2024 Annual Review

Wilpinjong Coal Mine

Annual Review Title Block

Name of operation	Wilpinjong Coal Mine
Name of operator	Wilpinjong Coal Pty Limited
Development consent/project approval #	SSD-6764
Name of holder of development consent/project approval	Wilpinjong Coal Pty Limited
Mining lease #	ML1573, ML1779, ML1795 & ML1846
Name of holder of mining lease	Wilpinjong Coal Pty Limited
Water licences #	WAL21499, WAL19045, WL19055, WL19057, WL19058, WL19426, WAL19425, WAL19430, WAL36398, WAL9476, WAL39785, WAL41548, WAL41549, WAL41550, WAL41551
Name of holder of water licence	Wilpinjong Coal Pty Limited
RMP Start Date	01 July 2022
Annual review start date	01 January 2024
Annual review end date	31 December 2024

I, Kieren Bennetts, certify that this audit report is a true and accurate record of the compliance status of the Wilpinjong Coal Mine for the period 01 January 2024 to 31 December 2024 and that I am authorised to make this statement on behalf of Wilpinjong Coal Pty Limited.

Note.

a) The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental

Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.

b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G

(Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or $22,000, or both).

Name of authorised reporting officer	Kieren Bennetts
Title of authorised reporting officer	Environment & Community Manager
Signature of authorised reporting officer	
Date	31 March 2025

This 2024 Annual Review (AR) (this Report) presents a summary of regulatory compliance, environmental performance and community engagement activities for the *Reporting Period* from 1 January 2024 to 31 December 2024.

This Report provides the results and assessment of environmental performance relevant to the current development consent approval SSD-6764 for the *Reporting Period*.

This AR has been prepared to satisfy the requirements of Condition 4, Schedule 5 of Development Consent (SSD-6764) requiring the preparation of an Annual Review and conditions within Mining Lease (ML) ML1573, ML1779, ML1795, ML1846 and EPBC Approval 2015/7431. The AR was developed to align with the *Annual Review Guideline (October 2015)* issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) formerly known as the NSW Department of Planning Environment (DPE).

Copies of this Report will be provided to the following stakeholders:

- Department of Planning, Housing and Infrastructure (DPHI);
- NSW – Resource Regulator (NSW - RR);
- NSW Environment Protection Authority (EPA);
- Water Group – part of the DPHI;
- Biodiversity, Conservation & Science (BSC);
- Mid-Western Regional Council (MWRC);
- NSW Health;
- The Mine's Community Consultative Committee (CCC).

In addition, a copy will be made publicly available on the Peabody website in accordance with Condition 12(a), Schedule 5 of Development Consent (SSD-6764): www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

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1.0 STATEMENT OF COMPLIANCE

Table 1-1 Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	Yes/No*
SSD-6764	No
ML1573	No
ML1779	No
ML1795	No
ML1846	No
EL6169 & EL7091	Yes
EL9399	No
EPL12425	No
Water Licences	Yes
EPBC Approval 2015/7431	Yes

Notes: * Refer to **Table 1-2** and **Section 11.1** and **Section 11.2** for details.

Table 1-2 Non Compliances

Relevant Approval	Condition	Summary of Condition Description	Compliance Status	Summary of Comment	Section in AR
MLs	Clause 16(3)	Standard Conditions (Schedule 8A, Part 2) of the *Mining Regulation 2016*	Non-compliance	Ensure evidence is collected internally to confirm relevant documents are published on the WCPL website in accordance with Clause 16(3) of the Standard Conditions (Schedule 8A, Part 2) of the *Mining Regulation 2016.*	Refer to Section 10 & Section 11
EL9399	s.378D(1) of the *Mining Act 1992*	Contravention of *s.378D(1) of the Mining Act 1992* – Conduct assessable prospecting Operations; and Contravention of s.*378D(1) of the Mining Act 1992* – Breach Condition 4 of Title - Protection of the Environment	Non-compliance	The investigation has now been finalised and the Regulator is satisfied both allegations are unsustained (NSW-RR)	
SSD-6764	Con 15, Sch 3	One blast event not recorded at the Mine Adit (refer to **Section 6.2**).	Non-compliance	Due to a memory card corruption error (refer to **Section 6.2**).	
	Con 30, Sch 3	To ensure vigilance in relation to the management of chemical and hydrocarbon storage, a procedure should be developed.	Non-compliance	WCPL to review procedure for chemical and hydrocarbon storage performance and inspection measures.	
	Con 31, Sch 3	Implement actions to ensure monthly reviews of surface water and groundwater monitoring data are completed and that relevant agencies are notified as soon as practicable that an exceedance of trigger levels	Non-compliance	WCPL currently undertake this reporting via the Major Projects Portal, its noted that this action will be included (i.e. formalising) into both the SWMP and GWMP accordingly.	
	Con 57, Sch 3	Action the recommendation from the External Lighting Compliance Audit regarding adjusting the light fitting	Non-compliance	WCPL . propose to engage a suitably qualified person to complete an external lighting assessment to ensure all external lighting associated	
	Con 5, Sch 5	Submit the revised versions of SWMP and SWB required for submission on 30 September	Non-compliance	WCPL propose to submit revised versions of the SWMP and SWB, in	

Relevant Approval	Condition	Summary of Condition Description	Compliance Status	Summary of Comment	Section in AR
		2024 as soon as possible to DPHI		consideration of this 2024 IEA and respective corrective actions and opportunities for improvement as identified	
	Con 12, Sch 5	Update the Mine website to ensure the currently approved versions of the ACHMP, SCMP and EMS are available	Non-compliance	Current approved versions of the ACHMP, SCMP and EMS to be uploaded by the 20 December 2024.	
EPL12425	M2.2	For the reporting period 1.8% of the continuous PM10 dust monitoring did not occur at monitoring point 25 (TEOM 3).	Non-compliant	Unplanned maintenance	
	M2.2	For the reporting period 1.3% of the continuous PM10 dust monitoring did not occur at monitoring point 28 (TEOM 4).	Non-compliant	Unplanned maintenance	
	M2.2	For the reporting period 1.8% of the continuous PM2.5 did not occur at monitoring point 29 (TEOM 2.5).	Non-compliant	Unplanned maintenance	
	M2.2	A PM10 dust sample was not collected and analysed at monitoring point 20 (HV4).	Non-compliant	Unplanned power outage	
	M4.2	For the reporting period 1.0 % of continuous monitoring for: air temperature, wind speed/direction, lapse rate, rainfall and humidity did not occur at monitoring point 21.	Non-compliant	Continuous data was not recorded by the meteorological weather station due to unplanned equipment maintenance.	

Table 1-3 Compliance Status Key

Risk Level	Colour Code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: • potential for serious environmental consequences, but is unlikely to occur; or • potential for moderate environmental consequences, but is likely to occur
Low	Non-compliant	Non-compliance with: • potential for moderate environmental consequences, but is unlikely to occur; or • potential for low environmental consequences, but is likely to occur
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

2.0 INTRODUCTION

2.1 Mining Operations

The Wilpinjong Coal Mine (the Mine) is owned by Wilpinjong Coal Pty Limited (WCPL), a wholly owned subsidiary of Peabody Australia Pty Ltd (Peabody). The Mine is an existing open cut coal mining operation situated approximately 40 kilometres (km) north-east of Mudgee, near the Village of Wollar, within the Mid-Western Regional Local Government Area, in central New South Wales (NSW) (**Figure 1**). The mine produces thermal coal products which are transported by rail to domestic customers for use in electricity generation and to the Port of Newcastle for export. Open cut mining operations and associated mobile equipment movements are undertaken 24 hours per day, seven days per week.

WCPL and Peabody Pastoral Holdings Pty Ltd are a major landholder owning adjacent rural properties and land to the east and south-east of the mine. Land to the west of the mine is owned by adjacent mining companies, whilst the National Parks and Wildlife Service estate own significant land to the north and south-west of the Mine.

Private properties are located predominantly in and around the Wollar Village approximately 1.5 km to the east of the Mine and along Mogo Road to the north of the Mine.

The Mine originally operated under Project Approval (PA 05-0021) that was granted by the Minister for Planning under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 1 February 2006. On 24 April 2017, WCPL was granted Development Consent (SSD-6764) for the Wilpinjong Extension Project (WEP) that provides for the continued operation of the Mine at rates of up to 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) out to 2033, and access to approximately 800 hectares (ha) of open cut extensions. Development Consent (SSD-6764) has superseded the Project Approval (Project Approval 05-0021)[1]. WCPL commended development under Development Consent SSD-6764 on the 19 September 2017.

The approximate extent of the WEP approved open cut and contained infrastructure area at Wilpinjong Coal Mine is shown on **Figure 2-2**. Major components include open cut pits, an elevated waste rock emplacement in Pit 2, ROM pads/coal stockpiles, water management infrastructure, CHPP, product coal stockpiles and rail and other associated infrastructure areas. Open cut mining targeting the Ulan Coal Seam and Moolarben Coal Member (within ML1573, ML1779, ML1795 & ML1846) and the handling and processing of ROM coal at the CHPP is currently approved to operate 24 hours per day, seven days per week.

2.2 Mine Contact Details

Contact details for key personnel responsible for environmental management at the Mine are in **Table 2-1**.

Table 2-1 Mine Contact Details

Name	Position	Contact Details
Tian Oosthuizen	Compliance Manager	Email: COosthuizen@peabodyenergy.com
Kieren Bennetts	Manager Environment & Community	Email: kbennetts@peabodyenergy.com

The street, postal address and contact telephone numbers for the Mine are as follows:

Street Address
1434 Ulan-Wollar Road
WOLLAR NSW 2850

Postal Address
Locked Bag 2005
MUDGEE NSW 2850

Phone Number
Ph:(02) 6370 2500

[1] PA05-0021 was surrendered on the 28 April 2020 as required by Condition 9, Schedule 2 of SSD-6764 (Surrender of Existing Project Approval).

Figure 2-1 Locality Plan

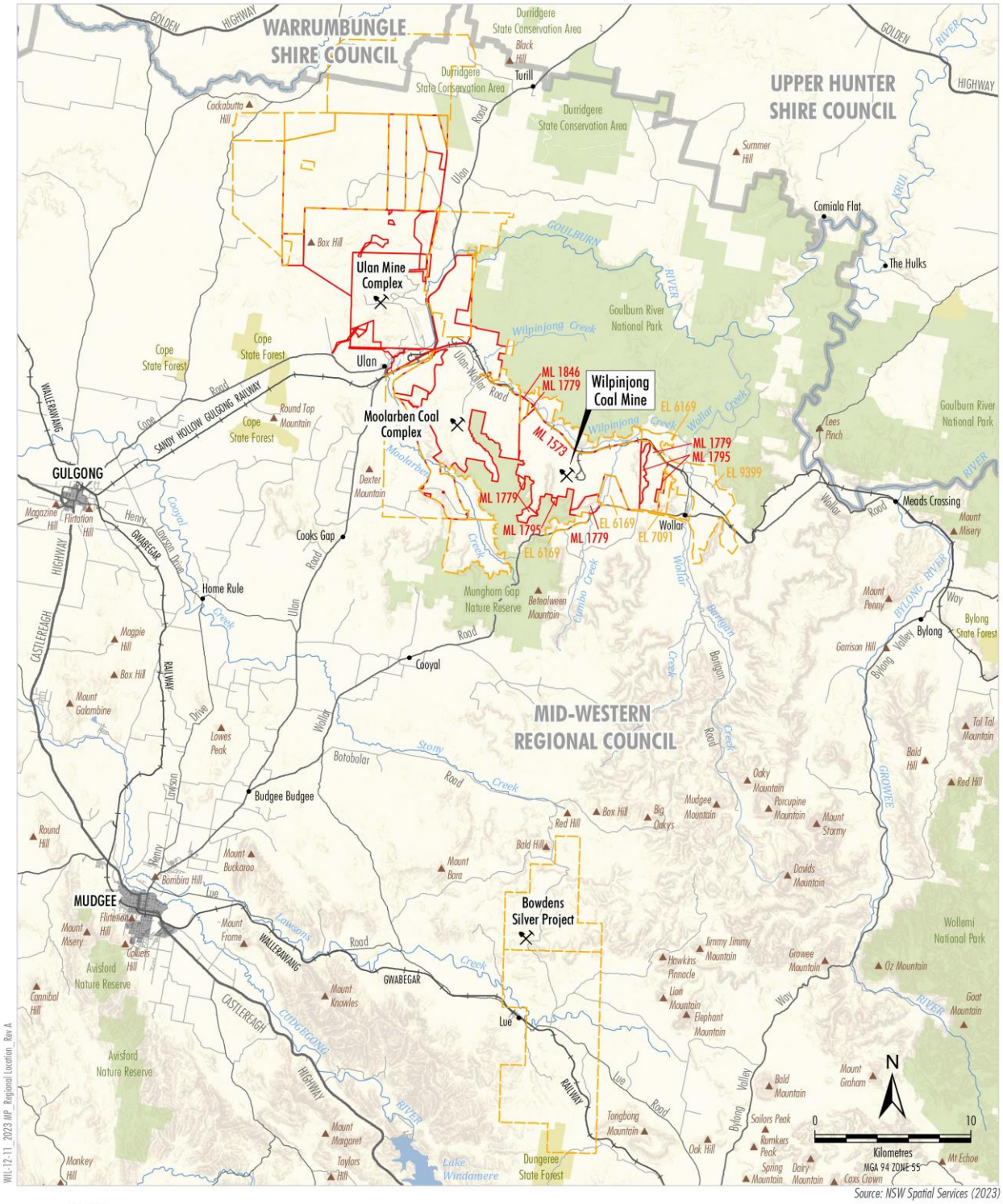
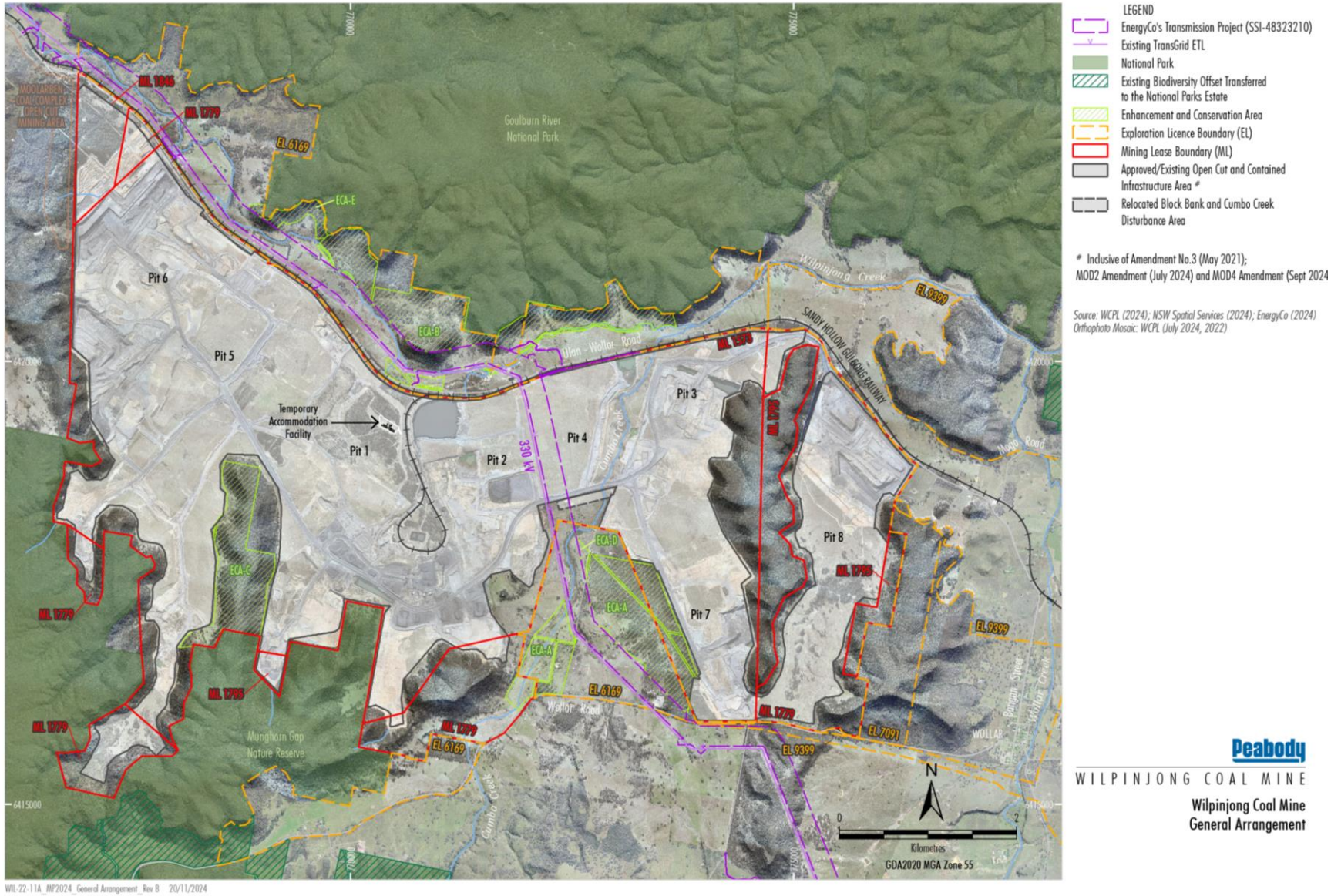


Figure 2-2 The Approved WEP Layout and Surrounds (MOD 4)



3.0 APPROVALS

Table 3-1 presents the current approvals, leases and licences that the Mine operates under.

Table 3-1 Mine Approvals, Leases and Licences

Relevant Authority	Instrument	Approval/Licence No.	Expiry Date
DPHI	Development Consent	SSD-6764	28 years from commencement of Project Approval (i.e. 2033)
NSW-RR	Mining Lease	ML1573	February 2027
	Mining Lease	ML1779	20 December 2039
	Mining Lease	ML1795	27 September 2040
	Mining Lease	ML1846	28 February 2044
	Exploration Licence	EL 6169	22/12/2027
	Exploration Licence	EL 7091	03/03/2028
	Exploration Licence	EL 9399	3 May 2028 refer to **Section 3.4**
	Mine within Wilpinjong B Notification Area	ML 1573	Endorsed DSC 19 February 2013 Approved 24 January 2014
	Rehabilitation Management Plan (RMP)	Submitted 1/07/2022	**Section 3.5**
	Tailings Emplacement	Section 101 – TD1 and TD2 (approv. No. 07/1226)	February 2006 (Facility decommissioned)
	Tailings Emplacement	TD3 and TD4 (High Risk Activity Notification)	December 2011 (Facility decommissioned)
	Tailings Emplacement	TD5 (High Risk Activity Notification)	December 2013 (Facility decommissioned)
	Tailings Emplacement	TD6 (High Risk Activity Notification) 02/09/2016	NA
	Tailings Emplacement	Section 101 - Decommission TD2 (approv. No. 09/2396)	29 April 2009 (Facility decommissioned)
	Tailings Emplacement	Section 101 - Decommission TD1 (approv. No. 09/2396)	28 October 2011 (Facility decommissioned)
EPA	Environment Protection Licence (EPL)	EPL 12425	Until the licence is surrendered, suspended or revoked. The licence is subject to review every 3 years
	NSW Radiation Control Act 1990 Registration	Licence Number 5061384	02 January 2026
	Explosives Licence	*NSW Explosives Act 2003* Part 3 Licence (Licence Number XSTR200024)	24 March 2028
DCCEEW	EPBC Approval	EPBC 2015/7431	31 December 2033
Water Group	Water Licences	Refer to **Table 7-1** & **Table 7-2** in **Section 7.1**	Refer to **Table 7-1** & **Table 7-2** in **Section 7.1**

Note: Copies of the Development Consent (SSD-6764), EPL 12425 and ML1573, ML1779 ML1795 & ML1846 are available on the Peabody Energy website (http://www.peabodyenergy.com)

3.1 Ulan Road Strategy

The Ulan Road Strategy (the Strategy) defines the program for upgrading and maintenance of Ulan Road between Mudgee and the entrance to the underground surface facilities of Ulan Coal Complex over the next 21 years and was approved by NSW Planning and Environment on 25 May 2013. The operation of the Strategy relies upon the Funding and Delivery of Ulan Road Upgrade and Maintenance Deed (the Deed) made between the Mines and Mid-Western Regional Council (MWRC) (Appended, clause 19 extracted). Contributions to the Strategy by the Mines in accordance with the deed are mandatory under project approval consent conditions, as modified over the past 5 years. The Strategy also provides for the completion of noise attenuation works of eighteen identified properties along Ulan Road.

It was reported for the 2020 AR Reporting Period, that all fifteen properties within the zone for noise mitigation measures had their respective noise mitigation measures completed. The last remaining properties to finalise noise agreements occurred in April and July 2020. One property has declined noise mitigation works and two properties are outside the zone for noise mitigation measures. Since the previous 2020 AR, it has been clarified by one property owner that they had not arranged completion of all agreed works. The outstanding mitigation measures were completed by the property owner in mid-2023.

All associated works regarding the capital upgrades for Ulan Road and Cope Road in line with the Strategy and managed by MWRC have been 100% completed, the maintenance period is ongoing in accordance with the Strategy (maintenance period ongoing for the Wilpinjong Coal Project).

3.2 Changes to Approvals (SSD-6764)

On the 16 November 2023, WCPL submitted a modification (MOD 2) seeking to modify Development Consent (SSD-6764) to construct and use a temporary on-site accommodation facility. The facility would cater for approximately 100 people and would be wholly within the existing approved open cut and contained infrastructure area. MOD 2 also seeks a minor reduction of approved direct open cut mining and surface development impacts to excise several Crown land parcels as they are no longer required for operational purposes. MOD 2 was on public exhibition from 27 November to the 15 December 2023. On the 3 July 2024 MOD2 was approved.

Modification 4 (MOD 4) of SSD-6764 was sought by WCPL to facilitate the changes required for the Central-West Orana Renewable Energy Zone Transmission Project (SSI-48323210) (the CWO transmission line) which was approved on the 26 June 2024 by the Minister of Planning. MOD 4 was approved on the 16 September 2024 (**Figure 2-2**) and included:

- Modification of the biodiversity offset strategy and land-based offset and rehabilitation offset conditions, including:
- Excision of approximately 70ha of Enhancement and Conservation Areas (ECAs);
- Excision of approximately 27ha of Regeneration Areas;
- Excision of approximately 33ha of Rehabilitation Areas within Pit 4.
- Minor modifications to existing operations to accommodate the CWO transmission line; and
- Modifications to the final landform to reflect the construction of the CWO transmission line and associated excisions from existing rehabilitation obligations

WCPL is proposing to modify Development Consent (SSD-6764) for the Wilpinjong Coal Mine (MOD3) to facilitate extensions of the existing Pits 3 and 8 (referred to as the Pits 3 and 8 Extension areas) within Exploration Licences (EL) 9399 and EL 6169 and development of associated supporting infrastructure and facilities. WCPL is proposing to formally lodge MOD3 with DPHI in Q3 2025.

3.3 Other Approval Related Activities

- In 2024, WCPL were granted Complying Development Certificates made under the *Environmental Planning and Assessment Act 1979* Sections 4.27 and 4.28 for the removal of an additional 6 dilapidated properties in Wollar. During 2024 the Historic Heritage Management Plan (HHMP) was updated accordingly.
- Continued cooperation-property access with EnergyCo regarding proposed powerlines and substation.

3.4 Changes to Approvals (EPL 12425)

There was no variation to EPL 12425 during the Reporting Period.

3.5 Mining Lease Application (MLA)

There were no MLAs sought during the Reporting Period. Previously, the WEP extended into three new Mining Lease Application (MLA) areas within both EL 6169 and EL 7091. Two MLA's including MLA510 and MLA515 have now been granted approval and converted to ML1779 and ML1795 respectively. ML1779 was approved on the 20 December 2018. ML1795 was approved on the 27 September 2019. MLA616 was the last mining lease required to cover the approved mining area for the WEP. MLA616 was granted approval and converted to ML1846 on the 28 February 2023 (**Figure 2-2**). WCPL will also renew existing ELs and ML1573 as required during the life of the Mine.

3.6 Exploration Licence Application (ELA)

No ELAs were sought by WCPL during the 2024 Reporting Period. The last ELA i.e. ELA 6415 was granted authority, now Exploration Licence 9399 (EL 9399) by the Minster for Regional NSW on the 19 September 2022, in accordance with the provisions of s22(1) of the *Mining Act 1992*. EL9399 covers approximately 1670ha.

3.7 Management Plans

WCPL operates an Environmental Management System to manage compliance and advance continual improvement across the Mine. During the 2024 Reporting Period all management plans were revised and updated accordingly and submitted for re-approval as required by SSD-6764 in September 2024. The DPHI approved WCPL's revised submission date out to the 30 September 2024 to provide WCPL adequate time to update the EMPs in consideration of MOD 2 and MOD 4 approvals. A summary of the status of management plans required by SSD-6764 is presented in **Table 3-2**.

Table 3-2 Status of Environmental Management Plans

Management Plan	Schedule 3 of SSD-6764	Approval Status
Noise Management Plan (NMP)	Condition 5	Revised and resubmitted in September 2024. Version 9 approved 29 January 2025.
Blast Management Plan (BMgtP)	Condition 14	Revised and resubmitted in September 2024. Version 10 approved 29 January 2025.
Blast Fume Management Strategy	Condition 14	Revised and resubmitted in September 2024. Version 6 approved 29 January 2025.
Air Quality Management Plan (AQMP)	Condition 20,	Version 8.1 approved on 17/12/2022. Revised in June 2023. Version 9 approval pending EPA's comments and feedback (see comments).
Water Management Plan (WMP)	Condition 30	Version 4 approved on 4/08/2017. Revised in June 2022. Version 8 approval pending. Refer to **Table 10-1** Summary Status to Address Corrective Actions from 2024 IEA.
Site Water Balance (SWB)	Condition 30(d)(ii)	Version 3 approved on 4/08/2017. Revised in June 2022. Version 6 approval pending **Table 10-1** Summary Status to Address Corrective Actions from 2024 IEA.

Management Plan	Schedule 3 of SSD-6764	Approval Status
Surface Water Management Plan (SWMP)	Condition 30(d)(iii)	Version 3 approved in June 2018. Revised in June 2022. Version 6 approval pending **Table 10-1** Summary Status to Address Corrective Actions from 2024 IEA.
Groundwater Management Plan (GWMP)	Condition 30(d)(iv)	Version 3 approved on 4/08/2017. Revised in June 2023. Version 6.2 approval pending **Table 10-1** Summary Status to Address Corrective Actions from 2024 IEA.
Biodiversity Management Plan (BMP)	Condition 42	Revised and resubmitted in September 2024. Version 10 approved 29 January 2025.
Aboriginal Cultural Heritage Management Plan (ACHMP)	Condition 47	Revised and provided to RAPs for their feedback on the 27/11/2024. Version 10 approval pending (see comments).
Spontaneous Combustion Management Plan (SCMP)	Condition 20(g)	Version 8.1 approved on 17/12/2022. Revised in June 2023. Version 9 approval pending EPA's comments and feedback (see comments).
Historic Heritage Management Plan (HHMP)	Condition 49	Revised and resubmitted in September 2024. Version 7 approved 29 January 2025.
Rehabilitation Strategy*	Condition 61	Version 1 conditionally approved on the 6/12/2022. June 2023 review determined no amendments required
Rehabilitation Management Plan (RMP)	Condition 64	Version 1 approved on 25/01/2023. Revised in September 2023. Version 2 approval pending.
Environmental Management Strategy (EMS)	Condition 1, Schedule 5	Revised and resubmitted in September 2024. Version 10 approved 29 January 2025.
Social Impact Management Plan (SIMP)	Condition 63	Version 4 submitted to the MWRC in September 2024 for their review. SIMP updated post review to address MWRC comments and provided back for their approval (see comments below),

Notes: * Conditional approval of the Rehabilitation Strategy on 6 December 2022, subject to updating the groundwater model.

During the Reporting Period, WCPL was in consultation with the relevant agencies and stakeholders developing and progressing a number of management plans, but not limited to the following;

- The EPA had requested additional time to provide feedback on the resubmitted AQMP (Version 9), also containing the SCMP (Version 9) provided in September 2024. At the time of preparing this 2024 AR, WCPL had received comments from the EPA on the 10 March 2025 and progressing the AQMP to address the feedback provided by the EPA for resubmission in April 2025.
- MWRC provided their feedback on the SIMP (Version 4) after submission in September 2024. WCPL sought the Secretary's approval for the following suitably qualified and experienced person, Mr Lars Daniel Holm. Mr Holm is a social performance professional specialising in social impact assessment for the energy, infrastructure and extractives sectors. Mr Holm was endorsed by the Secretary on the 21/11/2024.The revised SIMP was provided back to the MWRC on for their consideration. At the time of preparing this 2024 AR the MWRC had no further comments for the SIMP as provided on the 11 March 2025.
- The revised ACHMP (Version 10) was provided to WCPL's RAPs for their feedback on the 27/11//2024. Feedback from Heritage NSW was received on the 9/10/2024. The ACHMP was revised and updated accordingly to address consultation outcomes and re-submitted via the Major Projects portal for re-approval in March 2025.

The status of the above plans, strategies and performance criteria will be provided in the next AR. In accordance with Schedule 5, Condition 5 of SSD-6764, WCPL will review and if necessary revise the strategies, plans and programs required under the consent within three months of the submission of this Report to relevant government regulators. In accordance with Schedule 5, Condition 12 of SSD-6764, relevant management plans have been made available to the public on the Peabody Energy website www.peabodyenergy.com

3.8 Biodiversity Offset Areas (BOAs)

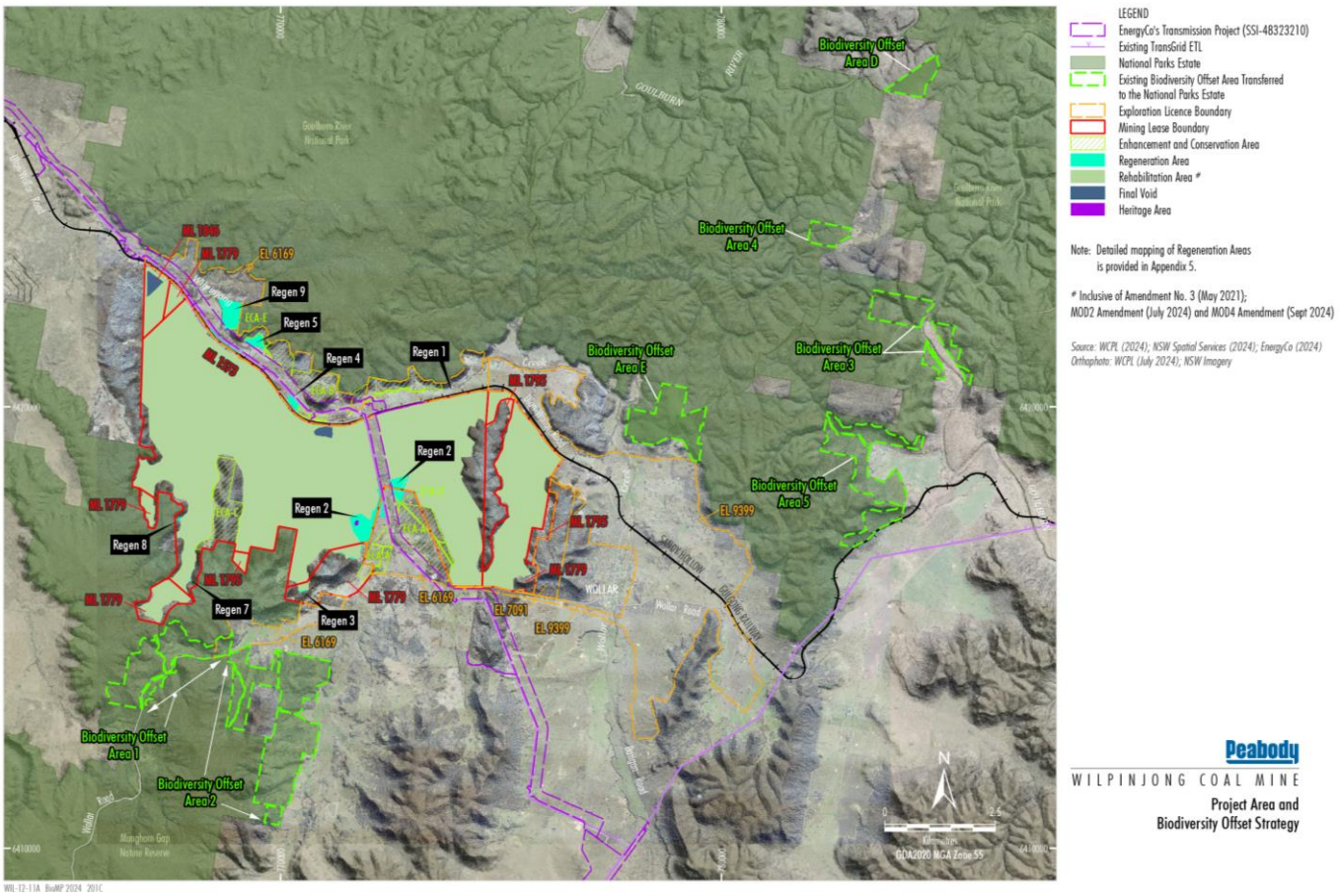
All land within Biodiversity Offset Areas D and E were transferred to the National Parks Estate on the 13 January 2016. WCPL were granted an extension of time by the Secretary on the 5 July 2023, regarding the transfer of Biodiversity Offset Areas 1-5 (BOAs) to the National Parks and Wildlife Service (NPWS), until the 31 July 2023.

The transfer of the BOAs is required under Condition 32, Schedule 3 of Development Consent SSD-6764 for the WEP. WCPL completed the transfer of BOAs 1-5 to NPWS, including both the transfer of land and payment of the management fee agreed between WCPL and NPWS (**Figure 3-1**).

Both the transfer and payment occurred on Wednesday 2 August 2023. The two-day delay from the approved date of 31 July 2023 was a result of interbank transfer timing for the management fee.

The BMP (Version 10) was updated in 2024 to reflect the status of the BOAs as transferred to NPWS and confirm the relinquishment of land management activities within the BOAs, as required by earlier versions of the BMP. The BMP (Version 10) was approved in January 2025.

Figure 3-1 Project Area (MOD 4) and Biodiversity Offset Strategy



4.0 OPERATIONS SUMMARY

Table 4-1 displays the production summary for 2024 and the forecast production summary for 2025.

Table 4-1 Production Summary

Material	SSD-6764 Approved Limit	This Reporting Period (actual)	Next Reporting Period (forecast)
Stripped Topsoil	NA	167,599	174,557
Waste Rock/Overburden (m^3)	NA	36,959,594	42,315,760
ROM Coal (Mtpa)	16	13.7	11.76
Coarse Reject & Tailings (TFP)*	NA	2.49	2.25
Fine Tailings	NA	0	0
Product Coal	NA	10.977	9.561

Notes: *Tailings Filter Press[2], Million tonnes per annum = (Mtpa)

4.1 Other Operational Conditions

At the end of the 2024 Reporting Period, active extraction in open cut mining areas were located in Pit 6, Pit 7 and Pit 8 as identified in Plan 2A of the current ARRFP. Backfilling of Pit1, Pit 2 and Pit 3 also occurred.

In accordance with Condition 51, Schedule 3 of SSD-6764, WCPL maintains records of the amount of coal transported from the site each year, and the number of coal haulage train movements generated by the Mine on a daily basis.

Approximately 10.699 Mt of product coal was transported from the Mine via rail during the 2024 Annual Reporting Period and involved an average of approximately 3.5 train movements per day, with a maximum of 7 train movements per day during 2024 (**Appendix 1**).

Train loading is available on a continuous basis, 24 hours a day and 7 days per week, with a maximum of 10 laden coal trains leaving the site per 24-hour period and an average of six train movements per day when calculated over one calendar year (Condition 7, Schedule 2 of SSD-6764).

No overburden material was supplied (or requested) to regional infrastructure projects in the vicinity of the Mine.

The construction of the temporary accommodation facility after MOD 2 approval began in Pit 1 on the 26/07/2024.The temporary accommodation facility was operational on the 30/01/2025. Updates to the CHPP bathhouse, main administration bathhouse and administration buildings were also completed in 2024. There were no other significant construction activities in the Reporting Period, other than haul road and mining related support infrastructure construction. A summary of exploration activities in 2024 is provided in **Appendix 2**.

4.2 Next Reporting Period

The proposed active mining areas for the 2025 Reporting Period are Pit 3, Pit 5, Pit 6 and Pit 8. The mining and rehabilitation schedule are provided in Plan 2B Mining and Rehabilitation Year 2 within the Annual Rehabilitation Report & Forward Program in accordance with Part 2 of the NSW Resources Regulator *Form and Way – Annual Rehabilitation Report and Forward Program for Large Mines (2021)*, Clause 9 and 13 of Schedule 8A of *Mining Regulation 2016*. Refer to **Appendix 4** for proposed mining and rehabilitation sequence in 2025. Key construction activities in the next Reporting Period include haul road and mine support infrastructure construction in Pit 6 and Pit 8.

[2] In 2015 the Belt Press Filter (BPF) commenced at the CHPP. The BPF and associated transfer conveyor allows for co-disposal of tailings with coarse reject/overburden and improved recovery of water from tailings.

5.0 ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

On the 24 April 2024, WCPL received notification the DPHI had reviewed the 2023 Annual Review and considered it to generally satisfy the reporting requirements of the approval/consent and the NSW Planning Annual Review Guideline (October 2015). The DPHI requested the 2024 Annual Review be made publicly available on the company's website within 30 days.

