YANCOAL
兖煤澳大利亚有限公司

DURALIECOAL
Part of the Yancoal Australia Group

DURALIE COAL MINE
ANNUAL REVIEW 2025

Name of operation	Duralie Coal Mine
Name of operator	Yancoal Australia Ltd
Development consent / project approval #	PA (08_0203) (Duralie Extension Project) (as modified)
Name of holder of development consent / project approval	Duralie Coal Pty Limited
Mining lease #	ML1427, ML1646
Name of holder of mining leases	CIM Duralie Pty Ltd
Water licence #	WAL 41518, 20WA202053, various monitoring bore licences.
Name of holder of water licence	CIM Duralie Pty Ltd and Duralie Coal Pty Ltd
RMP start date	1 July 2022
RMP end date	N/A
Annual Review start date	1 July 2024
Annual Review end date	30 June 2025

I, John Cullen, certify this audit report is true and accurate record of the compliance status of the Duralie Coal Mine for the period of 1st July 2024 to 30th June 2025 and that I am authorised to make this statement on behalf of Yancoal.

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	*Mr John Cullen*
Title of authorised reporting officer	*Operations Manager – Duralie Coal*
Signature of authorised reporting officer	
Date	14 November 2025

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1.0 STATEMENT OF COMPLIANCE

This Duralie Coal Mine (DCM) Annual Review has been prepared in accordance with New South Wales (NSW) Project Approval (PA) 08_0203 Schedule 5, Condition 3 for the Duralie Extension Project (DEP) for the period 1 July 2024 to 30 June 2025. This Annual Review is also prepared in accordance with the annual reporting requirements for Mining Leases ML 1427 Condition 3 and ML 1646 Condition 4.

A statement of compliance against Duralie Coal Pty Ltd (DCPL) approvals is provide in **Table 1**. A summary of non-compliances that occurred during the reporting period is provided in **Table 2**, with supporting key of compliance status provided in **Table 3**.

Table 1 Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	
Project Approval No. 08_0203	No
EPL 11701	No
ML1427, ML1646	Yes

Table 2 Summary of Non-compliances

Relevant Approval	Condition	Condition Description/ Non-Compliance	Compliance Status	Comment	Section addressed
PA 08_0203 EPL 11701	Schedule 3, Condition 25 L1.1	Uncontrolled discharge	Low Non-compliant	Uncontrolled discharge of water from Sediment Dams VC1 and RS6 between 20 May 2025 and 21 May 2025. Discharge occurred as a result of a significant rainfall event which exceeded the dam design capacities.	Section 7.3.1.1

Table 3 Compliance Status Categories

Risk	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-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

The DCM is located in the Gloucester Basin approximately 80km north of Newcastle in NSW, between the villages of Stroud Road and Wards River. Refer **Figure 1** (**Appendix 1**).

DCPL, a wholly owned subsidiary of Yancoal Australia Limited (YAL), is the owner and operator of the DCM.

The NSW Minister for Urban Affairs and Planning granted Development Consent for the DCM in August 1997 and coal production commenced in 2003.

Development of the DCM is approved under Mining Leases (MLs) 1427 and 1646 and NSW Project Approval (08_0203). Condition 5, Schedule 2 of PA (08_0203) authorises mining operations to be carried at the DCM until 31 December 2021.

Coal mining operations ceased on 31 December 2021 in accordance with the approval and DCPL has commenced the mine closure phase of operations. Mine closure activities are outlined in the current approved Rehabilitation Management Plan (RMP) and summarised in **Section 8.5**. Prior to closure the DCM consisted of an open cut, truck, and excavator mine producing run of mine (ROM) coal, which was railed to the Stratford Mining Complex (SMC) and processed at the SMC Coal Handling and Processing Plan (CHPP).

2.1 SCOPE

This Annual Review (AR) has been prepared in accordance with the requirements of Schedule 5, Condition 3 of Project Approval PA 08_0203, Mining Leases 1427 and 1646, and in accordance with the NSW Government Department of Planning, Housing and Infrastructure (DPHI) *Annual Review Guidelines* (NSW Government, 2015).

The Annual Review describes the environmental protection, pollution control and mine closure activities at the DCM for the period 1 July 2024 to 30 June 2025. As required by the Project Approval, comparisons of environmental monitoring results have been made against relevant statutory requirements, monitoring results from previous reporting periods, and relevant predictions of Environmental Assessments. The Annual Review also reports on non-compliances, trends in monitoring data and, where occurring, discrepancies between the predicted and actual impacts of the development, in addition to identifying key environmental management activities planned for the next 12 months.

2.2 MINE CONTACTS

The DCM is an owner operated mine site by DCPL site personnel responsible for mining, rehabilitation and environmental issues at the end of the reporting period are provided in **Table 4**.

Table 4 Site Contact Personnel

Position	Name	Contact	Email
Operations Manager, Stratford and Duralie Operations	Mr John Cullen	02 6538 4210	John.Cullen@yancoal.com.au
Environment and Community Superintendent	Mr Thomas Kirkwood	02 6538 4208	Thomas.Kirkwood@yancoal.com.au

3.0 APPROVALS

3.1 STATUS OF LEASES, LICENCES AND APPROVALS

The DCM operates in accordance with the approvals provided in **Table 5**.

Table 5 Duralie Coal Mine – Leases, Licences and Approvals

Description	Date of Grant	Duration of Approval	Comment
NSW Project Approvals			
Duralie Extension Project – Project Approval (08_0203)	26/11/2010 (As Modified)	The Applicant may carry out mining operations on site until the end of 2021	Granted 26/11/2010 MOD 1 (Rail Hours) 1/11/2012 MOD 2 (Open Cut variations) 5/12/2014
Mining Leases and Exploration Licences			
ML 1427	06/04/1998	35 years (06/04/2033)	Renewed 28 March 2023 by Regional NSW - Mining, Exploration and Geoscience
ML 1646	04/01/2011	21 years (04/01/2032)	Variation of Conditions dated 20/06/2018
AUTH 315	14/10/2013	18 January 2027	Renewed 21 December 2022 by Regional NSW - Mining, Exploration and Geoscience
Environment Protection Licences			
Environment Protection Licence (EPL) 11701	04/09/2002	Until the licence is surrendered, or revoked	As modified by subsequent variations (refer to EPA website). Updated 10 March 2025
Commonwealth Approvals			

Commonwealth Approval (EPBC 2010/5396)	22/12/2010	31 December 2025	Commencement of Action 14/01/2011
Water Licences			
Water Supply Works Approval 20WA202053	01/07/2004	1 October 2028	Coal Shaft Creek diversion and various on-site water management structures. Renewed 17/10/2018
WAL 41518 (previously 20BL168404)	22/09/2002	Perpetuity	Groundwater Licence for the Duralie Open Cut extraction. Converted to WAL41518 under *Water Management Act 2000* on 14/12/2017
Groundwater licences – various monitoring bores	Various	Perpetuity	Monitoring purposes only

3.1.1 ENVIRONMENTAL MANAGEMENT PLANS

Environmental Management Plans (EMPs) have been prepared and approved for the DCM in accordance with the conditions of PA 08-0203. The current versions approved by DPHI are available on the Duralie Coal website (www.duraliecoal.com.au).

- Environmental Management Strategy (revised). Approved 23 December 2021
- Air Quality and Greenhouse Gas Management Plan (revised). Approved 23 December 2021
- Biodiversity Management Plan (revised). Approved 22 February 2023
- Blast Management Plan (revised). Approved 16 December 2021
- Giant Barred Frog Management Plan (revised). Approved 5 September 2017
- Heritage Management Plan (revised). Approved 12 August 2022
- Noise Management Plan (revised). Approved 23 December 2021
- Waste Management Plan (revised). Approved 23 December 2021
- Water Management Plan (revised). Approved 24 December 2021
- Pollution Incident Response Management Plan (revised), November 2024
- Rehabilitation Management Plan (revised), October 2023

3.2 AMENDMENTS TO APPROVALS/LICENCES DURING THE REPORTING PERIOD

There were no amendments to any approvals or licences during the reporting period.

4.0 OPERATIONS SUMMARY

A summary of operations (Production), during the preceding and current reporting period as well as a forward forecast for the next reporting period is provided below in **Table 6**.

During the reporting period, activities at the DCM primarily related to rehabilitation and closure works, including technical studies, site investigations, infrastructure decommissioning, water management construction works, and bulk earthworks to support progressive site rehabilitation. These activities are detailed in the *Duralie Coal Mine Forward Program 2024–2027* (Forward Program), prepared in accordance with the requirements of the *Mining Act 1992*.

