVIDE ANY RECOMMENDATIONS FOR IMPROVEMENTS FOR THE NEXT REPORTING PERIOD.
- (5) AN EXTRACTION MEASUREMENT DEVICE MUST BE INSTALLED AND MAINTAINED ON EACH EXTRACTION DEVICE (PUMP) USED FOR EXTRACTION OF WATER UNDER THIS LICENCE, AND SUCH DEVICES MUST BE OF A TYPE AND STANDARD, AND MUST BE MAINTAINED IN A MANNER, WHICH IS ACCEPTABLE TO THE OFFICE OF WATER.
- (6) THE LICENCE HOLDER MUST ENSURE THAT AN INDEPENDENT ENVIRONMENTAL (WATER) AUDIT IS CARRIED OUT AT THE END OF THE 5-YEAR LICENCE PERIOD AND SUBMITTED TO THE OFFICE OF WATER AS A COMPREHENSIVE REPORT (ENVIRONMENTAL AUDIT REPORT). THE AUDIT MUST:

 A) BE CARRIED OUT IN ACCORDANCE WITH GUIDELINES AND GENERAL PRINCIPLES FOR ENVIRONMENTAL AUDITING AND PROCEDURES FOR ENVIRONMENTAL AUDITING APPROVED BY THE OFFICE OF WATER:
- B) ASSESS COMPLIANCE WITH THE REQUIREMENTS OF THE LICENCE, INCLUDING THE GROUNDWATER MONITORING AND CONTINGENCY PLAN:
- C) REVIEW ACTUAL IMPACTS OF THE EXTRACTIONS ON ANY AQUIFERS, GROUNDWATER DEPENDENT ECO-SYSTEMS AND ANY STREAMS IN THE AREA;
- D) MAKE COMPARISONS BETWEEN ACTUAL AND PREDICTED IMPACTS (MODELLED RESULTS);

E) PROVIDE RECOMMENDATIONS AS TO WORKS THAT OUGHT TO BE PERFORMED OR ADDITIONAL OBLIGATIONS THAT OUGHT TO BE IMPOSED IN ORDER TO RECTIFY ANY IMPACTS ON GROUNDWATER. F) BE CONDUCTED BY AN INDEPENDENT CERTIFIED AUDITOR, NOMINATED BY THE LICENCE HOLDER AND APPROVED IN ADVANCE BY THE OFFICE OF WATER; AND G) BE CARRIED OUT AT THE COST OF THE LICENCE HOLDER.

- (7) NSW OFFICE OF WATER SHALL HAVE THE RIGHT DURING THE CURRENCY OF THIS LICENSE TO VARY AT ANY TIME THE VOLUMETRIC ALLOCATION, OR THE RATE AT WHICH THIS ALLOCATION IS TAKEN.
- (8) THE VOLUME OF GROUNDWATER EXTRACTED FROM THE WORKS AUTHORISED BY THIS LICENSE AND BY LICENSE(S) 2021 SHALL NOT EXCEED 20BL173513, 20BL173514, 20BL173515 AND 20BL173517 MEGALITRES IN ANY 12 MONTH PERIOD COMMENCING 1ST JULY.

End Of Conditions