The DPHI noted that the non-compliances identified in the 2023 Annual Review have been assessed by NSW Planning in accordance with its Compliance Policy, with NSW Planning on this occasion determining to record the breaches with no further enforcement action proposed. However, please note that recording the breach does not preclude NSW Planning from taking an alternative enforcement action, should it become apparent that an alternative response is more appropriate

A copy of the 2023 Annual Review is provided on the Peabody Energy website at: https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

6.0 ENVIRONMENTAL PERFORMANCE

Environmental management measures undertaken during the 2024 Reporting Period have been conducted as required by relevant management plans and monitoring programs developed for the Mine in accordance with SSD-6764 and EPL12425.

The 2024 Annual Review provides the results and assessment of environmental performance relevant to development consent approval SSD-6764. The locations of environmental monitoring undertaken throughout the 2024 Reporting Period are provided in **Appendix 3**.

6.1 Meteorological Monitoring

Local meteorological data for 2024 was recorded by the Mine's meteorological station and was operated in accordance with SSD-6764 and EPL 12425. The meteorological station monitors a number of parameters, including temperature, humidity, rainfall, wind speed and wind direction. The location of the meteorological station and associated tables and graphs are provided in **Appendix 3A**.

The total cumulative annual rainfall recorded for 2024 was approximately 759.4mm. In comparison the previous four years recorded annual cumulative rainfalls of 478mm in 2023, 998.2mm in 2022, 942.2mm in 2021 and 915.8mm in 2020. The 2024 cumulative rainfall represents a return of above average annual rainfall greater than the long-term cumulative annual average rainfall (in the vicinity of the Mine) ranging from 587.7mm to 651.5mm (WEP EA).

The month with the highest total rainfall recorded was 161.6mm in November 2024. The least amount of rainfall was recorded in March with just 32.8mm for the month.

A maximum temperature of 37.9^{0}C (at 10m) was recorded in February 2024. The lowest minimum temperature was -1.5^{0}C (at 10m) recorded in July 2024. The 2024 average minimum was 5.9^{0}C (at 10m) and the 2024 average maximum of 29.8^{0}C (at 10m).

Wind speed recorded during the 2024 Reporting Period displayed an average monthly wind speed range between 1.1 metres per second (m/s) to 2.2m/s. The average windspeed in 2024 was comparable with 2023. A maximum wind speeds of 11.4m/s was recorded in February and December 2024. Wind direction was generally from the North East during Summer and from the South East in Winter.

6.2 Air, Blast & Noise Monitoring

Air Quality Monitoring

The Mine has developed and implemented an Air Quality Management Plan (AQMP - Version 8.1) (**Table 7**). Criteria for airborne particulate matter (i.e. dust) are specified in Condition 17, Schedule 3 of SSD-6764. During the 2024 Reporting Period, the Mine carried out dust monitoring in accordance with the AQMP at the locations in **Appendix 3B** and at the frequency displayed in **Table 6-1**.

Table 6-1 Summary of Air Quality Monitoring Program

Monitoring Parameter	Monitoring Locations	Frequency
Dust Deposition	DG4[4], DG5, DG8, DG11 & DG15	Monthly
	DG12[2], DG13[2] and DG14[2]	Monthly (mining < 1 km of the site)
High-Volume Air Sampling (PM10)	HV1, HV4[1] & HV5	24hrs every six-day cycle
TEOM (PM10)	TEOM 3 & TEOM 4	Continuous (24-hour average)
TEOM (PM2.5)	TEOM 5[3]	Continuous (24-hour average)*

Notes: [1] Data HV4 for management purposes only. [2] Aboriginal rock art site monitoring Sites 72, 152 and 153. [3] TEOM5 installed and operating prior to 31/12/2017. [4] DG4 revised as management monitoring in AQMP (Version 8.1) due to close proximity to mining.

The AQMP was revised and resubmitted for consultation and approval in September 2024. The revised AQMP (Version 9) was in consideration of MOD2 and MOD4 and included all applicable figures displaying ML1846. EL9399 and landownership including ID959 which is now Peabody owned. Updated included DG8, DG11 and DG15 to management from compliance monitoring as per EPL12425. The revised AQMP (Version 9) was pending feedback from the EPA who requested additional time in December 2024 to conduct their review. WCPL received comments from the EPA on the 10 March 2025 and progressing the AQMP to address the feedback provided by the EPA for resubmission in April 2025.

Table 6-3 contains the air quality monitoring results, as well as a discussion of the results for the Reporting Period. Further air quality monitoring results for 2024 Reporting Period are provided in **Appendix 3B**.

Spontaneous Combustion

The Mine has developed and implemented a Spontaneous Combustion Management Plan (Version 9) (SCMP) as Appendix 3 of the AQMP. As described in the SCMP there are areas of the mine prone to spontaneous combustions events. During 2024 there was a continued effort in managing those areas prone to an outbreak of spontaneous combustion.

As with the AQMP, the SCMP was revised and resubmitted in September 2024. Along with the AQMP, the SCMP was also awaiting feedback from the EPA prior to finalisation and issuing to the DPHI for their approval at the time of preparing the 2024 Annual Review

There were no reportable incidents as a result of spontaneous combustion in 2024. There were sixteen (16) unverified odour related complaints received during 2024 (**Section 9**). Each of the odour complaints during 2024 received follow up checks by WCPL and were either unable to detect significant spontaneous combustion outbreaks with the capacity to generate offsite odours or detect odours beyond the boundary of the Mine. These checks also included a review of the wind speed and wind direction prior to receiving an odour complaint. The complainants also declined to discuss any of the odour complaints with a WCPL representative.

Spontaneous combustion propensity testing was undertaken in 2020 and within Pit 6 and Pit 8. The results from the 2020 testing determined eight samples have a low propensity of spontaneous combustion (PSC) and nineteen have no PSC.

An assessment of the spontaneous combustion performance indicators as required by the SCMP is provided in **Table 6-2**. Refer to **Section 6.7** for ambient air monitoring program. WCPL will continue to implement the SCMP.

Table 6-2 Assessment of Spontaneous Combustion Performance Indicators

Performance Indicator	2024 Target	2024 Performance
Number of verified complaints received relating to spontaneous combustion	0	0*
Number of incidents relating to spontaneous combustion	0	0
Number of times operations have been shut down as a result of complaints/incidents relating to spontaneous combustion	0	0

Notes: * Investigated odour complaint and could not determine or verify the likely cause of the odour (refer to **Section 9.0** for further details).

Table 6-3 Air Quality Monitoring Environmental Performance

<table>
<tr><th>Approved Criteria [D]</th><th>WEP Predictions</th><th>Performance During the Reporting Period</th><th>Trend/Key Management Implications</th><th>Implemented/proposed Management Actions</th></tr>
<tr><td colspan="5">Deposited Dust [C]</td></tr>
<tr><td>4 g/m^2/month [E]

(at any residences on privately owned land)</td><td>2g/m^2/month

DG4, DG5, DG8, DG11 & DG15</td><td>The 2024 annual average dust deposition results for compliance purposes were below the approved criteria of 4 g/m^2/month at compliance monitoring sites:
– DG4 (Ave: 0.8 g/m^2/month)
– DG5 (Ave: 0.6 g/m^2/month)
– DG8 (Ave: 1.2 g/m^2/month)
– DG11 (Ave: 1.6 g/m^2/month)
– DG15 (Ave:0.8 g/m^2/month)</td><td>The 2024 results for depositional dust indicate that deposited dust levels are below the relevant cumulative criterion of 4g/m^2/month at relevant compliance monitors in 2024.

The annual average measured levels in 2024 are generally well aligned with the modelled predictions and were comparable with 2023.

DG4 is located on WCPL owned land in close proximity to the mining lease boundary and was revised in AQMP (Version 8.1) as a monitoring point for management purposes as recommended WCPL air quality specialist.

For further results refer to Appendix 3B.</td><td rowspan="2">The Mine rehabilitated approximately 86.07ha of mine waste rock emplacement areas in 2024. The Mine is scheduled to complete approximately 98ha of mine waste rock rehabilitation in 2025.

In 2024 there were a total of 2 complaints regarding air quality and 16 odour complaints, when compared to 2 air quality complaints and 12 odour complains in 2023. Refer to Section 6.2 and Section 9 for details.

The effectiveness of the adopted control measures as described in the AQMP, WCPL were able to achieve compliance against the Air Quality Assessment Criteria Table 17, Schedule 3 of SSD-6764 in 2023.

The AQMP was revised and resubmitted for consultation and approval in September 2024. The revised AQMP (Version 9) was in consideration of MOD2 and included all applicable figures displaying ML1846, EL9399 and landownership including ID959 which is now Peabody owned. Update DG8, DG11 & DG15 to management from compliance monitoring as per EPL12425. The revised AQMP (Version 9) was pending feedback from the EPA who requested additional time in December 2024 to conduct their review.

All dust related complaints were responded to in accordance with the Complaints Management Procedure.

During the Reporting Period the following control measures were implemented in accordance with the AQMP, including response to dust alarms from TEOMs, meteorological conditions assessed prior to blasting, active haul roads and traffic areas were watered on an appropriate basis using water carts and water sprays were utilised on</td></tr>
<tr><td colspan="4">PM$_{10}$ (24hr Continuous Average Concentrations & 24hr 6 Day Cycle Concentrations)</td></tr>
<tr><td>50 µg/m^3 [AF]</td><td>30.8 µg/m^3

*Village of Wollar</td><td>The 24-hour average PM$_{10}$ concentrations were below the relevant criterion of 50µg/m^3 in 2024.

<table>
<tr><th rowspan="2">6 Day Cycle</th><th>HV1</th><th>HV4</th><th>HV5</th></tr>
<tr><th>µg/m^3</th><th>µg/m^3</th><th>µg/m^3</th></tr>
<tr><td>PM$_{10}$ (Max)</td><td>31.50</td><td>34.10</td><td>32.4</td></tr>
<tr><td>PM$_{10}$ (Min)</td><td>1.00</td><td>1.60</td><td>1.6</td></tr>
</table>

<table>
<tr><th rowspan="2">Continuous</th><th>TEOM3</th><th>TEOM4</th></tr>
<tr><th>µg/m^3</th><th>µg/m^3</th></tr>
<tr><td>PM$_{10}$ (Max)</td><td>33.4</td><td>32.50</td></tr>
<tr><td>PM$_{10}$ (Min)</td><td>1.7</td><td>3.00</td></tr>
</table>

*WEP predictions at Receptor 900 for Year 2024</td><td>The 24-hour average PM$_{10}$ concentrations were below the relevant criterion of 50µg/m3 during the Reporting Period.

The 24-hour average PM$_{10}$ concentrations in 2024 were slightly higher than the 2023 results.

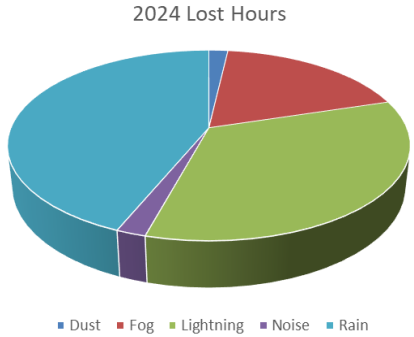
The 24-hour average PM$_{10}$ concentrations in 2024 are generally well aligned with the modelled predictions for HV1 located in the Village of Wollar for predicted cumulative

HV4 is located on WCPL land in close proximity to the mining lease boundary and is a monitoring point for management purposes.

For further results refer to Appendix 3B.</td></tr>
</table>

<table>
<tr><th>Approved Criteria [D]</th><th>WEP Predictions</th><th>Performance During the Reporting Period</th><th>Trend/Key Management Implications</th><th>Implemented/proposed Management Actions</th></tr>
<tr><td colspan="4">PM_{10} (Annual Average Concentrations)</td><td rowspan="3">the ROM coal bins, and on recently stripped areas as required.

In 2024, Figure 6A displays sum of lost time hours associated with implementation of dust management strategies (i.e., lost time only captured for primary dig implements such as dozers, excavators and loaders) as a direct result of modifying the operations to remain compliant with relevant air quality criteria.

Figure 6A Lost Hours in 2024
 
</td></tr>
<tr><td>30 µg/m³ [AE]</td><td>15.1 µg/m³

*Village of Wollar</td><td>The 2024 annual average PM_{10} concentrations for “all days” were below criterion of 30µg/m³:

<table><tr><th rowspan="2">6 Day Cycle</th><th>HV1</th><th>HV4</th><th>HV5</th></tr><tr><th>µg/m³</th><th>µg/m³</th><th>µg/m³</th></tr><tr><td>PM_{10} (Ave)</td><td>10.99</td><td>10.82</td><td>11.3</td></tr></table>
<table><tr><th rowspan="2">Continuous</th><th>TEOM3</th><th>TEOM4</th></tr><tr><th>µg/m³</th><th>µg/m³</th></tr><tr><td>PM_{10} (Ave)</td><td>10.0</td><td>12.06</td></tr></table>
*WEP predictions at Receptor 900 for Year 2024</td><td>The 2024 annual average PM_{10} concentrations were below the relevant Consent criterion of 30µg/m³.

The annual average PM_{10} concentrations in 2024 are generally well aligned with the modelled predictions for TEOM 3 located in the Village of Wollar. The annual average PM_{10} levels in 2024 are comparable with 2023 and slightly higher than the levels in 2020-2022.

Annual average PM_{10} measured levels are generally lower than the model prediction.

The slight increase of the PM_{10} annual average in recent years is likely due to the ending of three consecutive years of well above average annual rainfall from 2020-2022. For further results refer to Appendix 3B.</td></tr>
<tr><td colspan="4">$PM_{2.5}$ (24hr & Annual Average Concentrations)</td></tr>
<tr><td>No criteria established</td><td>3-4 µg/m³

*Village of Wollar</td><td>The 2024 annual average and 24hr $PM_{2.5}$ concentrations were generally below the relevant adopted NEPM criterion.

<table><tr><th></th><th>Annual Average</th><th>Max. 24hr</th><th>Days > NEPM 24hr</th></tr><tr><td></td><td>µg/m³</td><td>µg/m³</td><td>µg/m³</td></tr><tr><td>2024</td><td>5.3</td><td>29.6</td><td>2</td></tr></table>
Adopted NPEM criteria in accordance with AQMP:

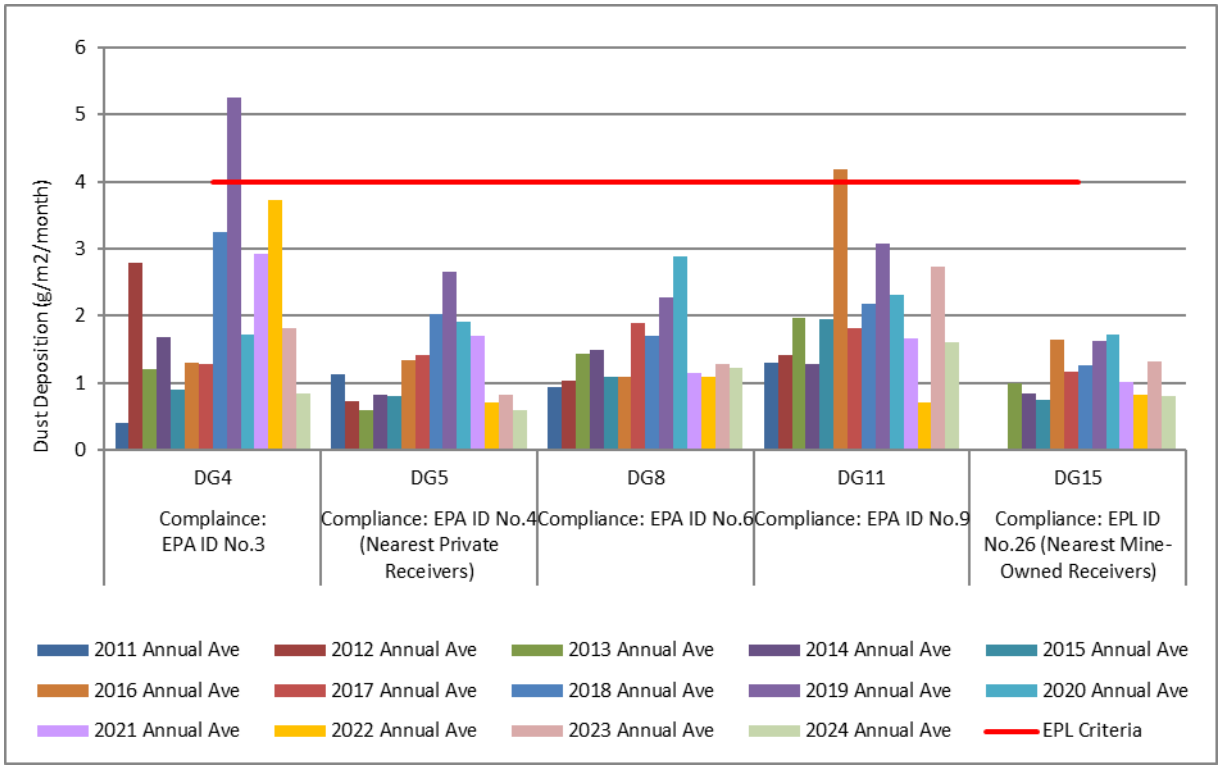
• Annual Average: 8 µg/m³
• 24 Hour: 25 µg/m³

*WEP predictions at Receptor 900 for Year 2024</td><td>The annual average $PM_{2.5}$ levels in 2024 are slightly higher than the levels in previous years.

The annual average $PM_{2.5}$ concentrations in 2024 are generally greater than the WEP modelled predictions, however generally aligned with NPEM criteria for TEOM 5 located in the Village of Wollar. Non-modelled local $PM_{2.5}$ sources include combustion engines, transport movements and various human activities.

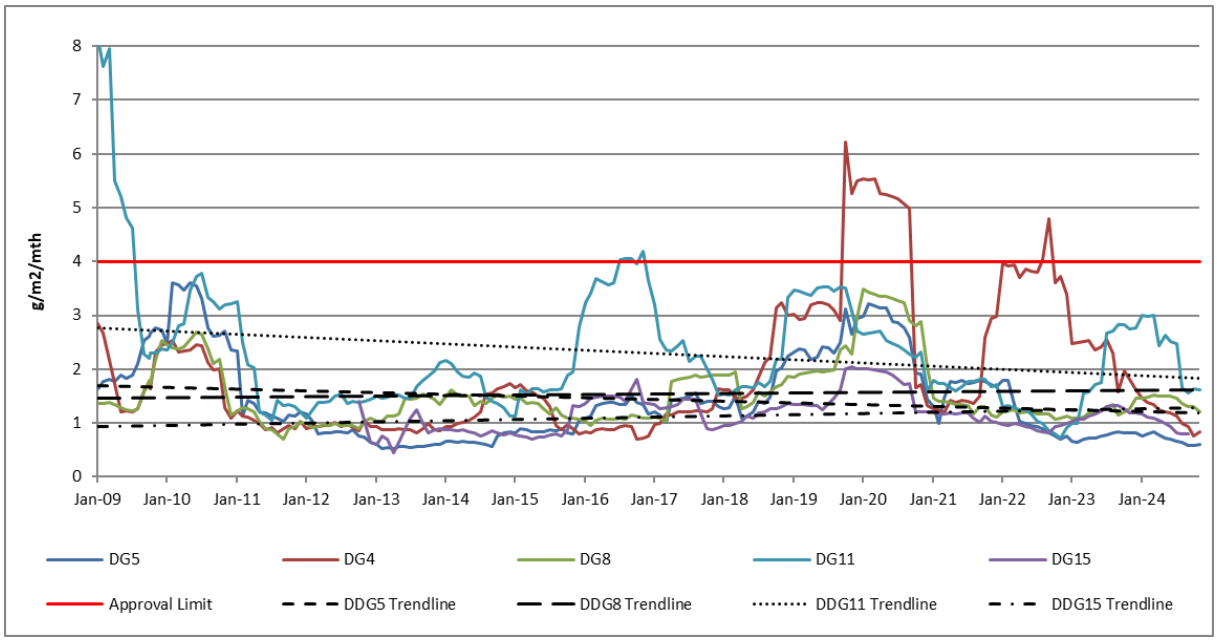
For further results refer to Appendix 3B.</td></tr>
<tr><td colspan="5">Notes: g/m²/month = grams per square metre per month. µg/m³ = micrograms per cubic metre. (A) Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); (B) Incremental impact (i.e. incremental increase in concentrations due to the development on its own); (C) Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and (D) Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Director-General. (E) Annual Averaging Period. F) 24 Hour Averaging Period.</td></tr>
</table>

Figure 6-1 Compliance Annual Average Dust Deposition Results 2011 – 2024



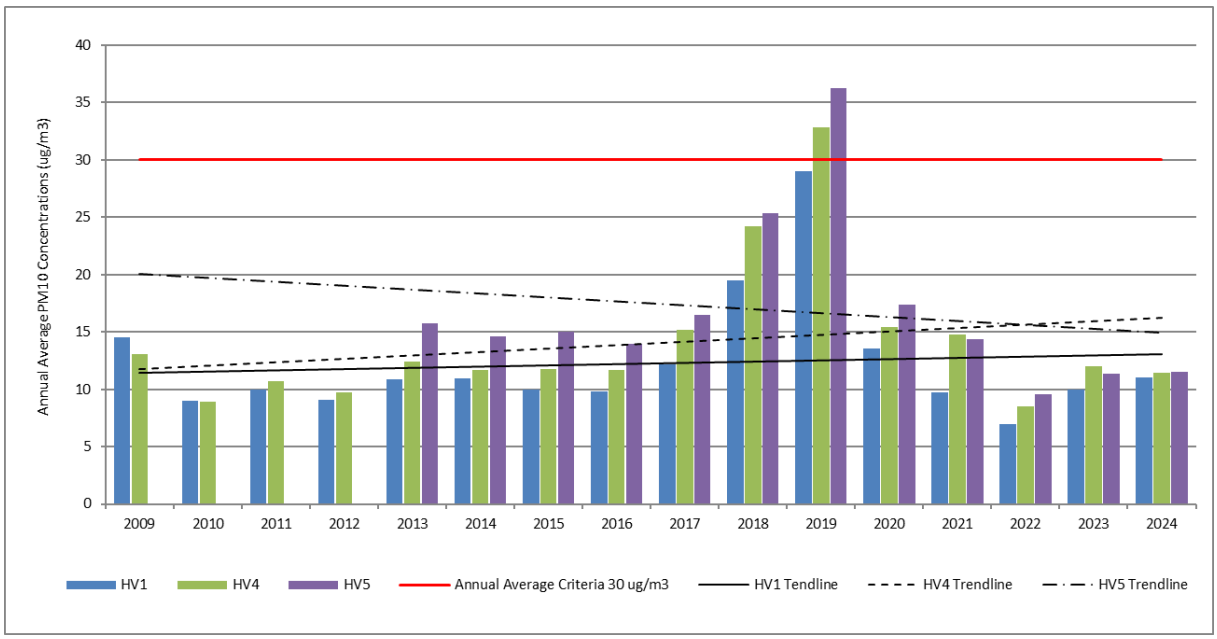
Notes: Based on the positioning of the compliance monitors at WCM, it can be assumed that the DG8 monitor is sufficiently away from mining activity and is generally represented of background levels for the area. On this basis, the potential incremental contribution from WCM can be estimated as the level recorded at the compliance monitors minus the level at DG8.

Figure 6-2 Compliance Dust Deposition Trends (Rolling Averages) 2009-2024



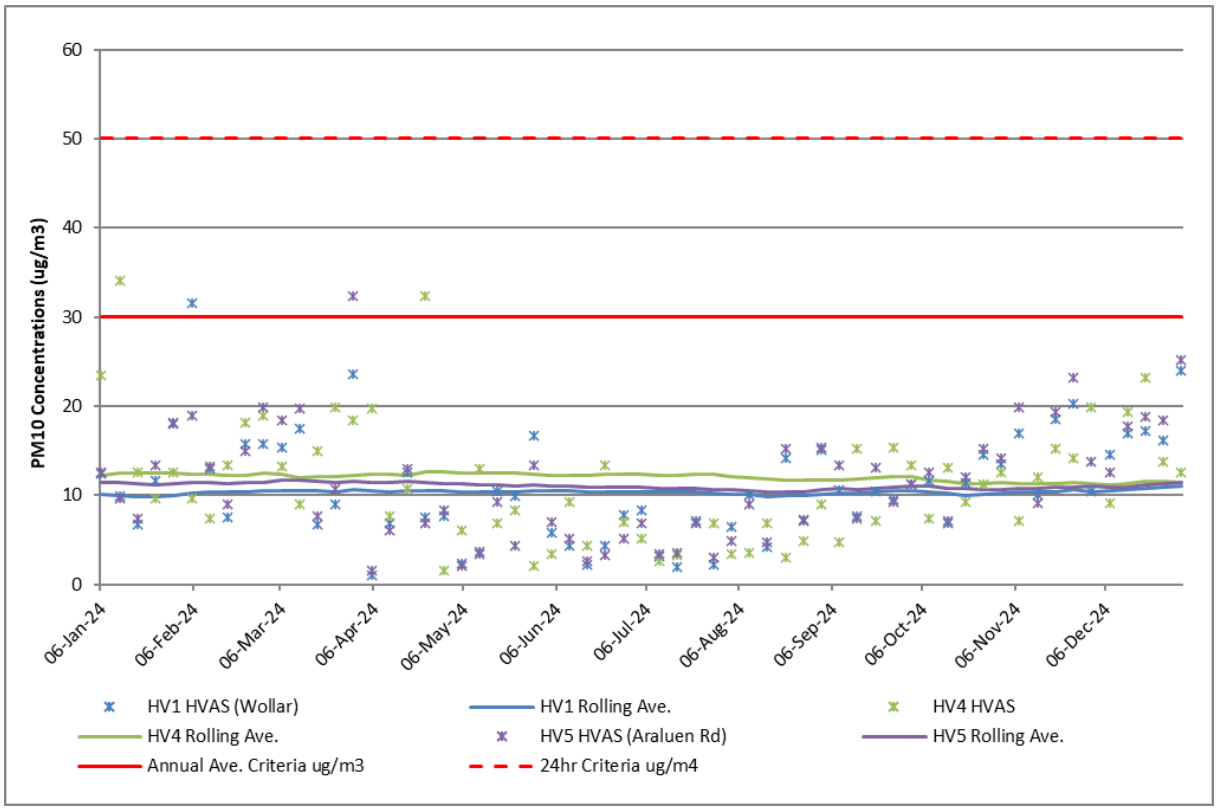
Notes: Drought conditions and extraordinary events impacted the background deposited dust levels in 2020. Currently, the nearest privately-owned residence to the DG4 monitor is located over 5km away and thus the DG4 monitor is no longer considered to be representative of dust levels at privately owned residences.

Figure 6-3 Compliance HVAS Annual Average PM_{10} Results and Trends 2009 – 2024



Notes: Elevated results in 2019 were caused by regional extraordinary events as described the 2019 Annual Review.

Figure 6-4 Compliance HVAS (Rolling Averages) Annual Average & 24hr 6-Day Cycle PM_{10} Results 2024



Notes: The nearest private residence to the HV4 monitor is located over 5km away from the monitor, the private residency response protocol (which includes an investigation of elevated readings at monitors representative of privately owned residences) is not triggered when elevated levels are recorded at this location as such, HV4 is considered a management monitor rather than compliance monitor.

Figure 6-5 Compliance TEOM 24hr & Annual Average PM_{10} Results 2024

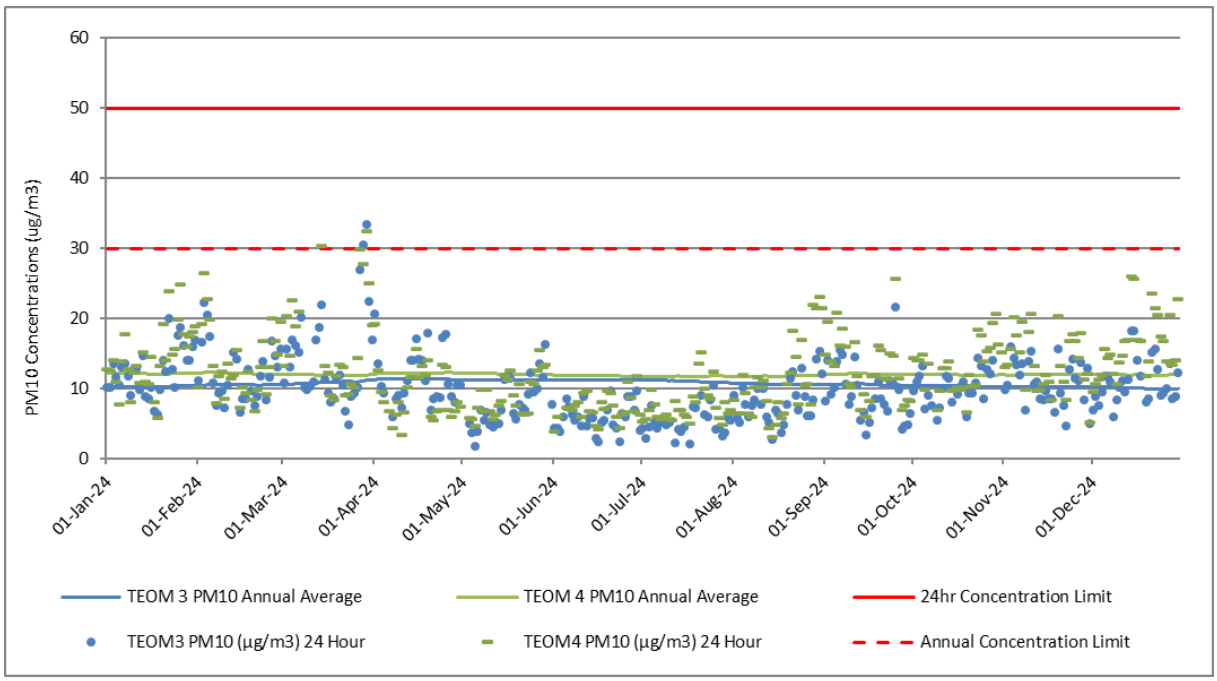
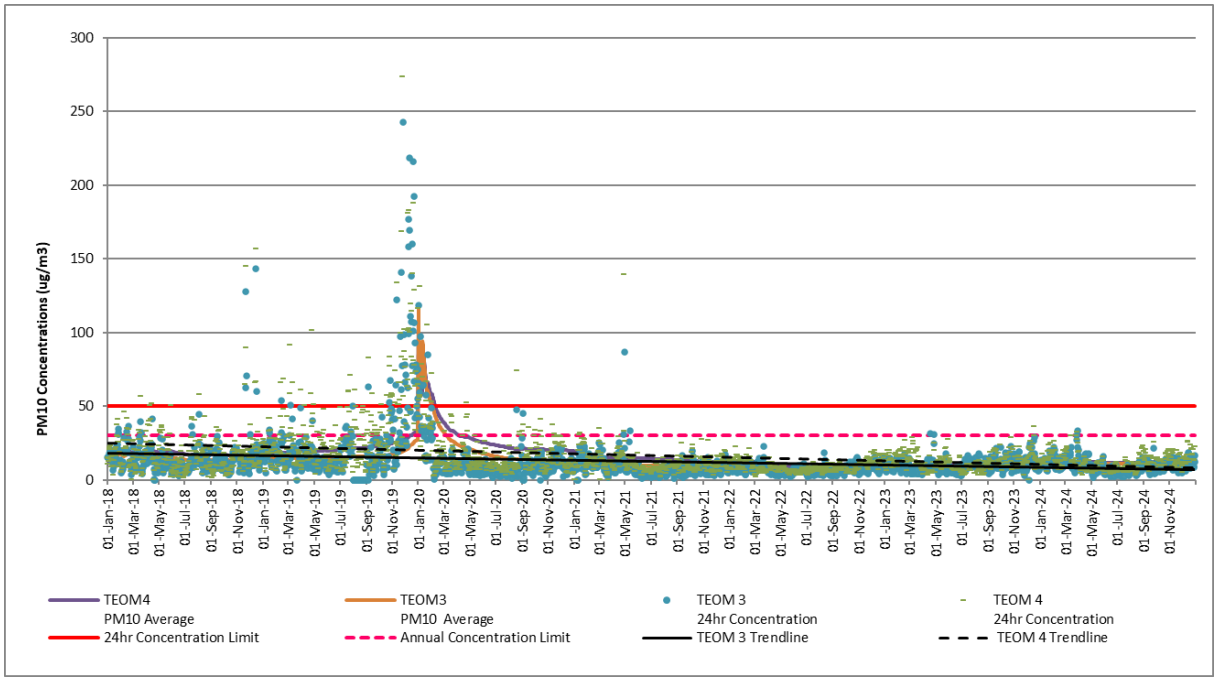
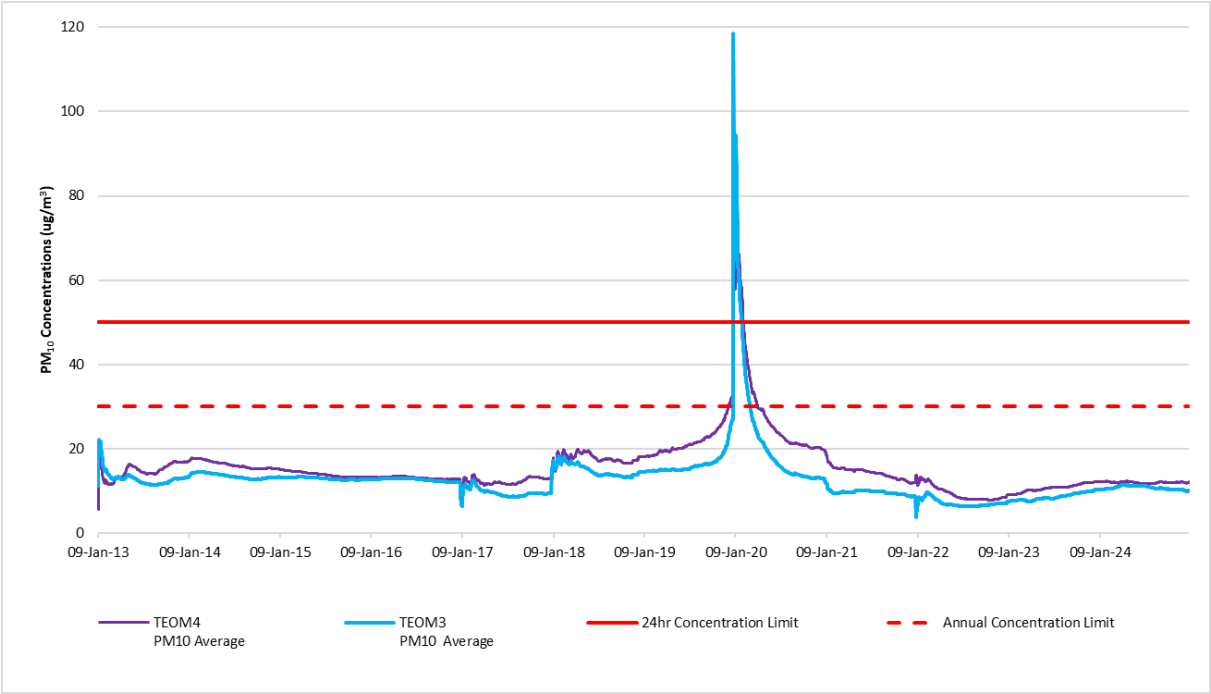


Figure 6-6 Compliance TEOM PM_{10} 24hr Results and Trends (Rolling Averages) 2015-2024



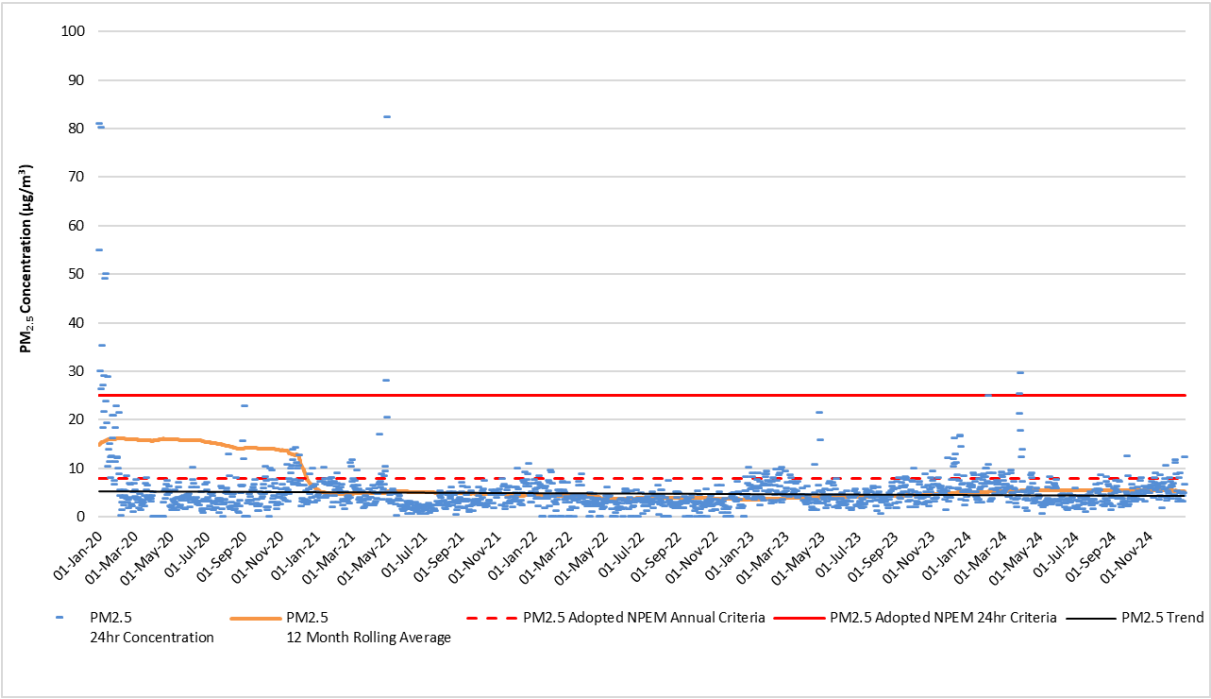
Notes: The rolling annual average levels in generally show a trend of increasing levels, with the monitors all showing a sudden increase in levels at the end of 2019 associated with the 2019/2020 NSW bushfires and a sharp drop towards the end of 2020. It is noted that in 2021 there were two days considered to be "extraordinary events" for WCM, 28/04/2021 and 29/04/2021 (both days were considered extraordinary events due to smoke associated with nearby hazard reduction burns).