Table 6 Production Summary

Material	Approved limit (specific source)	Previous reporting period	This reporting period	Next reporting period
Waste Rock / Overburden Rehandle (BCM) (DCM only)	N/A	483,915	172,310	3,394,462
ROM Coal (tonnes) (DCM only)	3 million tonnes per annum	0	0	0
Codisposal Reject (tonnes) (Includes Stratford Consent)	Approx. 12.3 million tonnes over life of project.	22,862	0	0
Saleable product (tonnes) (Includes Stratford Consent)	N/A (Process limit of 5.6 million tonnes per annum)	437,773	0	0

4.1 EXPLORATION

The DCM group ML Annual Exploration Report 2024 was lodged with the Resources Regulator 17 April 2025 and subsequently approved on 12 June 2025. The Annual Exploration Report and Community Consultation Report for AUTH 315 was lodged in December 2024.

During the reporting period exploration activity included core drilling and costean sampling to gain further understanding of geological profiles within AUTH 315 to assist with geological understanding and rehabilitation planning. Hydrological studies (including groundwater and surface water studies) forming part of the mine closure studies are still ongoing.

4.2 OPERATIONS

No ROM coal was mined at the DCM or transported via shuttle train during the reporting period. Operational activities primarily comprised pumping between July and early October to saturate areas of potential spontaneous combustion in the Weismantel Pit prior to the undertaking bulk earthworks to rehandle of Potentially Acid Forming (PAF) material during October and November 2024. The rehandle campaign involved temporary relocation of elements of the workforce from the Stratford Mining Complex (SMC) for the period of the work. Operations outside of this campaign were limited to water management, rehabilitation maintenance works and closure planning activities.

An overview of mine development and rehabilitation as 30 June 2025 are indicated within **Figure 4**, provided in **Appendix 1**.

4.2.1 PRODUCT COAL TRANSPORT

No product coal was transported during the reporting period.

4.2.2 HOURS OF OPERATION

The hours of operation of DCM involves two shifts from Monday to Thursday between 6:30am and 1:30am and one shift on Friday 6:30am and 2:30pm. Closure operations, including when undertaking bulk material rehandle and shaping across October and November 2024, were undertaken in this manner. Key activities, such as pumping operations, also occur on Saturday and Sunday on a needs basis.

4.2.3 FLEET

During closure works the mobile fleet utilised during the reporting period included the following:

- 1 x Excavator
- 3 x Haul trucks
- 1 x Dozer
- 1 x Water cart
- 1 x Grader
- 1 x Service truck
- 2 x Light vehicles

The total listed fleet has not been used concurrently.

4.3 OTHER OPERATIONS AND INFRASTRUCTURE MANAGEMENT

4.3.1 DURALIE QUARRY

Duralie Quarry is an existing hard rock quarry located to the near south-west of the DCM as shown in **Figure 2** in **Appendix 1**. The quarry was last active between 2003 and 2005 and extracted material was used for development and site improvement works at the DCM.

During the last reporting period it was identified that there was material in the quarry which had been mined previously but not removed. During the reporting period, 18,228t of salvageable material was recovered from the quarry and stockpiled for use in site closure works. Quarry operations will remain ongoing during the next reporting period to support site closure activities.

4.3.2 DECOMMISSIONING WORKS

Decommissioning works at the DCM are ongoing. During the reporting period a number of civil projects have been completed to support progression towards mine closure. These have included:

- Construction of a crest drain on the rehabilitated southern waste emplacement to manage surface water flow management
- Enlargement of the Eastern Detention Basin on the rehabilitated southern waste emplacement
- Maintenance of the contour drains on the rehabilitated waste emplacement to ensure adequate attenuation of stormwater in extreme weather events

- Removal of the Rail Siding and commencement of rehabilitation
- Dewatering of Auxiliary Dam 2 (AD2)

4.3.3 DECLARED DAMS –DAMS SAFETY NSW

The Main Water Dam (MWD), and Auxiliary Dam 2 (AD2) are declared under the *Dams Safety Act 2015*. MWD and AD2 are proposed as retained non-declared water structures in the final landform.

During the reporting period the former Auxiliary Dam 1 (AD1) was formally de-declared by Dams Safety NSW. AD1 was fully dewatered in 2018 and subsequently decommissioned in 2020 prior to being formally de-declared on 5 December 2024.

Following previous dewatering of AD2 in September 2023 the storage was maintained drawn down during the initial portion of the reporting period however elevated rainfall since January 2025 has recharged the dam to an operational range. The Main Water Dam remained in operational use throughout the reporting period.

During the reporting period routine inspections, monitoring, and maintenance continued to be undertaken in accordance with the Operation and Maintenance Manuals for the respective storages.

4.4 NEXT REPORTING PERIOD

During the next reporting period the DCM will restart bulk earthworks to rehandle material and construct a refined final landform which will enable progression of site rehabilitation and closure works in accordance with the RMP and the Forward Program (as detailed below in **Section 8**).

Decommissioning activities to occur during the next reporting period will focus on the removal and rehabilitation of redundant infrastructure in association with reconfiguration of infrastructure which is to be retained.

5.0 ACTIONS REQUIRED FROM THE PREVIOUS ANNUAL REVIEW

The Department of Planning, Housing and Infrastructure (DPHI) provided notification on 8 November 2024 that the DCM AR 2023-2024 was generally in accordance with the Project Approval requirements and the Department's *Annual Review Guidelines* with no further action required.

6.0 ENVIRONMENTAL PERFORMANCE

6.1 REVIEW OF ENVIRONMENTAL PERFORMANCE

A brief review of environmental performance in relation to project approval PA 08_0203 is provided below, in addition to consideration of Environmental Protection Licence 11701. Performance is discussed further in the subsequent sections reviewing environmental management activities and environmental monitoring.

6.1.1 PROJECT APPROVAL CONDITIONS PA 08-0203

DCPL continues to operate in accordance with the existing PA 08_0203. During the reporting period there was one (1) identified non-compliance against the PA as outlined previously in the Summary of Compliance **(Table 2)** and as detailed in **Section 11,** below.

Approval conditions which were met during this reporting period are described in the following sections. These include administrative and reporting conditions, environmental management and monitoring conditions, community engagement and progressive rehabilitation. Environmental monitoring data was regularly reported as required by the approval and associated Environmental Management Plans.

6.1.2 EPA ENVIRONMENT PROTECTION LICENCE 11701

DCPL continues to operate in accordance with the conditions of EPL 11701. During the reporting period there were two identified non-compliances with EPL 11701 as outlined in the Summary of Compliance (**Table 2**), and as reported below in association with other key outcomes.

- A non-compliance occurred when sediment dams VC1 and RS6 overtopped due to a substantial rainfall event which exceeded the design capacities.
- All monitoring has been carried out in accordance with licence conditions.
- Records of environmental monitoring activities have been kept.
- A record of environmental and pollution complaints was maintained (although noting that no complaints were received during the reporting period).
- Dust suppression measures were maintained with dust monitoring (dust deposition gauges, high volume (PM10) air samplers and a TEOM monitor) demonstrating dust suppression systems were effective and dust levels were below EPA limits.
- Noise compliance monitoring was undertaken in November 2024, February 2025, and June 2025 during the quarters which operations occurred. Monitoring confirmed that noise emissions at the time of monitoring were within EPA noise level criteria at all monitored locations.
- The Pollution Incident Response Management Plan (PIRMP) was maintained and is available on the Duralie Coal website.
- The Annual Return was prepared and submitted in accordance with EPL requirements.
- The risk-based licencing 5-year environmental risk assessment was completed in November 2024. The assessment determined the site's overall environmental risk level to be Level 1.

6.2 METEOROLOGICAL MONITORING

A meteorological station (i.e. weather station) is operated at the mine site as required by the approval conditions. The location of the meteorological station and the two inversion monitoring towers is shown on **Figure 3** (**Appendix 1**).

6.2.1 RAINFALL

A summary of rainfall recorded at the site weather station during the reporting period is presented in **Table 7**. A graphical representation of the historical average and monthly recorded rainfall during the reporting period is provided in **Appendix 2**.

Table 7 Duralie Mine - Monthly Rainfall Records

MONTH	YEAR				STROUD DISTRICT AVERAGE[2]
	2025 (to end reporting period)		2024		
	Monthly Total (mm)	No. of Rain Days/Month[1]	Monthly Total (mm)	No. of Rain Days/Month[1]	1889-2010
January	368	22	39.4	14	115.3
February	62.4	13	118	13	125.0
March	212.2	22	107	12	147.3
April	277	22	167.6	14	100.9
May	436.2	30	152	21	91.5
June	25.2	22	129.8	14	101.1
July			48.6	17	75.1
August			47.6	20	65.3
September			117.8	11	63.1
October			60.2	19	78.3
November			61	14	83.3
December			53.6	8	100.8
TOTAL	**1381.0**	**131**	**1102.4**	**177**	**1147.0**

Notes:
1. No. of Rain Days/Month - the number of days in the month on which rain fell. (When tipping bucket rain gauge data used, a "rain day" by definition requires a minimum recording of >0.25mm comprising dew, heavy fog or light rain (or a combination thereof).
2. Average based on Stroud Post Office records until mine site weather station commissioned in 2002.