Figure 6-7 Compliance TEOM PM_{10} (Rolling Averages) 2015-2024



Notes: The rolling annual average levels in generally show a trend of increasing levels, with the monitors all showing a sudden increase in levels at the end of 2019 associated with the 2019/2020 NSW bushfires and a sharp drop in 2020 coinciding with the return of above average rainfall.

Figure 6-8 Compliance TEOM $PM_{2.5}$ 24hr Results and Trends (Rolling Averages) 2018-2024



Notes: $PM_{2.5}$ levels at the end of 2019 and start of 2020 are significantly elevated compared with the rest of the data. The levels were affected by bushfire smoke across NSW during the 2019/2020 bushfire season. It is noted that in 2021 there were two days considered to be “extraordinary events” for WCM, 28/04/2021 and 29/04/2021 due to smoke associated with nearby hazard reduction burns.

EIS Predictions

All privately-owned receivers were predicted to comply with the EPA's criteria for 24-hour average PM_{10}, annual average PM_{10} and annual average TSP concentrations as well as annual average dust deposition and the Ambient Air – NEPM advisory reporting standards for 24-hour and annual average $PM_{2.5}$ concentrations for the Project Years 2, 4, 8, 12 and 15 (WEP 2015). The management measures and results from the 2024 air quality monitoring program implemented by WCPL maintain the predictions made for air quality assessment in the *Wilpinjong Extension Project Environmental Impact Statement 2015*.

Blast Monitoring

The Mine has developed and implemented a Blast Management Plan (**Table 6-4**). Blasting vibration, overpressure limits, the time and frequency of blasting are specified in Conditions 7, 8 and 9, Schedule 3 of SSD-6764. During the 2024 Reporting Period, the Mine carried out vibration and overpressure monitoring in accordance with the Blast Management Plan (BMgtP) at the required locations in **Appendix 3E** and at the frequency displayed in **Table 6-4**.

One blast event was missed in Slate Gully Mine Adit due to a memory card corruption error on the 24 July 2024. WCPL's pre blast checks did not identify an issue with the memory card. The blast was located at Pit 8 Strip 9. WCPL have installed a video camera at the mine Adit. After every blast in Pit 8 WCPL review the video and confirmed there were no perceptible change had occurred as a result of this blast. A technician was sent to repair the issue and replace the memory card prior to the next blast event. The nearest available monitor is located at Pit 8 road which recorded a blast vibration of 12.12mm/s. Monthly inspections undertaken by BMS and WCPL staff of the Slate Gully Mine Adit determined no perceptible change as a result of blasting had occurred (refer to **Section 6.4**).

The BMgtP was revised and resubmitted in December 2024 for reapproval. The revised BMgtP (Version 10) was updated in consideration of MOD2, MOD4 and all applicable figures revised displaying recently granted ML1846, EL9399 and landownership now that property ID959 is now Peabody owned. Additionally blast monitoring was added associated with Rocky Hill. The revised BMgtP (Version 10) was approved by the DPHI on the 29 January 2025.

Table 6-4 Summary of the Blasting and Vibration Monitoring Program

Location	Type	Frequency
Wollar Public School	Airblast Overpressure and Ground Vibration	Every blast
Aboriginal rock art sites: 72, 152 & 153	Ground Vibration	Every blast within 1km of Aboriginal rock art sites.
Archaeological sites: WE7[4], WE10[4], WCP535, WE76[2] & WE77[2]	Ground Vibration	Every blast within 1km of Aboriginal sites
Archaeological sites: WCP578, WCP579 & WCP580[5]	Ground Vibration	Every blast within Pit 8
Historical Mine Adit	Ground Vibration	Every blast within Pit 8
Railway Line/ Culvert[3]	Ground Vibration	Every blast within 350m of railway culverts and 100m of railway lines
Ulan-Wollar Road	Ground Vibration	Every blast within 100m of the Ulan-Wollar Road
TransGrid Powerline Suspension Towers	Ground Vibration	Every blast within 100 of TransGrid powerline suspension towers*
Tailings Dam 3, 4, 5 or 6	Ground Vibration	Every blast within the DSC Approval area[1]

Notes: [1] During the Reporting Period monitoring was not required as the trigger for blast monitoring was not either within the range. [2]To date unable to relocate sites therefore monitoring of sites was not able to occur. Investigations with WCPL archaeologist could not relocate the sites in 2020. [3] Monitoring of ground vibration will be undertaken at the closet rail infrastructure when blasting is within 100 m of the railway line and/or 350 m of a railway culvert.[4] Blast monitoring geophone units have now been decommissioned at Aboriginal Rock Shelter Sites WE7 and WE10 as the operational requirement for blasting activities has ceased. If blasting activities recommence within 1km of these sites, ground vibration monitoring will be undertaken at WE7 and WE10 in accordance with this BMgtP. [5] Added to the blast monitoring program in late 2024 as required under the revised BMgtP (Version 10).

Table 6-5 Blast Monitoring Environmental Performance (Wollar School)

<table>
<tr><th>Approved Criteria</th><th>Performance During the Reporting Period</th><th>Trend/Key Management Implications</th><th>Implemented/proposed Management Actions</th></tr>
<tr>
<td>
<table>
<tr><th>Location</th><th>Airblast overpressure (dB(Lin Peak))</th><th>Ground vibration (mm/s)</th><th>Allowable exceedance</th></tr>
<tr><td rowspan="2">Residence on privately owned land</td><td>115</td><td>5</td><td>5% of the total number of blasts over a rolling period of 12 months</td></tr>
<tr><td>120</td><td>10</td><td>0%</td></tr>
<tr><td>All public infrastructure</td><td>-</td><td>50 (or a limit determined by the structural design methodology in AS 2187.2-006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)</td><td>0%</td></tr>
</table>
However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.
</td>
<td>
Blast monitoring results for the Reporting Period complied (Figure 6-8 & Appendix 3E) with the approved criteria of 115dB (<120dB) and 5mm/s (<10mm/s) at privately owned residences.
<u>Wollar Public School</u>:

Max: 119.1 dBL
Max: 2.92 mm/s

There was a total of 107 blasts for the 2024 Reporting Period.
One overpressure reading of 119.1dBL was over 115dBL but less than the maximum of 120dBL as recorded on the 12 June 2024, which remained within airblast overpressures greater than the allowable 5% of all blasts i.e. >115dB. This resulted in approximately 0.9% of the allowable 5% of all blasts i.e. >115dB.
No airblast overpressures greater than the maximum 120dB for the Reporting Period.
There were no blasts resulting in ground vibration >5mm/s limit and therefore no blasts resulting in ground vibration >10mm/s for 2024.
No reportable fume events occurred during the 2024 Reporting Period. There were low concentration fume events i.e. typically lower rated events remaining on site, that did not require reporting under WCPL's Blast Fume Management Strategy.
</td>
<td>
All blast monitoring on privately owned land was undertaken in accordance with the Blast Management Plan in 2024.
There were 6 blasting related community complaints in 2024, two more than the 4 complaints received in 2023.
All blasting events during the Reporting Period occurred during the approved times of 9.00am to 5.00pm.
No blasting occurred on a Sunday or on a Public Holiday during the Reporting Period.
There were no more than two blasts per day (max. of 2 allowed) and an average of 2.1 blasts per week (max. of 5 per week allowed).
Although within the blasting criteria, WCPL completed an internal investigation of the 119.1dBL and concluded stemming size with moderate winds and reinforcement from the initiation sequence and direction of firing were contributing factors. WCPL have taken measures to address the outcomes of this investigation.
In accordance with Condition 13(c), Schedule 3 of PA05-0021 and Condition 12(d), Schedule 3 of SD6764, WCPL co-ordinated the timing of blasting with the adjoining Moolarben Coal Mine and Ulan Coal Mine to minimise the potential cumulative blasting impacts of the three mines.
</td>
<td>
The Blast Management Plan was reviewed in 2024 (Version 10). The revised BMgtP (Version 10) was approved by the DPHI on the 29/01/2025.
The Blast Fume Management Strategy was reviewed in 2024 (Version 6). The review included update to Figure 1 to include sensitive receivers, post fume event reporting requirements, plume model, in consideration of MOD2 and MOD4 and updated mitigation measures. The Blast Fume Management Strategy (Version 6) was approved by the DPHI on the 29/01/2025.
In accordance with the Blast Management Plan the control strategies were implemented at the Mine in order to minimise the potential for exceedances of the relevant blasting criteria applicable to residence on privately owned land and on this basis will continue to implement the Blast Management Plan and review blasting performance in next Reporting Period.
</td>
</tr>
</table>

Table 6-6 Blast Monitoring Environmental Performance (Public Infrastructure)

<table>
<tr><th colspan="2">Approved Criteria</th><th>Performance During the Reporting Period</th><th>Trend/Key Management Implications</th><th>Implemented/proposed Management Actions</th></tr>
<tr>
<td colspan="2">
<table>
<tr><th>Location</th><th>Ground vibration (mm/s)</th><th>Allowable exceedance</th></tr>
<tr><td>Tailings Dam[1]</td><td>50</td><td>0%</td></tr>
<tr><td>Railway Lines[2]</td><td>200</td><td>-</td></tr>
<tr><td>Railway Culverts[3]</td><td>100</td><td>-</td></tr>
<tr><td>Public Road[4]</td><td>200</td><td>-</td></tr>
<tr><td>Public Road Infrastructure[5]</td><td>100</td><td>-</td></tr>
<tr><td>Transgrid Powerline[6]</td><td>50</td><td>-</td></tr>
</table>
1) Dam Safety Committee approved 2) As agreed with ARTC when blasting within 100m 3) As agreed with ARTC when blasting within 300m 4) As agreed with MWRC when blasting within 100m 5) As agreed with MWRC when blasting within 350m 6) As agreed with Transgrid when blasting within 100m of a tower.
Note: However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.
</td>
<td>
WCPL complied with the respective blast criteria for public infrastructure:
<table>
<tr><th></th><th>Max Vibration (mm/s)</th><th>Min Vibration (mm/s)</th></tr>
<tr><td>Pit 8 Rail (Nearest Rail Culvert & Rail Line</td><td>16.95</td><td>0.01</td></tr>
<tr><td>Pit 8 Road (Nearest Road & Culvert)</td><td>14.08</td><td>0.03</td></tr>
<tr><td>Pit 6 Culvert W3 (Nearest Rail & Road Culvert)</td><td>43.04</td><td>0.01</td></tr>
<tr><td>Pit 6 Culvert W4 (Nearest Rail & Road Culvert)</td><td>19.98</td><td>0.09</td></tr>
<tr><td>Pit 6 Culvert WW (Nearest Rail & Road Culvert)</td><td>60.4</td><td>0.08</td></tr>
<tr><td>Pit 7E (Nearest Road Culvert)</td><td>110.33*</td><td>0.05</td></tr>
<tr><td>Pit 7N (Nearest Road Culvert)</td><td>7.79</td><td>0.09</td></tr>
</table>
Note:* With the permission of MWRC, WCPL sought approval to exceed the 100mm/s limit due to exceptional circumstances. The approval in writing from MWRC (19/09/2024) to exceed the 100 mm/s was sought prior to the blast date on the 23/09/2024.
</td>
<td>
All blast monitoring of public infrastructure was undertaken in accordance with the Blast Management Plan.
On the 5 November 2024 during the transition of Telstra's 3G which impacted the monitor at Pit 6 W4, the nearest monitor at Pit 6 WW was not affected and vibration data of 0.26 mm/s was recorded for this blast event. Compliance for monitoring was maintained due to the proximity of other blast monitors.
All vibration results were below the ground vibration criteria as approved by ARTC of 100mm/s for rail culverts. All vibration results were below the ground vibration criteria as approved by ARTC of 200mm/s for the rail line.
All other vibration results were below the ground vibration criteria as approved by MWRC of 100mm/s for culverts and 200mm/s for the road.
WCPL received approval on the 19 September 2024 from MWRC to exceed the 100 mm/s vibration criteria for one road culvert. The recorded vibration of 110.00 mm/s at the culvert on the 23 September 2024 was lower than the prediction of 116 mm/s. WCPL provided a Blast Vibration Report to MWRC on the 24 September 2024. There were no changes to the condition of the culvert as a result of the higher vibration result.
No blast monitoring was required at TD6 as all blasts during 2024 were outside the DSC Approval Area. No blast monitoring was required along the TransGrid Powerline as all blasts during 2024 were not within 100m of this infrastructure.
</td>
<td>
The Blast Management Plan was reviewed in 2024 (Version 10). The revised BMgtP (Version 10) was approved by the DPHI on the 29/01/2025.
The Blast Fume Management Strategy was reviewed in 2024 (Version 6). The review included update to Figure 1 to include sensitive receivers, post fume event reporting requirements, plume model, in consideration of MOD2 and MOD4 and updated mitigation measures. The Blast Fume Management Strategy (Version 6) was approved by the DPHI on the 29/01/2025.
In accordance with the Blast Management Plan the control strategies were implemented at the Mine in order to minimise the potential for exceedances of the relevant blasting criteria applicable to public infrastructure and on this basis will continue to implement the Blast Management Plan and review blasting performance in next Reporting Period.
</td>
</tr>
</table>

Table 6-7 Blast Monitoring Environmental Performance (Heritage Sites)

<table>
<tr><th>Approved Criteria</th><th>Performance During the Reporting Period</th><th>Trend/Key Management Implications</th><th>Implemented/proposed Management Actions</th></tr>
<tr>
<td>
<table>
<tr><th>Location</th><th colspan="2">Ground vibration (mm/s)</th></tr>
<tr><td>Archaeological Sites 72, 152 and 153 within ML</td><td>Performance Indicator
Damage Criteria</td><td>80[1]
250[1]</td></tr>
<tr><td>Archaeological Sites WE7, WE10 & WCP535 in the Munghorn Gap Nature Reserve</td><td>Performance Indicator
Damage Criteria</td><td>80[2]
250[2]</td></tr>
<tr><td>Archaeological Sites WE76 & WE77 in the Munghorn Gap Nature Reserve</td><td>Performance Indicator
Damage Criteria</td><td>80[2]
250[2]</td></tr>
<tr><td>Archaeological sites: Rocky Hill (WCP578, WCP579 & WCP580)</td><td>Performance Indicator
Damage Criteria</td><td>80[2]
250[2]</td></tr>
<tr><td>Mine Adit</td><td>-</td><td>80[3]</td></tr>
</table>
1) When blasting within 1 km 2) Representative site when blasting within 1 km 3) When blasting in Pit 8
</td>
<td>
WCPL complied with the respective blast criteria for heritage sites:
<table>
<tr><th></th><th>Max Vibration (mm/s)</th><th>Min Vibration (mm/s)</th></tr>
<tr><td>Rock Art (Site 152) Pit 5 South (Southern Site)</td><td>1.01</td><td>0.00</td></tr>
<tr><td>Rock Art (Site 153) Pit 5 South (Northern Site)</td><td>1.66</td><td>0.01</td></tr>
<tr><td>Castle Rock (Site 72)</td><td>2.06</td><td>0.00</td></tr>
<tr><td>Rock Shelter WE535</td><td>1.88</td><td>0.00</td></tr>
<tr><td>Rocky Hill (Heritage Sites)</td><td>15.98</td><td>0.00</td></tr>
<tr><td>Slate Gully/Mine Adit</td><td>34.37</td><td>0.00</td></tr>
</table>
Blast monitoring not required at WE7 and WE10 as blasting activities were not within 1km in 2024.
Refer to on the 24 July 2024 regarding one missed blast event at the Adit in Section 6.2 (above) for further details.
</td>
<td>
All blast monitoring of Aboriginal heritage sites and the Mine Adit at Slate Gully was undertaken in accordance with the Blast Management Plan.
Three days on the 4, 5 and 12 November 2024 during the transition of Telstra's 3G which impacted the data recording at Sites 153, 72 and WE535. The nearest available monitor at Site 152 was not affected with vibration results of 0.1mm/s, 0.01mm/s and 0.18mm/s respectively recorded for these blast events during this period. Compliance for monitoring was maintained due to the proximity of other blast monitors.
Three days on the 4, 12 and 15 November 2024 during the transition of Telstra's 3G which impacted the data recording at Rocky Hill. The nearest available monitor at Slate Gully Mine Adit was not affected with vibration results of 0.04mm/s, 1.66mm/s and 0.07mm/s respectively recorded for these blast events during this period.
All vibration results were below the performance criteria of damage criteria of 80mm/s and/or 250mm/s respectively for Archaeological Sites 72, 152, 153, WE7, WE10 & WCP535 in 2024.
All vibration results were below the performance criteria of 80mm/s of the historical Mine Adit in Slate Gully in 2024. The blast monitoring requirements were not triggered during Reporting Period at sites WE76 and WE77 as sites could not be relocated for monitoring since surveyed for the WEP.
Monitoring for microbats utilising the historical Mine Adit in Slate Gully continued in 2024 as required by the Biodiversity Management Plan and the Blast Management Plan.
</td>
<td>
The Blast Management Plan was reviewed in 2024 (Version 10). The revised BMgtP (Version 10) was approved by the DPHI on the 29/01/2025.
The Blast Fume Management Strategy was reviewed in 2024 (Version 6). The review included update to Figure 1 to include sensitive receivers, post fume event reporting requirements, plume model, in consideration of MOD2 and MOD4 and updated mitigation measures. The Blast Fume Management Strategy (Version 6) was approved by the DPHI on the 29/01/2025.
In accordance with the Blast Management Plan the control strategies were implemented at the Mine in order to minimise the potential for exceedances of the relevant blasting criteria applicable to Heritage Sites and on this basis will continue to implement the Blast Management Plan and review blasting performance in next Reporting Period.
</td>
</tr>
</table>

Figure 6-9 Blasting Monitoring Results for 2024 (Wollar School)

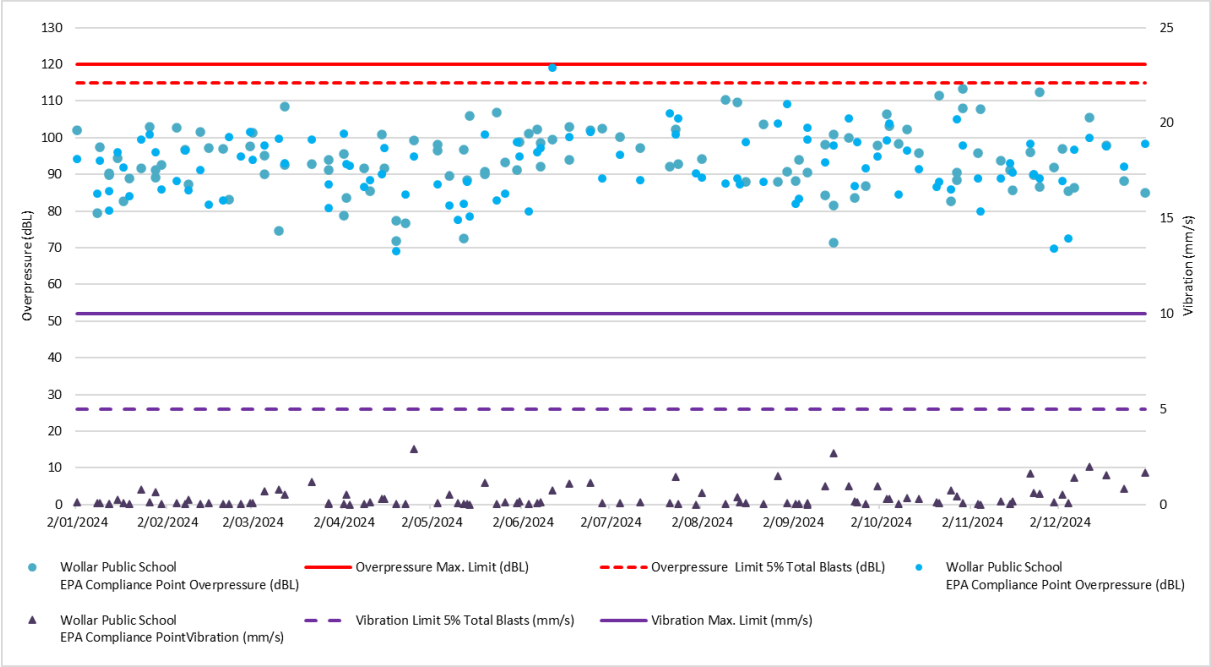
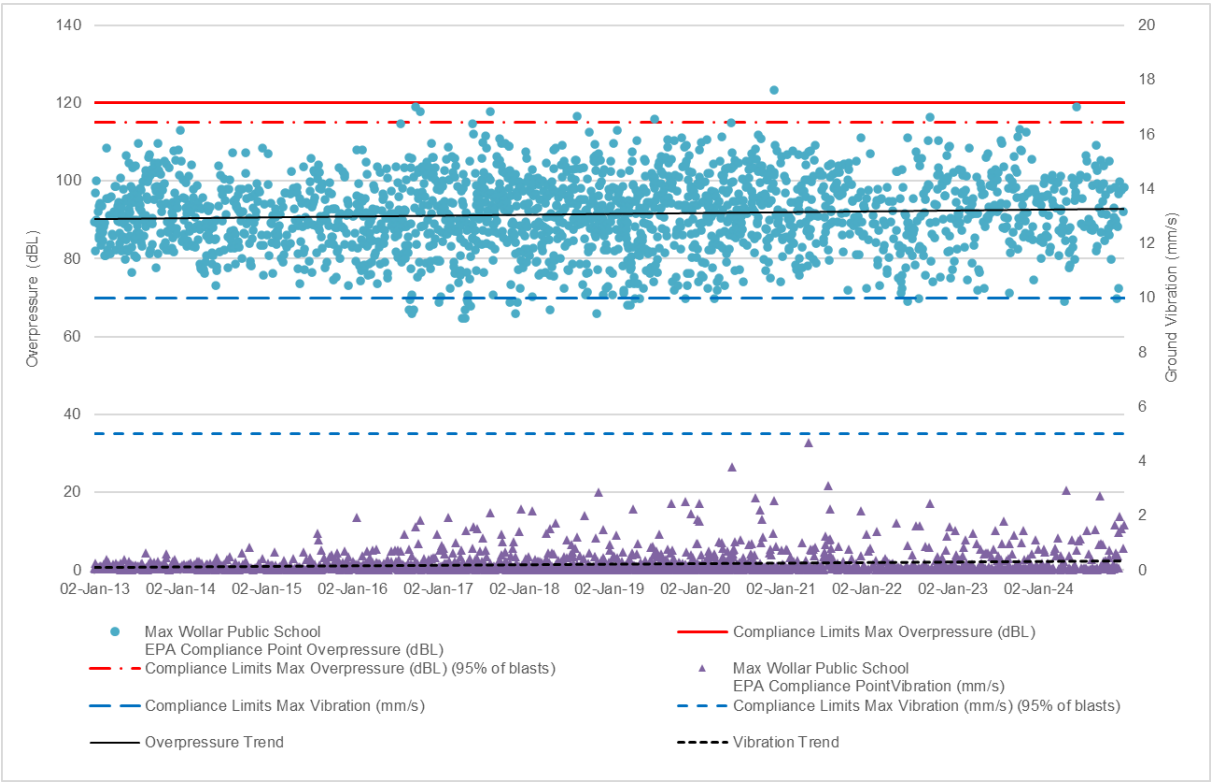


Figure 6-10 Blasting Monitoring Trends 2013 to 2024 (Wollar School)



EIS Predictions

The blasting assessment indicates that no exceedances of relevant airblast or vibration criteria would occur at any privately-owned receivers, community facilities or historical heritage sites in the Village of Wollar for the typical maximum blast MIC proposed for the Project (up to approximately 3,900 kilograms [kg]). Through the continued management of blast MICs, there would be no exceedances of vibration damage criteria at any Aboriginal rock shelter sites with art in the vicinity of the Wilpinjong Coal Mine (WEP 2015). The management measures and results from the 2024 blast monitoring program implemented by WCPL

maintain the predictions made for the blasting assessment in the *Wilpinjong Extension Project Environmental Impact Statement 2015*.

Noise Monitoring

The Mine has developed and implemented a Noise Management Plan (NMP). During the 2024 Reporting Period a combination of both attended and unattended noise monitoring programs were undertaken to assess the performance of the Mine against the Noise Criteria (**Table 6-8**).

Attended noise monitoring is used for determining compliance against the Noise Criteria whilst unattended or real-time monitoring is primarily utilised as a proactive noise control system; providing noise alerts when predetermined noise levels are triggered so mining operations can be modified to lower the noise impacts on receptors. A summary of noise monitoring results is provided in **Table 6-9**. Further noise monitoring results for 2024 Reporting Period, including figures with noise monitoring locations are provided in **Appendix 3F.**

The NMP was revised and resubmitted for consultation and approval in September 2024. The revised NMP (Version 9) included update all applicable figures displaying ML1846, EL9399 and in consideration of MOD2 and MOD4. Update landownership now that property ID959 is now Peabody owned and inclusion of additional real time noise monitoring at Cooyal. The NMP (Version 9) was approved by the DPHI on 29 January 2025.

Table 6-8 Summary Noise Monitoring Program

Location	Monitoring Site	Parameter	Frequency
St Laurence O'Toole Church^	N6	Attended Noise	Monthly
Tichular	N14	Attended Noise	Monthly
Wollar Village	N15	Attended Noise	Monthly
Araluen Rd*	N16	Attended Noise	Monthly
Mogo Rd	N17	Attended Noise	Monthly
Mogo Rd	N19	Attended Noise	Monthly
Ringwood Rd	N20	Attended Noise	Monthly
WCPL Rail Loop	-	Meteorology & Inversion	Continuous
Wollar Village	-	Real-Time Noise - Fixed	Continuous
Mogo Rd	-	Real-Time Noise - Fixed	Continuous
Ringwood Rd	-	Real-Time Noise - Fixed	Continuous
Tichular	-	Real-Time Noise - Mobile	Continuous
Cooyal	-	Real-Time Noise - Mobile	Continuous

Notes: ^ Owned by WCPL.

EIS Comparison

EMM Consulting Pty Ltd (EMM) was engaged by WCPL to provide an annual noise review (ANR) for the 2024 calendar year. The purpose of the ANR is to satisfy annual review reporting requirements detailed in the WCPL's development consent. This includes comparison of attended noise monitoring results against relevant criteria and predictions in the most recently approved noise model for WCPL. EMM concluded:

When comparable, measured noise levels were lower than predicted noise levels under corresponding meteorological conditions at all locations during all measurements with two exceptions:

- During the July measurement at N6, the measured site-only LA1,1minute was 1 dB higher than predicted under strong inversion conditions.
- During the June measurement at N20, the measured site-only LA1,1minute was 3 dB higher than predicted under strong inversion conditions.

While measured LA1,1minute noise levels were slightly higher than predicted in these two instances, they remained below the LA1,1minute limit of 45 dB.

Table 6-9 Noise Monitoring Environmental Performance

Approved Criteria	Performance During the Reporting Period	Trend/Key Management Implications	Implemented/proposed Management Actions

Approved Criteria

Property ID & Location[1]	Day[2]	Evening[3]	Night[4]	
	LAeq (15 minute)	LAeq (15 minute)	LAeq (15 minute)	LA1 (1 minute)
102	36	36	38	45
Wollar Village – Residential[5]	36	37	37	45
All other privately owned land	35	35	35	45
901 – Wollar School	35 (internal) 45 (external) When in use			-
150A – St Luke's Anglican Church[6] **900 – St Laurence O'Toole Catholic Church[6]**	40 (internal) When in use			-

Notes: ***1)*** *To interpret the locations refer to* ***Table 18*** *and* ***Appendix 3F****.*

2) *Day is defined as the period from 7 am to 6 pm Monday to Saturday and 8 am to 6 pm Sunday and Public Holidays.*

3) *Evening is defined as the period 6 pm to 10 pm.*

4) *Night is defined as the period from 10 pm to 7 am Monday to Saturday and 10 pm to 8 am Sunday and Public Holidays.*

5) *Wollar Village EPL intrusive noise limits are currently day 36dBA, evening 35dBA and night 35dBA.*

6) *Both Properties 150A and 900 are owned by WCPL. Both buildings have been deconsecrated and are no longer places of worship.*

Attended noise monitoring during 2024 was undertaken monthly as required by the NMP at N6, N14, N14, N17, N19 and N20 during the night periods of 24 January, 5 February, 19 March, 16 April, 8 May, 18 June, 23 July, 19 August, 9 September, 10 October, 5 November and 9/10 December.

During 2024 attended noise monitoring, noise levels from WCP complied with relevant noise limits at all monitoring locations..

Noise limits were not applicable due to meteorological conditions at the time of monitoring (EMM 2025) (**Appendix 3F**).

Low frequency assessments were carried out in accordance with the EPA 'Noise Policy for Industry' (NPfI). Low frequency modification factors were implemented when applicable and did not result in any exceedances of WCP noise limits (**Appendix 3F**).

Validation reports of real time noise monitoring are now conducted monthly and are provided in **Appendix 3F**.

In 2024 there were 55 noise complaints when compared 47 noise complaints in 2023. WC staff investigated all noise complaints and determined that the low frequency (LF) levels recorded by the nearest real time noise monitor were compliant with the Noise Criteria (**Section 9.0**).

Long Term Trends

For the 5-year period ending December 2024, site-only LAeq noise levels were low (either IA, NM, or less than 30 dB) for a large majority of measurements at all monitoring locations (EMM, 2025).

Over the life of the project, site-only LAeq noise levels were low (either IA, NM, or less than 30 dB) for a large majority of measurements at all monitoring locations (EMM, 2025).

Noise Model Comparison

When comparable, measured noise levels were lower than predicted noise levels under corresponding meteorological conditions at all locations during all measurements with two exceptions:

During the July measurement at N6, the measured site-only LA1,1minute was 1 dB higher than predicted under strong inversion conditions.

During the June measurement at N20, the measured site-only LA1,1minute was 3 dB higher than predicted under strong inversion conditions.

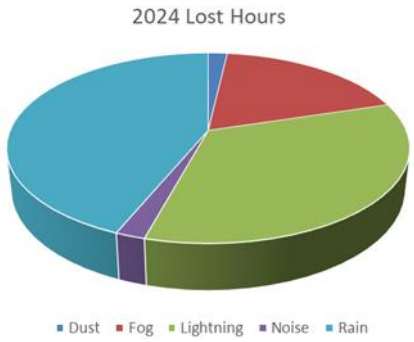
While measured LA1,1minute noise levels were slightly higher than predicted in these two instances, they remained below the LA1,1minute limit of 45 dB (EMM, 2025).

The NMP was revised and resubmitted for consultation and approval in September 2024. The revised NMP (Version 9) included update all applicable figures displaying ML1846, EL9399 and in consideration of MOD2 and MOD4. Update landownership now that property ID959 is now Peabody owned and inclusion of additional real time noise monitoring at Cooyal. The NMP (Version 9) was approved by the DPHI on 29 January 2025.

Continue to implement the NMP in accordance Condition 5, Schedule 3 of SSD-6764.

In 2024 **Figure 6A** displays the sum of lost time hours associated with implementation of noise management strategies (i.e., lost time only captured for primary dig implements such as dozers, excavators and loaders) as a direct result of modifying the operations to remain compliant with relevant noise criteria.

Figure 6A Lost Hours in 2024



6.3 Heritage

The Mine has developed and implemented an Aboriginal Cultural Heritage Management Plan (ACHMP). Four routine rounds of Cultural Heritage meetings were undertaken in 2024 (inclusive of RAPCC) in March, June, September and November. Key heritage and environmental issues that were raised during consultation included summary of mining operations, exploration, review of the ACHMP, management of Aboriginal heritage including rock shelters and salvage works program.

The ACHMP was revised and resubmitted for consultation and approval in September 2024. Revision of ACHMP (Version 10) was in consideration of MOD2 and to update all applicable figures displaying recently granted ML1846 and EL9399 and update landownership now that property ID959 is now Peabody owned. Additionally blast monitoring added to protect heritage sites associated with Rocky Hill and updating table of known heritage sites and figures accordingly. The ACHMP (Version 10) was provided to the RAPs on the 27 November 2024 for their review and feedback. At the time of preparing the 2024 Annual Review there were no further comments from the RAPs to address in the ACHMP (Version 10).

During the 2024 Reporting Period, a number of archaeological surveys, due diligence surveys, surface salvage works and other programs and investigations were carried out, including but not limited to:

- A dedicated workshop for discussing impact mitigation and conservation of Rocky Hill site complex on the 7 August 2024;
- Surveillance audit of Castle Rock (WCP 72), WCP 152 & 153 carried out on 8 August 2024;
- Surface clearance carried out along Wilpinjong Creek and Cumbo Creek for groundwater monitoring bores; and
- Surface clearance also carried out in Slate Gully for test pits associated with a proposed clean water diversion.

WCPL are required to assess and report on the following performance indicators as described in the ACHMP:

- (Nil) Number of complaints received regarding Aboriginal cultural heritage management at the Mine;
- (Nil) Number of incidents or non-compliances recorded regarding Aboriginal cultural heritage at the Mine.

In 2024 WCPL did not exceed the performance indictors as described in the ACHMP i.e. no complaints were received, and no incidents or non-compliance occurred regarding Aboriginal heritage.

The Mine has developed and implemented a Historic Heritage Management Plan (HHMP) in accordance with Condition 49, Schedule 3 of SSD-6764, the HHMP includes a program and description of the measures/procedures that would be implemented for historic heritage management at the Wilpinjong Coal Mine. In accordance with the HHMP, WCPL are to report on the performance of monitoring the Shale Oil Mine Adit in relation to blasting (**Table 6-7**).

The HHMP was revised and resubmitted for consultation and approval in September 2024. Revision of HHMP (Version 7) was in consideration of MOD2, MOD4 and to update all applicable figures displaying recently granted ML1846 and EL9399. Updated included record of WCPL owned dilapidated buildings demolished in Wollar during 2022, 2023 and proposed for 2024. The HHMP (Version 7) was approved by the DPHI on the 29 January 2025.

6.4 Biodiversity

A Biodiversity Management Plan (BMP) has been prepared and implemented for the Mine. The Biodiversity Offset Strategy in the BMP comprises a package of BOA's that will be set aside for conservation and managed in perpetuity, and WCPL's rehabilitation strategy. In addition, the Biodiversity Offset Strategy includes a number of environment conservation areas or ECA's and residual Regeneration Areas associated with the original Wilpinjong Coal Project that will strengthen the linkages between the rehabilitation areas and the Goulburn River National Park and Munghorn Gap Nature Reserve. In addition, the Biodiversity Offset Strategy also includes on-site rehabilitation to establish the biometric vegetation types (BVTs) and fauna habitat as required by Schedule 3, Condition 37 of the Development Consent SSD-6764.

In April 2019, WCPL finalised the BVT performance and completion criteria in consultation with applicable State and Federal government departments and accordingly the BMP was comprehensively updated as required to reflect the new criteria and resubmitted in June 2019. WCPL's Biodiversity Monitoring Program in the BMP includes annual monitoring of flora and fauna, and a range of landscape function indicators. This monitoring program is used to evaluate ecosystem function and performance and the success of specific management actions implemented across the various Management Domains[3].

The BMP was revised and resubmitted for consultation and approval in September 2024. The revision of the BMP (Version 8) was in consideration of MOD2, MOD4, update all applicable figures displaying recently granted ML1846 and EL9399 and landownership. Revision also included revising Appendix 6 (3 Year Schedule), BMP monitoring program and figure displaying monitoring locations. The revision to the BMP also included removing the requirement to manage Biodiversity Offset Areas (BOAs) as the BOAs are now transferred to NPWS and address the BCS feedback as provided on 9 October 2024.

A summary of the 2024 flora and fauna monitoring results are provided below. A summary of the monitoring within rehabilitation areas is provided in **Section 8.2**. For the complete 2024 biodiversity monitoring reports, prepared by Ecological Australia (ELA) and Biodiversity Monitoring Services (BMS), refer to **Appendix 5**.

Eco Logical Australia (ELA) was engaged by WCPL to undertake the 2024 annual biodiversity monitoring at the Wilpinjong Coal Mine (WCM) in accordance with the WCM Biodiversity Management Plan (BMP) (WCPL 2021). The key objectives included assessing rehabilitation areas against performance and completion criteria, tracking ecosystem progression and addressing compliance requirements for Development Consent SSD-6764 (ELA, 2025).

The 2024 monitoring program was adapted to reflect a change in biodiversity monitoring objectives, primarily, a shift to increased monitoring throughout the WCPL rehabilitation. The additions to the monitoring program include the establishment of plots throughout rehabilitation that has recently achieved ecosystem and land use establishment and rehabilitation that has recently been reworked from agricultural rehabilitation to native woodland rehabilitation. Local Reference Sites were established in 2019 and 2020 in areas that conform to WCPL's targeted rehabilitation BioMetric Vegetation Types (BVTs), in accordance with Condition 36 of the WCM Development Consent SSD 6764. WCPL Local Reference Sites were monitored during autumn and spring in accordance with the three-year rotation outlined in Section 9 Table 18 of the WCPL BMP (ELA, 2025).

Vegetation monitoring

Floristic monitoring was undertaken in accordance with the BioMetric plot method prescribed in the BMP at both rehabilitation and Local Reference Sites. All sites surveyed are currently less than 10 years since ecosystem establishment and are assessed against the Performance Criteria.

All monitored sites exceeded the Site Value Score (SVS) performance Criteria benchmark of 7. Exotic cover remained within acceptable limits, however, none of the sites have yet met the Performance Criteria for

[3] Mine closure or rehabilitation domains are identified in the WCPL's RMP.

native overstory cover (NOC). Three priority weed species (Local Land Services 2023) were recorded within the rehabilitation areas. Newly established sites showed positive initial results, indicating that early-stage rehabilitation is progressing towards ecosystem establishment (ELA, 2025).