The rainfall total for the reporting period from July 2024 to June 2025 was 1769.8mm which is more than 600mm higher than the historical average for the period. Four of the twelve months in the reporting period exceeded their respective long-term average rainfall, with three of these occurring during the latter portion of the period from January 2025.

Of particular note was rainfall received during April and May 2025 culminating in a declared disaster event across the MidCoast LGA and surround areas. During the 30 day period from 20 April 2025 to 20 May 2025 the DCM weather station recorded 474.2mm of rainfall, in addition to approximately 306mm across the four days from 20-23 May.

The 2024 calendar year rainfall total of 1102mm was slightly lower than the long-term district average of 1147mm however exceeded the 2023 calendar year rainfall total of 847.4mm.

6.2.2 EVAPORATION

Minimum, average and maximum evaporation rates for the reporting period are shown in **Table 8**, with a graphical representation provided in **Appendix 2**.

Table 8 Monthly Minimum, Average and Maximum Evaporation Rates

MONTH	MINIMUM EVAPORATION RATE (mm/day)	AVERAGE EVAPORATION RATE (mm/day)	MAXIMUM EVAPORATION RATE (mm/day)
July 2024	0.3	4.8	1.8
August 2024	0.4	7.1	2.1
September 2024	0.5	6.7	3.3
October 2024	0.8	5.6	3.2
November 2024	1.2	6.9	4.0
December 2024	1.2	7.7	5.4
January 2025	0.8	8.2	4.2
February 2025	1.9	5.6	4.0
March 2025	0.7	5.5	2.6
April 2025	0.4	4.0	2.2
May 2025	0.1	2.9	1.1
June 2025	0.4	3.3	1.5

6.2.3 WIND SPEED AND DIRECTION

Monthly average and maximum wind speeds, and dominant wind directions for the reporting period are shown in **Table 9**, while a graphical representation of the daily average and maximum wind speeds recorded and monthly wind roses are provided in **Appendix 2**.

Table 9 Monthly Average and Maximum Wind Speeds and Dominant Wind Directions by Month

MONTH	AVERAGE WIND SPEED (km/hr)	MAXIMUM WIND SPEED RECORDED (km/hr)	DOMINANT WIND DIRECTIONS
July 2024	9.5	60.5	WSW
August 2024	7.4	53.0	NNW
September 2024	8.3	61.0	WNW
October 2024	8.4	40.3	NW
November 2024	8.9	60.4	NNE
December 2024	9.5	56.3	NE
January 2025	11.1	59.6	N
February 2025	8.7	42.8	NNE
March 2025	8.2	43.3	NE
April 2025	6.9	52.7	WNW
May 2025	6.2	55.5	SW
June 2025	7.6	48.9	NW

6.2.4 TEMPERATURE

Monthly air temperatures are summarised in **Table 10**, with a graphical representation of daily minimum, average and maximum atmospheric temperatures is provided in **Appendix 2**.

Table 10 Monthly Average Maximum and Minimum Air Temperature by Month

MONTH	MINIMUM AIR TEMP RECORDED (deg C)	AVERAGE AIR TEMP (deg C)	MAXIMUM AIR TEMP RECORDED (deg C)
July 2024	2.7	11.7	23.1
August 2024	3.3	14.6	29.8
September 2024	3.0	15.7	31.0
October 2024	7.3	17.4	29.6
November 2024	11.0	21.7	37.5
December 2024	10.9	23.8	38.3
January 2025	12.6	22.6	39.5
February 2025	9.4	22.4	34.1
March 2025	14.0	21.8	35.3
April 2025	10.0	18.0	28.2
May 2025	6.8	15.2	26.4
June 2025	1.4	11.4	21.7

6.3 AIR QUALITY

6.3.1 AIR QUALITY CONTROL PROCEDURES

DCM has an approved Air Quality and Greenhouse Gas Management Plan (AQMP) that establishes a dust management strategy which:

- Identifies air quality criteria;
- Outlines proactive and responsive dust management and control measures;
- Establishes dust management protocols;
- Formulates an air quality monitoring programme;
- Establishes stakeholder consultation protocols; and
- Details reporting and review requirements.

The following dust control procedures are used during mining operations to control dust emissions from wind erosion on exposed areas and dust generated from mine closure activities.

- Progressive rehabilitation including prompt reshaping, topsoiling and revegetation;
- Watering of haul roads and other trafficked areas;
- Watering dig faces prior to and during digging;
- Real-time monitoring with alarm triggers set to enable implementation of reactive dust control management measures; and
- Modifying operations during adverse weather conditions.

6.3.2 AIR QUALITY MONITORING AND CRITERIA

DCPL monitors air quality (dust) surrounding the mine site by means of a network of nine (9) static dust fallout gauges, four (4) high volume PM10 air samplers, one real-time dust monitor (TEOM) and a meteorological monitoring station (i.e. weather station). The locations of these monitoring sites are shown on **Figure 3** (**Appendix 1**).

Monthly dust fallout levels are measured so that dust deposition rates in g/m2/month can be determined at each monitoring site. The nine (9) gauges are located around the DCM, except for gauge D7 which is located within the Village of Wards River.

The high-volume air samplers (HVAS) (PM10) are located at locations representative of surrounding sensitive receivers, along Johnsons Creek Road ("Hattam" – located to the northeast of the mine, "Twin Houses" – located to the east of the mine and "High Noon" – located to the south of the mine). A HVAS unit is also located on private land along the Bucketts Way ("Edwards" – located west of the mine).

HVAS sampling occurs for a 24-hour period every 6 days in accordance with AS 2724.3. The EPA goal for air quality is an annual average limit of 30ug/m3/day and a National Environmental Protection Measure (NEPM) 24-hour average limit of 50ug/m3/day.

A Tapered Element Oscillating Microbalance (TEOM) analyser measuring PM10 and PM2.5 is used to continuously measure particulate matter. Real-time air quality monitoring data is used to identify when ambient PM10 levels in the surrounding environment are elevated and require contingency action. Real-time response triggers have been established and are designed to provide a system to warn operation personnel (via SMS) when particulate emissions are approaching a relevant criterion and to implement a hierarchy of management/control actions to mitigate potential impacts.

6.3.3 REVIEW OF AIR QUALITY MONITORING RESULTS AND PERFORMANCE

6.3.3.1 DUST DEPOSITION GAUGES

Dust deposition results for nine (9) dust deposition gauges are shown in **Table 11**.

Table 11 Dust Deposition Gauge Results

	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
D3	51.4 [I,V]	9.3 [I,B]	3.0	0.5	2.5	0.6	3.2 [I,B,V]	6.9[I]	2.7	3.8	1.3	3.3
D4	0.4	1.1	0.9	79.1 [I,B]	0.6	3.6	2.1	0.9	1.6	1.6	2.6	0.8
D5	51.0 [I,B]	10.6[I]	1.0	0.6	0.7	0.6	0.5	2.7	3.2	0.8	1.4	0.3
D7	0.4	0.4	0.2	0.6	0.6	2.1	8.0 [I,V]	1.3	0.7	0.9	1.8	0.3
D8	3.3	0.2	2.5	0.4	0.5	0.3	0.7	1.1	0.8	0.6	1.1	11.6 [I,V]
D9	0.1	1.1	0.4	0.4	0.6	2.2	0.9	1.0	0.3	0.4	3.2 [I,V]	2.2
D10	0.3	0.3	0.1	0.5	0.8	0.7	0.9	1.2	0.1	0.3	1.3	0.2
D12	0.1	0.3	0.0	0.2	0.4	0.6	0.2	1.5	0.3	1.4	0.6	0.0
D13	0.4	0.2	0.6	0.6	0.4	0.4	0.1	0.6	9.7 [B]	0.5	4.4 [I]	0.6

Notes/excluded results, Visual Description Guide:
I=Insects: Whole insects e.g. spiders, ants, moths or outer parts of insects including wings, legs and exoskeletons.
V=Vegetation: Plant debris and algae including trichomes, decomposed organic matter and particulates showing characteristic cellular structures.
B=Bird droppings: The most common contamination.

Depositional dust levels recorded had an average value of 0.97 g/m2/month (contaminated results excluded). Elevated values were at times affected by various degrees of contamination from insects, bird droppings and vegetation (seeds/grasses) and algae. All dust deposition gauges complied with

the total dust deposition annual average criterion of 4.0 g/m2/month and the incremental annual average increase criterion of 2.0 g/m2/month.