Landscape Function Analysis

Landscape Function Analysis (LFA) monitoring was also undertaken at the rehabilitation and Local Reference Sites. The results showed that all rehabilitation sites monitored recorded LFA scores above 50, confirming the stability of the sites, and as such ongoing monitoring at these sites is no longer required. However, if there is a notable visible decline in LFA parameters observed during future monitoring, reinstating LFA methods at select sites will be recommended in accordance with the WCPL BMP. Minor erosion was observed at select sites, necessitating localised remediation efforts (ELA, 2025).

Fauna monitoring

Fauna monitoring was undertaken at both rehabilitation and Local Reference Sites, identifying a total of 89 species. Of these, five species listed as threatened under the NSW *Biodiversity Conservation Act* (BC Act) *2016* and/or the Commonwealth *Environment Protection and Biodiversity Act* (EPBC Act) *1999* were recorded. Pest species were also observed, highlighting the need for continued management to mitigate their impacts on rehabilitation (ELA, 2025).

Slate Gully Mine Adit Monitoring

An abandoned underground oil shale mine at Slate Gully, Wilpinjong NSW, supports colonies of two microbat species; Eastern Horseshoe-bat (*Rhinolophus megaphyllus*) and Large Bent-winged Bat (*Miniopterus orianae oceanensis*, formerly known as Eastern Bentwing-bat *Miniopterus schreibersii oceanensis*). Monitoring undertaken since April 2017 indicates that less than 50 Eastern Horseshoe-bats inhabit the mine workings throughout the year. From exit counts conducted to date, numbers of this species do not vary substantially throughout the year. Numbers of the Large Bent-winged Bat inhabiting the mine vary considerably more throughout the year (BMS, 2025).

In accordance with the BMP, Eastern-Bentwing Bat Management Strategies were undertaken in 2019 with the installation of a section of 1000mm diameter steel pipe culvert inserted into the adit to ensure access/egress for microbat species. To mitigate the potential for future collapse, rock debris was removed from around the entrance. On further recommendations provided by WCPL's microbat specialist, further rock material was removed in 2020 from around the top of the pipe to maintain access for microbats through the existing adit entry (**Photo 1**). In 2023 upgrades to the bat adit culvert were undertaken (**Photo 2**). The much larger 1200mm wide new culvert was designed and installed in consultation with WCPL's microbat specialists and is considered above the requirement for bats to maximise their ability to leave and return to the Adit, as this had previously been reached with the 1000mm (wide) culvert.

Mining excavation works began in early 2020 approximately 600m to the northeast of the adit. Previous plans estimated the pit to come within 150m of the adit sometime in 2021, but by February 2023 only a clearwater drain existed within 150m of the adit. In February 2023 the main pit was approximately 430m away. By February 2024, the topsoil stripping is approximately 100m from the adit (to clearwater drain), and the main pit is approximately 350m east of the adit. By February 2025 the pit is approximately 220m from the adit. Bats within the workings have been, or will be, subject to artificial lighting (Linley 2016), vibration and noise. There is also the potential for dust and fumes associated with the open cut operations (BMS, 2025).

Biodiversity Monitoring Services (BMS) were engaged to complete the monitoring for the Eastern Horseshoe-bat and Large Bent-winged Bat at the Slate Gully adit during 2024. Their report details the results of automated monitoring over a 12-month period from January 2024 to December 2024, as well as concurrent monthly hand counts of bats exiting the workings. Looking at December counts from 2017-2023, the number of Eastern Horseshoe-bats was the lowest on record in 2023. 2024 has shown an increase, but numbers are still relatively low. The nine counted in December 2024 match the nine individuals harp trapped in July 2024 (five male, four female). The dry conditions experienced in 2023 may be partly

responsible for the drop in numbers, but the removal of farm dams for the mine may also explain the reduction in counts/activity. Blast data does not indicate any obvious impact (BMS, 2025).

Activity of the Eastern Horseshoe-bat recorded at the detector correlated much more poorly with the hand counts. This can be attributed to the small population of Eastern Horseshoe-bats resident in the workings throughout the year compared with that of the Large Bent-winged Bat. The activity patterns of the Eastern Horseshoe-bat (lots of coming and going) also impacts the suitability of the index for this species. From all the data collected, we estimate the population of Eastern Horseshoe-bats within the adit to be stable at 5-30 individuals. Early years have shown activity of the Eastern Horseshoe-bat peaking during the autumn and spring months, with minor activity declines over winter and summer. This species' activity was relatively consistent over 2021 and 2022. 2023 saw consistent activity over the first half of the year and very low activity since May (BMS, 2025).

2024 saw a return to the pattern of peak activity in autumn and spring. Conversely, Large Bent-winged Bat activity fluctuated more in 2024 than during previous years. Activity peaked in April, June and August-September 2024 (April and July in 2022 and April-May and August-September in 2023). Though the usual decline in activity over summer as females migrate to select maternity roosts to give birth (Hoye & Hall 2008) was seen in January 2024, activity remained relatively high through October-December 2024. Patterns of activity do not appear to coincide with noted blasts (data March 2020 to December 2024). The index tracking the number of total Large Bent-winged Bat calls added to those attributed to Little Forest Bat with low confidence, give the best representation of Large Bent-winged Bat numbers in the adit. Looking at bat activity before and after blasts showed mixed (increase/decrease) results. The small changes relative to normal nightly variation in activity suggest no impact from blasting in Pits 3 or 8 on the two bat species (BMS, 2025). Refer to **Appendix E** for the complete Slat Gully adit monitoring report by BMS.

Photo 1 Culvert Support & Bat Detector with Solar Panel setup 20m in front of Adit

Photo 2 Upgrades to the Bat Adit Culvert in 2023 and Adit Condition in 2024

6.5 Waste Management

The Mine has developed and implemented a waste management strategy to ensure that waste at the Mine is minimised and effectively managed. WCPL have engaged an appropriately licensed waste management contractor to perform the following activities in relation to waste management, including but not limited to;

- On-site waste management i.e. waste segregation of scrap steel, general waste, recyclables, hydrocarbons and hazardous materials;
- Off-site disposal to licensed waste facilities;
- Off-site recycling to licensed waste centres; and
- Recording and reporting waste volumes.

As required by Condition 58(f), Schedule 3 of SSD-6764, WCPL are required to report on waste management and minimisation (**Table 6-10** & **Figure 6-10**) in the 2024 Annual Review. During the Reporting Period approximately 71% of the total waste removed from the Mine was recycled.

Appendix 3G has the complete summary of waste statistics for the 2024 Reporting Period.

Approximately 323.3 tonnes of tyres were disposed of in-Pit during 2024, all of which were buried in Pit 6.

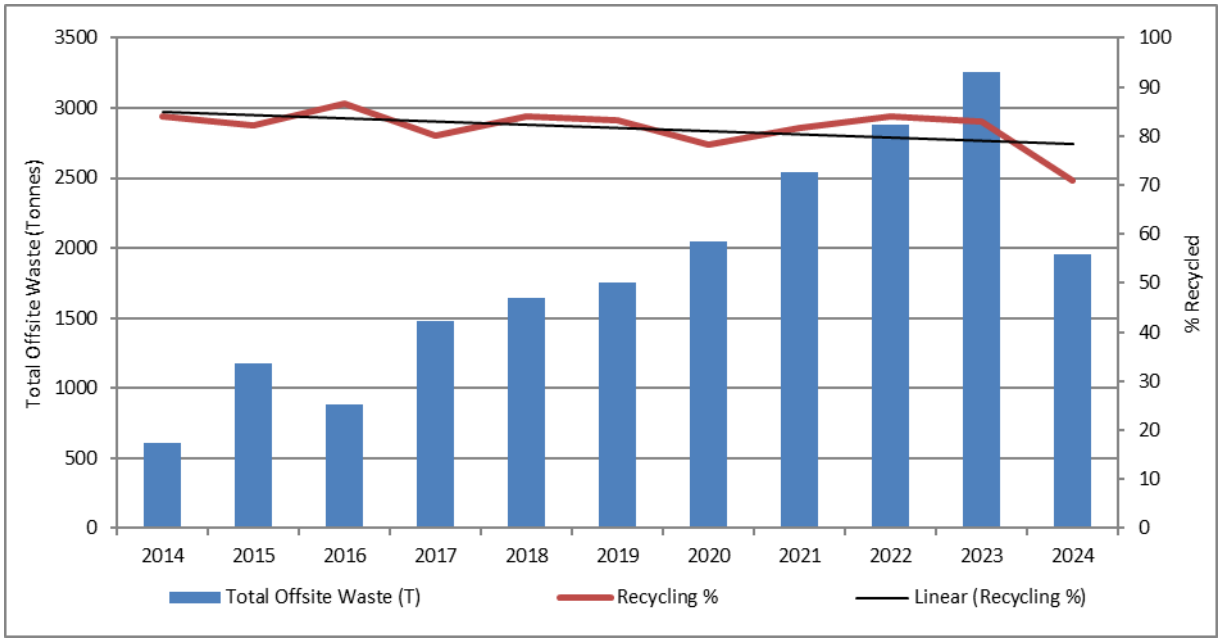
WCPL are additionally permitted to dispose of building and demolition waste in-pit, in accordance with EPL 12425. Inert waste material generated from the demolition of Peabody owned properties in Wollar during 2023/24 were transported to site in 2024 and disposed within Pit 7.

In 2024 there was approximately 1,888 tonnes of building and demolition waste deposited in Pit 7. This demolition of delict dwellings in Wollar is undertaken in accordance with the Social Impact Management Plan (SIMP). Asbestos recovered from the demolished properties was removed and disposed by WCPL's licensed waste contractor in accordance with all regulatory requirements.

Table 6-10 Summary of Monthly Waste Statistics for 2024

Totals	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Totals
Total Offsite Waste (T)	218.2	259.5	238.8	180.8	307.6	314.3	323.7	244.9	307.3	263.3	225.4	375.6	**3,259.4**
Recycled Waste (T)	169.6	190.1	137.1	120.0	190.4	178.1	178.3	156.7	126.3	151.8	145.6	211.8	**1,955.8**
Recycling %	**81%**	**73%**	**68%**	**79%**	**73%**	**69%**	**67%**	**75%**	**53%**	**76%**	**84%**	**69%**	**71%**

Figure 6-11 Waste Statistics and Trends



6.6 Greenhouse Gas

Greenhouse gas management measures for the Mine are outlined in the AQMP. Diesel and electricity usage were recorded during the 2024 Reporting Period, which allows for the calculation of carbon dioxide (CO_2) equivalent emissions. The primary source (approximately 80%) of greenhouse gas emissions at the Mine is due to the release of carbon dioxide (CO_2) and methane (CH_4) during the combustion of diesel fuel during mining operations. Fugitive emissions of CH_4 and CO_2 from the coal seam as the coal is mined and CO_2 released during the use of explosives make up approximately 20% of greenhouse gas emissions at the Mine. Greenhouse gas emission (i.e. Scope 1 & Scope 2) estimates for 2024 are presented in **Table 6-11**.

Table 6-11 Estimated Wilpinjong Coal Mine Greenhouse Gas Emissions Financial Year

Year	ROM Coal (Mt)	Electricity Consumed (kWh)	Diesel Consumed (kL)	CO_2-e Electricity Usage (t)	CO_2-e Diesel Usage (t)	CO_2-e Fugitive Emissions (t)	Total CO_2-e Emissions (t)	Total CO_2-e Emissions (t) Predicted (WEP)#
2017	13.6	29,929,870	32,976	25,141	89,356	12,809	127,306	167,977
2018	14.2	32,940,513	38,360	27,341	103,948	13,828	145,117	182,002
2019	15.1	32,037,969	43,647	26,272	118,270	12,980	152,522	180,302
2020	14.7	31,748,174	47,528	25,950.	12,8788	12,636	167,375	176,408
2021	14.48	34,887,914	50,795	27,906	136,572	10,732	175,211	168,387^
2022	13.47	34,456,634	49,391	27,221	133,947	20,082	181,775	168,516^
2023	13.33	34,264,194	50,084	25,013	136,010	18,234	180,000	158,004^^
2024	13.69	33,966,934	54,515	23,098	147,720	20,494	191,317	159,967^^

Notes: kWh = kilowatt hours and kL = kilolitre. * A NSW default factor was used to calculate these values. # Scope 1 and 2 predicted emissions from the WEP for 2017, 2018, 2019 and 2020 based on 15.5Mt, 15.95Mt, 15.28Mt, 14.53Mt and 12.44Mt ROM coal respectively. ^The WEP predictions for 2021 and 2022 based on annual ROM of 12.44Mt. ^^ The WEP predictions for 2023 and 2024 based on annual ROM of 10.8Mt and 11.08Mt respectively.

Greenhouse gas emissions from the Wilpinjong Coal Mine would continue to be monitored and reported annually in accordance with Peabody Energy's obligations under the *Commonwealth Government National Greenhouse and Energy Reporting System*. Peabody Energy and WCPL will also comply with any obligations under the *Commonwealth Clean Energy Act, 2011*.

6.7 Ambient Air Quality Monitoring

Condition 16, Schedule 3 of SSD-6764 requires WCPL to ensure that no offensive odours are emitted from the site, as defined under the *Protection of the Environment Operations Act, 1997*.

Previous monitoring occurred in the Wollar Village up to April 2018 for the following pollutants that can be released during spontaneous combustion events, including Oxides of Nitrogen (NOx), Sulfur Dioxide (SO_2), Hydrogen Sulfide (H_2S), Benzene, Toluene and *p*-Xylene. An air quality monitoring station was situated in the Village of Wollar to monitor for the above-mentioned pollutants during the removal of Keylah Dump, as required by the SCMP and the Keylah Dump Removal Management Plan. The removal of Keylah Dump was completed during 2017. Therefore, this air quality monitoring station in the Village of Wollar specific for the dump removal, was no longer required and subsequently removed in May 2018.

The SCMP was revised in June 2022. The revised SCMP (Version 8.1) was updated to include 2021 IEA Actions which included the recommendations from 2021 IEA to add corrective actions to inspection program, review the frequency of the aerial thermal imagery inspection program and updated Figure 3 regarding areas of risk. SCMP (Version 8.1) was approved on the 17 December 2022.

A revision of the SCMP was completed in 2024 (now Version 9) and included update of propensity testing results for Pit 6 and Pit 8 and reference to the RMP. The revised SCMP (Version 9) was pending feedback from the EPA who requested additional time in December 2024 to conduct their review. The AQMP was awaiting feedback from the EPA prior to finalisation and issuing to the DPHI for their approval at the time of preparing the 2024 Annual Review.

There were no reportable incidents as a result of spontaneous combustion in 2024. There were sixteen (16) unverified odour complaints received during 2024 (**Section 9**), an increase of two (2) odour complaints received in 2023. Each of the odour complaints during 2024 received follow up checks by WCPL and were either unable to detect significant spontaneous combustion outbreaks with the capacity to generate offsite odours or detect odours beyond the boundary of the Mine. These checks also included a review of the wind speed and wind direction prior to receiving an odour complaint. The complainant declined to discuss any of the odour complaints with a WCPL representative on all but two occasions. Refer to **Section 6.2** and **Section 9** for further details.

7.0 WATER MANAGEMENT

WCPL have prepared and implemented a Water Management Plan (WMP) (**Table 3-2**). Several key component management plans and programs that support the WMP include the Surface Water Monitoring Program (SWMP), the Groundwater Monitoring Program (GWMP) and the Site Water Balance (SWB). The WMP and GWMP were reviewed and resubmitted for approval in 2024. Refer to **Section 3.7** for further details.

7.1 Water Licences

Table 7-1 lists the converted water entitlement licenses to Water Access License (WAL) that occurred during October 2017.

Table 7-1 Summary of WAL Held by WCPL

WAL[1]	AL #	Water Source	Category	Entitlement[2]	Holder	Work Approval[3]	Expiry date
21499	20AL211215	Wollar Creek	Aquifer	474 Unit shares	Peabody Pastoral Holdings Pty Ltd/Wilpinjong Coal Pty Limited as 100/374 share	20CA211216	31/07/2032
19045	20AL209956	Upper Goulbourn	Unregulated	183 Unit shares	Peabody Pastoral Holdings Pty Ltd	20CA209957	12/11/2032
19055	20AL209954	Upper Goulbourn	Unregulated	50 Unit shares	Peabody Pastoral Holdings Pty Ltd	20CA209955	31/07/2032
19057	20AL209966	Upper Goulbourn	Unregulated	110 Unit shares	Peabody Pastoral Holdings Pty Ltd	20CA209967	7/02/2024
19058	20AL209974	Upper Goulbourn	Unregulated	168 Unit shares	Peabody Pastoral Holdings Pty Ltd	20CA209975	19/11/2032
19426	20AL210793	Wollar Creek	Unregulated	40 Unit shares	Peabody Pastoral Holdings Pty Ltd	20CA210794	31/07/2032
19423	20AL210790	Wollar Creek	Domestic & stock	2 ML	Peabody Pastoral Holdings Pty Ltd	20WA210792	31/07/2032
19425	20AL210795	Wollar Creek	Domestic & stock	1 ML	Peabody Pastoral Holdings Pty Ltd	20WA210796	31/07/2022[4]
19430	20AL210798	Wollar Creek	Domestic & stock	5 ML	Peabody Pastoral Holdings Pty Ltd	20WA210799	31/07/2032
36398	20AL212799	Wollar Creek	Domestic & stock	1 ML	Peabody Pastoral Holdings Pty Ltd	20WA212768	30/07/2023
-	-	Wollar Creek	Pump Site	-	Peabody Pastoral Holdings Pty Ltd	20WA210801	31/07/2032
9476	80AL701849	Macquarie/ Cudgegong	Regulated (General Security)	790 Unit shares	Wilpinjong Coal Pty Limited	No nominated work	N/A
41862	N/A	Sydney Basin - North Coast Groundwater	Aquifer	3121 Unit shares	Wilpinjong Coal Pty Limited	20MW065002	N/A

Notes: [1]Water entitlement held under NSW *Water Management Act, 2000* is granted in perpetuity. [2]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) 2013*. [3] Work Approvals only attract an expiry date, applications to extend Work Approvals due to expire will be undertaken in 2024. [4] Application to extend submitted in 2022.

7.2 Estimated Groundwater Take

WCPL holds a consolidated licence (WAL41862) to cover the extraction of water from all Pits. The total authorised volume of groundwater extraction is 3,121 Unit Shares. When annualised from a daily inflow value of 1.9 ML/day, the SLR (2025) water balance model estimate for the 2023-2024 water year is about 694 ML/a. This is informed by groundwater model predictions (SLR, 2020a) and factored based on observed 6-monthly rainfall totals compared to the long-term average. **Table 7-2** presents the relevant entitlement volume for the consolidated licence, the estimated inflow or 'take' for 2023-24 and compares these water balance model estimates to numerical model predictions. The SLR (2020a) annualised inflow estimate (550 ML/yr) is within the allocated licence volume for the 2023-24 water year (SLR, March 2025) [4].

[4] *Annual Review – Wilpinjong Coal Mine 2024 Groundwater Compliance (SLR, March 2025)*

Table 7-2 Summary of Annual Volume of Inferred Maximum Groundwater Take

Water Access License	Limit [ML/a]	2022-2023		2023-2024	
		SLR Water Balance Inflow (SLR, 2024)	Modelled inflow (SLR, 2020a)	SLR Water Balance Inflow (SLR, 2025)	Modelled inflow (SLR, 2020a)
Pits	3,121 ML/a (WAL 41862)	913	660	694	550
Dewatering Bores		0		0	
TOTAL		913	660	694	550

7.2.1 Alluvial Groundwater Take

Groundwater can be lost from alluvium to underlying Permian sediments through natural processes or as incidental take in response to mining (i.e. by a mining induced increase in the downward vertical hydraulic gradient from the alluvium to the Permian). As there are no physical means by which this volume of alluvial water can be measured, groundwater modelling is necessary to quantify the expected loss of alluvial groundwater to the underlying Permian strata (SLR, March 2025)[5].

The SLR model (2020a) has predicted the likely alluvial take during the 2023-2024 water year, for both Wilpinjong Creek alluvium and Cumbo Creek alluvium. The predicted loss from Wollar Creek is negligible. For the 2023-2024 water year the additional alluvial water loss, over and above what occurs naturally, is estimated to be about 0.27 ML/day from Wilpinjong Creek alluvium and about 0.2 ML/day from Cumbo Creek alluvium. This gives a predicted alluvial groundwater take of about 172ML/year. WCM holds an allocation of 474 ML for the Wollar Creek Water Source under the Water Sharing Plan for the Hunter Unregulated and Alluvial Sources, 2009. This estimated take is within and compliant with the licence volume held by WCM (SLR, March 2025).

This take is within and compliant with the licence volume held by WCPL. For more information refer to **Appendix 3D**.

7.3 Water Licence Conditions

Assessment of the various water access licence conditions relevant to WCPL work approvals includes:

- The total volume of water taken under in any water year must not exceed a volume (Complied – refer to **Table 7-2** & **Section 7.2**).
- The volume of water taken in the water year must be recorded (Complied – refer to **Table 7-2** & **Section 7.2**).
- Once the water access licence holder becomes aware of a breach of any condition on this water access licence, the water access licence holder must notify the Minister as soon as practicable (Complied – no breach of conditions occurred during water year 2023/2024).

7.4 Water Management System

Water management activities were undertaken during the 2024 Reporting Period in accordance with the Mine's water management system outlined in the WMP[6]. In summary, water management for the Mine is based on the containment and re-use of mine water as well as the control of sediment laden water that may be potentially carried with runoff from disturbed areas. The mine water management system is shown in schematic form on **Appendix 3C**. The key components of the Mine's water management system include:

- Collection and re-use of surface runoff from disturbed areas;
- Capture and on-site containment of mine water, comprising groundwater inflows and incidental rainfall-runoff to operational areas;

[5] *Annual Review – Wilpinjong Coal Mine 2024 Groundwater Compliance (SLR, March 2025)*
[6] With exception to Emergency Water Discharge (EWD). There were no EWD required during 2024 (**Section 7.4.1**).

- Re-use of contained mine water for dust suppression over active surfaces (e.g. haul roads).
- Recycling of mine water associated with the CHPP and tailings disposal areas;
- Consumption of contained waters in the Mine water supply system;
- Management of treated sewage effluent in accordance with the OEH's *Environmental Guidelines for the Utilisation of Treated Effluent*;
- Standby-operation of an evaporative spray system on the eastern bank of Pit 2 (West); and
- Discharge of treated water via a water treatment facility to Wilpinjong Creek in accordance with EPL 12425.
- Diversion of clean water upslope of mine disturbance in Pit 6 and Pit 8.

7.4.1 Emergency Water Discharge (EWD)

There were no water discharges required under emergency provisions in the 2024 Reporting Period.

7.5 Erosion and Sediment Control

An erosion and sediment control measures are described in the SWMP for the Mine. During the 2024 Reporting Period water management structures were either implemented or maintained to contain potentially sediment laden water from mining activities in Pit 3, Pit 4, Pit 5, Pit 6, Pit 7 and Pit 8 within the Mine's water management system. Other activities included routine removal of sediment from sumps, drains and sediment dams located in the Mining Infrastructure Area (MIA) and CHPP.

A clean water diversion (CWD) has been constructed in Pit 8 to reduce surface water from Pit 8 (Slate Gully) undisturbed water catchments that will otherwise report into the Pit 8 disturbance footprint. The CWD in Pit 8 will progress with the advancing pit.

WCPL sought a variation to EPL12425 in 2021 to allow the rain water collected by the diversion upstream of Pit 8 to discharge to Wilpinjong Creek under various water quality conditions (**Section 3.2**). Newly approved licence discharge point (LDP) 30 permits water to be discharged from the CWD if the value of turbidity does not exceed the turbidity value measured at the Wilpinjong Creek upstream gauging station. When there is no flow within Wilpinjong Creek at the upstream gauging station the value of turbidity measured at point 30 must not exceed 50 Nephelometric Turbidity Units (NTU).

WCPL are planning to install a strategic clean water diversion in western area of Pit 6 to reduce surface water from undisturbed water catchments that will otherwise report into the Pit 6 disturbance footprint.

During the Reporting Period no clean water upslope of mining disturbance areas in relation to Pit 6 and Pit 8 reported to their respective clean water management structures. No discharge from EPL Point 30 occurred in 2024 as a result.

7.6 Surface Water

In June 2022, WCPL completed a review of the SWMP (Version 6) included Updates to address 2021 IEA recommendations and 2021 Annual Review, additional information CWD for Pit 6, sampling units for rehabilitation areas, review of pH triggers and TARPs for CC-1, WIL-GSD and WIL-D2 and an additional TARP for Channel Stability. An update of the SWMP was completed in 2023 and resubmitted for approval. At the time of preparing this 2024 Annual Review the SWMP was still pending approval. A summary of the surface water monitoring program is presented in **Table 7-3**.

A summary of the surface water monitoring results assessed against each relevant water quality impact criteria from the SWMP is provided in **Table 7-4**. Further water monitoring results for 2024 Reporting Period, including figures with surface water quality monitoring locations are provided in **Appendix 3C.** A detailed assessment of creek flows, discharge from LDPs and water monitoring results against triggers in the SWMP was completed by SLR[7] (**Appendix 3C**) and summarised throughout were applicable.

[7] *Annual Review 2024 – Surface Water Compliance (SLR, March 2025)*

Table 7-3 Surface Water Monitoring Program

Monitoring Locations		Frequency	Parameters[1]
Wilpinjong Creek	Licenced Discharge Point No. 24	Continuous (during discharge)	Volume of water discharged[6], EC and pH
		Weekly (during discharge)	Oil & Grease and TSS[7]
	WIL-U, WIL-U2, WIL-PC, WIL-NC, WIL-D and WIL-D2[2]	Monthly	Field pH and EC, turbidity[3], and SO_4
		Quarterly^	Copper, Zinc, Iron, Aluminium, Nickel, Manganese, Barium, Strontium, Lead, Arsenic and Selenium
	WILGSU and WILGSD (gauging stations)[2]	Continuous	Flow rate, pH, EC and temperature
		Monthly	Field pH and EC, turbidity[3], and SO_4
		Following significant rainfall events[4]	pH, EC, TDS, TSS and sulphate
	WC1, WC2, WC3, WC4, WC5, WC6, WC7, WC8[5]	Annually	Stream health monitoring
	Forty-nine survey points along Wilpinjong Creek[5]	Annually	Channel stability monitoring (photo-points, description, stability)
Cumbo Creek	CC1, CC2 and CC3[2]	Monthly	Field pH and EC, turbidity[3], and SO_4
		Quarterly^	Copper, Zinc, Iron, Aluminium, Nickel, Manganese, Barium, Strontium, Lead, Arsenic and Selenium
	CC3[2]	Following significant rainfall events[4]	pH, EC, TDS, TSS and sulphate
	CCGSU and CCGSD (gauging station)[2]	Continuous	Flow rate, pH, EC and temperature
		monthly	Field pH and EC, turbidity[3], and SO_4
		Following significant rainfall events[3]	pH, EC, TDS, TSS and sulphate
	CC1, CC2[5]	Annually	Stream health monitoring
	Nine survey points along Cumbo Creek[5]	Annually	Channel stability monitoring
Wollar Creek	WOL 1 and WOL 2[2]	Monthly	Field pH and EC, turbidity, and SO_4
		Quarterly^	Copper, Zinc, Iron, Aluminium, Nickel, Manganese, Barium, Strontium, Lead, Arsenic and Selenium
	WO1, WO2, WO3[5]	Annually	Stream health monitoring
Slate Gully Creek	SGC_1[2]	Monthly	Field pH and EC, turbidity, and SO_4
		Quarterly	Copper, Zinc, Iron, Aluminium, Nickel, Manganese, Barium, Strontium, Lead, Arsenic and Selenium
		Following significant rainfall events[4]	pH, EC, TDS, TSS and sulphate

Notes: 1) Parameters will be analysed provided water samples can be collected. 2) Monitoring locations are illustrated in Appendix 3C. 3) Turbidity indicates the potential downstream water quality effects caused by suspended solids. 4) Greater than 20 millimetres (mm) in 24 hours. 5) Monitoring locations are illustrated on Figure 21. 6) Volume to monitored using flow meter and continuous logger. 7) Grab samples. ^ Quarterly under PA05-0021 then monthly under SSD-6764. Shaded cells indicate added to the water monitoring program as a result of SSD-6764 and the revised Surface Water Management Plan.

Table 7-4 Surface Water Performance

Location		Approved Criteria[1, 2]	Performance During the Reporting Period [1,2]	Trend/Key Management Implications	Implemented/Proposed Management Actions
Wilpinjong Creek Sites: • **WIL_NC** • **WIL_D** • **WIL_D2**	EC (µS/cm)	**3,440 µS/cm** For 3 consecutive readings	No exceedance of triggers	During the 2024 assessment period, the identified trigger exceedances were related to upper pH trigger exceedances at Wilpinjong Creek (Downstream), as observed at WIL-D2 and WIL-D. Throughout 2024 WCPL notified the DPHI of pH trigger exceedances as required by the SWMP. Within the reporting period, two Wilpinjong Creek downstream monitoring locations (WIL-D and WIL-D2) recorded exceedances of water quality monitoring criteria (pH upper limit). It is noted that the pH observations exceeding the upper trigger level for downstream Wilpinjong Creek may be within the normal range for pH at these locations. The 80th percentile pH from baseline data for these downstream sites is pH 7.9, which is above the established trigger level of pH 7.7 (SLR, March 2025)[8]. A submitted but not yet approved version of the SWMP (from January 2025) has indicated that pH trigger levels at Wilpinjong Creek downstream monitoring sites should be updated to reflect downstream baseline data (pH 7.4 to 7.9) consistent with findings from a previous trigger exceedance investigation. This revised SWMP also indicates that pH trigger levels downstream of RO discharge at EPL Point 24 should reflect the EPL discharge limits when RO Plant discharge is higher than background flow in Wilpinjong Creek (as measured at WILGSU) (SLR, March 2025). It is recommended that future assessments of pH consider these proposed revisions to the pH trigger levels to help evaluate whether trigger exceedances are likely to be adverse effects from Wilpinjong operations (SLR, March 2025). For the complete assessment of surface water quality results from the 2024 Reporting Period by SLR refer to **Appendix 3C** for the *Annual Review 2024 – Surface Water Compliance.*	WCPL will continue to review, update and implement the approved WMP and SWMP in accordance with Condition 30, Schedule 3 of SSD-6764. As required by the SWMP, notification to the DPHI regarding upper pH limits triggered at WILD and WILD2 were provided in writing on the 7 February 2024, 11 April 2024, 11 September 2024 and 23 December 2024. WCPL commissioned SLR to complete the *Wilpinjong Creek Surface Water pH Trigger Exceedance Investigation* (**Appendix 3C**). SLR concluded that the pH exceedances are a reflection of natural water flow and not associated with mining operations. Recommended SWMP to be amended to revise trigger to 7.9 to reflect pre-mining pH levels In accordance with Condition 5, Schedule 5 of SD-6764, WCPL will review, and revise, WMP and SWMP within three months of the submission of this Annual Review. Continued implementation of the Surface Water Management Measures (Section of the SWMP) to comply with the water management performance measures (**Appendix 3C**) in Table 6 of the Development Consent SSD-6764.
	Turbidity (NTU)	**24 NTU** For 3 consecutive readings	No exceedance of triggers		
	pH (lower)	**6.9 pH** For 3 consecutive readings	No exceedance of triggers		
	pH (upper)	**7.7pH** For 3 consecutive readings	Triggers exceeded		
Cumbo Creek (Downstream) Site: • **CC1**	EC (µS/cm)	**7,510 µS/cm** For 3 consecutive readings	No exceedance of triggers		
	Turbidity (NTU)	**77 NTU** For 3 consecutive readings	No exceedance of triggers		
	pH (lower)	**7.5 pH** For 3 consecutive readings	No exceedance of triggers		
	pH (upper)	**8.2 pH** For 3 consecutive readings	No exceedance of triggers		

Note: [1] Trigger is only considered to have been exceeded if the recorded value at monitoring site is greater than (or less than for lower pH Trigger) all values from the upstream monitoring sites sampled on the same day. In the event that a single result is recorded above/below the 80th/20th percentile value, WCPL will undertake a preliminary investigation to ascertain whether the result was caused by an obvious anomaly or whether further testing is required. [2] Trigger is only considered to be exceeded if recorded value at the monitoring site is greater than (or less than for lower pH trigger) for 3 consecutive readings.

[8] *Annual Review 2024 – Surface Water Compliance (SLR, March 2025)*

Table 7-5 Summary of Surface Water Monitoring Result 2024

SW Monitoring Point	EC (µS/cm)			pH			SO_4 (mg/L)			Turbidity (NTU)		
	Min	Max	Ave.	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
	Summary of Surface Water Monitoring Results 2024											
CC1	3200	4790	4138	7.7	7.9	7.7	957	1790	1411	1.3	13.0	6.7
CC2	3160	5200	4165	7.4	8.2	7.9	1160	2120	1563	0.8	15.5	4.4
CC3	2390	3720	3214	8.2	8.5	8.3	796	1560	1255	0.8	15.8	5.3
WIL (U)	505	646	576	5.8	6.1	6.0	106	125	116	8.7	78.2	43.5
WIL (U2)	484	1320	869	6.7	7.4	6.9	8	136	45	12.9	144.0	46.0
WIL (PC)	*	*	*	*	*	*	*	*	*	*	*	*
WIL (NC)	*	*	*	*	*	*	*	*	*	*	*	*
WIL (D)	571	1730	780	7.7	8.1	7.8	57	505	139	5.1	**61.7**	17.2
WIL (D2)	543	1570	771	7.7	8.0	7.9	53	449	138	3.7	**27.9**	7.3
WOL1	596.0	1940.0	819.5	7.9	8.3	8.1	51.0	561.0	146.8	3.6	14.5	8.8
WOL2	1120.0	2040.0	1550.9	7.6	8.1	8.0	210.0	350.0	279.3	3.6	49.3	12.8

Notes: Result/s in **bold** outside of relevant criteria but not for three consecutive readings. Results outside of relevant criteria for three consecutive readings (refer to **Table 7-4** for discussion and recommendations). * = No Access to Sample

Surface Water Flow

The following section presents and discusses daily flow data from the three continuous surface water monitoring gauges on Wilpinjong Creek (WILGSU and WILGSD) and Cumbo Creek (CCGSU). Observed flow trends are reviewed against rainfall data from the local rainfall station (Wollar, 062032) and discharge volumes throughout 2024. The two Wilpinjong Creek gauging stations have been recording since January 2012. The catchment area reporting to the upstream site (WILGSU) is 86 km2 while the downstream site has a catchment area of 216 km^2. CCGSU on Cumbo Creek has been recording data since August 2015. Figure 4 shows the flow data at these sites from late 2022 to the end of 2024 in comparison to the RO Plant discharge rate (EPL Point 24) (SLR, March 2025)[9].

During 2024, flow at CCGSU fluctuated between <0.01 and 7.6 ML/day in response to rainfall events with an average flow of 0.3 ML/day. CCGSU was observed to flow for most of the year except for three brief periods in May, June, August and December. In 2024, flow at WILGSU ranged between <0.01 and 15 ML/day with an average of 0.3 ML/day, while WILGSD had recorded flows from 0.2 to 14.5 ML/day at an average of 5.0 ML/day. Flow rates at WILGSD directly influenced by RO Plant discharge volumes (SLR, March 2025).

Table 7-6 presents the calculated daily mean discharge rates at WILGSU, WILGSD and CCGSU for each year since 2013. The average daily flow rate of all creek monitoring points increased from 2019 through 2022 with all sites showing a reduction in daily averages for the 2023 and 2024 reporting periods (SLR, March 2025).

Table 7-6 Calculated daily mean flow rate at Wilpinjong and Cumbo Creeks

Monitoring Location	Average Daily Flow Rate (ML/day)											
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WILGSU	0.16	0.03	0.24	2.8	0.002	0	0	5.2	5.1	25.8	1.1	0.3
WILGSD	0.27	0.22	0.39	5.7	5.9	0.73	0.008	6.0	10.0	70.0	6.3	5.0
CCGSU	No data		0.14	1.6	0.6	0.4	0.1	0.9	2.1	20.4	0.95	0.3

[9] *Annual Review 2024 – Surface Water Compliance (SLR, March 2025)*

7.7 Harvestable Rights

The site is located within the coastal draining catchments and central inland-draining catchments harvestable rights area. As of September 2023, up to 10% of the average annual regional rainfall runoff may be captured and used for any purpose within this harvestable rights area, as per the Harvestable Right (coastal-draining catchments) Order 2023 (DPE, 2023) under the *Water Management Act 2000* (SLR, March 2025)[10].

The current mining disturbance area captured within the site water management system is 2,579 ha. Clean water catchment draining internally to the mine water management structures consists of 1,259 ha. The estimated runoff captured from these clean water areas is 1,021 ML. The total WCPL harvested volume is calculated as:

Farm Dam Capacity + Pit 8 CWD + Clean water draining WCM = Total Harvested Volume (ML)

The WCPL landholding area is 20,400 ha. Using a harvestable rights multiplier of 0.07 as per the Department of Planning and Environment (DPE) (now DPHI) guidelines, the harvestable right for the site is 1,428 ML. Based on rainfall data sourced from the Site AWS, the annual rainfall for the reporting period is 760.4 mm (SLR, March 2025).

The calculated Harvestable Rights Position for 2024 is provided in **Table 7-7**. For further information refer to the *Site Water Balance Model – Model Update and Calibration 2025* in **Appendix 3C**.

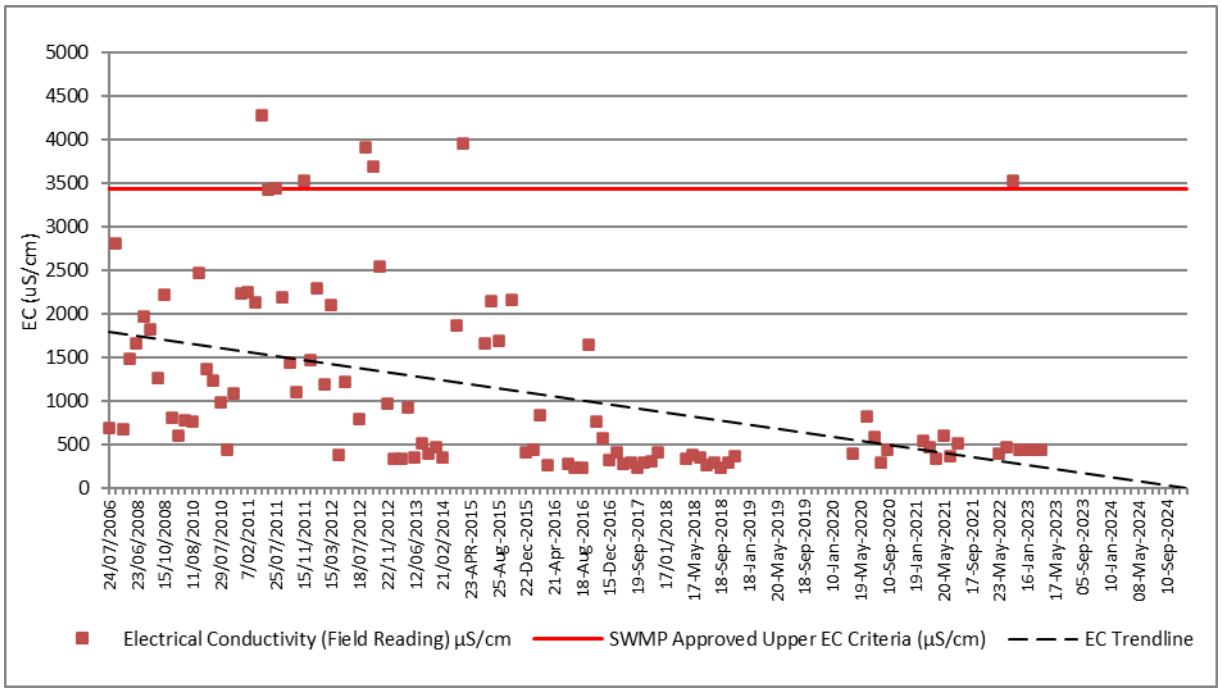
Table 7-7 Harvestable Rights Position 2024

Parameter	Input Value
Annual Rainfall Depth (mm)	760.4
Runoff Coefficient (clean catchment)	0.11
Mine Disturbance Area (ha)	2,579
Clean Catchment Draining to WCM (ha)	1,146
Storage / Licence	**Estimated / Known Value**
Clean Water to WCM (ML)	1,021
Farm Dam Capacity (ML)	267
WAL Volume (ML)	150
Reporting Volume	**Estimated Value**
Total Harvested Volume (ML)	1,288
Surplus Volume (ML)	140
Surplus Volume (with WALs) (ML)	290

The total harvested volume for 2024 is estimated to be 1,288 ML. Given that the WCPL harvestable right is 1,428 ML, the site was within its harvestable right allowance and had a surplus allowance of 140 ML for the year. Additionally, WCPL hold 150 ML in WALs. Therefore, the site had a surplus allowance of 290 ML including these WALs during 2024 (SLR, March 2025).

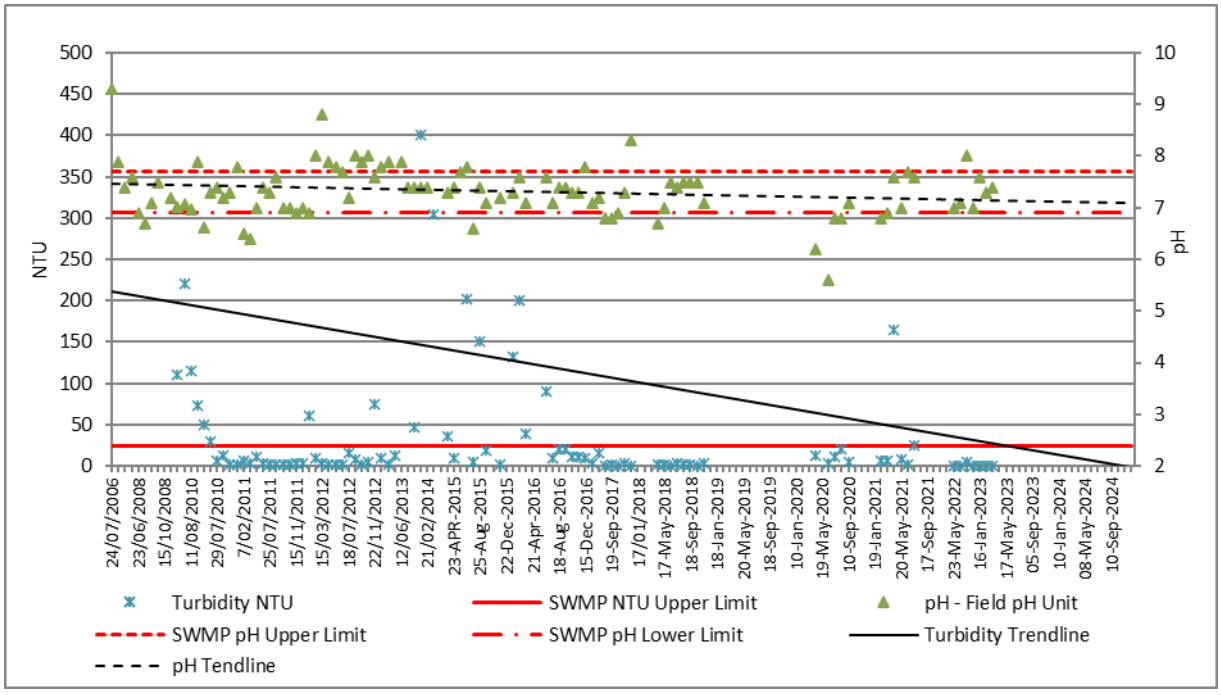
[10] *Site Water Balance Model – Model Update and Calibration 2025 (SLR, March 2025)*

Figure 7-1 Long-term EC Water Quality Results at WIL_NC



Notes: Due to access constraints no samples were available in 2024

Figure 7-2 Long-term pH & NTU Water Quality Results at WIL_NC



Notes: Due to access constraints no samples were available in 2024

Figure 7-3 Long-term EC Water Quality Results at WIL_D2

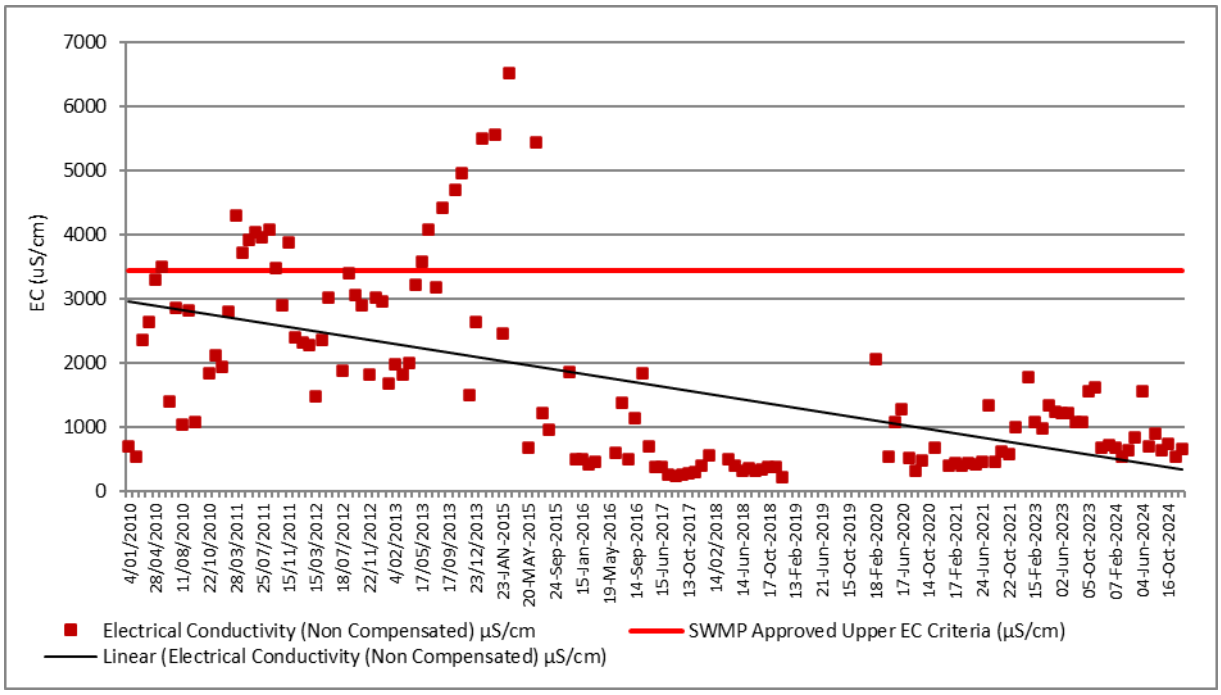


Figure 7-4 Long-term pH & NTU Water Quality Results at WIL_D2

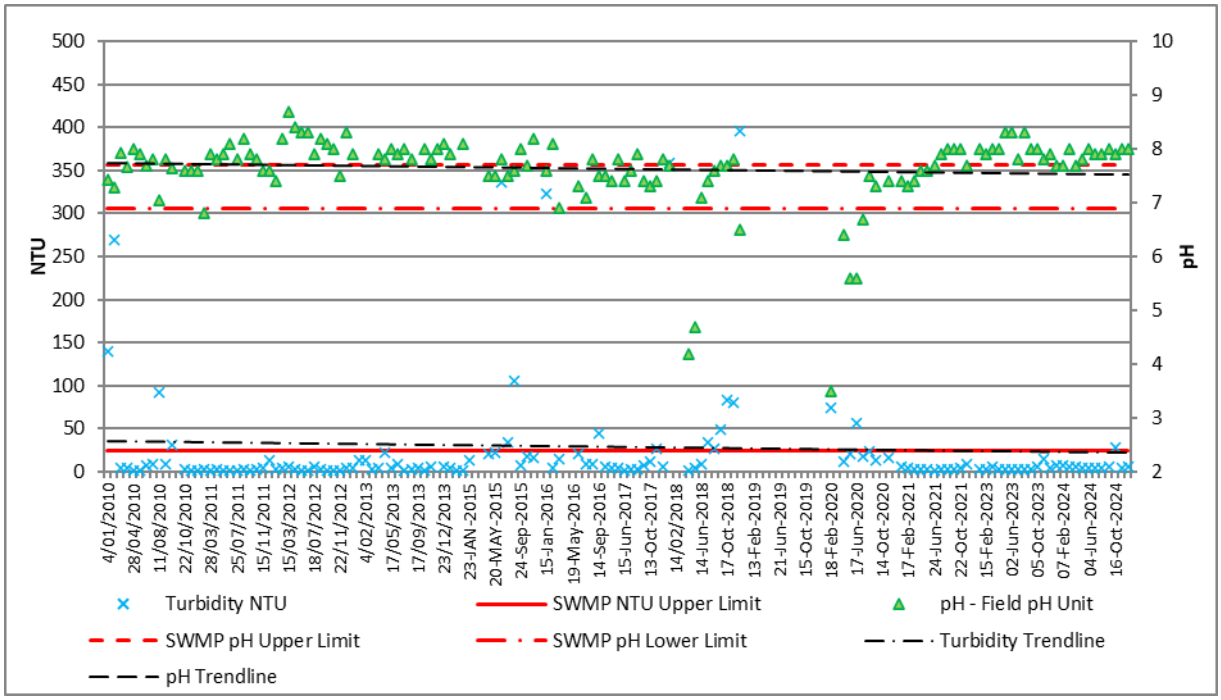


Figure 7-5 Long-term EC Water Quality Results at WIL_D

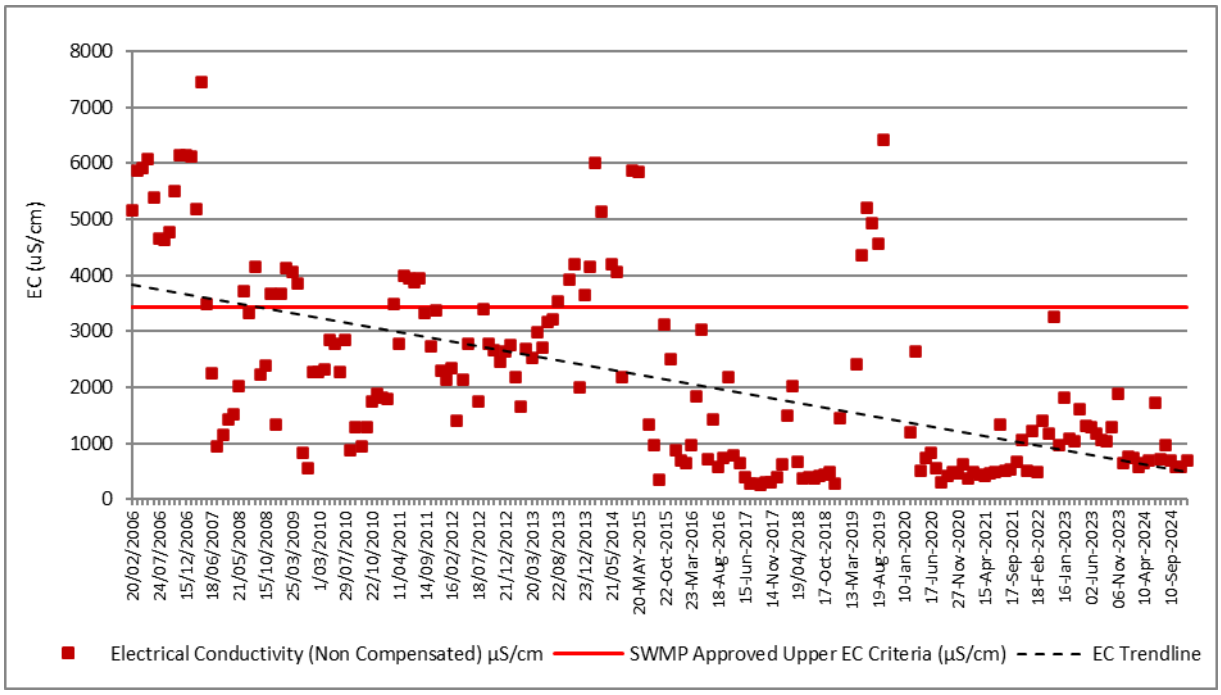


Figure 7-6 Long-term pH & NTU Water Quality Results at WIL_D

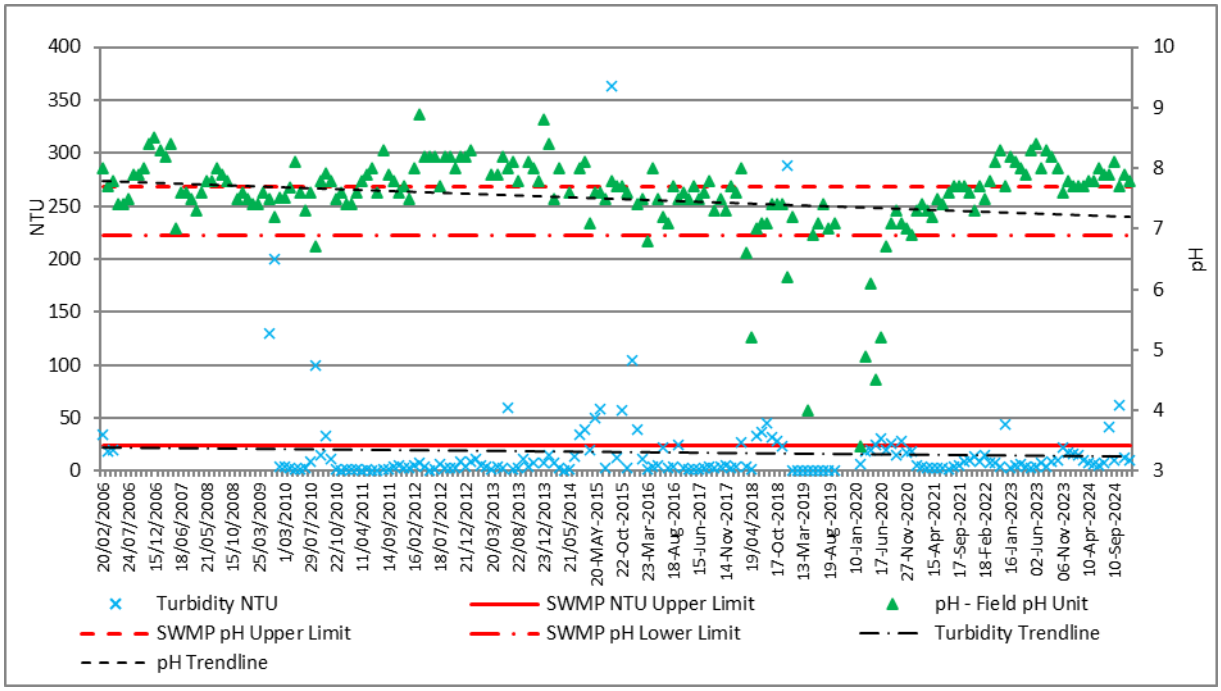


Figure 7-7 Long-term EC Water Quality Results at CC_1

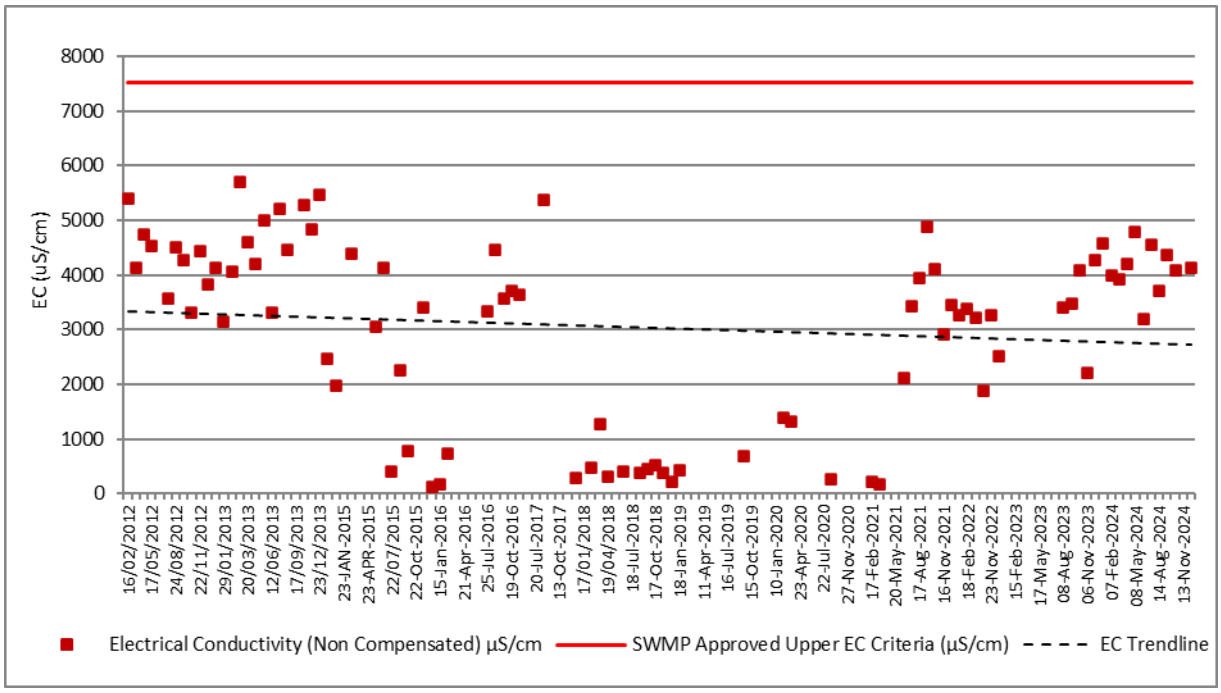


Figure 7-8 Long-term pH & NTU Water Quality Results at CC_1

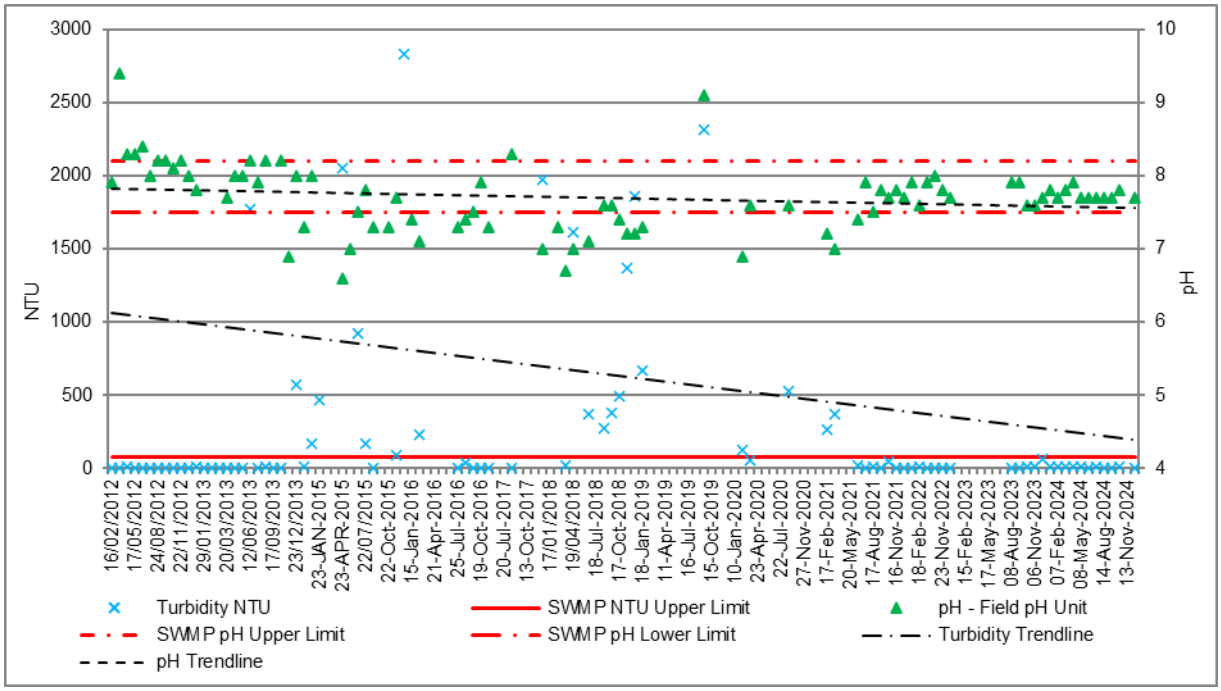


Figure 7-9 Gauging Station Wilpinjong Creek Upstream Long Term Trends

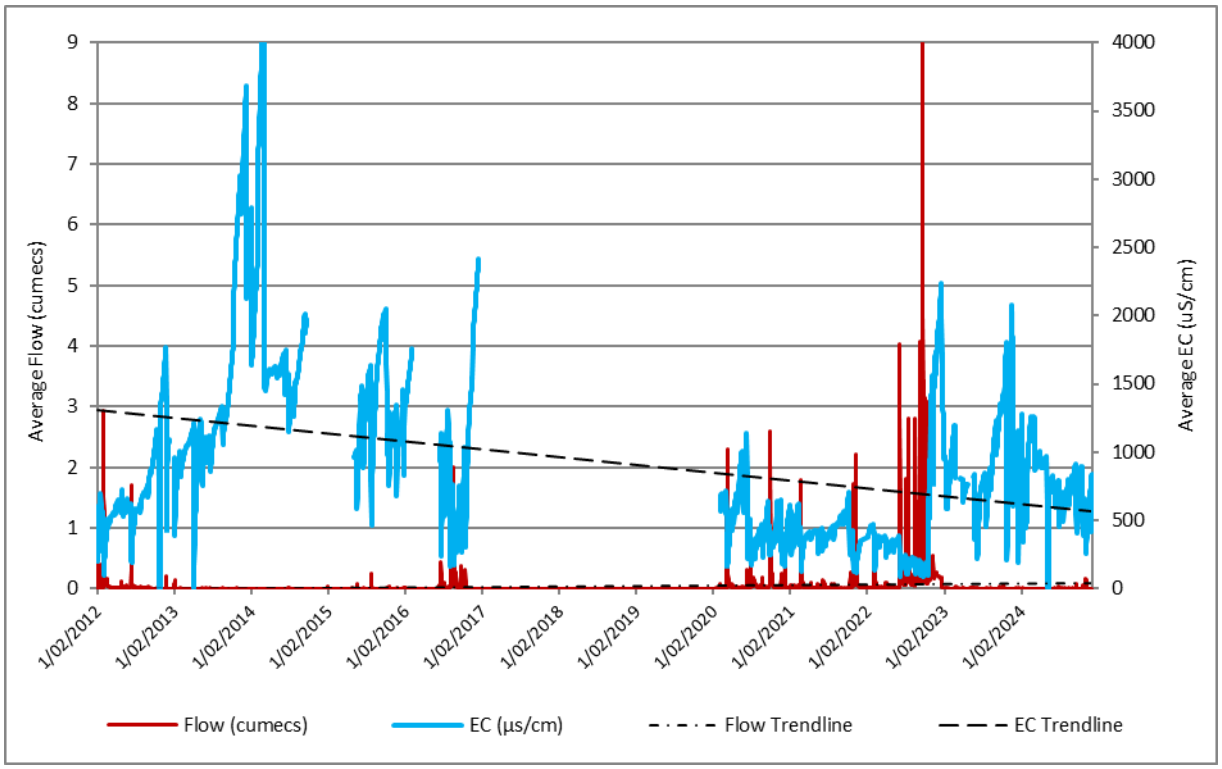


Figure 7-10 Gauging Station Wilpinjong Creek Downstream Long Term Trends

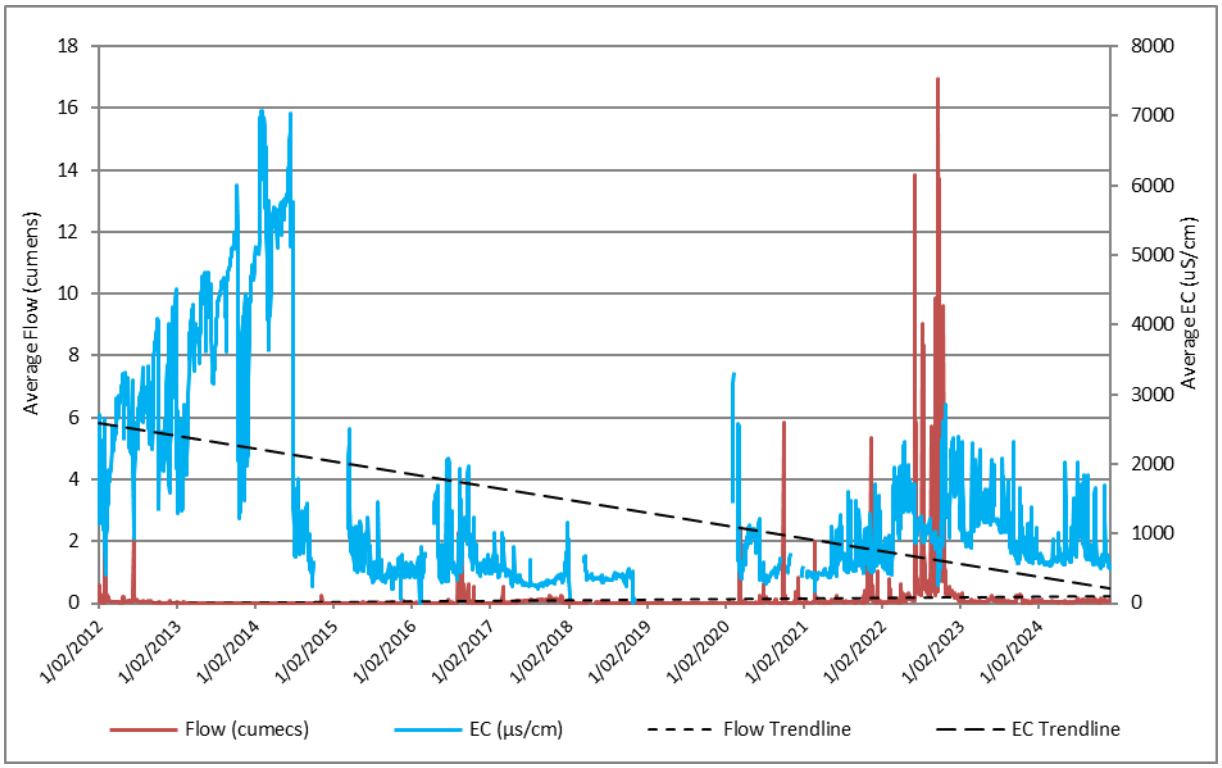
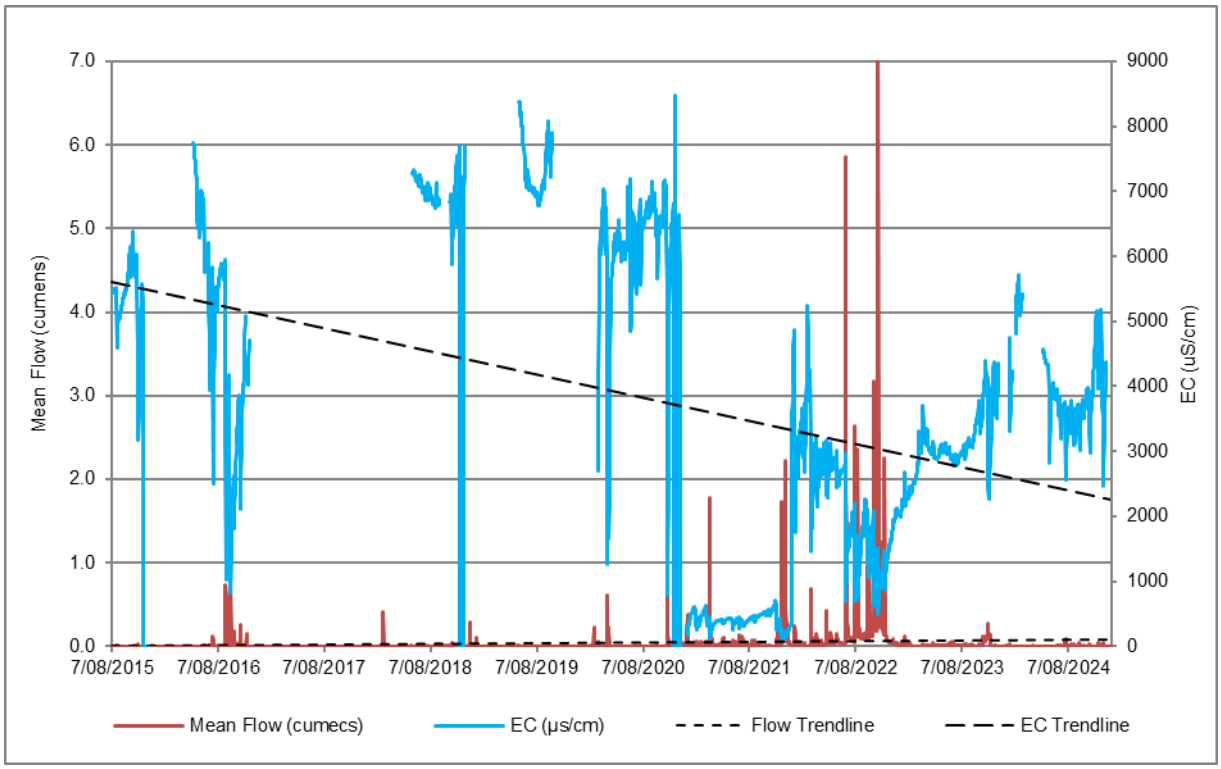


Figure 7-11 Gauging Station Cumbo Creek Long Term Trends



7.8 Site Water Balance

WCPL have developed and continue to maintain a water balance simulation model for the Wilpinjong Coal Mine (WCM). Initially, the site utilised OPSIM simulation software calibrated to monitoring data between January 2014 and January 2018. The model was then redeveloped in 2020 by SLR Consulting Pty Ltd (SLR, 2020a) using the GoldSim software package and data obtained between January 2018 and December 2019. The GoldSim model has been recalibrated annually since its inception in 2020, with the most recent calibration prior to this study completed in March 2024 as part of the previous annual review (SLR, 2024a) (SLR, March 2025)[11].

WCPL are required to prepare a site water balance in accordance with Condition 30(d)(ii), Schedule 3 of Development Consent SSD-6764. WCPL engaged SLR to review and update the WCPL Water Balance Model (WBM) to capture changes to the site water catchments and management system during 2024 and calibrate the WBM using monitoring data collected up to the end of December 2024 (SLR, March 2025).

This report documents the model update process and outcomes, including:

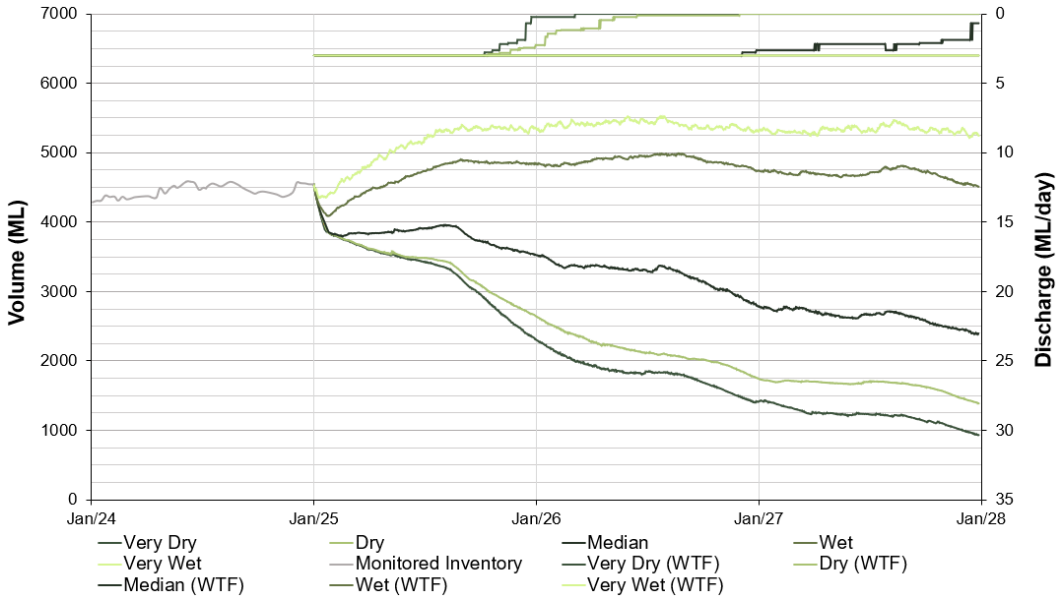
- Collation and review of historical water monitoring data;
- Review of WCPL's harvestable rights for 2024;
- Updated catchment and land use mapping and changes incorporated to the Water Management System (WMS) in 2024;
- Calibration of WCPL's GoldSim model against the 2024 GoldSim output and data collected between January 2018 and December 2024;
- Description of the GoldSim model, operating rules, and model schematic; and
- Forecast of site water behaviour for the next three years (2025 to 2027).

[11] *Site Water Balance Model – Model Update and Calibration 2025 (SLR, March 2025)*

The intent of this report is to document the basis of the updated WCPL GoldSim model, assess the predicted water balance versus actual monitored water inventory during 2024, and to provide a 3-year forward projection of water balance at WCM (SLR, March 2025).

Model simulated volumes have been forecast for the period 1 January 2025 to 31 December 2027. Results have been plotted for the combined water inventory in the WMS (comprising CWD, Pit 1S, Pit 2W, Pit 3, Pit 4, Pit 5N and the RWD). Figure 7-12 shows the forecasted total site inventory and associated WTF discharge for the period 1 January 2025 to 31 December 2027 through varying climatic conditions (SLR, March 2025).

Figure 7-12 Forecast Water Inventory 2025-2027



Review of **Figure 7-12** shows the following:

- The 1st percentile (very dry climatic conditions) results in a total site water decrease to 2,315 ML at the end of 2025, 1,413 ML at the end of 2026, and 934 ML at the end of 2027;
- The 10th percentile (dry climatic conditions) results in a total site water decrease to 2,655 ML at the end of 2025, 1,753 ML at the end of 2026, and 1,387 ML at the end of 2027;
- The 50th percentile (median climatic conditions) results in a total site water decrease to 3,535 ML at the end of 2025, 2,802 ML at the end of 2026, and 2,396 ML at the end of 2027;
- The 90th percentile (wet climatic conditions) results in a total site water decrease to 4,847 ML at the end of 2025, 4,736 ML at the end of 2026, and 4,510 ML at the end of 2027; and
- The 99th percentile (very wet climatic conditions) results in a total site water decrease to 5,355 ML at the end of 2025, 5,318 ML at the end of 2026, and 5,243 ML at the end of 2027.

Overall, the forecast indicates that there is adequate water security during dry conditions, with opportunities to reduce inventory by destruction. Water inventory during very wet years will be manageable, however, the site will need to remain proactive and implement strategies to reduce inventory as implemented following the 2022 wet period. It is understood that WCM are currently investigating the feasibility of increasing discharge rates from the WTF to Wilpinjong Creek to relieve surplus inventory during 2025 (SLR, March 2025). Refer to **Appendix 3C** for the complete *Site Water Balance Model – Model Update and Calibration 2025 (SLR, March 2025).*

7.9 Water Treatment Facility

Construction of the Water Treatment Facility (WTF) was completed in June 2012 and approved water releases commenced on 16 June 2012 in accordance with EPL 12425. Under EPL 12425, WCPL are approved to discharge treated water from Licensed Discharge Point 24 (LDP24). The maximum volume of water discharge shall not exceed 5ML/day.