Annual average dust deposition levels at the end of the reporting period are presented in **Table 12** in association with results for the previous four years. Levels across the reporting period are consistent with results recorded in previous years and all results are below the performance criteria. Graphical representation of dust gauge results and annual rolling averages are provided in **Appendix 3**.

Table 12 Annual Average Dust Deposition Gauge Results

Reporting Period	Total Insoluble Solids (g/m²/month)								
	D3	D4	D5	D7	D8	D9	D10	D12	D13
Criteria	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
2021	1.6	0.6	0.9	0.7	0.5	0.6	0.6	0.4	1.5
2022	1.9	0.3	1.8	0.9	0.5	0.3	0.4	0.3	1.4
2023	1.1	0.6	1.3	1.0	0.6	1.1	0.9	0.4	1.0
2024	1.0	1.4	0.8	1.0	0.6	1.2	0.7	0.6	0.8
2025	**1.6**	**1.3**	**0.9**	**0.9**	**1.0**	**0.9**	**0.6**	**0.5**	**0.6**

6.3.3.2 HIGH VOLUME (PM10) AIR SAMPLERS

HVAS PM10 monitoring results indicated that one result ("Twin Houses" on 31 December 2024) exceeded the National Environmental Protection Measure (NEPM) of 50ug/m3/day, listed under Condition 19, Schedule 3 of the Project Approval, while all other results were within criteria.

Investigation into the elevated result found that on the day of the measurement The Bucketts Way was closed and vehicle traffic was diverted along the unsealed Johnsons Creek Road located to the near east of the mine. Other HVAS sites located along Johnsons Creek Road also measured elevated readings on this day supporting that increased traffic volume impacted the result. DCM was not operational, and no visible dust was observed originating from the mine on this day.

Recorded PM10 24hr results across the four HVAS monitoring sites during the reporting period are shown graphically in **Appendix 3**. Fluctuations generally reflect changes in meteorological conditions throughout the year, in particular the influence of rainfall.

HVAS PM10 annual averages for the reporting period are presented in **Table 13** in association with results with the previous four years and also shown graphically in **Appendix 3**. The HVAS annual rolling averages remained low with results for all locations below the 30 µg/m3/day criterion set under the Project Approval.

Table 13 Annual Rolling Average HVAS (PM10) Results

Reporting Period	PM_{10} (µg/m3)			
	High Noon	Twin Houses	Hattam	Edwards
Criteria	**30**	**30**	**30**	**30**
2021	6.2	7.2	7.1	7.0
2022	5.5	7.2	6.5	5.6
2023	4.9	6.3	7.8	5.8
2024	8.5	11.1	10.0	8.3
2025	**7.7**	**9.9**	**8.5**	**7.3**

Graphical representation of the annual rolling average for the four HVAS including PM10 and TSP during the reporting period is provided in Appendix 3. The HVAS rolling averages over the 12-month period remained consistent with levels measured during previous years, with the periods recording relatively elevated ranges generally correlated with periods of average or lower than average rainfall.

6.3.3.3 HIGH VOLUME (TSP) AIR CALCULATION

Concentrations of TSP are calculated, based on the results of the PM10 HVAS and the assumption that 40% of TSP is PM10, as per the relationship obtained from co-located TSP and PM10 monitors operated in the Hunter Valley (NSW Minerals Council, 2000) as per the approved AQMP.

The derived TSP annual rolling averages for the four HVAS are shown in **Appendix 3**. The TSP rolling average at the end of the reporting period for "High Noon" was 19.4, "Twin Houses" was 24.7, "Hattam" was 21.2 and "Edwards" was 18.3 ug/m3/day. Thus, annual averages for all sampling locations were below the 90 ug/m3/day criterion.

6.3.3.4 TEOM (PM10 AND PM2.5) MONITORING

A TEOM which measures PM10 and PM2.5 on a real-time continuous basis is utilised as a management tool for operations to guide proactive and reactive mitigation measures.

The annual average across the reporting period was 8.5 ug/m3 for PM10. 24-hour average results for the reporting period are shown graphically in **Appendix 3**. The TEOM results are generally consistent with those measured by the HVAS units.

Alarms are generated from the TEOM systems and received by site personnel as outlined in the Air Quality and Greenhouse Gas Management Plan. Alarm triggers are assessed and if found to be associated with operational activities then additional operational controls are implemented. All alarms during the reporting period were found to have resulted from external events such as strong winds or regional dust events.

6.3.4 ANALYSIS OF DATA TRENDS AND COMPARISON WITH EA PREDICTIONS

Results of depositional dust monitoring were consistent with the Environmental Assessment (2010) which predicted the annual average criteria of 4 g/m2/month would not be exceeded at any receiver and that project only incremental increases in annual average dust deposition would not exceed the applicable 2 g/m2/month EPA criterion at any receiver.

Results of HVAS monitoring were consistent with Environmental Assessment (2010) which predicted the annual average PM10 criterion of 30 µg/m3 would not be exceeded at any receiver and that project-only 24 hour PM10 concentrations would not be above the 50 µg/m3 criterion at any privately owned receiver with the exception of "Hattam" which is now mine owned and in close proximity to the mining operations.

6.3.5 AIR QUALITY COMPLAINTS

No complaints relating to air quality were received during the reporting period.

6.3.6 GREENHOUSE GAS

Measures taken to minimise Greenhouse Gas (GHG) emissions from the DCM are described in Section 6.2 of the AQGGMP.

Yancoal's operations are reported under the National Greenhouse and Energy Reporting Scheme (NGERS) each financial year. DCM Scope 1 and Scope 2 emissions calculated for the 2023-2024 financial year was 1,227 tCO2-e. DCM Scope 1 and Scope 2 emissions calculated for the previous reporting period (2022-2023) was 3,349 tCO2-e. There was an approximate 63% decrease in overall emissions since the previous NGERS reporting period (2022-2023).

This decrease is attributable to reduced use of the electric pumps at the DCM following lower than average rainfall during 2023 in conjunction with a shorter period of bulk rehabilitation earthworks between July and September 2023 (compared to October 2022 and June 2023), and the decommissioning of the DCM rail infrastructure in February 2023. Greenhouse gas emissions for the 2023-2024 NGERS period in addition to the previous three reporting periods are show in Table 15.

The main source of Scope 1 emissions at DCM during the 2023-2024 period was from diesel combusted by heavy vehicles whilst completing bulk rehabilitation earthworks between October and November 2024. This is predominantly from haul truck usage at 40% of diesel combusted followed by excavators at 29%, stationary engines at 19% (pumps), dozers at 6%, light vehicles at 4%, and graders at 3%. The heavy vehicle fleet at DCM is detailed in **Section 4.2.3**.

Scope 1 and Scope 2 emissions at the DCM are significantly below the Environmental Assessment (2010) predictions. The predicted 0.14 Mt CO2-e per annum for Scope 1 emissions and 3.48 Mt CO2-e per annum for Scope 2 emissions.

Table 14 DCM GHG Emissions

	2020-2021	2021-2022	2022-2023	2023-2024
Scope 1	2,222	2,302	2,401	835
Scope 2	711	961	948	392
Total GHS Emissions (t CO_2-e)	**2,933**	**3,263**	**3,349**	**1,227**

The 2024-2025 financial year GHG emissions reporting will be finalised during the next reporting period and a summary included in the 2026 Annual Review.

The NGER data reported by DCPL is subject to review by the (Commonwealth) Clean Energy Regulator under the National Greenhouse and Energy Reporting Act 2007 (NGER Act) and includes third party assurance.

6.4 BIODIVERSITY MANAGEMENT

In accordance with Condition 33, Schedule 3 of the Project Approval, DCM is required to implement the Offset Strategy and achieve the broad completion criteria to the satisfaction of the Secretary of the DPHI. The management of biodiversity at the DCM in both the Mining Lease areas and the Biodiversity Offset Area is undertaken in accordance with the approved Biodiversity Management Plan (BMP).

In accordance with Section 7.2 of the BMP the Annual Biodiversity Report (**Appendix 7**) provides a review of the effectiveness of measures in the management plan for the reporting period. The scope of this report covers biodiversity management activities across both the Mining Lease areas and the Biodiversity Offset Areas.

6.4.1 VEGETATION CLEARANCE REPORT

Vegetation clearance is undertaken in accordance with the BMP Section 5.4 Vegetation Clearance Plan. Prior to any clearance operations a Clearing Plan is prepared, which includes a Ground Disturbance Permit (GDP) and vegetation pre-clearance surveys where applicable.

During the reporting period vegetation clearance was undertaken to assist with mine closure in the following areas:

- Construction of a crest drain within rehabilitation on the waste emplacement
- Establishment of exploration drill site B4
- Removal of former Auxiliary Dam 1 (AD1) diversion drain and upper drain dam

Disturbance during the reporting period was 3.4ha of new disturbance and 3.6ha of rehabilitation disturbance. The total area of disturbance at the end of the reporting period is shown in **Figure 4** in **Appendix 1**.