On the 6 October 2022, WCPL sought to vary licence condition L3.1 to increase the daily discharge rate at LDP Point 24 from 5 ML/day to 6.5 ML/day in response to ongoing increased rainfall associated with the La Nina weather conditions (**Section 7.4.1**). The variation to increase to 6.5ML/day was approved by the EPA on the 10 October 2022. Water quality concentration limits (i.e., 100 percentile concentration limit) for LDP24 include:

- Electrical conductivity (EC) not to exceed 500 µS/cm (continuous monitoring);
- Oil and grease (O&G) not to exceed 10mg/L (grab sample weekly during any discharge);
- pH range of 6.5 to 8.5 (continuous monitoring); and
- Total suspended solids (TSS) not to exceed 50mg/L (grab sample weekly during any discharge).

During 2024 WCPL complied with EPL water quality and quantity limits for LDP Point 24 (**Figure 7-13** and **Figure 7-16**).

Figure 7-13 RO Daily Discharge Volumes

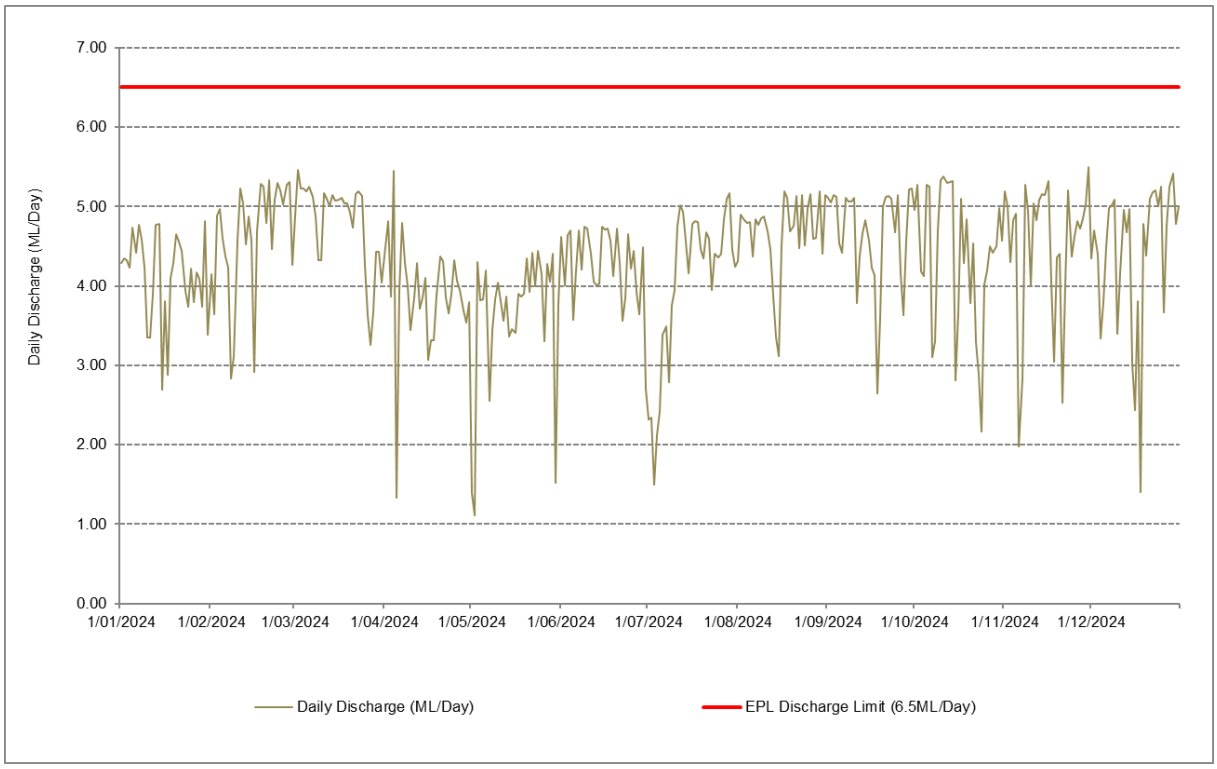


Figure 7-14 RO Daily pH

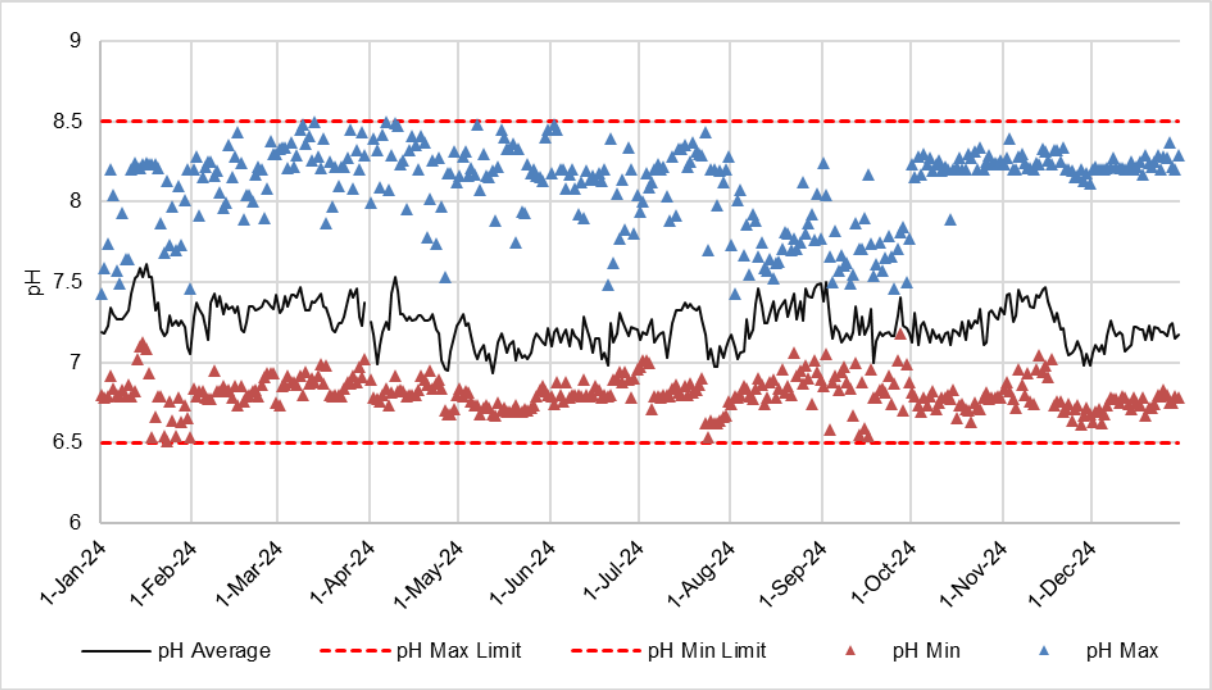


Figure 7-15 RO Daily EC

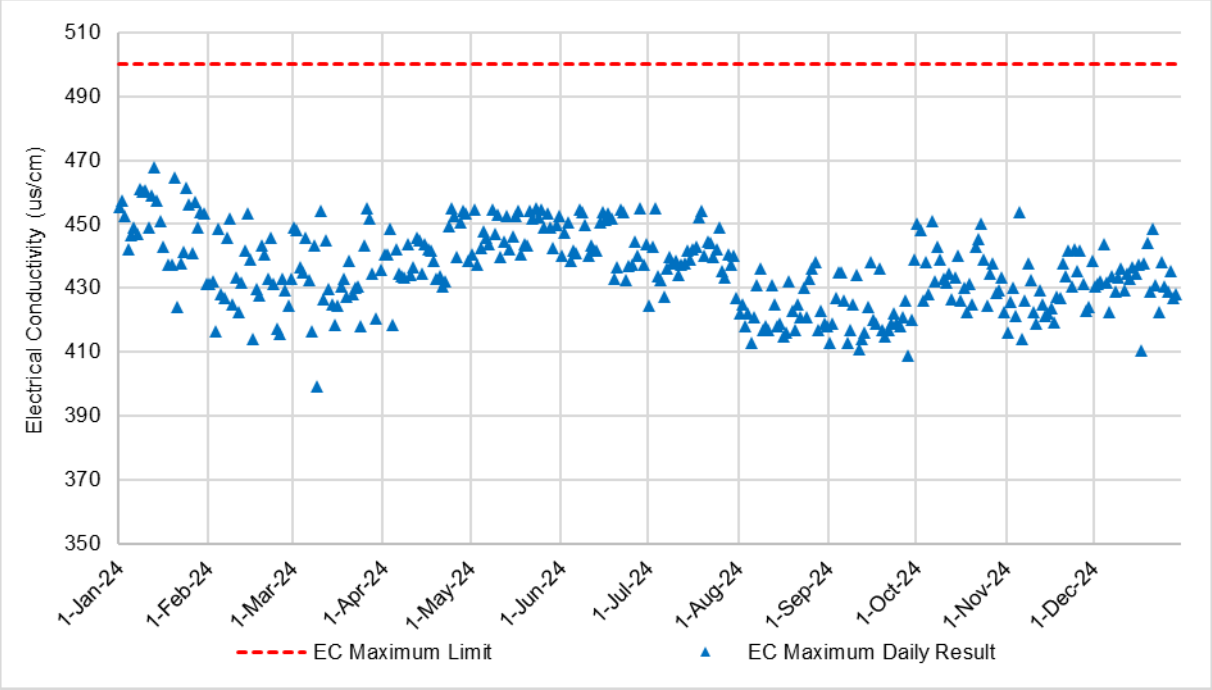
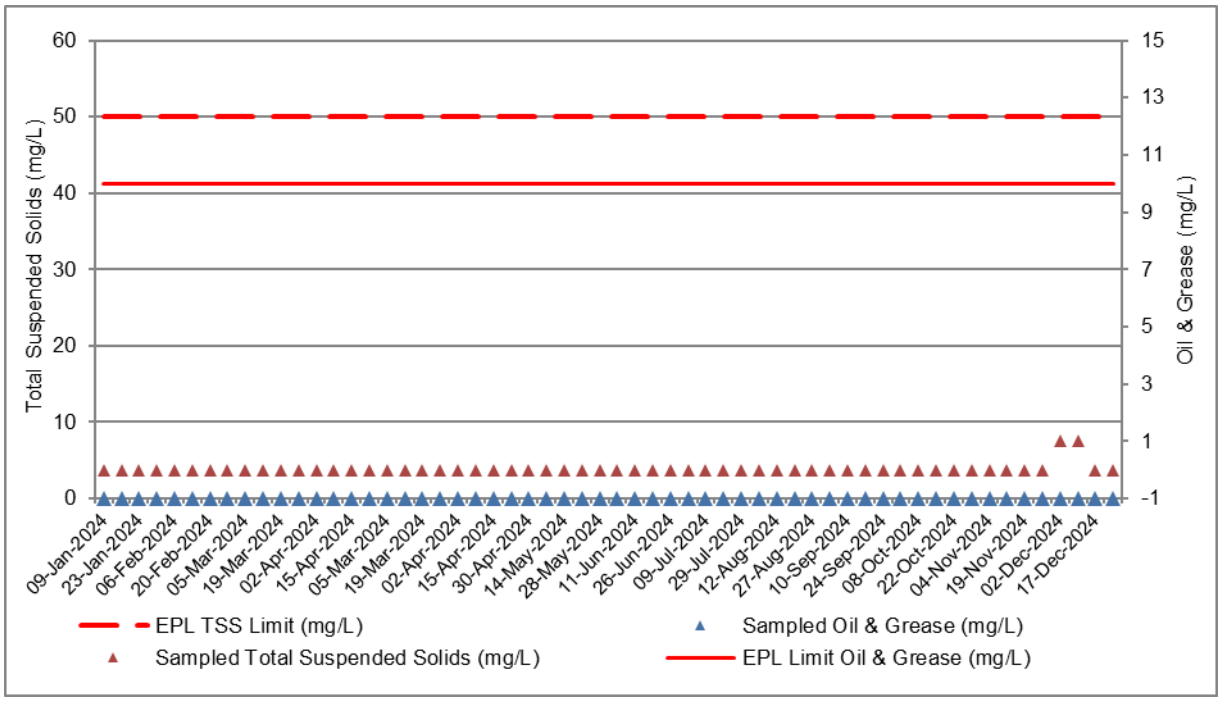


Figure 7-16 RO Daily TSS & Oil and Grease



7.10 Stream Health & Channel Stability Monitoring

Channel Stability Monitoring

Channel stability monitoring (CSM) was completed by Eco Logical Australia (ELA) on behalf of Wilpinjong Coal Pty Ltd (WCPL) between 10 December and 19 December 2024. The CSM program aims to provide quantitative and qualitative measures of channel stability along Wilpinjong and Cumbo Creeks. Monitoring was undertaken across a total of 59 permanent monitoring locations, including 49 on Wilpinjong Creek and 10 on Cumbo Creek. Consistent with previous monitoring, methods included surveying the designated reach of each monitoring site (approximately 100 m) and completing the Bank Erosion Hazard Index (BEHI) assessment, along with visual and photographic comparative assessment with data from previous years (ELA, Feb 2025).

CSM results in 2024 were largely consistent with previous years, with 18 Wilpinjong Creek sites experiencing slight a change to BEHI scores, indicating the largely unchanged nature of the target creeks. For Wilpinjong Creek, BEHI scores improved at six sites, declined at 12 sites, and remained unchanged at 31 sites. The changes in scores were minor and often not affecting the BEHI ratings, with ratings improving at one site and remaining unchanged at 48 sites, whilst for Cumbo Creek, ratings remained unchanged at all 10 sites. Slight increases in bank vegetation ground cover, as well as increases water levels and stream flow, were observed at most sites. Sites with a decline in channel stability between 2023 and 2024 are likely related to minor erosion caused by high flow events in late 2024. Despite this, some sites did experience an increase in channel stability BEHI scores, indicating that the impacts of preceding climatic conditions over the previous two years were not uniform throughout the catchment (ELA, Feb 2025).

Identified historical erosion points were monitored in 2024, with some sites experiencing minor erosion in 2024, however all sites remain largely stable. Overall, erosion points require ongoing monitoring, and additional revegetation and remediation works are recommended to allow for channel bank stability. Specifically, reshaping and contouring of the bank, followed by revegetation is recommended at multiple erosion points, including E1, E3, E4, E6, E9 and E11 (ELA, Feb 2025).

The results of the 2024 CSM support conclusions made in previous monitoring and assessments that ongoing mining operations are not causing stability issues within the target creek systems. Both Wilpinjong

and Cumbo Creeks are typical of ephemeral creek systems in agricultural landscapes of the surrounding region, with channel stability issues within these creeks reflecting historical disturbances and land use practices, rather than contemporary mining operations (ELA, Feb 2025). Refer to **Appendix 5** for the complete *2024 WCPL Channel Stability Monitoring Report* (ELA, February 2025) completed by ELA.

Stream Health Monitoring

Stream health monitoring (SHM) was undertaken during spring 2024 within the catchments surrounding Wilpinjong Coal Mine (WCM). A total of ten permanent sites were monitored along Wilpinjong, Wollar and Cumbo creeks, as well as two control sites located along Barigan Creek.

The monitoring results were largely consistent with previous years' results. Most sites recorded mid-range RCE (Riparian, Channel and Environmental) scores, typical of catchments in the region.

Water quality results were recorded for various parameters and differed across most sites in comparison with previous years. Parameters were inside Australian and New Zealand Environmental and Conservation Council (ANZECC) guidelines at all but one site for pH and were within at ten sites for turbidity, likely as a result of decreased runoff and stream flow leading up to the monitoring period (ELA, Feb 2025),

Water quality results for temperature, electrical conductivity (EC), and dissolved oxygen (DO) fluctuated considerably across monitoring years, during times of variable stream flow and at sites both upstream and downstream of the WCM licensed discharge point. As such, these results indicate that natural factors and fluctuating climatic conditions, rather than mining operations are the primary influences on water quality in the catchments surrounding the WCM. The 2024 SHM occurred under wet conditions, with 33.8 mm of rainfall the morning prior to monitoring commencing, and this may have influenced some of the water quality results (ELA, February 2025).

Across all monitoring sites, a total of 12 macroinvertebrate Orders and 53 Families were recorded. Stream invertebrate grade number average level (SIGNAL2) scores were generally low in 2024, although 11 of the 12 sites showed an increase in comparison to the 2024 SHM period. A combination of low levels of flowing water, higher water temperature, and low DO likely limited the diversity of macroinvertebrate communities. Three sites scored ≥4.0 indicating moderately disturbed systems, whereas in 2023 SIGNAL2 scores were <4.0 for all sites, which is indicative of severely disturbed systems. The overall temporal and spatial consistency of these macroinvertebrate results indicate that historical disturbances, combined with fluctuating climatic conditions within the larger catchments surrounding the WCM, are the main factors responsible for current stream health conditions (ELA, Feb 2025).

Refer to **Appendix 5** for the complete *WCPL 2024 Stream Health Monitoring Report* (ELA, February 2025) completed by ELA.

7.11 Groundwater

The GWMP outlines WCPL's Groundwater Monitoring Program. In June 2022, the GWMP (Version 6.1) was updated to include addressing the 2021 IEA recommendations, additional groundwater monitoring bores as required by DPE Water and address other DPE Water comments during post consultation from April 2022 and August 2022. A further revision of the GWMP (Version 6.2) was completed in June 2023 to address additional comments from the DPHI from February 2023. The GWMP (Version 6) was again revised and resubmitted in September 2024. Approval of the revised GWMP (Version 6.0) was pending at the time of preparing the 2024 Annual Review.

A summary of the groundwater monitoring program is presented in **Table 7-8**. A summary of the groundwater monitoring results against applicable groundwater triggers is provided in **Table 7-9**. A summary of the groundwater monitoring results for 2024 Reporting Period is provided in **Section 7.13**, with the complete groundwater assessment report by SLR Consulting Australia Pty Ltd (SLR)[12] provided in **Appendix 3D.**

[12] *Annual Review – Wilpinjong Coal Mine 2024 Groundwater Compliance (SLR, March 2025)*

Table 7-8 Groundwater Monitoring Program

Monitoring Locations		Frequency	Parameters[1,2]
Open Cut Operations	Main pit sump(s)	Monthly	Volume of water extracted.
		Quarterly	pH, EC, TDS, Na, K, Mg, Ca, Cl, HCO_3, $CaCO_3$, SO_4 and Metals (Cu, Zn, Fe, Al, Ni, Mn, Ba, Sr, Pb, As and Se).
Water Supply Bores[3]	GWs10, GwS11, GWs12, GWs14, GWs15	Monthly (During Extraction)	Water level, field pH and EC. Volume of water extracted.
Alluvial Bores	GWa10, GWa11, GWa12, GWa14, GWa15, GWa16, GWa22, GWa32	12 Hr (logger)	Water level, Pressure, Temperature
	GWa1, GWa2, GWa3, GWa4, GWa5, GWa6, GWa7[5], GWa8[5], GWa9, GWa10, GWa11, GWa12, GWa14, GWa15, GWa16, GWa22, GWa32, GWa33[5]	Monthly	Water level, temperature field pH and EC.
		Quarterly	TDS, Na, K, Mg, Ca, Cl, HCO_3, $CaCO_3$, SO_4 and Metals (Cu, Zn, Fe, Al, Ni, Mn, Ba, Sr, Pb, As and Se).
Coal Measures Bores	GWc10, GWc11, GWc12, GWc14, GWc15, GWc16, GWc17, GWc18, GWc22, GWc23, GWc24, GWc25, GWc26, GWc27, GWc28, GWc29, GWc30, GWc31, GWc32[5]	Daily (logger)	Water level, Pressure, Temperature
	GWc1, GWc2, GWc3, GWc4[5], GWc5[5,] GWc10, GWc11, GWc12, GWc14, GWc15, GWc16, GWc17, GWc18, GWc19, GWc20, GWc22, GWc23, GWc24, GWc25, GWc26, GWc27, GWc28, GWc29, GWc30, GWc31, GWc33, GWc32[5],GWc34, GWc35	Monthly	Water level, temperature, field pH and EC.
		Quarterly	TDS, Na, K, Mg, Ca, Cl, HCO_3, $CaCO_3$, SO_4 and Metals (Cu, Zn, Fe, Al, Ni, Mn, Ba, Sr, Pb, As and Se).
Landholder bores, wells and waterholes[4]		As required	To be determined

Notes: 1) Parameters will be analysed provided sufficient volumes of water can be collected. 2) Na = Sodium, Ca = Calcium, HCO_3 = Bicarbonate, SO_4 = Sulphate, K = Potassium, Mg = Magnesium, Cl = Chloride and Total Fe = Total Iron. 3) Water supply bores not currently in operation. 4) Monitoring may be undertaken, as required, in consultation with individual landholders. Parameters to be monitored will be determined following consideration of the landholder's concerns. 5) Regional bore – not expected to be affected by mining.

7.12 Compensatory Water Supply

In accordance with Condition 24, Schedule 3 of SSD-6467 WCPL shall compensate potentially affected landowners with privately owned groundwater bore within the predicted drawdown impact zone identified in the EA. During the 2024 Reporting Period this condition was not triggered. There are no privately-owned bores within this predicted impacted zone.

7.13 Groundwater Monitoring Review

SLR Consulting Australia Pty Ltd (SLR) was commissioned by WCPL to conduct *the Annual Review – Wilpinjong Coal Mine 2024 Groundwater Compliance* (SLR, March 2025). The groundwater review for 2024 is provided in **Appendix 3D** and summarised below:

Previous reporting (HydroSimulations, 2015a; Peabody, 2016) has utilised the HydroSimulations (2013) and (2015b) groundwater model to assess likely impacts of WCM and ensure sufficient water licences are purchased prior to a water year. This groundwater model was converted from the original numerical groundwater model used by AGE (2005) (SLR, March 2025).

The 2015 version of the groundwater model (HydroSimulations, 2015b) was updated in 2020 by SLR (2020a), in line with the recommendations from the 2018 Annual Review (HydroSimulations, 2019). These changes aimed to verify if the model calibration was still appropriate by updating climatic inputs, updating available groundwater level observations, and revising mine progression to reflect actual extraction (SLR, March 2025).

As is required by the GWMP (Peabody, 2017), the following section reports on the current model (SLR, 2020a) and presents the results of the model verification. SLR is also required to assess the performance and suitability of the model triennially to ensure predictions are consistent with observed data (SLR, March 2025).

A new groundwater model commenced construction in late 2023 and is currently undergoing independent peer review support proposed changes and extensions of mining operations. It is anticipated that this model will be used for the *2025 Annual Groundwater Monitoring Report*. The updated groundwater model incorporates the main features from the previous groundwater model (SLR, 2020a) while incorporating the following changes (SLR, March 2025):

- Extension of the model boundary to the east in the direction of the potential future extensions to limit impacts of the model boundary conditions on potential drawdown predictions.
- Refined the numerical model mesh (grid) in the area of potential future extensions within Exploration Licence (EL) 9399.
- Updated the geological model layers in the area of potential future extensions, based on a revised site geological model provided by WCPL.
- Extension of the calibration period until December 2023. With mining progression updated to reflect as-mined conditions to the end of 2023.

7.14 Groundwater Model Verification

Hydrographs of observed and modelled groundwater levels are presented in **Appendix D**. The following section contains an assessment of the modelled vs observed groundwater levels where potential mining impacts are observed. It is noted that climatic conditions from 2020 to 2024 are not captured in the model used for this verification exercise. The model updates were completed in early 2020. Updated climate and stream flow series, and actual and proposed mining will be included in the next model update, which commenced in late 2023. The updated model is intended to be used for future reviews (SLR, March 2025).

Predictions at Alluvial Bores

The SLR (2020a) modelling predictions are consistent with HydroSimulations (2015b) predictions at the alluvial monitoring sites along Wilpinjong Creek, with approximately 1 m drawdown for the life of approved mining (GWa6 has the maximum predicted drawdown in an alluvial monitoring bore of about 1.5 m occurring in 2029). The timing of the mining effects modelled at the alluvial monitoring bores shows good correlation with the observed effect and often indicates a repressed response to rainfall that is also seen in the observed data. Most of the modelled groundwater levels at the alluvial monitoring bores respond to the updated (SLR, 2020a) modelled rainfall recharge series (SLR, March 2025).

Groundwater levels along Wilpinjong Creek and Cumbo Creek are generally well represented in the alluvium (GWa1, GWa2, GWa5, GWa6, GWa12, GW14 and GWa15) although recent observations in the shallow bores are not well replicated by the groundwater model due the above average rainfall conditions not being captured in the model (which was developed in early 2020). An updated groundwater model was commenced in late 2023 and will better reflect recent climatic conditions. It is anticipated the ability of the updated model to replicate observed groundwater elevations from 2020 to 2023 is likely to improve (SLR, March 2025).

The observed desaturation of the alluvium (GWa4, GWa5, GWa6, GWa12, GWa14) occurs earlier than was predicted by the model, while differences between observations and the model simulation at GWa6, GWa12, and GWa14 (Figure D.6, Figure D.7, Figure D.8) are similar for a majority of the WCM alluvial monitoring locations. The decline in observed groundwater level from 2013 to 2016 and from 2017 to 2020 is about 1.5 m greater than that predicted by the model, with dry observations during these periods of below average rainfall not being replicated by the model. Some improvements to model performance may be made by making minor revisions to the aquifer properties and geometry of the alluvium (with a focus on including information from any recent drilling) (SLR, March 2025).

The current updates to the numerical model which commenced in 2023 will include a rebuild of model geometry and recalibration of hydraulic parameters which is anticipated to improve the match between modelled and observed groundwater elevations at these locations (SLR, March 2025).

Predictions at Coal Measures Bores

The largest drawdowns predicted by the model were during the excavation of Pit 3 and Pit 4, with continued drawdown predicted at several bores following mining at Pit 5. Noting the uncertainty in distinguishing between climate and mining-related drawdown in the observed data, modelled groundwater levels at the coal measures monitoring bores generally show a good correlation with the timing and magnitude of observed drawdown (SLR, March 2025).

It is noted that many bores within the coal measures have significantly recovered in response to above average rainfall in 2020, 2021 and 2022. As this above average rainfall has not been captured within the SLR (2020a) updated model, similar responses are not expected within the modelled groundwater levels. The relationship between coal measures bores and WCM site water storages has been suggested for further investigation (Section 2.3.2), with water storages being included in the updated model (SLR, March 2025).

SLR (2020a) predicts a reduction in the rate of drawdown between 2006 and 2009 (when mining starts at Pit 1, 2 and 5) at GWc2, GWc3, GWc12, GWc14 and GWc15. The timing of drawdown is still captured in for these bores and the simulated groundwater levels match the observed levels prior to the extraction of Pit 4 in 2013. SLR (2020a) better captures the maximum drawdown following mining at Pit 1 and 2 at GWc1 and GWc11 located near Pit 2, although the groundwater level recovers quicker and above the observed levels (SLR, March 2025).

Revised model predictions (SLR, 2020a) improved the timing of drawdown after mining Pit 4 and following below average rainfall conditions at GWc1 and GWc2. The maximum predicted drawdown better aligns with the observed depressurisation at GWc3 (Cumbo Creek) and matches the drawdown gradient at GWc15 following the mining of Pits 4, 3 and 7. The observed data at Pit 8 monitoring bores GWc28 and GWc29 is relatively well matched by the model although observed drawdown is greater than the model predicts (SLR, March 2025).

The simulated depressurisation of the coal seams in the revised model (SLR, 2020a) between 2013 and 2019 is generally lower than the observed data at GWc12, GWc15, GWc14, GWc28 and higher at GWc1, GWc2 and GWc3. Predicted recovery from 2020-22 and ongoing in 2023 is generally less than that observed at all coal monitoring bores, as discussed above (SLR, March 2025).

7.15 Groundwater Network (Investigations & Replacement Bores)

Several monitoring bores within the Wilpinjong network have been exceeding depth to water trigger levels despite near average and above average rainfall conditions from 2022 to 2024. The wells exceeding depth to water triggers frequently had a measured total depth that was shallower than previously measured. This warranted an investigation of well integrity (SLR, March 2025).

Downhole Camera (DHC) survey to confirm screened interval depths and standpipe integrity at 4 locations which were exceeding depth to water trigger levels (GWa3, GWa12, GWa14, GWa15). Attempted repair/ clearing of obstructions followed by bore development to remove silt/ sediment within each monitoring wells screened interval. As a result of the investigations Gwa3, Gwa12, Gwa14 and Gwa15 are recommended for replacement (SLR, March 2025).

Previous annual reviews and trigger exceedance investigations identified difficulties in interpreting groundwater level and quality data at several bores within the Wilpinjong monitoring network due to a lack of construction and lithology logs, or due to the well construction identified in downhole camera investigations. Agency correspondence also requested that additional alluvial/ shallow monitoring locations be installed along Wilpinjong Creek adjacent to Pit 6 to help evaluate potential Pit 6 mining effects. Five replacement (i.e. GWa1, GWa5, GWc1, GWc3 and GWc6) and two new monitoring locations (i.e. GWc38 and Gwa39) were established in November 2024 (SLR, March 2025).

Table 7-9 Groundwater Performance

Location	Approved Criteria			Performance During the Reporting Period			Trend/Key Management Implications	Implemented/ proposed Management Actions
Groundwater Monitoring (Alluvium)				**Assessment of Triggers**			Above average rainfall conditions were experienced in 2024 preceded by below average rainfall from conditions from in 2023. This has resulted in the stabilisation or increase in groundwater levels across many alluvial and coal measures monitoring sites (SLR, March 2025)[13]. Throughout 2024 WCPL notified the DPHI of EC and water level trigger exceedances as required by the GWMP. The following assessment has been made with respect to compliance triggers: • Alluvium bores GWa3, GWa12, GWa14, and GWa15 have exceeded the lower depth-to-water trigger level during 2024. An inspection at these locations in response to this trigger exceedance was undertaken in November 2024 which identified that these sites contained sediment or were obstructed rather than showing true dry conditions. These bores are recommended to be considered for replacement in future updates to the GWMP (SLR, March 2025). • Coal measures bores GWc1, GWc3, GWc4 and GWc5 have exceeded the EC trigger level during 2024. GWc1 and GWc3 were replaced in November 2024 as both sites had large sumps which may have resulted in difficulties in removing stagnant water from the bores to gain representative groundwater samples (SLR, March 2025). • EC trigger levels at GWc4 and GWc5 were updated in V6.0 of the GWMP, which has been submitted but not yet approved, to consider all observation data to the end of 2023 as there are no observable changes to groundwater quality at this location due to Wilpinjong operations. Both GWc4 and GWc5 would not have exceeded the EC trigger in 2024 under their updated levels (SLR, March 2025). • No pumping occurred from the WCPL supply borefield in 2024 and none of the cease-to-pump trigger levels were exceeded.	WCPL will continue to revised, update and implement the approved GWMP, monitor and evaluate the groundwater systems over the 2024 Reporting Period. As required by the GWMP, notification to the DPHI regarding upper EC limits triggered at GWc1, GWc3, GWc4 and GWc5 and water level triggers at GWa12, GW14 and GW15 were provided in writing on the 7 February 2024, 11 April 2024, 23 May 2024, 11 July 2024, 11 September 2024 and 21 December 2024. WCPL commissioned SLR to complete the *EC Trigger Investigation of GWc1, GWc3, GWc4 and GWc5*. WCPL commenced recommendations provided by SLR during the 2024 Reporting Period (refer to **Section 7.15**). In accordance with Condition 5, Schedule 5 of Development Consent SSD-6764, WCPL will review and revise the GWMP within three months of the submission of this Annual Review. During the review of the GWMP, WCPL will also consider the recommendations made by SLR (**Appendix 3D**) during their annual review of groundwater.
	Water Levels (mAHD)	EC (µS/cm)	pH (range)	Water Level (mAHD)	EC (µS/cm)	pH		
GWa1^	N/A#	12,272	6.5 - 8	nd				
GWa2	373.4	2,280	6.5 - 8	N	N	N		
GWa3	360.5	1,970	6.5 - 8	Y	nd	nd		
GWa4^	353.8	2,596	6.5 - 8	N	N	N		
GWa5	372.8	13,926	6.5 - 8	N	N	N		
GWa6	N/A#	6,720	6.5 - 8	N/A#	N	N		
GWa7	N/A#	10,126	6.5 - 8	N/A#	nd	nd		
GWa8	353.3	2,898	6.5 - 8	N	N/A#	N/A#		
GWa10	367.1	N/A#	N/A#	N	N/A#	N/A#		
GWa11	365.2	N/A#	N/A#	N	N/A#	N/A#		
GWa12	362.3	N/A#	N/A#	Y	N/A#	N/A#		
GWa14^	358.0	N/A#	N/A#	Y	N/A#	N/A#		
GWa15	355.0	N/A#	N/A#	Y	N/A#	N/A#		
Groundwater Monitoring (Coal)								
GWc1	N/A#	2,844	6.5 - 8	N/A#	Y	N		
GWc2	N/A#	1,290	6.5 - 8	N/A#	N	N		
GWc3	N/A#	3,304	6.5 - 8	N/A#	Y	N		
GWc4	N/A#	2,412	6.5 - 8	N/A#	Y	N		
GWc5	N/A#	4,798	6.5 - 8	N/A#	Y	N		
Groundwater Production Bores								
GWs10	346	#	#	**	#	#		
GWs11	348.5	#	#	**	#	#		
GWs12	332.5	#	#	**	#	#		
GWs14	319.5	#	#	**	#	#		
GWs15	314.5	#	#	**	#	#		

Notes: N/A# = No trigger defined, Y= Yes (trigger exceedances recorded), N= No (trigger exceedances not recorded) nd* = no data/ bore dry ** no pumping in 2024

[13] *Annual Review – Wilpinjong Coal Mine 2024 Groundwater Compliance (SLR, March 2025)*

8.0 REHABILITATION

8.1 Rehabilitation Activities

To minimise the area of disturbance at any one time, rehabilitation occurs progressively at the Mine as ancillary disturbance areas and final mine landforms become available for revegetation. The mine waste rock emplacements behind the advancing open cut are constructed to approximate the pre-mining topography or the final landform which was initially approved by Project Approval PA 05-0021.

The Development Consent (SSD-6764) has superseded the Project Approval (05-0021). WCPL are finalising a revised Rehabilitation Strategy to address Condition 61, Schedule 3 of Development Consent (SSD-6764) which will present a revised final landform that builds on the rehabilitation objectives in Table 11 of Development Consent (SSD-6764).

As part of the WEP EIS, WCPL identified an opportunity to prioritise woodland establishment within the existing mine rehabilitation areas where rehabilitation to date has focussed on the establishment of productive pasture for grazing since 2008. WCPL conducted a re-evaluation of the previous rehabilitation areas against contemporary BVT classifications to prioritise Regent Honeyeater habitat establishment within existing mine rehabilitation areas. Therefore, the revised entire post mining land use is now woodland.

Until the performance and completion criteria for BVT and Regent Honeyeater habitat relevant to the Mine's rehabilitation areas was approved on the 24 April 2019, cover crops were established as a way of providing stabilisation and soil improvement during this transition. Of the historical completed landforms to date that are currently under pasture or considered not woodland, these landforms will be progressively upgraded with relevant woodland species to meet the BVT requirements.

8.1.1 Status of Mining & Rehabilitation

During the 2024 Reporting Period, the Rehabilitation Management Plan (RMP) was implemented by WCPL in accordance with the NSW Resources Regulator (NSW RR) *Form and Way-Rehabilitation Management Plan for Large Mines (NSW RR, July 2021).*

The RMP was also developed to satisfy the requirements of Condition 64, Schedule 3 of Development Consent (SSD-6764). The development of the RMP also satisfies the requirements of Mining Leases (ML) ML1573, ML 1779, ML1795. The RMP (Version 1) was approved by the DPHI on the 25/01/2023. A revision to the RMP (Version 2) within inclusion of ML1846 and supported by amendments to the Annual Rehabilitation Report and Forward Program (ARRFP)[14] was completed and published in September 2023 on the WCPL's website https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

The indicative three-year mining sequence and rehabilitation sequence within the ARRFP, was based on the financial year Reporting Period, which involves primarily the rehabilitation of mine waste rock emplacements as they become available within the overburden emplacement area mining domain. The ARRFP is scheduled to be updated and resubmitted by the 31st of March 2025 with a revised three-year mining sequence and rehabilitation sequence based on calendar year.

The predictive versus actual cumulative and rehabilitation progression for Year 1 (i.e. Plan 2A) as presented in the current ARRFP completed during the Reporting Period is provided in **Table 8-1** and **Figure 8-1.**

To avoid reporting duplication, the rehabilitation reporting requirements for Annual Rehabilitation Report component will be provided in the ARRFP and the rehabilitation reporting requirements for the Annual Review are provided below. The revised ARRFP will be submitted to the NSW Resources Regulator via the www.minerehabilitationportal.nsw.gov.au by the 31st of March 2025.

[14] Provides indicative three-year mining sequence and rehabilitation sequence was provided in plans Plan 2A Mining and Rehabilitation Year 1, Plan 2B Mining and Rehabilitation Year 2 and Plan 2C Mining and Rehabilitation Year 3.

Table 8-1 Predictive Versus Actual Disturbance and Rehabilitation Progression During the Reporting Period

Year	Year 1 (2024) Forecast	Year 1 (2024) Actual
Total Disturbance Footprint – Surface disturbance (ha)	2600	2575*
Underground Mining Area (ha)	NA	NA
Total Active Disturbance (ha)	327.92^	45.42
Rehabilitation - Land Preparation (ha)	34.24	74.74
Ecosystem and Land Use Establishment (ha)	86	86.07

Notes:* Due to an erroneous calculation an overestimated value of 2762 ha was provided in 2023 AR. ^ The Year 1 forecast includes disturbed areas from previous reporting periods, in accordance with NSW Resources Regulator reporting requirements. However, the Year 1 actuals only account for new disturbance within the current reporting period,

Due to mine plan changes throughout the year, there were only minor changes to rehabilitation land preparation areas completed in 2024, as proposed in Year 1 of the ARRFP. These changes relate to variances in the completed rehabilitated surface areas at several rehabilitation locations, which minorly affected the total hectares completed against the hectares proposed in the ARRFP (**Figure 8-1**) and considered generally consistent with the rehabilitation scheduled and targets proposed for Year 1 (Plan 2A). WCPL consider the rehabilitation program proposed in in the ARRFP has been achieved for Year 1.

As displayed in **Table 8-2**, approximately 1097 ha of completed landforms have been rehabilitated as of the 31 December 2024 (**Figure 8-2**). No rehabilitated landforms are yet considered ready for formal sign off by the NSW Resource Regulator in terms of meeting the relevant completion criteria as provided in the RMP.

As discussed in Section 8.1, WCPL have transition to a BVT performance and completion criteria relevant to the rehabilitation areas which were developed in accordance with Schedule 3, Condition 37 of the Development Consent SSD-6764.

Table 8-2 Rehabilitation Status

Mine Area Type	2015 Reporting Period (Actual)	2016 Reporting Period (Actual)	2017 Reporting Period (Actual)	2018 Reporting Period (Actual)	2019 Reporting Period (Actual)	2020 Reporting Period (Actual)	2021 Reporting Period (Actual)	2022 Reporting Period (Actual)	2023 Reporting Period (Actual)	2024 Reporting Period (Actual)	Next Reporting Period (Forecast)
A. Total Mining Lease footprint (ha)	2857.3	2857.3	2857.3	2857.3	3725.30*	3725.30*	3725.30*	3725.30*	3791.93^	3791.93^	3791.93^
B. Total active disturbance (ha)	1478	1562	1686	1840	2013	2190	2324	2530	2762	2575	2687
C. Land being prepared for rehabilitation (ha)	43	70	82	98	121	138	86	47	77	86	98
D. Land under active rehabilitation (ha)	304	374	456	556	677	815	901	948	1020	1097	1195
E. Completed rehabilitation (ha)	0	0	0	0	0	0	0	0	0	0	0

Notes: * Increase in total mine footprint now incorporates the additional hectares in ML1779 and ML1795. **^** Increase in total mine footprint now incorporates the additional hectares in ML1846.

Figure 8-1 Rehabilitation Forecast Vs Actual 2024

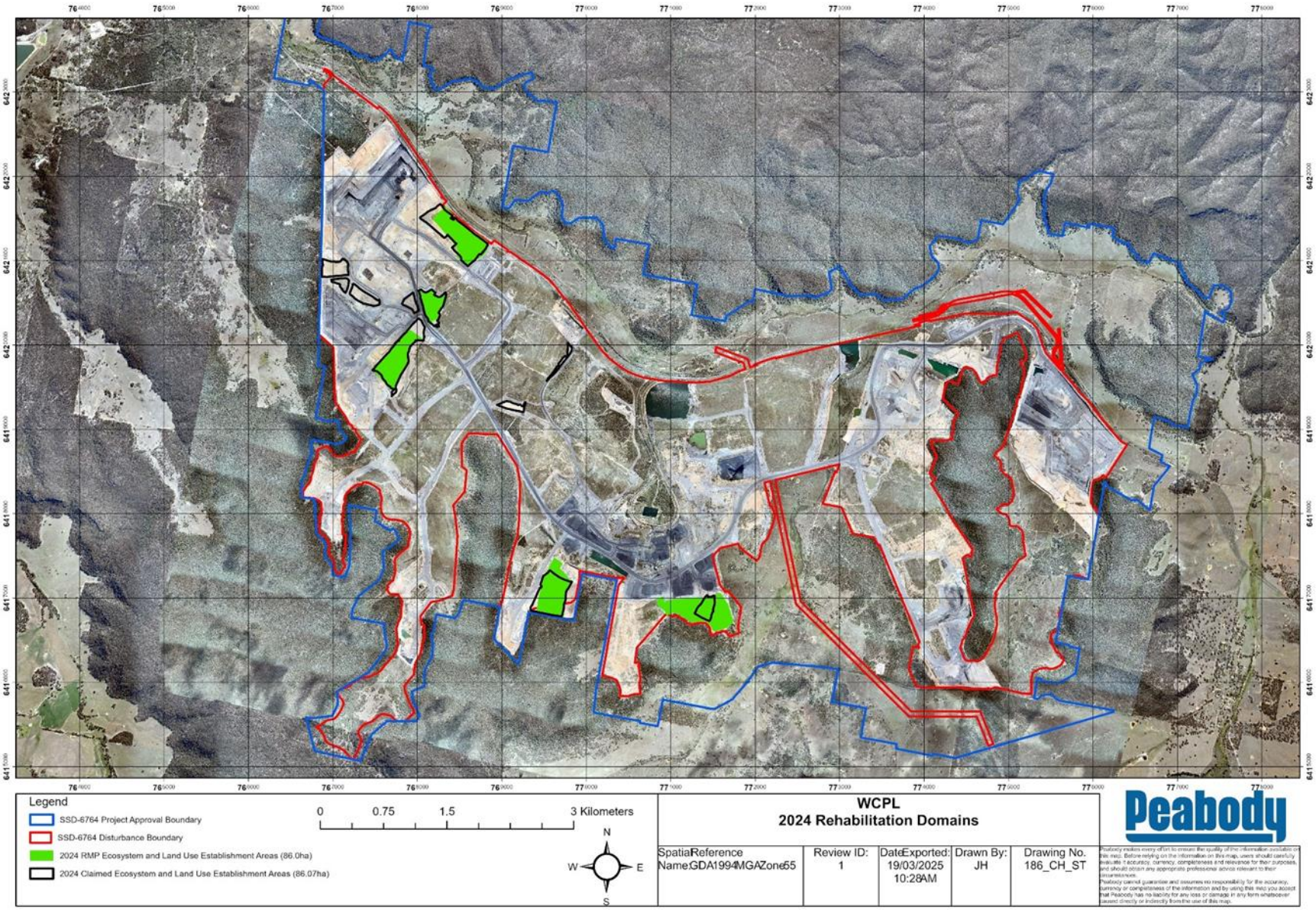


Figure 8-2 Annual Rehabilitation Status 2008-2024

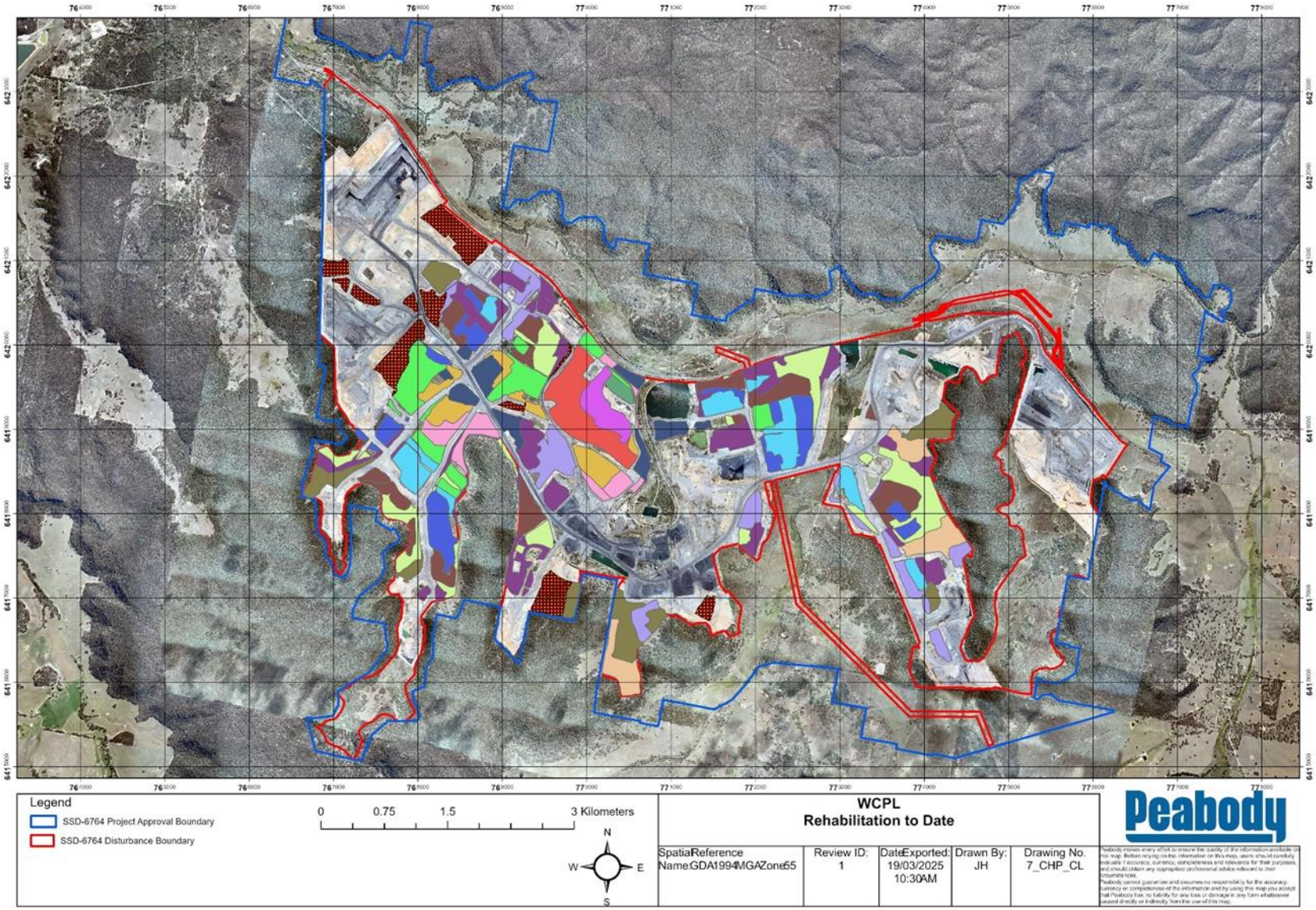
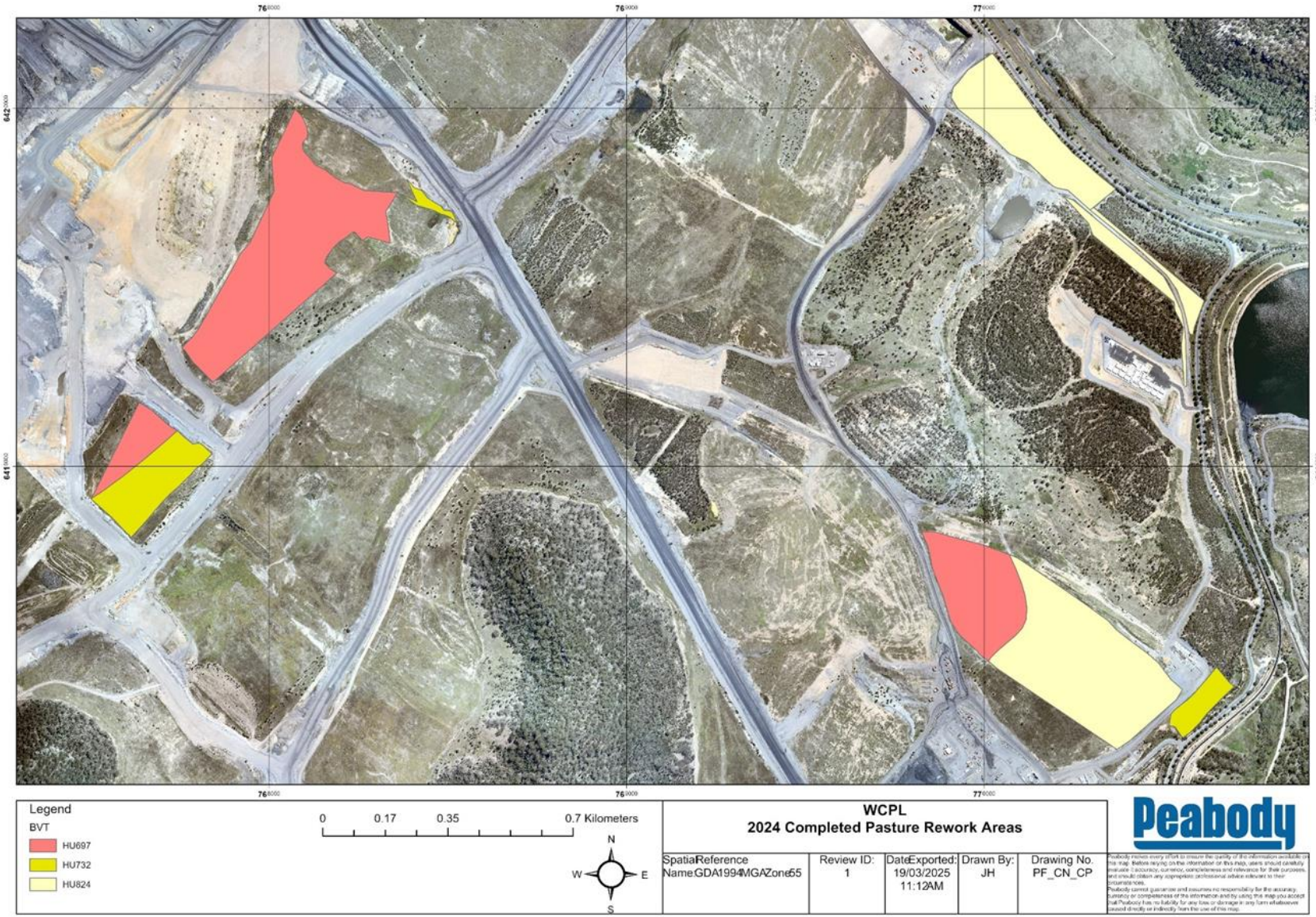


Figure 8-3 Rework Areas in 2024



8.1.1.1 Decommissioning

There was no decommissioning of major mining related infrastructure undertaken at the Mine in 2024.

8.1.1.2 Landform Establishment

All 2024 rehabilitation landforms were designed in accordance with the approved RMP. All rehabilitation areas were developed with carbonaceous material being progressively placed back in-pit once the coal has been mined before a minimum of a 2m inert encapsulation layer is placed on top. This formation stage, Final Surface Level (FSL) is -3m to previous landform contour. With the encapsulation layer placed, topsoil is then placed on top at a depth of 100mm to 300mm.

Mine waste dumps were constructed using existing mine equipment including truck dumped material before being shaped using the Mine dozer fleet using Lecia technology to design. Overburden and interburden material was progressively placed back into mined out voids. This included reject material from the CHPP being hauled back into the mine and deposited below the natural surface in the mined-out voids as close to the pit floor as practically possible. Reject material is dispersed throughout the overburden within the mine waste rock emplacements to manage its geochemical characteristics.

All rehabilitated slopes constructed during the 2024 Reporting Period were shaped to no greater than 1:6 (10 degrees or 17%) across areas – with the exception of a small section of rehabilitation in Pit 5 south west. This section married the newly rehabilitated landform into the existing natural landform The surface of mine waste rock emplacements were constructed to approximate the existing topographic form of the shallow valleys which drain the Mine area. Mine waste rock emplacement surfaces are ripped to a depth of approx. 150mm to ensure the topsoil was bounded with the underlying inert material and allow infiltration of water into the constructed landform.

During 2024, a combination of approximately 75ha within the Mining Domain of overburden emplacement areas were completed in preparation for topsoil placement, ripping and seeding (**Figure 8-1**).

8.1.1.3 Growth Medium Development

Topsoil placement involved dozers and graders to spread to the desired depth. Direct placement is undertaken were possible and conducted by rear dump trucks before final trimming conducted by dozers and graders. Topsoil was placed on top of the final landform to act as germination medium for vegetation and as a seed source from the natural seed bank present at the time of topsoil stripping. Topsoil placement was conducted upon the completion of final landform and major drainage works (i.e. graded banks, drainage channels and rock waterways if required). All topsoil was sourced from existing topsoil stockpiles or via direct placement during topsoil stripping activities.

Soil testing within the proposed areas for rehabilitation was conducted in 2024 which indicated or identified deficiencies requiring the application of guano, gypsum, boron, bio-stimulant and organic matter. All ameliorants were spread and incorporated into the topsoil prior to native seeding. Various amelioration rates were used to address the deficiencies including;

- Compost: 4t/ha;
- Guano: 500kg/ha;
- Gypsum: 1.5t/ha;
- Boron: 25kg/ha; and
- Worm Hit: 20L/ha

During 2024, a combination of approximately 86ha within the Mining Domain of overburden emplacement areas were topsoiled and ameliorated (**Figure 8-1**).

8.1.1.4 Ecosystem Establishment

Previously undertaken and as discussed in **Section 8.1.1**, cover crops were established on rehabilitation areas as a way of providing stabilisation and soil improvement. This method was undertaken in rehabilitation

areas during the transition from Project Approval 05_0021 to SSD_6764 and the subsequent conversion from improved pastures and woodland corridors to specific BioMetric Vegetation Types (BVTs). The previous method of cover cropping typically dominant with annual cereal pastures has not been undertaken since 2020.

Areas rehabilitated in 2024 were directly seeded with specific native seed species aligning to particular BVTs (**Figure 8-1**). These BVT mixes did include a small ratio of cover crops (cereals) to provide quick germination, soil stability and structure. Of the 86ha rehabilitated in 2024, a total of three BVT's were established onsite with specific BVT seed mixes, these included;

- HU732 – Yellow Box Grassy Woodland
- HU824 – White Box – Black Cypress Pine Shrubby Woodland
- HU697 – Mugga Ironbark - Black Cyprus Pine Shrubby Woodland

52ha hectares of existing rehabilitation was reworked in 2024 to convert from cover crops and improved pasture species to a BVT HU697, HU732 and HU824 (**Figure 8-3**). This was achieved by spreading via a conventional fertiliser spreader attached to a tractor, with land prepared via spraying, fertiliser application and tilling prior to seeding.

WCPL continued to maintain a native seed inventory partly collected from locally native seed sources carried out by suitably qualified personnel which will be used in rehabilitation activities.

Table 8-3 Typical BVT Seed Mix Rates in 2024

Pasture Species	Average Rates (kg/ha)
HU732	18
HU824	18
HU697	18

8.1.1.5 Ecosystem Sustainability

During 2024, Ecosystem Sustainability activities occurred within Final Land Use Domains which primarily included monitoring, applying biometric assessments as described below and minor maintenance activities.

Existing rehabilitation domains were monitored in accordance with the BMP and compared BVT Performance and Completion Criteria (Approved by DPIE, April 2019). Irrespective of the monitoring results, all rehabilitation areas across WCPL are required to be 're-worked' to develop these sites from agricultural and non-specific Plant Community Types to prescribed BVT Communities aligning to Development Consent conditions. Monitoring and maintenance activities are ongoing with the results assessed and used to refine rehabilitation techniques.

In 2024, WCPL carried out monitoring within the area sown by a drone in 2021 and 2022, as part of the Drone Seeding Trial in Pit 5 South. Conclusions are beginning to become evident from the plot parameters – the historical impacts from vertebrate pest herbivory across the site has been identified as significant, hindering the growth performance of the rehabilitation. During 2024, mining operations resumed in nearby Pit 5 South East after two years of inactivity. The increased equipment movements in the area have deterred predation, leading to a highly positive response in the rehabilitation of the trial area. The inspection undertaken December 2024 continued to show emerging new germinants of seeded native species across all sites in abundance, as well as increasing growth on many. For further photographic monitoring refer to **Appendix 4**.

Landscape Function Analysis (LFA)

Progress towards the Performance and Completion Criteria is also measured using Landscape Function Analysis (Tongway & Hindley 2004) and the BioMetric methodology. In 2024, ELA completed LFA monitoring in accordance with the current BMP. The complete report and result are attached as **Appendix**

5, a summary of the LFA results by ELA is provided. In addition, photographic monitoring of the rehabilitation at established and newly established sites was completed in 2024 as provided in **Appendix 4**.

A self-sustaining ecosystem is considered achieved when LFA scores reach the benchmark of 50 or higher (LFA Completion Criteria) which is expected by Year 10 of the management cycle. The sum of the three LFA indices provides the LFA score for each site. Incremental improvement is anticipated each year, with a minimal annual increase of 5%. Failure to achieve this 5% triggers the implementation of the Landscape Stability LFA TARP.

Sites with LFA scores above 50 are classified as stable, self-sustaining landforms (coloured green) and, no longer require LFA monitoring. Sites with LFA scores below 50, or those with a decrease or an increase of less than 5%, are coded red and indicating that TARP actions are required.

In 2024, LFA monitoring was conducted at 21 sites with the Rehabilitation. The LOI and SSA scores for these sites are presented in **Table 8-4**. Of these, 20 sites are in their first year of LFA monitoring, establishing baseline data. Site 2021_8 is the only site with previous monitoring data. LFA scores are provided in **Table 8-4**, while yearly comparisons of the SSA metrics are illustrated in **Figures 8-4** to **8-7**[15].

Table 8-4 LOI and SSA Results for Rehabilitation Area Transects

Site	Landscape Organisation Index (%)	Soil Surface Assessment			LFA Score (sum of stability infiltration and nutrient cycling)
		Stability	Infiltration	Nutrient cycling	
2021_3	0.73	76.6	38.7	44.1	159.4
2021_4	0.95	53.6	10.2	11.6	75.4
2021_6	0.99	62.2	26.3	22.9	11.4
2021_8	0.91	50.6	22.1	24.5	97.2
2023_5	0.85	48.8	22.6	21.9	93.3
R14	0.99	52.8	28.8	26.3	107.9
R15	1.00	44.8	34.9	26.7	106.4
R17	0.84	45.6	14.5	16.6	76.7
R18	1.00	47.9	32.9	27	107.8
R19	0.96	50.9	19.4	22.1	92.4
R21	0.96	37.9	20.2	20.5	78.6
R22	0.98	53.6	30.5	25.4	109.5
R23	0.97	48.3	33	24.9	106.2
R26	1.00	56.3	25	26.2	107.5
R27	1.00	49.8	22.5	22.9	95.2
R28	0.79	48	23.7	23.6	95.3
R32	1.00	59.4	30.7	25.6	115.7
R33	1.00	53.3	30.6	25.4	109.3
R35	0.8	48.4	25.2	23.9	97.5
R36	0.72	41.7	18.7	17.4	77.8
R37	0.65	33.9	21.7	11.1	66.7

Source: *2024 WCPL Annual Rehabilitation Monitoring Report (ELA, February 2025)*

[15] *Source: 2024 WCPL Annual Rehabilitation Monitoring Report (ELA, February 2025)*

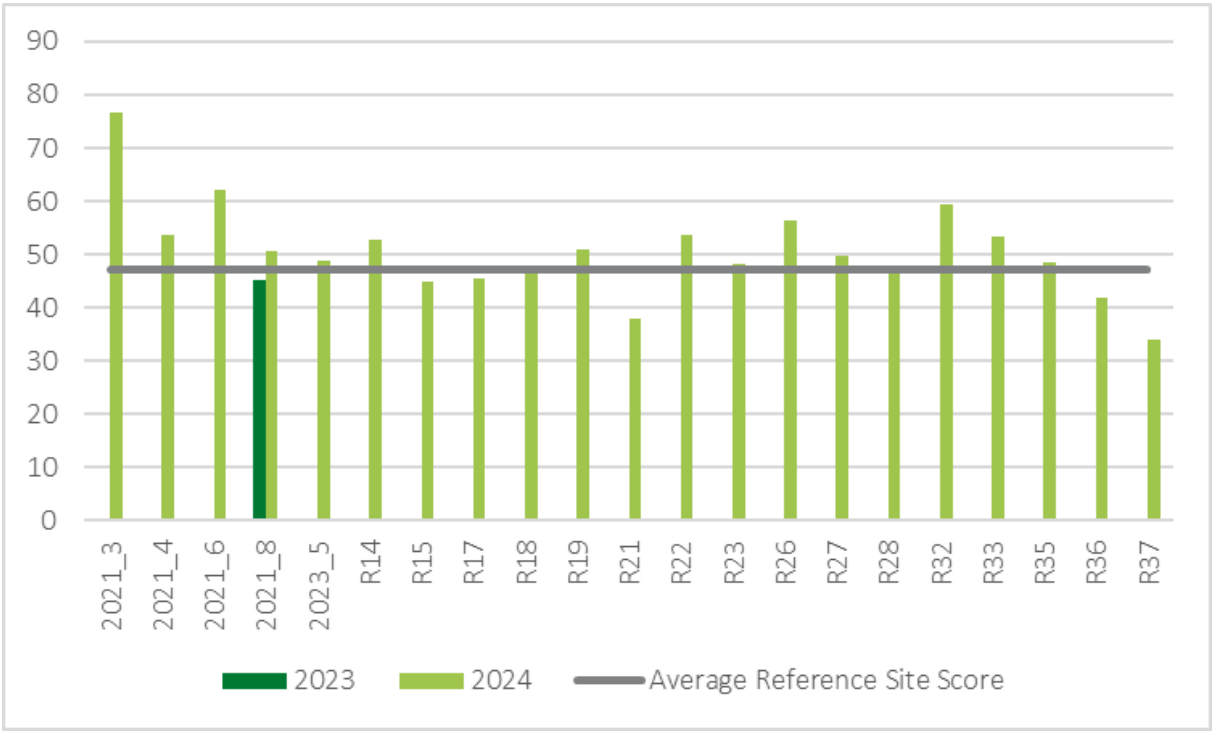


Figure 8-4 2023-2024 Stability LFA scores for Rehabilitation sites

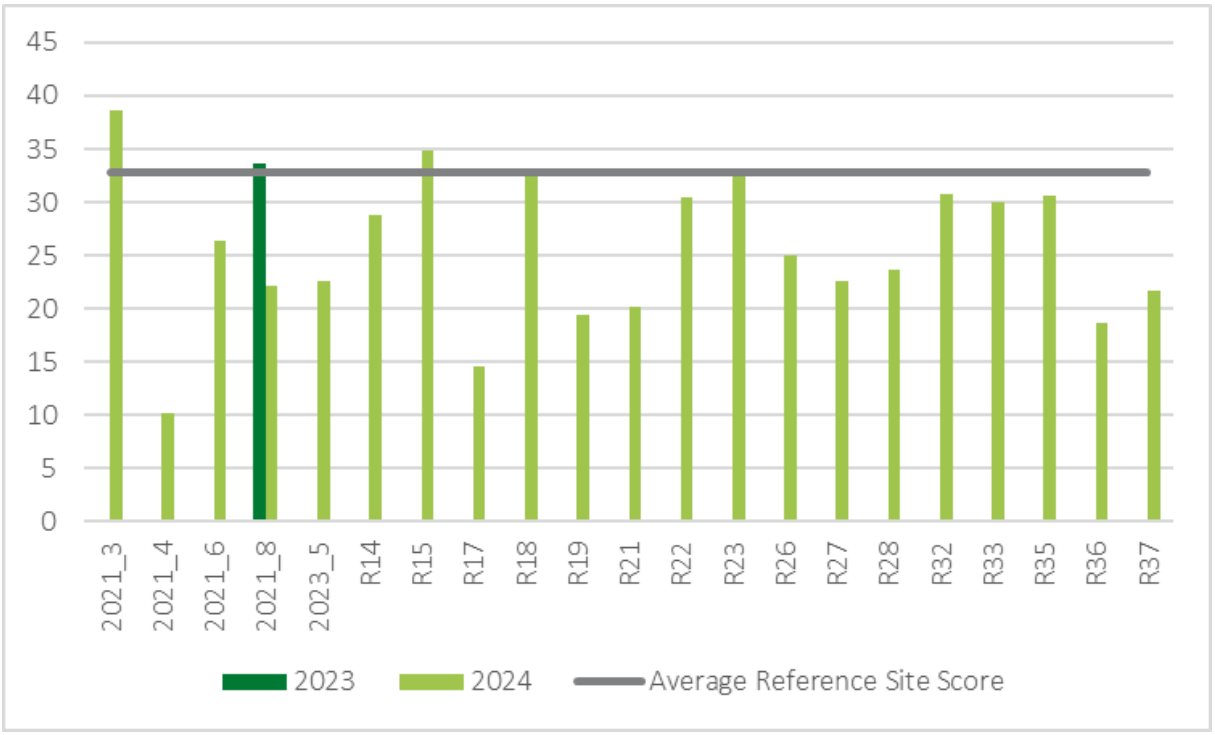


Figure 8-5 2023-2024 Infiltration LFA scores for Rehabilitation sites

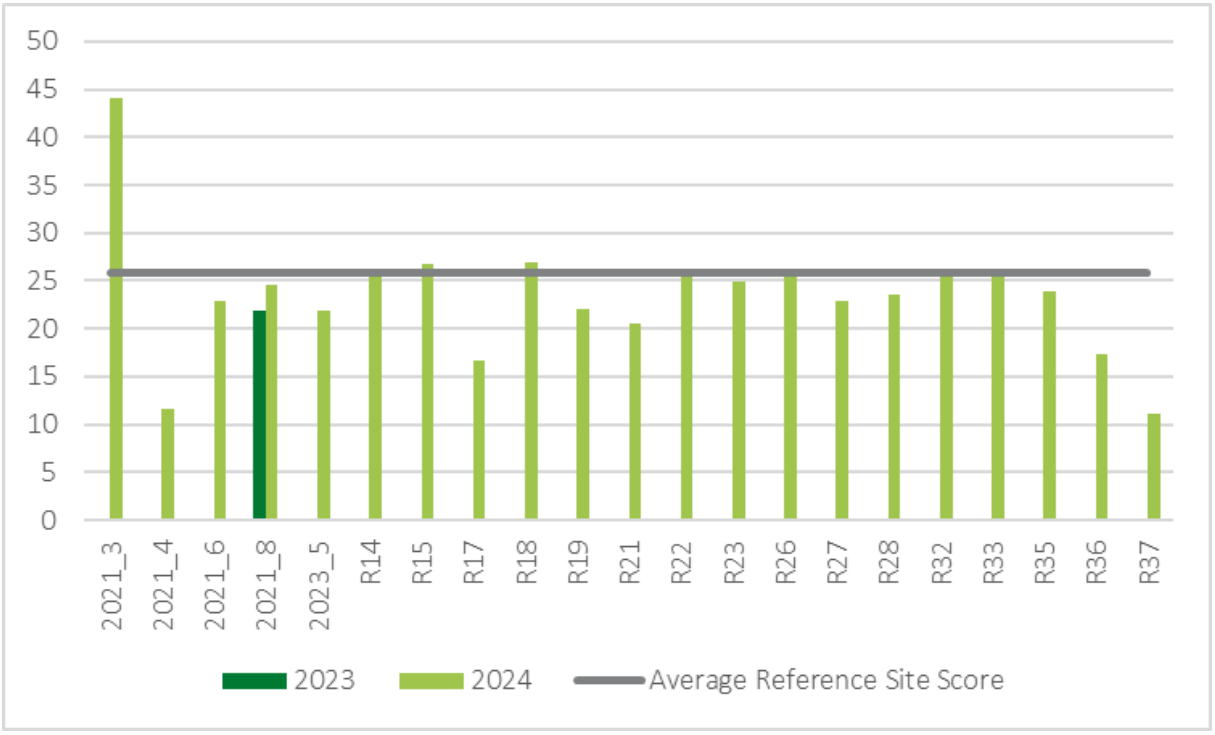


Figure 8-6 2023-2024 Nutrient cycling scores for Rehabilitation sites

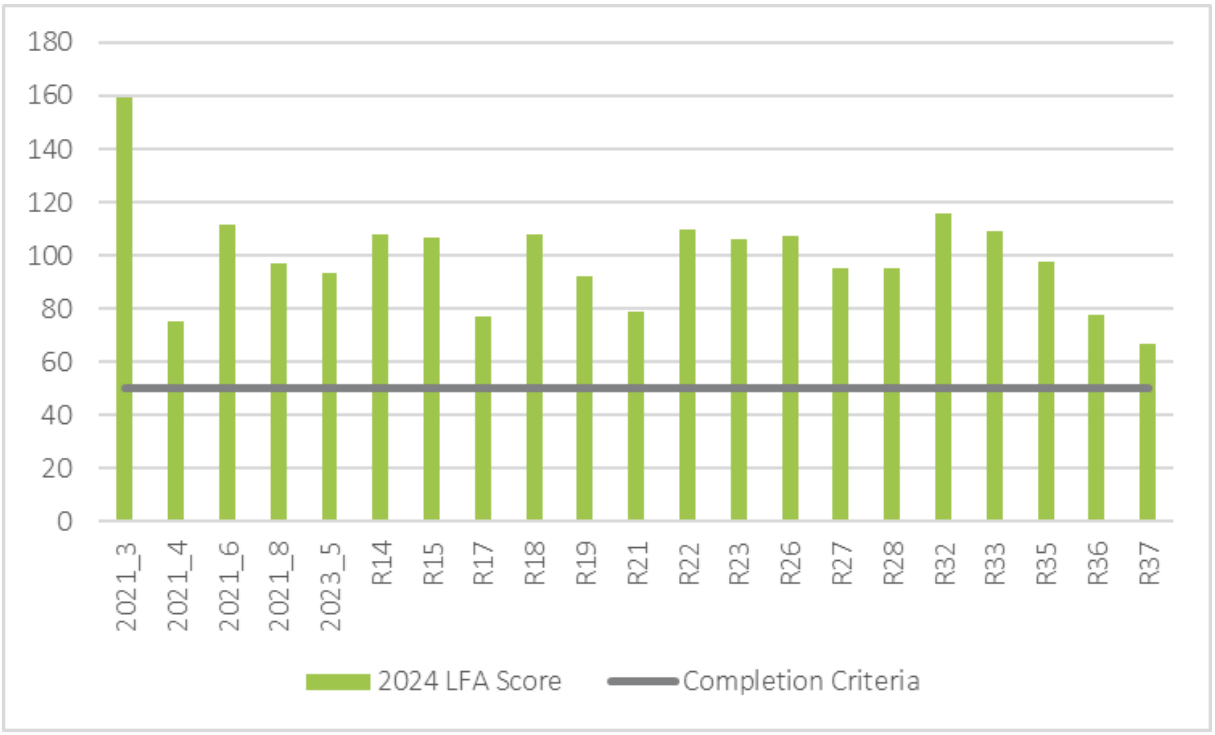


Figure 8-7 2024 LFA scores for Rehabilitation sites

Discussion of LFA Monitoring Sites

All 21 sites monitored during 2024 have achieved LFA scores of 50 or above, meeting the criteria outlined in Section 6.2 of the WCPL BMP. These sites are now classified as self-sustaining, stable landforms and no longer require LFA monitoring. However, if in the future, floristic monitoring indicates declining landform stability, reintroducing LFA monitoring at select sites may be recommended. The high LFA scores are attributed to perennial ground cover and litter, which contribute to stability (ELA, 2025).

For all sites, except 2021_8, this was the first round of LFA monitoring, as such, meaning no yearly comparisons can be made. Spring 2024 monitoring for site 2021_8 showed an increase in LOI from 0.80 in 2023 to 0.91 in 2024, reflecting improved stability and nutrient cycling, despite a decrease in infiltration (ELA, 2025).

All but one site recorded high LOI scores (>0.72). Site R37 recorded an LOI of 0.65, as it was within rehabilitation only established in 2022, and has yet to develop solid ground cover. Six rehabilitation sites achieved an LOI score of 1, indicating zero bare ground along the monitoring transect (ELA, 2025).

Infiltration is influenced by litter decomposition, surface roughness and surface nature, while nutrient cycling is affected by perennial vegetation cover, litter cover, litter decomposition, cryptogram cover and soil surface roughness (Tongway and Hindley 2004). Overall, rehabilitation sites exhibited low to high perennial vegetation cover (i.e. grasses) and generally uniform soil micro topography. Dominant patch types included perennial groundcover, bare soil, and litter, consistent with previous years (ELA, 2025).

Review of LFA results against Trigger Action Response Plan (TARP)

As outlined in the BMP a TARP is triggered if LFA scores do not show a 5% annual improvement towards the respective Completion Criteria. However, since all sites recorded LFA scores above 50, the TARP is not required for implementation.

Assessment against Rehabilitation BVT Benchmarks

Vegetation monitoring results for the Rehabilitation Areas were assessed against the WCPL Rehabilitation Performance Criteria and the Local Reference Site BVT Benchmarks (see **Appendix 5**). A Site Value Score (SVS) was calculated for each site using the BioMetric Tool (*NSW Department Environment Climate Change and Water, DECCW 2011*) which combines the quality and quantity of native vegetation by measuring ten condition variables within a plot compared to the pre-European benchmarks for the BVT.

Table 8-5 and **Table 8-6** present the individual site attribute and SVS for each 2024 rehabilitation monitoring site. **Table 8-5** presents comparison of sites against the approved WCPL Performance Criteria and **Table 8-6** presents comparison of sites against the Local Reference Site BVT Benchmarks.

SVS which do not meet the BVT Benchmark Targets or Performance Criteria are highlighted in red – monitoring results from these sites trigger the Interim Rehabilitation Performance Criteria (Years 1 – 10) Trigger Action Response Plan (TARP). Amber is not applied to the SVS as anything below the Benchmark Target or Performance Criteria is considered LOW. A colour coding system has been applied to all site attribute results.

- GREEN indicates site attributes that have met the relevant Benchmark Targets or Performance Criteria (indicating that no additional management intervention is required).
- AMBER indicates site attributes that have not met the relevant Benchmark Targets or Performance Criteria but are within 50 - <100% of the targets.
- RED indicates site attributes that are <50% of the relevant Benchmark Targets or Performance Criteria.

In 2024, 21 rehabilitation sites were monitored in rehabilitation that is greater than three years old. Five of these sites were monitored for the second consecutive year and their results were compared against the

previous monitoring results and the approved Performance and Completion Criteria. The remaining 16 sites were established in spring 2024 were monitored for the first time. No yearly comparisons can be made for the 16 newly established sites, but they are still assessed against the approved Performance Criteria (ELA, 2025).