Information obtained during the preparation of the Clearing Plans and the vegetation clearance activities (i.e. habitat features, hollows observed, and fauna observed) is used to determine the requirements for nest box replacement in the Biodiversity Offset and Enhancement Areas. During the reporting period no habitat features or tree hollows were removed during vegetation clearance works and therefore the requirement for additional nest boxes was not triggered.

6.4.2 NEST BOX PROGRAM

Nest box management is undertaken in accordance with the BMP Section 6.4. Nest boxes have been installed to provide habitat opportunities in the short to medium-term for a number of arboreal fauna species including the Squirrel Glider (*Petaurus norfolcensis*).

AMBS Ecology (AMBS) were commissioned to implement the Nest Box Program as described in the BMP Section 5.4.2 and Section 6.4. A *Nest Box Program for the Duralie Offset Area, Annual Report 2024* was completed by AMBS in April 2025 (AMBS, 2024a). Results are included in the DCM Annual Biodiversity Report 2025 which is included in **Appendix 7**.

6.4.3 WEED CONTROL AND MONITORING

The weed control program aims to manage weeds to minimise their impact on native flora and fauna.

Weed spraying activities are generally undertaken between the months of September and April each year. Physical management measures such as mechanical removal, slashing and/or back-burning can be undertaken at other times of the year as required.

Two contractors are engaged at the DCM to undertake weed management activities on an ongoing basis. Follow-up weed treatment of all remnant enhancement and regrowth management Vegetation Management Units (VMU) recommenced in September 2024 and continued through to April 2025. Key species targeted included blackberry, lantana, privet, wild tobacco and giant parramatta grass.

Weeds monitoring to evaluate the effectiveness of control measures is undertaken in conjunction with the annual vegetation monitoring and is documented in the DCM Annual Biodiversity Report 2025 (**Appendix 7**).

6.4.4 FERAL ANIMAL CONTROL AND MONITORING

The objective of feral animal control program is to manage feral animals to minimise their impact on native flora and fauna in the Biodiversity Offset Areas or the impact on agricultural production in other surrounding areas.

MDP Vertebrate Pest Management has been engaged by DCPL since 2016 to implement feral animal control programs across property owned by DCPL including both the Stratford and Duralie Mining Leases and the Stratford and Duralie Biodiversity Offset Areas. During the reporting period no feral animal control programs were implemented at Duralie. Works scheduled for early in 2025 were initially postponed and subsequently abandoned due to the impacts of above average rainfall.

The next feral animal survey of the Duralie Mining Lease and Duralie Biodiversity Offset Area is scheduled to commence in July 2025. Feral animal monitoring will guide the ongoing management efforts for controlling feral animals across the Duralie Mining Lease and Duralie Biodiversity Offset Area.

6.4.5 CONTROLLING ACCESS AND MANAGING GRAZING

The BMP requires works to be undertaken to exclude livestock and control access to the Biodiversity Offset Areas.

During the reporting period contractors were engaged to undertake maintenance activities on access tracks, culverts, gates and fences. The works included slashing of tracks, firebreaks and repairs to damaged gates and culverts. Additional signage was also installed on the key access points to the Biodiversity Offset Areas.

The *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025* (Kleinfelder, 2025) (**Appendix 7**) found fencing on external boundaries was generally in good condition. There were no signs of livestock within the offset areas at the time of the survey.

Livestock continue to be excluded from the Biodiversity Offset areas with the exception of 'crash grazing' programs in preparation for revegetation activities following a field assessment by a qualified consultant.

6.4.6 BUSHFIRE MANAGEMENT

The objective of bushfire management in the Biodiversity Areas is to prevent impacts from unplanned bushfire and to use fire to promote biodiversity.

To assist with bushfire management, access tracks and firebreaks have been constructed and maintained as shown in the BMP Figure 9.

Monitoring of fuel loads to evaluate bushfire risk and guide bushfire hazard reduction activities is undertaken in conjunction with the annual vegetation monitoring. Bushfire risk will continue to be mitigated through the maintenance of access tracks and fire breaks.

The 2025 annual report, along with previous reports, noted that VMUs that have been subjected to multiple disturbances such as revegetation ground preparations or bushfire have LFA scores

equivalent to, or exceeding, their 2013 baseline scores and indicating that these VMUs have recovered from the past disturbance.

6.4.7 SEED COLLECTION AND PROPAGATION

Revegetation in the BMP Revegetation Areas has occurred via seed and tubestock. Local endemic species are preferentially used where a seed supply is available, however consideration will be given to the use of a high-quality seed sourced further from the site as required.

Where possible, seed required for revegetation activities has been collected from within the Biodiversity Offset Area and surrounds. Specific tree and shrub species which have not been available for collection have been sourced through external third-party suppliers. Further seed collection may be undertaken if found necessary to meet the completion criteria of the BMP offset revegetation and mine site rehabilitation.

Gloucester Worimi First Peoples Aboriginal Corporation, Hunter Indigenous Plants and Kleinfelder have been engaged to assist in the propagation of native plant species with tube-stock grown under controlled nursery conditions and delivered to site as required for revegetation works in the next reporting period.

6.4.8 REVEGETATION AND REGENERATION MANAGEMENT

The aim of revegetation is to establish a range of habitat niches including native canopy, and understorey, with the goal of achieving self-sustaining vegetation communities as well as increasing the resilience to identified risks such as fire, herbivory and future weed invasion.

Revegetation works in the Duralie Biodiversity Offset Areas has been undertaken progressively since the implementation of the BMP. Revegetation trials initially commenced in 2016. The 2024 Duralie Offsets Planting Program aimed at infill planting into ten VMUs across 5 different vegetation communities. While increased rainfall in April and May 2024 subsequently restricted access into a number of VMUs, the program was successful with 7,632 plants being planted into eight VMUs across 3 vegetation communities. The proposed 2025 H1 Planting Program did not go ahead due to above average rainfall during the second half of the reporting period (January-June). Further infill planting is planned to occur in the next reporting period (H2 2025) and will focus on areas across the Duralie Offsets which require further infill planting or that could not be previously accessed.

6.4.9 BIODIVERSITY OFFSET MONITORING AND REPORTING

The BMP monitoring program aims to monitor and report on the effectiveness of the BMP management measures and progress against the detailed performance and completion criteria. As described in the Section 7 of the BMP an annual report is prepared reviewing environmental performance and progress against the requirements of the BMP including monitoring and reporting. The DCM Annual Biodiversity Report 2025 is included in **Appendix 7** and reports on monitoring for:

- Effectiveness of revegetation in the offset area;
- Usage of the offset by fauna;
- Effectiveness of weed control;
- Effectiveness of feral animal control;
- Nest box monitoring program.

Habitat and vegetation condition monitoring is undertaken to quantitatively measure the change in habitat and vegetation condition over time. The visual monitoring and photo monitoring programs are undertaken concurrently with the vegetation monitoring to provide additional information on the change of the Biodiversity Offset Areas over time and inform maintenance requirements.

Initial vegetation surveys were undertaken in 2013 and 2014. The annual vegetation and landscape function monitoring continues to be undertaken and was repeated in February 2025. The results are provided in the DCM Offsets Ecosystem Functional Analysis Monitoring Report 2025 prepared by Kleinfelder (**Appendix 7**). The next round of monitoring is scheduled for 2026.

Monitoring of fauna usage within the Biodiversity Areas is conducted every three years to document the fauna species response to improvement in vegetation and habitat in the Biodiversity Areas and assess the performance in providing habitat for a range of vertebrate fauna. The surveys include an assessment of habitat complexity, species richness and abundance.

AMBS was engaged to undertake fauna monitoring within the Biodiversity Offset areas and native mine rehabilitation areas during Spring 2024. The results are provided in the *DCM Fauna Surveys of the Offset and Mine Rehabilitation Areas*, December 2024 (AMBS, 2024b). A summary of the survey results is included in the Annual Biodiversity Report 2025 (**Appendix 7**). The next round of fauna monitoring is scheduled for Spring 2027.

6.4.10 LONG TERM SECURITY AND CONSERVATION BOND

Long-term Security

In accordance with Condition 42, Schedule 3 of the PA, DCPL is required to make suitable arrangements for the long-term security of the DEP Biodiversity Offset Area. DCPL used the mechanisms available under section 88E(3) of the NSW *Conveyancing Act 1919*, namely:

> Registration of a Positive Covenant under section 88E(3) of the NSW *Conveyancing Act 1919*; and Registration of a Restriction on the Use of Land by a Prescribed Authority under section 88E(3) of the NSW *Conveyancing Act* 1919.

Public Positive Covenants and Restrictions on the Use of Land for the Biodiversity Offsets have been registered on title with NSW Land and Property Information (LPI) in May 2015.