Completion Criteria serve as a long-term benchmark guiding management actions and tracking rehabilitation trajectories and are only assessed after 10 years post ecosystem establishment. Whilst the 2024 monitored sites are not assessed against the Completion Criteria due to their age, 20 of the 21 sites monitored exceeded the approved Performance Criteria for SVS scores. Only one site, R32, is below the criteria which is located with rehabilitation that is only seven years old (ELA, 2025).

Of the five sites with 2023 data for comparison, minor declines in SVS scores were observed at sites 2021_3, 2021_4, 2021_6 and 2023_5 against the performance criteria, and 2021_4 and 2021_8 against the completion criteria. These declines in SVS scores are predominantly driven by an increase in exotic cover, despite exotic cover remaining within the acceptable limits for both Performance and Completion Criteria. Notably, site 2023_5 showed an improvement in SVS score increasing from 32 in 2023 to 59 in 2024, attributed to an increase in fallen logs and reduced exotic cover. Only three sites met the native species richness benchmark for Performance Criteria. However, all sites are progressing towards meeting the Completion Criteria at the 10 years post ecosystem establishment (ELA, 2025).

The 16 new sites monitored in 2024 established a baseline SVS. All sites exceeded the benchmark for Performance Criteria, and all except site R32 are on track to meet the Completion Criteria, given that R32is less than 10 years since ecosystem establishment, this performance is expected and does not trigger any additional actions (ELA, 2025).

Rehabilitation sites performed similarly to the Local Reference Sites in native ground stratum cover (grasses), native ground stratum cover (shrubs), and exotic cover. Increases in exotic cover at sites 2021_3, 2021_4, 2021_6, 2021_8 and 2023_5 were also observed in four of the five Local Reference Sites monitored during spring. The increase of exotics at both the rehabilitation sites and the Local Reference Sites can be attributed to the above average rainfall during 2024 (ELA, 2025).

Table 8-5: Assessment against Local Reference Site BVT Benchmarks* for Rehabilitation Sites within their respective BVT

BVT	Site	Vegetation Condition	SVS	Site attributes (% cover)									
				NSR	NOC	NMC	NGCG	NGCS	NGCO	EC	NTH (Count)	OR	FL (M)
HU732	2021_3	Moderate to good -medium	53	38	0	0.5	10	1	0	20	0	0	120
	2021_4	Moderate to good -good	59	25	0	0	13	0	1	21	0	0	36
	R17	Moderate to good - poor	40	30	0	0	0	0	1	35	0	0	0
	R18	Moderate to good -medium	53	23	0	0	13	0	0	23	0	0	31
	R19	Moderate to good -medium	46	36	0	0	3	0	1	37	0	0	0
	R22	Moderate to good - poor	36	20	0	0	31	2	0	11	2	0	0
	R28	Moderate to good -medium	54	25	0	0	7	0	1	30	0	0	100
HU824	2021_6	Low	29	15	0	0	21	0	2	16	0	0	0
	2021_8	Low	29	36	0	0	6	0	1	18	0	0	0
	2023_5	Moderate to good -good	59	43	0	3	14	2	0	4	0	0	62
	R14	Moderate to good - poor	37	25	0	0	1	0	9	16	0	0	48
	R15	Low	30	20	0	0	2	0	0	24	0	0	11
	R21	Low	32	34	0	0	5	0	3	27	0	0	97
	R23	Low	22	28	0	0	1	0	0	21	0	0	0
	R26	Moderate to good -medium	52	30	0.7	1	10	0	2	23	0	0	1
	R27	Low	22	15	0	0	2	0	0	20	0	0	0
	R32	Low	17	6	0	0	11	0	2	32	0	0	0
	R33	Moderate to good - medium	50	9	0	0.5	17	6	8	13	0	0	0
	R35	Low	30	20	0	0	1	0	0	31	0	0	81
	R36	Low	30	25	0	0	2	0	0	18	0	0	30
	R37	Moderate to good -medium	43	19	0	0	11	0	1	2	0	0	49

Notes: SVS = Site Value Score, NSR = Native Plant Species Richness, NOC = Native Overstorey Cover, NMC = Native Midstorey Cover, NGCG = Native Ground Stratum Cover (grasses), NGCS = Native Ground Stratum Cover (shrubs), NGCO = Native Ground Stratum Cover (other), EC = Exotic Plant Cover, NTH = Number of Trees with Hollows, OR = Overstorey Regeneration and FL = Length of Fallen Logs * Rehabilitation BioMetric Performance Criteria was approved by DPIE on June 2021, and is incorporated into the BMP (WCPL, 2021)

Source: *2024 WCPL Annual Rehabilitation Monitoring Report (ELA, February 2025)*

Table 8-6: Assessment against WCPL Rehabilitation Performance Criteria * for Rehabilitation Sites within their respective BVT

BVT	Site	Vegetation Condition	SVS	Site attributes (% cover)									
				NSR	NOC	NMC	NGCG	NGCS	NGCO	EC	NTH (Count)	OR	FL (M)
HU732	2021_3	Moderate to good -medium	53	38	0	0.5	10	1	0	20	0	0	120
	2021_4	Moderate to good - poor	37	25	0	0	13	0	1	21	0	0	36
	R17	Moderate to good - poor	22	30	0	0	0	0	1	35	0	0	0
	R18	Moderate to good - poor	35	23	0	0	13	0	0	23	0	0	31
	R19	Low	24	36	0	0	3	0	1	37	0	0	0
	R22	Moderate to good – poor	36	20	0	0	31	2	0	11	0	0	0
	R28	Moderate to good -medium	32	25	0	0	7	0	1	30	0	0	100
HU824	2021_6	Low	29	15	0	0	21	0	2	16	0	0	0
	2021_8	Low	24	36	0	0	6	0	1	18	0	0	0
	2023_5	Moderate to good -good	59	43	0	3	14	2	0	4	0	0	62
	R14	Moderate to good - poor	37	25	0	0	1	0	9	16	0	0	48
	R15	Low	27	20	0	0	2	0	0	24	0	0	11
	R21	Low	32	34	0	0	5	0	3	27	0	0	97
	R23	Low	22	28	0	0	1	0	0	21	0	0	0
	R26	Moderate to good -medium	37	30	0.7	1	10	0	2	23	0	0	1
	R27	Low	22	15	0	0	2	0	0	20	0	0	0
	R32	Low	11	6	0	0	11	0	2	32	0	0	0
	R33	Moderate to good - poor	34	9	0	0.5	17	6	8	13	0	0	0
	R35	Low	30	20	0	0	1	0	0	31	0	0	81
	R36	Low	30	25	0	0	2	0	0	18	0	0	30
	R37	Moderate to good -medium	43	19	0	0	11	0	1	2	0	0	49

Notes: SVS = Site Value Score, NSR = Native Plant Species Richness, NOC = Native Overstorey Cover, NMC = Native Midstorey Cover, NGCG = Native Ground Stratum Cover (grasses), NGCS = Native Ground Stratum Cover (shrubs), NGCO = Native Ground Stratum Cover (other), EC = Exotic Plant Cover, NTH = Number of Trees with Hollows, OR = Overstorey Regeneration and FL = Length of Fallen Logs. *Rehabilitation BioMetric Completion Criteria was approved by DPIE on June 2021, and is incorporated into the BMP (WCPL, 2021)

Source: *2024 WCPL Annual Rehabilitation Monitoring Report (ELA, February 2025)*

8.1.2 Summary of Rehabilitation Activities Next Reporting Period

WCPL are scheduled to complete and rehabilitate a total of 96.7ha of mine waste rock emplacements during 2024 within the Mining Domain of overburden emplacement area (**Appendix 4**). These areas will be sown with the appropriate BVT species.

Historical rehabilitation areas currently consisting of improved pasture and mixed woodland community species, not categorised as a desirable mine closure BVT, are proposed to be progressively converted to appropriate BVT communities aligning to the WCPL performance and completion criteria from 2021.

In 2025 WCPL propose to complete approximately 18.6ha of reworking existing woodland rehabilitation areas towards the applicable BVT. The rehabilitation progress against the RMP and ARRFP will be provided in the next Annual Review.

8.2 Other Rehabilitation Activities

During the 2024 Reporting Period 52ha of existing rehabilitation was reworked to convert from cover crops and improved pasture species to a BVT HU732, HU697 and HU824 (**Figure 8-3**), completing the pasture rework program across the mine site. WCPL will now focus their efforts towards transitioning the remaining existing woodland rehabilitation to their respective BVTs. WCPL also addressed areas identified as heating (spontaneous combustion) in Pit 2 South with additional inert material placed and compacted to exclude oxygen, after which 4.4ha was rehabilitated.

8.2.1 Pit 5 South West Drone Seeding Trial

In November 2024, approximately 6.93ha of landform in Pit 1 South was prepared for rehabilitation and seeded to the correct Biometric Vegetation Type (HU732 Yellow Box Grassy Woodland and HU824 White Box Shrubby Woodland) using an XAG 100 drone (**Photo 3**). The drone has proven to be advantageous over land-based mechanical seeding application particularly upon steep slopes and boggy topsoil.

Native grass seed is notorious for its inability to flow through a spreader or auger. For this reason, the seed was pre-coated to form a harder shell and mixed in with a cereal cover crop to increase the overall flowability. This seed application builds off an ongoing trial investigating the effectiveness of drone applications in rehabilitation, the results of which are indicating successful methodology

Photo 3 XAG P100 Drone Seeding - Pit 1 South

8.2.2 Drone Based Thermal Imagery Monitoring

Wilpinjong's Drone Thermal Technology recently placed 3rd in Peabody's Health, Safety and Environment Innovation Awards. Spontaneous combustion at Wilpinjong has traditionally been monitored using a combination of site wide aerial thermal imagery and visual inspections. WCPL has incorporated drone based thermal technology as another tool, which enables detailed surface analysis of specific areas to be presented in a visual format and used to monitor and manage heat sources.

8.3 Land Management Activities

Pest and Weed Management

WCPL completed pest management works on WCPL owned properties during 2024. Activities included:

- Fox and wild dog control was conducted in conjunction with the local wild dog group, Local Land Services and National Parks and Wildlife Services control programs.
- Lessees across the broader company landholdings also continued with ongoing vertebrate pest management.
- WCPL continued with weed spraying program throughout 2024.

9.0 COMMUNITY

A protocol for the management and reporting of community complaints has been developed as a component of the Mine's EMS. In accordance with Condition M6.1 of EPL 12425, a dedicated telephone number (ph.: **1300 606 625**) for the provision of comments or complaints is maintained by WCPL. In addition, a separate hotline for blasting information is also maintained by WCPL (ph.: **1800 649 783**).

In accordance with Condition M6.2 of EPL 12425, these telephone numbers are advertised via the Wilpinjong Community Newsletter, via the Wilpinjong Community Consultative Committee and on the Peabody website:

https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine

WCPL records and responds to all complaints and maintains a community complaints register on its website. The complaints are managed in accordance with the WCPL Complaints Management Procedure. The Complaints Management Procedure outlines WCPL reporting requirements as follows:

- A summary of complaints received is reported monthly on the Peabody website;
- A summary of complaints received and actions taken is presented to WCPL's CCC as part of the operational performance review;
- A summary of complaints received and actions taken is included in the Annual Review and the Annual Return to the EPA.

During the 2024 Reporting Period, 77 community complaints were received by WCPL (**Appendix 6**), one more than the 76 community complaints in 2023. **Figure 9-3** presents a comparison of the environmental complaints received by WCPL over the period 2015 to 2024.

Figure 9-1Summary of Community Complaints and Issues Raised by Complainants 2015 – 2024

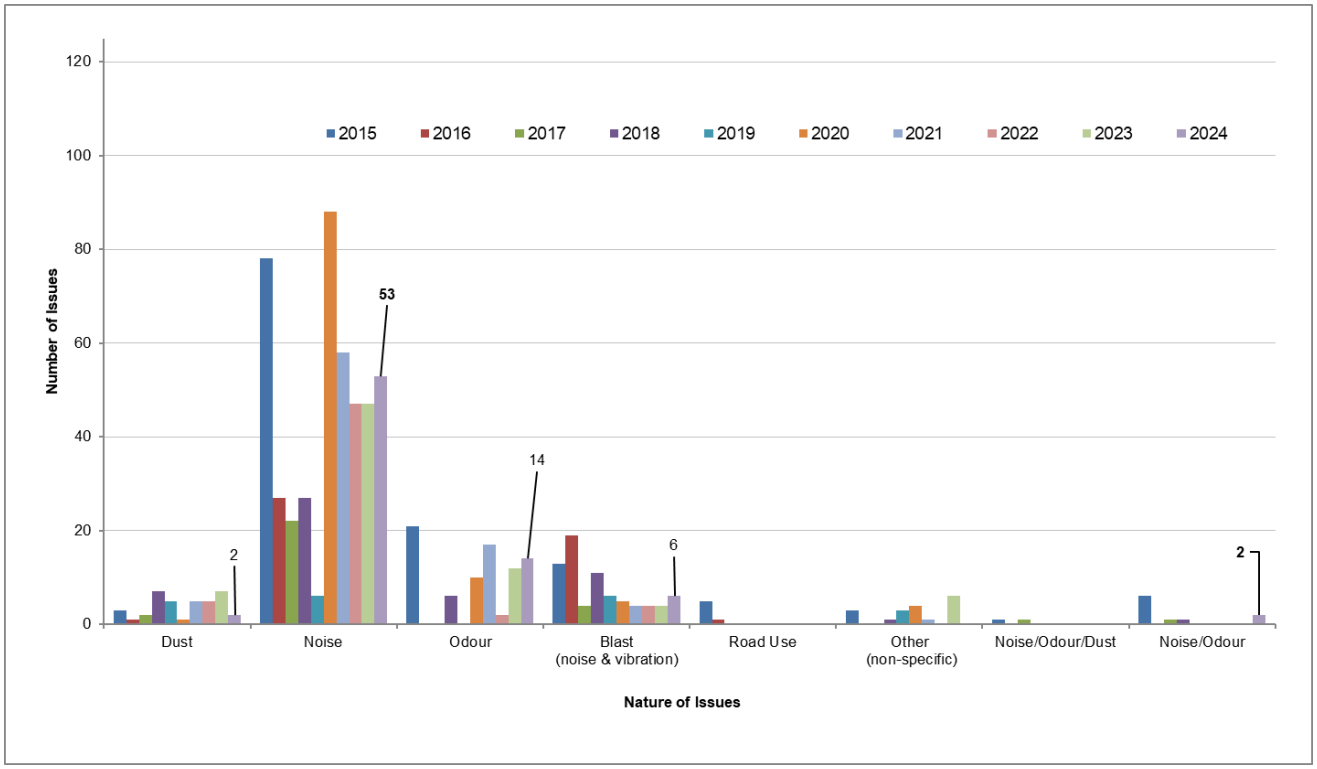


Figure 9-2 Percentage Breakdown of Community Complaints in 2024

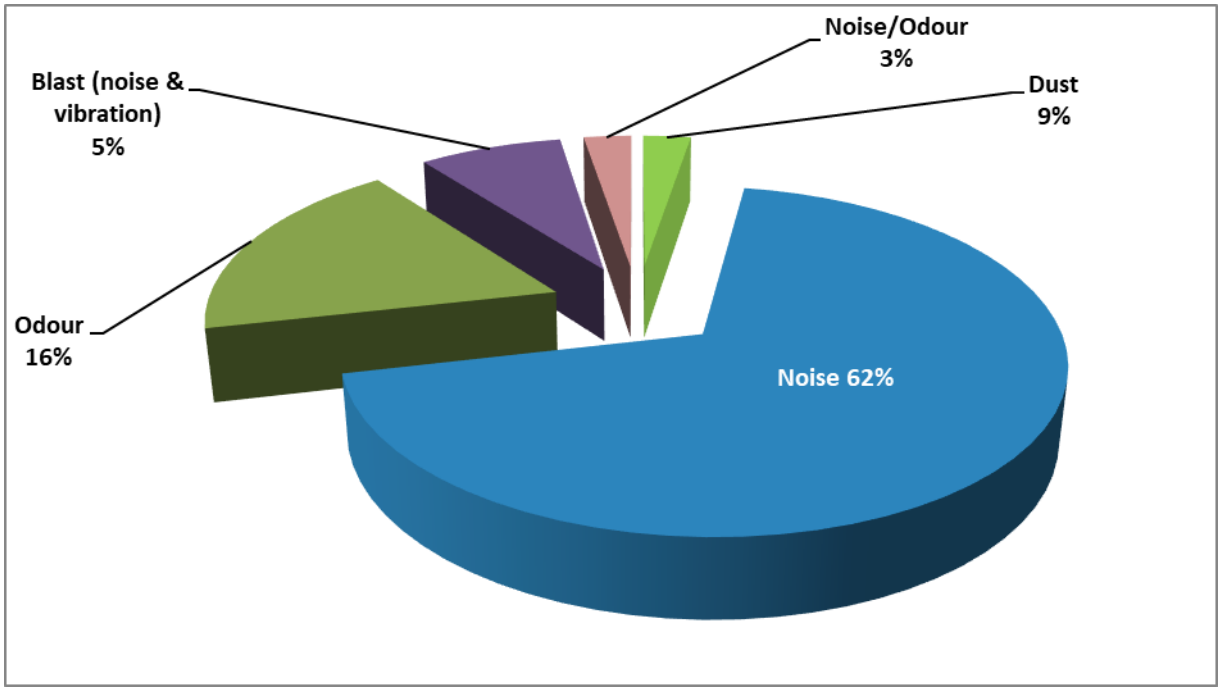
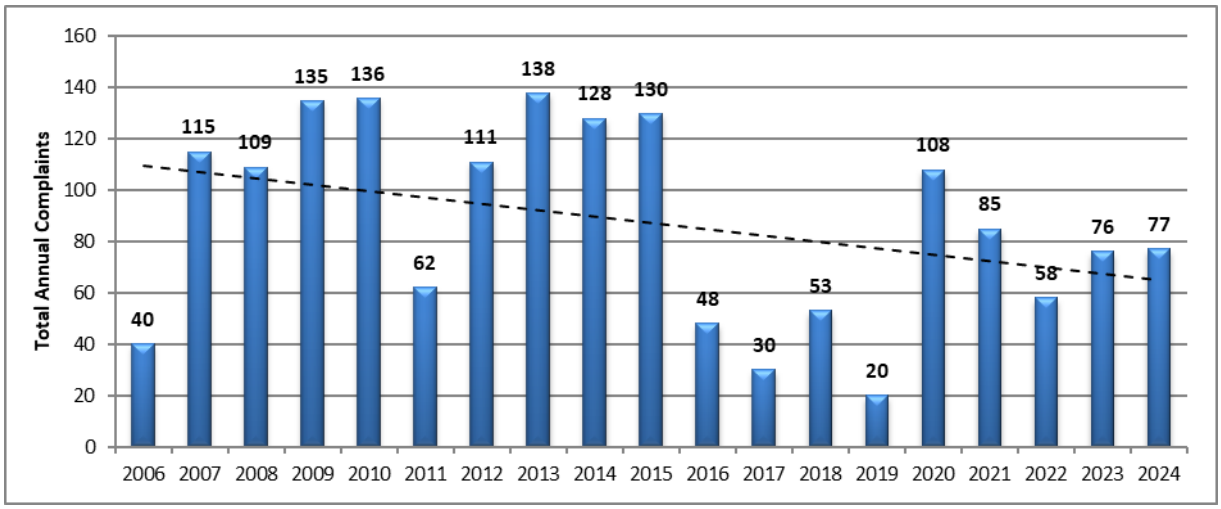


Figure 9-3 Total Annual Complaints 2006 - 2024



Community Consultative Committee

In accordance with Condition 7, Schedule 5 of SSD-6764, the Community Consultative Committee (CCC) (**Table 9-1**), continued to meet during the 2024 Reporting Period.

The CCC for the Mine is operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007).

Consistent with the requirements of the CCC Guidelines, the committee is comprised of one independent chairperson, and representatives of the MWRC, NPWS, WCPL and members of the general community. The CCC meetings were held in March, June, September and December 2024. WCPL has undertaken individual consultation with private landholders and lessees that reside in the vicinity of the mine to discuss the ongoing development of the Wilpinjong Coal Mine, the WEP and proposed modifications. **Table 9-2** provides a summary of the CCC meetings held during the 2024 Reporting Period.

Table 9-1 CCC Members for the 2024

Name	Organisation
Des Kennedy	Mid Western Regional Council (MWRC)
Katie Dicker	MWRC Councillor (alternate for Des Kennedy)
Lisa Andrews	CCC Independent Chair Person
Rod Pryor	Community Representative
Brian McDermott	Community Representative
Bev Smiles	Community Representative and Mudgee District Environmental Group Representative
Bruce Hughes	Community Representative
Kim Peach	Community Representative
Lisa Menke	NSW National Parks and Wildlife Service Representative
Scott Lillis	Community Representative
Maata Ti Kira	Community Representative

Table 9-2 Summary of CCC Meetings in 2024

Date	Key Outcomes
4 March	Environmental monitoring results, reviewed complaints since last CCC, water discharge update, operational downtime, heritage regarding Rocky Hill announcement, rehabilitation update, animal and weed control programs, community donations and support update, summary of complaints. Approval updates included approval of the revised rehabilitation strategy, MLA616 now ML1846, EL9399 exploration program update, property management in Wollar and RFS participation.
3 June	Environmental monitoring results, reviewed complaints since last CCC, water discharge update, operational downtime, heritage, rehabilitation update, animal and weed control programs, community donations and support update, summary of complaints. Approval updates MOD 3 and MOD 4, SIMP implementation, EL9399 exploration program and baseline studies update, property management in Wollar.
11 September	Environmental monitoring results, reviewed complaints since last CCC, water discharge update, operational downtime, heritage, rehabilitation update, animal and weed control programs, community donations and support update, summary of complaints. Approval updates MOD 2, MOD 3 and MOD 4, Future SSD Applications, weed control, SIMP implementation, EL9399 exploration program and baseline studies update, property management in Wollar.
4 December	Environmental monitoring results, reviewed complaints since last CCC, water discharge update, operational downtime, heritage, rehabilitation update, animal and weed control programs, community donations and support update, summary of complaints. Approval updates MOD 2, MOD 3 and MOD 4, Future SSD Applications, weed control, SIMP implementation, EL9399 exploration program and baseline studies update, property management in Wollar.

Community Support Program

During the 2024 Reporting Period, WCPL continued its support of local community groups and sporting associations, schools and charitable organisations (total amount in 2024 was approximately $102,778), including local schools, Community Groups, Charities and sporting groups. More information regarding WCPL's community support program is provided in **Appendix 6**.

Have a Chat Meeting

WCPL also provided an information newsletter regarding upcoming 'have a chat' sessions, held at the Wollar Store 1st Thursday of the month from 1:30pm to 4:30pm. The initiative aims at providing the community a casual setting to ask questions or raise concerns relation to the Mine's operations (**Appendix 6**).

Access to Information

Condition 12, Schedule 5 of SSD-6764 details the requirements for access to information applicable to the Mine, and outlines the documents required by the Project Approval to be made publicly available on the Peabody website www.peabodyenergy.com

Employment Status

At the end of the 2024 Reporting Period there were 466 full time equivalent employees at WCPL, 106 staff and 144 full time equivalent contractors. Total Peabody employees 572 and 144 contractors.

Family Day

On the 26 May 2024, WCPL held a Family Day at the Mine. This was a great event to show family members an up-close opportunity of an operating open cut coal mine.

2024 HSEC Excellence Award Winners

WCPL took out the NSW Minerals Council Award for HSEC Excellence in 2024 for the work undertaken to protect the Mine Adit in Slate Gully which supports colonies of two microbat species (**Section 6.4**).

Country Universities Centre (Vehicle Presentation)

Pink Up Mudgee (Donation to McGrath Foundation)

10.0 INDEPENDENT AUDIT

10.1 Independent Environmental Audit

As required by Condition 10, Schedule 5 of SSD-6764, WCPL are required to complete an Independent Environmental Audit (the IEA) of the development within a year of commencing the development. The Notice of Commencement to the DPHI, as required by Condition 8, Schedule, 2 of SSD-6764 was confirmed by WCPL with its intention to commence the approved development on the 19 September 2017.

In consultation with the DPHI, Onward (RPS) and their specialists were endorsed by the Secretary on the 16 June 2024 to undertake the 2024 IEA in accordance with Condition 10(a), Schedule 5 of SSD-6764.

The Audit Period to which the 2024 IEA applied is inclusive of the period from 15 September 2021 to 9 October 2024.

As required by Condition 11, Schedule 5 of SSD-6764, WCPL submitted a copy of the 2024 IEA to the Secretary and responses to any recommendations contained in the IEA, with a timetable for implementation within 3 months of the IEA on the 22 December 2024.

Additional opportunities for improvement (OFIs) that were identified in the 2024 IEA will be reviewed on a case-by-case basis for constructiveness and incorporated as necessary, into the relevant management plan as required under SSD-6764.

The completion status to address the remaining 2024 IEA Actions is provided in **Table 10-1**. The 2024 IEA is also publicly available on WCPL's website as required by Condition 12, Schedule 5 of SSD-6764 at:

https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

As required by Condition 10, Schedule 5 of SSD-6764, WCPL are required to complete the next IEA during the next Reporting Period in 2027.

Table 10-1 Summary Status to Address Corrective Actions from 2024 IEA

Consent / licence / lease	Condition	CA ID	CA Requirement	WCPL Proposed Actions to Adress IEA's CA Requirements
SSD-6764	Schedule 3, Condition 30	CA01	To ensure vigilance in relation to the management of chemical and hydrocarbon storage, a procedure should be developed with consideration to: • the chemical and hydrocarbon storage performance measures detailed in Table 6 of Schedule 3, Condition 30 of SSD-6764 • refining the frequency of inspections of hazardous waste, chemicals and hydrocarbon storage and handling stored areas to ensure that these inspections occur regularly (i.e. monthly, at a minimum) • documenting the results of, and tracking any actions identified during, inspections. The SWMP should be updated to include reference to, and a summary of the requirements of, this procedure.	WCPL to review procedure for chemical and hydrocarbon storage performance and inspection measures. To be completed by the end of **Q2 2025.** Update SWMP accordingly to align with the reviewed procedure, this will include aligning frequency of inspections regarding chemical and hydrocarbon storage and documenting and recording inspections and a general summary of this procedural review. Update of SWMP to be completed by end of **Q2 2025.** **ONGOING**
	Schedule 3, Condition 31	CA02	Implement actions to ensure monthly reviews of surface water and groundwater monitoring data are completed and that relevant agencies are notified as soon as practicable that an exceedance of trigger levels has occurred (as relevant), in accordance with the requirements of the SWMP (WI-ENV-MNP-0040) and GWMP (WI-ENV-MNP0041).	WCPL currently undertake this reporting via the Major Projects Portal, its noted that this action will be included (i.e. formalising) into both the SWMP and GWMP accordingly. Update of both the GWMP and the SWMP to be completed by end of **Q2 2025.**
	Schedule 3, Condition 57	CA03	Action the recommendation from the External Lighting Compliance Audit regarding adjusting the light fitting.	WCPL propose to internally investigate if the lighting adjustments were completed, as recommended by the previous external lighting audit report. If not carryout out the necessary adjustments and record evidence of this for future audits. In addition, WCPL propose to engage a suitably qualified person to complete an external lighting assessment to ensure all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* and implement their recommendations as applicable and record the evidence of implementation for future audits. To be completed by end of **Q1 2025** **COMPLETED**
	Schedule 5, Condition 5	CA04	Submit the revised versions of SWMP and SWB required for submission on 30 September 2024 as soon as possible to DPHI.	WCPL propose to submit revised versions of the SWMP and SWB, in consideration of this 2024 IEA and respective corrective actions and opportunities for improvement as identified.

Consent / licence / lease	Condition	CA ID	CA Requirement	WCPL Proposed Actions to Adress IEA's CA Requirements
				Update the SWMP and SWB to be completed by end of **Q2 2025** **ONGOING**
	Schedule 5, Condition 12	CA05	Update the Mine website to ensure the currently approved versions of the ACHMP, SCMP and EMS are available.	Current approved versions of the ACHMP, SCMP and EMS to be uploaded by the **20 December 2024**. **COMPLETED**
Standard Conditions (Schedule 8A, Part 2) of the Mining Regulation 2016	Clause 16(3)	CA06	Ensure evidence is collected internally to confirm relevant documents are published on the WCPL website in accordance with Clause 16(3) of the Standard Conditions (Schedule 8A, Part 2) of the Mining Regulation 2016, as follows: • RMP – within 14 days after it is amended, with the next revision of the RMP due to be submitted on 31 December 2024). • Forward Programs and/or Annual Rehabilitation Report – within 14 days after it is given to the Secretary or amended.	To capture this, WCPL propose a minor update of the EMS. To be completed by end of **Q2 2025** **COMPLETED**
	Clause 19(2)	CA07	Should any change occur during the next audit period regarding the nominated person's contact details or the nominated person, ensure written notice is provided to the NSW Resources Regulator within 28 days after the change occurs.	To capture this, WCPL propose a minor update of the EMS. To be completed by end of **Q2 2025** **ONGOING**

11.0 INCIDENTS & NON-COMPLIANCES

11.1 Reportable Incidents

There were no reportable incidents during the 2024 Reporting Period relating to SSD-6467 and EPL 12425.

There was one incident reported on the 15 August 2024 to the Compliance Coordination Unit of the Mining Act Inspectorate – NSW Resources Regulator (NSW RR) in relation to WCPL's exploration activities in EL9399 issued under the *Mining Act 1992*. Refer to **Section 11.2** for details.

11.2 Non-Compliances

There were five (5) non-compliances as identified in **Table 10-1** against SSD-6764 during the 2024 IEA (**Section 10.1**). For reference and further information refer to **Table 10-1**.

There was an additional non-compliance against Condition 15, Schedule 3 of SSD-6764 as it related to implementing the Blast Management Plan. Due to technical circumstances outside of the control of WCPL, one blast event was missed in Slate Gully Mine Adit due to a memory card corruption error on the 24 July 2024. A technician was sent to repair the issue and replace the memory card prior to the next blast event. The nearest available monitor is located at Pit 8 road which recorded a blast vibration of 12.12mm/s. Monthly inspections undertaken by WCPL staff of the Slate Gully Mine Adit determined no perceptible change had occurred.

Table 11-1 Non-compliance SSD-6764

Relevant Approval	Date of	Details of Non-Compliance	Cause of Non-Compliance	Action to Address Non-Compliance
Con 15 Sch 3	24 July 2024	One blast event not recorded at the Mine Adit (refer to **Section 6.2**).	Due to a memory card corruption error (refer to **Section 6.2**).	Refer to **Section 6.2** for implemented corrective actions.

Table 11-2 includes non-compliances identified against EPL 12425.

Table 11-2 Details of Non-Compliances (EPL12425)

Relevant Approval	Date of	Details of Non-Compliance	Cause of Non-Compliance	Action to Address Non-Compliance
M2.2	Within the period: 8 February 2024 to 7 February 2025	For the reporting period 1.8% of the continuous PM10 dust monitoring did not occur at monitoring point 25 (TEOM 3).	Unplanned maintenance	TEOM3 checked remotely each day to identify potential faults, onsite each month and following power outages or when unusual data recorded.
M2.2	Within the period: 8 February 2024 to 7 February 2025	For the reporting period 1.3% of the continuous PM10 dust monitoring did not occur at monitoring point 28 (TEOM 4).	Unplanned maintenance	TEOM4 checked remotely each day to identify potential faults, onsite each month and following power outages or when unusual data recorded.
M2.2	Within the period: 8 February 2024 to 7 February 2025	For the reporting period 1.8% of the continuous PM2.5 did not occur at monitoring point 29 (TEOM 2.5).	Unplanned maintenance	TEOM2.5 checked remotely each day to identify potential faults, onsite each month and following power outages or when unusual data recorded.
M2.2	22 July 2024	A PM10 dust sample was not collected and analysed at monitoring point 20 (HV4).	Unplanned power outage.	HV4 checked after every sample date.

Relevant Approval	Date of	Details of Non-Compliance	Cause of Non-Compliance	Action to Address Non-Compliance
M4.2	Within the period: 8 February 2024 to 7 February 2025	For the reporting period 1.0 % of continuous monitoring for: air temperature, wind speed/direction, lapse rate, rainfall and humidity did not occur at monitoring point 21.	Continuous data was not recorded by the meteorological weather station due to unplanned equipment maintenance.	Weather station checked remotely each day to identify potential faults.

Non-Compliance EL9399

There was one non-compliance against EL9399 during the 2024 Reporting Period. Prior to commencement of the exploration program, a due diligence assessment identifying Aboriginal Heritage sites and artefacts was undertaken in accordance with the '*Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales'*. This assessment was completed by Navin Officer Heritage Consultations (NOHC) in collaboration with WCPL's Registered Aboriginal Parties (RAPs). The assessment results (received on 8 August 2022) were incorporated into a Ground Disturbance Permit (GDP) issued for stage 1 of the EL9399 exploration program, of which SGN028 was included.

Between 8 April 2024 and 19 May 2024, Aboriginal Cultural Heritage field surveys and test excavations were completed by NOHC and RAPs over the wider EL9399 area (including re-inspection of SGN028) for the purposes of developing an Aboriginal Cultural Heritage Assessment (ACHA) to support a modification application for WCPL. The ACHA has not yet been finalised by NOHC and sites have not yet been entered onto AHIMS, this is to occur in the coming weeks.

Between the dates of 25 and 29 July 2024, WCPL completed a re-drill at site SGN028 within the approved GDP nominated drill pad. The re-drill followed the conditions of the GDP and complied with all relevant NSW exploration guidelines and codes of practice.

During a site inspection on 13 August 2024, WCPL's RAPs who had been involved in the ACHA fieldwork, raised with WCPL that the re-drill at SGN028 had occurred prior to further investigation and salvage work of WCP955. As a result of the ACHA fieldwork and a re-inspection of WCP955 the avoidance and salvage area of WCP955 had increased in area.

Preliminary spatial data of the ACHA survey was sent to WCPL by NOHC on 16 August 2024. WCPL compared this spatial data with the location of drill site SGN028 and confirmed that the re-drill had now encroached into the revised WCP955 area.

On 21 August 2024, WCPL's RAPs, a representative from NOHC and WCPL conducted a field inspection of the SGN028 GDP area and WCP955 site. The inspection concluded that there:

- was no likely impact to Aboriginal cultural heritage at WCP955 as a result of the redrilling of the borehole; and
- was a 'marginal impact' to nearby Aboriginal site WCP1137 as a result of fill gravel being placed over the disturbed site area to enable vehicle access.

On the 12 November 2024 NSW RR were satisfied that WCPL had implemented measures to fulfil the requirements of the exploration licence LE9399 in relation to: *The licence holder must prevent, or if that is not reasonably practicable, minimise so far as is reasonably practicable, any harm to the environment arising from activities carried out under this licence.*

12.0 ACTIVITES FOR NEXT REPORTING PERIOD

Activities proposed to be carried out by WCPL at the Mine during the 2025 Reporting Period (i.e. 1 January 2025 to 31 December 2025) include the following:

- Complete actions as identified from the 2024 Independent Environmental Audit (the IEA), as required by Condition 10, Schedule 5 of SSD-6764;
- Continuation of rehabilitation works in completed mined areas;
- Update WCPL's management plans as a result of submission of this Annual Review and the IEA 2024 as required;
- Continued development of Clean Water Diversions;
- Construction of a water evaporation system in Pit 3;
- Installation of communication related infrastructure for Pit 8;
- Inspection and review of rehabilitation areas to assess maintenance requirements;
- Continued weed and animal pest control across WCPL-owned land;
- Continued stock exclusion in the ECAs to promote regeneration;
- Ongoing demolition of WCPL owned derelict houses in Wollar, including in-pit disposal of inert building material;
- Continued consultation with surrounding landholders;
- Ongoing CCC meetings, including continued publication of the meeting minutes on the Peabody website;
- Ongoing Aboriginal Community Consultation via Native Title and Registered Aboriginal Parties Committee meetings;
- Continuation of Wollar "Have-a-chat" sessions on a monthly basis;
- Complete 98ha of rehabilitation in 2025, in accordance with the Forward Program; and
- Potential relocation of the East side start point to Pit 8.

In accordance with Condition 5, Schedule 5 of Development Consent SSD-6764 WCPL will review, and if necessary, revise the strategies, plans and programs required under the Project Approval within three months following submission of this Annual Review and Environmental Management Report or as otherwise specified in the Project Approval.

13.0 REFERENCES

- *2024 Annual Biodiversity Monitoring Report, Eco Logical Australia Pty Ltd (March 2025).*
- *Wilpinjong Coal 2024 Stream Health Monitoring Report, Eco Logical Australia Pty Ltd (March 2025).*
- *Wilpinjong Coal 2024 Channel Stability Monitoring Report, Eco Logical Australia Pty Ltd (March 2025).*
- *Monitoring of Microbats at Slate Gully Adit (Pit 8), Wilpinjong Coal Mine, Biodiversity Monitoring Services (February 2025).*
- *Ultrasonic Bat Call Analysis Report Eco Logical Australia Pty Ltd (February 2024).*
- *Environmental Noise Monitoring (January 2024 to December 2024), (EMM).*
- *Annual Environmental Monitoring Report 2024, EMM (March 2025).*
- *Annual Review 2024 – Surface Water Compliance, SLR (March 2025).*
- *Wilpinjong Creek Surface Water pH Trigger Exceedance Investigation, SLR (October 2023).*
- *EC Trigger Investigation of GWc1, GWc3, GWc4 and GWc5, SLR (December 2023).*
- *Annual Environmental Monitoring Groundwater Review – Groundwater Compliance 2023, SLR (March 2024)*
- *Site Water Balance Model – Model Update & Calibration 2025, SLR (March 2025)*
- *Annual Review – 2024 Groundwater Compliance SLR (March 2025)*
- *2024 WCPL Annual Rehabilitation Monitoring Report (ELA, March 2025)*

Appendices