Conservation Bond

In accordance with Condition 44, Schedule 3 of PA 08_0203, DCPL is required to lodge a Conservation Bond with the DPHI which covers the cost of implementing the Biodiversity Offset Strategy detailed in the BMP.

A conservation bond is in place for the Biodiversity Offset areas. The amount was calculated by Greening Australia, verified by Rider Levett Bucknell in December 2013 and approved by DPE on 12 December 2013.

A revision of the Duralie Offset Conservation bond continued within the reporting period. The revised conservation bond is anticipated to be lodged with DPHI in the next reporting period.

6.4.11 BIODIVERSITY COMPLAINTS

No complaints related to the management of biodiversity were received during the reporting period.

6.5 GIANT BARRED FROG MANAGEMENT

Management and monitoring of the Giant Barred Frog population is conducted in accordance with the approved DCM Giant Barred Frog Management Plan (GBFMP). The GBF monitoring program has been undertaken to establish baseline data of the local frog population and monitor whether a greater than negligible impact on the Giant Barred Frog population has occurred as a result of rainfall runoff from the mine's irrigation areas. Monitoring results are used to assess the DCM against performance measures detailed in the GBFMP.

Annual monitoring and reporting on the implementation of the Giant Barred Frog Management Plan was undertaken between 2011 and 2016.

As stated in Section 7 of the GBFMP the timing and frequency of GBF monitoring will be triggered upon commencement of irrigation within the Duralie Extension Project (DEP) Additional Irrigation Areas. DCM does not propose to undertake the irrigation activities associated with the DEP and as such, the Project has not presented a potential impact on the Giant Barred Frog population. All irrigation activities at the DCM ceased in 2018 and all irrigation equipment has been removed.

No further monitoring of the Giant Barred Frog has been required since 2016 in accordance with the GBFMP.

In accordance with Condition 31A, Schedule 3 of the PA and the GBFMP, DCPL is required to prepare a long-term study on the life-cycle and population of the GBF. DCPL did not commence irrigation of the Additional Irrigation Areas approved under the DEP, therefore the requirement for preparation of the Long-term GBF Study was not triggered. Notwithstanding, DCPL and Dr Arthur White prepared a GBF Review Report capturing all monitoring and baseline data collected between 2011 and 2018 by DCPL (Dr White, 2023). This report was submitted to DCCEEW and DPHI on 22 August 2023 and remained under assessment by DCCEEW at the conclusion of the reporting period. Approval is expected within the next reporting period which will support DCPL's proposal seeking redundancy of the GBFMP.

6.6 BLASTING

6.6.1 BLAST CRITERIA AND CONTROL PROCEDURES

Blasting at the DCM is conducted in accordance with Conditions 8-15, Schedule 3 of the PA and respective EPL conditions and the approved Blast Management Plan (BLMP). Blasting criteria, blasting hours, blasting frequency, property inspection requirements and operating conditions are provided in Conditions 8 to 12, Schedule 3 of the PA.

6.6.2 REVIEW OF BLAST MONITORING RESULTS AND PERFORMANCE

As mining ceased at the DCM in December 2021 blasting no longer occurs. Vibration and blast monitoring is currently not required and blast monitors were removed from service following the final blast on 9 September 2021.

No blasting was undertaken at DCM during the reporting period.

There are currently no closure and rehabilitation activities planned that require blasting. Should blasting be required in the future then blasting will undertaken in accordance with the Blast Management Plan and details will be reported in the Annual Review.

6.6.3 PROPERTY INSPECTIONS AND INVESTIGATIONS

Building condition surveys of several privately owned dwellings located in the vicinity (within 2kms) of the mine have previously been undertaken by an independent structural engineer. In addition, surveys may be commissioned following a request by a landowner concerned about dwelling damage which they consider may be related to blasting activity at the DCM (Condition 11, Schedule 3).

During the reporting period no building inspections of private residences were undertaken. No requests were received from any landowners to undertake a building inspection or to update a previous inspection report.

The Former Weismantel's Inn is a heritage listed building owned by DCPL. A structural engineering inspection of the Former Weismantel's Inn was undertaken in April 2025 and reported that there is no evidence that the building has been affected by previous site blasting activities.

6.6.4 BLASTING COMPLAINTS

No blast related complaints were received during the reporting period.

6.7 NOISE

6.7.1 NOISE CRITERIA AND CONTROL PROCEDURES

DCM has an approved Noise Management Plan (NMP) that establishes a noise management strategy which:

- Identifies noise criteria;
- Outlines proactive and responsive noise management and control measures;
- Formulates a noise monitoring program;
- Establishes data assessment protocols; and
- Details reporting and review requirements.

Noise emissions from the DCM are managed in accordance with the criteria and procedures described in the NMP. The noise criteria are specified in approval PA 08_0203 and EPL 11701.

DCPL implements measures to ensure noise from the DCM is managed to approved levels, through a combination of the following:

- Ensuring best management practices are implemented and reviewed;
- Implementing noise controls to reduce noise from the source and attenuate noise transmission; and
- If necessary, implementing measures to control noise at receivers following a review of monitoring data.

The noise monitoring program has included both attended noise surveys and real-time noise monitoring. The results of compliance attended monitoring are used to assess compliance with relevant noise impact assessment criteria in the NMP. Real-time noise monitoring results are used for ongoing performance assessment and will assist in the implementation of pre-emptive management actions to avoid potential non-compliances. In addition, rail noise monitoring, meteorological monitoring and sound power testing is also required under the NMP.

The NMP was revised and updated during the 2021-22 reporting period to reflect the reduction in noise-generating activities as the DCM transitions to mine closure. The noise monitoring program

components will continue to be adjusted as needed to support closure activities with a progression towards a staged cessation.

During the reporting period the key changes to management activities were the implementation of the following controls during periods of bulk earthworks rehandle activities:

- Real time noise monitoring;
- Attended noise monitoring;
- Sound Power Level.

The locations of noise monitoring sites are shown on **Figure 3 (Appendix 1)**.

6.7.2 REVIEW OF ATTENDED NOISE MONITORING RESULTS AND PERFORMANCE

DCPL undertakes quarterly attended noise monitoring surveys in accordance with the NMP in order to determine the status of compliance with noise limits. Attended noise monitoring is only undertaken during periods when mining activities or bulk rehabilitation earthworks are occurring in accordance with the NMP. PAF rehandle works recommenced at the DCM in October 2024 triggering the resumption of quarterly attended noise monitoring. Attended noise surveys were conducted during Q4 2024, Q1 2025, and Q2 2025. Attended noise surveys were not conducted in Q3 2024 as site was not operational. No further noise surveys where required during the reporting period.

All noise performance assessments of daytime and night-time operational noise emissions found DCM to be compliant with all consent and licence criteria at all monitoring locations.

The summary results of the attended noise surveys undertaken during the reporting period are provided in **Appendix 5**. Noise monitoring locations are shown on **Figure 3** in **Appendix 1**. The full Noise Survey Reports are available at the Duralie Coal website (www.duraliecoal.com.au).

6.7.3 ANALYSIS OF DATA TRENDS AND COMPARISON WITH EA PREDICTIONS

The 2010 EA and 2014 EA provide predictions on mine contributed noise emissions for various operational years. Year 5 (2015) was predicted as the maximum operational noise levels for the Modification Project with reduced operational noise from 2016 to 2019. In terms of the four monitoring locations (“Woodley”, “Fisher-Webster”, “Moylan” and “Oleksiuk & Carmody”) predicted mine contributed noise emissions were consistent with measured values for all locations, factoring in the current reduced fleet and reduced operating hours at the DCM.

Results of quarterly noise monitoring during 2016 to 2025 has shown mine contribution to be generally inaudible. During the reporting period the mobile plant fleet and the DCM was significantly reduced resulting in reduced total site sound power level and noise emissions. This is reflected in the attended noise monitoring results.

6.7.4 REAL TIME NOISE MONITORING SYSTEM

A real-time noise (RTN) monitoring response protocol is described in the NMP Section 7.3.5. Real-time monitoring is used as a management tool to assist DCPL to take proactive management actions and implement additional noise mitigation measures to avoid potential non-compliances. The real-time noise monitor records noise levels during the evening and night-time periods on days when operations are occurring at the DCM. Noise investigation triggers are in place which send alarms when noise emissions are approaching levels which may exceed the noise criteria at privately-owned receivers. The noise investigation trigger threshold is set at 42 dBA between the hours of 7.00 pm and 7.00 am.

No alarms were attributed to site activities during the reporting period.

6.7.5 MOBILE PLANT NOISE MONITORING

The DCM fleet of mobile plant including haul trucks, excavators, and graders are required to be assessed annually for Sound Power Levels (SWL) in accordance with the NMP. SWLs are compared to the target SWLs referred to in the 2010 and 2014 Environmental Assessments and are also compared to historical results to track performance over time. Availability of mobile plant for noise testing is subject to site availability, requirements, and servicing/maintenance/breakdowns.

The operational fleet during the reporting period is outlined in **Section 4.2.3** and an indicative mine fleet at the DCM is provided in the *Duralie Modification Noise and Blasting Assessment* (SLR, 2014). Mobile plant sounds power monitoring was undertaken in June 2025.Equipment that exceeded targets is summarised below:

- Excavator EX02 was below the A-weighted target, however measured above the Linear target by 3dB.
- Dump truck DT106 measured above the A-weighted target by 3dB, however was below the Linear target.
- Dump truck DT107 measured above the A-weighted target by 4dB, however was below the Linear target.

Notwithstanding some equipment exceeding the relevant SWL targets, given the equipment fleet in use at DCM is considerably less than those predicted in the EIS, the overall sound power level from DCM is significantly lower than predicted.

Equipment that exceeded targets are being reviewed to identify noise source and potential noise mitigation options. Sound power re-testing will be undertaken again during the next reporting period.

6.7.6 NOISE COMPLAINTS

No noise related complaints were received during the reporting period.

6.8 LANDSCAPE AND VISUAL SCREENING

The overall visual impacts of the DCM are described in the EA 2014 and were generally considered low. However, some local impacts will occur and undertakings such as the following have been, and will continue to be, adopted to lessen these impacts:

- Minimising (where possible) disturbance to native vegetation, particularly where such vegetation is providing visual screening;
- Retention specifically of ridge Open Forest and regrowth forest (where possible);
- Retention of all riparian vegetation along Mammy Johnsons River and out of pit sections of Coal Shaft Creek;
- Ensuring out of pit emplacement design produces a landform which integrates with the adjoining natural landform;
- Painting of substantial fabricated infrastructure with a colour (“Rivergum”) that assists it to blend in with the adjoining landscape;
- Maintenance of infrastructure to retain the ability of such infrastructure to blend into the surrounding landscape over the life of the project;
- Placement, configuration and direction of lighting to reduce offsite nuisance effects of stray light;
- Prioritising rehabilitation of exposed and outer batters of waste emplacements; and

- Establishment of vegetation around the perimeter of the open pit voids to provide visual screening.

In accordance with Condition 51, Schedule 3 of the PA, a visual screen has been constructed and maintained along a section of The Bucketts Way to the north-west of the mine in consultation with DPHI, Roads and Maritime Services (RMS) (now Service NSW), Great Lakes Council (now MidCoast Council) and DCM Community Consultative Committee (CCC). As predicted some additional vantage points of the mine have been exposed through the clearing of the northern extent of the Weismantel Pit and landscaping works and progressive rehabilitation will continue to reduce the visual impact. The addition of new screen trees during the previous reporting period will help reduce impacts to visual amenity for road users of The Bucketts Way, Duralie Road and Martins Crossing Road. Once the tree screen is matured and established, DCM would remove the existing visual screen originally installed as part of the PA.

No visual amenity related complaints were received during the reporting period.

6.9 HERITAGE (ABORIGINAL AND NON-ABORIGINAL)

Aboriginal and non-Aboriginal heritage at the DCM is managed in accordance with the approved Heritage Management Plan (HMP).

In accordance with the HMP, topsoil disturbance during earthworks, construction and operation of the mine has been monitored utilising officers of the Karuah Local Aboriginal Land Council (KLALC). During the reporting period no disturbance of new topsoil areas was undertaken. No further disturbance or stripping of new topsoil areas are proposed at the DCM.

In accordance with the HMP, monitoring of the extant Aboriginal heritage sites at the DCM has been undertaken. There was no change to the status of the known heritage sites during the reporting period.

Table 15 Aboriginal Heritage Sites

Site Code (refer EA documentation)	Site Type	Status
DM2	Isolated Artefact	Salvaged by KLALC
DM3	Scarred Tree	Existing, no disturbance
DM4	Scarred Tree	Existing, no disturbance
DM5	Scarred Tree	Salvaged by KLALC
DM6	Isolated Artefact	Existing, not located by KLALC
DM9	Open Artefact Scatter	Existing, no disturbance
DM10	Scarred Tree	Existing, no disturbance
DM11	Isolated Artefact	Disturbed, not located by KLALC
38-1-0033	Scarred Tree – Honey Tree	Existing, no disturbance

The former Weismantel's Inn is a heritage listed building owned by DCPL. A building inspection of the Inn is conducted every two years while blasting activities occur. Inspection was undertaken during April 2025 and found there is no evidence that the building has been affected by blasting.

6.10 PAF MATERIAL MANAGEMENT AND SPONTANEOUS COMBUSTION

An assessment of the geochemical characteristics of the waste rock material associated with the development of the DEP is provided in the Geochemistry Assessment (EA 2010) prepared by EGi (2009). A further Geochemistry Assessment (EGi, 2012) concluded that the waste rock materials generated from Weismantel and Clareval open cut mining areas would be expected to be include PAF material, with some potentially acid forming – low capacity (PAF-LC) and non-acid forming (NAF) materials also expected to be present.

PAF material is managed in accordance with Section 7.2 of the DCM Surface Water Management Plan. PAF waste rock material is segregated and selectively handled and then placed in either in-pit (below the predicted final water table recovery level) or out-of-pit engineered PAF waste cells. PAF waste rock material would be encapsulated within constructed containment cells and capped with a low permeability layer when placed in out-of-pit waste rock emplacements.

During operations, agricultural lime is placed on the open pit floor and interim waste rock in-pit and out-of-pit waste rock emplacement lifts/faces where PAF material is present, to minimise the generation of acid rock drainage.

DCPL monitors the water quality of contained water storages (i.e. pH and solute concentrations) as part of the existing surface water monitoring program. If in the event acid rock drainage is identified through the surface water monitoring program, specific acid rock drainage controls will be implemented. Refer to the surface water monitoring results in **Section 7.3.2** of this report.

During the reporting period PAF materials have been appropriately managed to minimise the potential for any short-term or long-term effects of acid rock drainage.

Spontaneous combustion at the DCM is managed in accordance with an internal Spontaneous Combustion Principal Mining Hazard Management Plan. This plan provides a comprehensive overview of processes implemented at the DCM to manage identified hazards associated with spontaneous combustion. Management and mitigation practices generally involve reducing the interaction of potentially reactive materials with water and oxygen by appropriate dumping practices, profiling and capping any materials likely to heat, and reducing the time higher risk faces are exposed prior to disturbance.

During the reporting period no events of spontaneous combustion were identified at the DCM.

DCPL had previously identified areas of self-heating on the PAF waste emplacements and continue to undertake remedial works to these areas. PAF rehandle activities were undertaken during the reporting period to place PAF material in-pit below the predicted post-mining groundwater table level. Additional PAF remediation and rehandle works are scheduled for the next reporting period.

6.11 WASTE MANAGEMENT AND RECYCLING

All waste streams generated at the DCM have historically been managed in accordance with the DCM Waste Management Plan. Key waste streams (apart from waste rock) generated at the DCM comprise:

- Recyclable and non-recyclable general wastes;
- Sewage and effluent; and
- Other wastes from mining and workshop activities (e.g. waste oils, scrap metal and used tyres).

All general domestic waste (e.g. general solid [putrescibles] waste and general solid [non-putrescible] waste as defined in *Waste Classification Guidelines Part 1: Classifying Waste* [EPA, 2014]) and general

recyclable products will continue to be collected by an appropriately licensed contractor. DCPL maintains a register of regulated waste collected by the licensed waste contractor.

Tyres at the DCM are to be disposed into the open cut voids in accordance with the EA and the Waste Management Plan. No waste tyres were disposed to mining voids during the reporting period.

Scrap metal is collected by a licensed waste contractor for recycling.

Sewage and wastewater from ablution facilities on-site is collected and transferred via a sewerage system to the existing on-site sewage treatment plant. Sewage is treated in the on-site sewage treatment plant (that consists of an aerobic treatment system) and is disposed of in a manner to the satisfaction of the EPA (i.e. EPL 11701) and MidCoast Council.

6.11.1 WASTE MINIMISATION AND PERFORMANCE

The waste management contractor provides monthly reporting on all waste streams disposed from the DCM. Monthly reports also provide details of recycling achieved and hazardous substances.

During the reporting period the DCM recycled 84.5% of the total waste generated which is consistent with two most recent periods where 88.1% and 85.5% of wastes were recycled. Key waste sources during the period include scrap metal and waste oils, both of which were recycled, in addition to mixed solid waste which was disposed to licenced facilities.

7.0 WATER MANAGEMENT

Water management is undertaken in accordance with the approved Water Management Plan (WMP) and sub-components of the plan including surface water, groundwater and site water balance required under Condition 29, Schedule 3 the PA. The local and regional hydrological setting along with the baseline data is provided in the WMP.

The main objectives of the water management system on-site are:

- Protect the integrity of local and regional water resources;
- Operate such that there is no uncontrolled overflow of contained water storages;
- Maintain separation between runoff from areas undisturbed by mining and water generated within active mining areas; and
- Provide a reliable source of water to meet the requirements of the DCM.

The main principles of the water management system on-site are to:

- Minimise the generation of mine related water and divert clean water around disturbed areas;
- Minimise storage requirements by maximising re-use of mine related water;
- Remove potential impacts on downstream water resources by provision of secure containment on site;
- Implement a fail-safe system, whereby under extreme events in excess of design capacity, mine related waters would spill to the mine pit and not to the clean water catchments; and
- Not allow sediment laden water having an elevated suspended solids concentration to be discharged off site.

Decommissioning of redundant water management structures has commenced. Consistent with the approved DCM final landform design, Auxiliary Dam 1 (AD1) has been decommissioned and rehabilitated. Auxiliary Dam 2 (AD2) is identified for decommissioning however following initial dewatering has recharged following above average rainfall during the reporting period.

7.1 WATER SUPPLY AND DEMAND

The DCM water management system has operated under a surplus water balance, with a trend for increasing water storage on-site over time. The main water supply storage on-site for use in dust suppression is the Main Water Dam (MWD) (monitoring point SW3) located to the northwest of the Infrastructure Area. The MWD is the principal permanent mine water storage on-site alongside the Clareval and Weismantel Pits. Water within these storages comprises pit produced water (runoff to/rainfall/seepage to), water from specific sediment dams, and surface water runoff from the infrastructure area.

The principal water losses in the water system are:

- Water used for dust suppression
- Evaporation from the Main Water Dam (MWD) and the void water storages.

MWD's storage capacity is approximately 1405ML whilst AD2 was dewatered and held empty prior to partially recharging during latter part of the reporting period under above average rainfall conditions.

At the completion of the reporting period the MWD contained 802 ML (57.1%) and AD2 contained 55ML (2%). No mine water was released to watercourses during the reporting period.

Clareval void is now available as a water storage and pit water is no longer transferred to the mine water storage dams. MWD and AD2 are currently being dewatered to the Clareval Void in preparation for decommissioning.

Surface Water Licencing

The DCM is located within the mapped extent of the Karuah River Water Source under the Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009. DCM is a water surplus site and no extraction of surface water from any unregulated stream is proposed for the DCM.

Groundwater Licencing

The groundwater systems within which the DCM lies, specifically relate to:

- Gloucester Basin Water Source (i.e. porous rock aquifer) under the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016.
- Karuah River Water Source (i.e. alluvial aquifers) under the Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009.

DCPL currently hold WAL41518 in the Gloucester Basin Groundwater Source, for a total of 300 share components under the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016, to account for direct and indirect take of groundwater from the porous rock aquifer.

Groundwater Licencing

DCPL holds Water Access Licence WAL41518 granted under the North Coast Fractured and Porous Rock Water Sharing Plan, that allows for up to 300 ML of groundwater to be extracted from "works" in any 12-month period. WAL41518 was formerly 20BL168404 before being renewed in 2017 and converted under the *Water Management Act 2000*.

Table 16 Water Take

Water Licence #	Water sharing plan, source and management zone (as applicable)	Entitlement	Estimated Take Previous Period – 2023 (ML)Total	Estimated Take Current Period - 2024 (ML)Total
WAL41518 - Duralie Pit (Weismantel and Clareval)	Gloucester Basin Groundwater Source - North Coast Fractured and Porous Rock Groundwater Source 2016	300ML extraction	38ML	0ML

7.2 SITE WATER BALANCE REVIEW

A water balance model of the DEP (EA 2010 and EA 2014) mine operations was developed by HEC based on an operational model of the DCM water management system. The site water balance model of the DCM water management system has been developed to simulate the behaviour of the water management system to the end of the approved mine life.

A site water balance review is undertaken annually and captures all inflows and outflows from the water management system. The water which accumulates in the open pits through rainfall or

groundwater seepage is measured at the point of dewatering. An independent Annual Water Balance Review (ATC Williams, 2025) for the DCM was conducted for the 2024 calendar year and a summary is provided below.

Open Cut Pits

A mine pit water balance analysis was undertaken for the open cut pits using data recorded during 2024 and is presented in **Table 17**. The balance estimated that no inflow volume of 'groundwater' (inflow other than rainfall runoff and pumped inflow) reported to the pits in 2024. All inflows and stored waters within the Weismantel Pit were considered to be entrained within the backfilled waste rock emplacement material and estimated to account for 475 ML of water.

Table 17 Summary Water Balance – Open Cut Pits - 2024

Component	Weismantel Pit (ML)	Clareval Pit (ML)
Start of Year Stored Water Volume*	0	11,764
End of Year Stored Water Volume*	0	12,334
Change in Stored Water Volume	-	570
Inflows		
Rainfall Runoff	257	585
Groundwater (Estimated Aquifer Interception)	0	0
Pumped Inflow	116	353
TOTAL†	373	938
Outflows		
Evaporation	38	254
Pumped Outflow	0	116
Waste Rock Entrainment†	533	0
TOTAL	570	370
Inflows minus Outflows	-197	568

* Modelled volume.

† Calculated using estimated groundwater inflow.

Not pumped directly to Weismantel pit, used for PAF waste management.

Contained Water Storages

A water balance analysis review of the MWD and AD2 water balance for the 2024 calendar year (ATC Williams, 2025) is presented in **Table 18**.

Table 18 Summary Water Balance – MWD and AD2 2024

Component	ML
Start of Year Total Storage Volume	820
End of Year Total Storage Volume	830
Change in Storage	11
Inflows	
Rainfall Runoff	469
Pumped from RS6 (incl VC1 and LPCD)	52
MWD Diversion Seepage	41
First Flush Capture	2
TOTAL	**565**
Outflows	
Evaporation	177
Pumped to Open Cut Pits	353
TOTAL	**530**
INFLOW - OUTFLOW	**32**

The above indicates a slight increase in stored water volume in these storages during the 2024 calendar year

7.3 SURFACE WATER

7.3.1 SURFACE WATER MANAGEMENT

Surface water is managed in accordance with WMP: Appendix 2 Surface Water Management Plan (SWMP) under Condition 29, Schedule 3 of the DEP Approval and is divided into the management of clean water and mine related water as outlined below.

7.3.1.1 EROSION AND SEDIMENT CONTROL

DCM had the following dedicated erosion and sediment control structures in use during the reporting period:

- Two rail siding sediment dams – designated as RS1 and RS6
- One waste emplacement (rehabilitation) sediment dam – designated as VC1

The locations sediment dams are shown in **Figure 2** in **Appendix 1**.

Sediment dams are inspected following receipt of sufficient rain whereby such dams have the potential to spill. Diversion structures and drains are also maintained to ensure integrity of the structures and capacity for flow. Inspection of diversion structures and sediment control dams is undertaken during and following heavy rainfall events.

Sediment dams dewater to the mine water system. The site contained all mine water on site within its water management system and control structures remained effective.

During the reporting period two sediment dams overtopped to receiving waters across 2 days between 20 May 2025 and 21 May 2025. Uncontrolled discharge occurred from Sediment Dam VC1

and Sediment Dam RS6 with waters from both dams reporting to Coal Shaft Creek and then to Mammy Johnsons River. The uncontrolled discharges occurred as a result of a significant rainfall event which exceeded the design capacity of the storages. Further details of the spill events are provided in **Section 11** (Incidents and Non-compliances).

A photographic surveillance record of key structures along the existing Coal Shaft Creek diversion is undertaken annually or following large rainfall events and was conducted in August, September, October and November 2024, and January, March, April and June 2025. Regular inspections of the CSC diversion are also undertaken. Minor repairs to several localised sections of gabion mesh were undertaken in June following heavy rainfall and flooding in May 2025 however in general the diversion is stable and no signs of erosion or sedimentation have been identified.

Maintenance activities including weed spraying and vegetation control were undertaken on the clean water diversion drains and around the prescribed dams during the reporting period.

7.3.1.2 CLEAN WATER MANAGEMENT

The main objective of clean water management is the segregation of clean water from mine related water by the construction of diversion drains around disturbed areas, thereby minimising the quantity of water that is impacted by the operation.

Surface water controls aim to prevent clean runoff water from entering the open mining pit and overburden dumping areas where practical. The main structures are:

- Diversion of Coal Shaft Creek. The diversion channel (built in stages) is required until the creek can be re-established at the conclusion of mining;
- MWD diversion drain. This drain intercepts runoff from the catchment above the MWD and delivers that water to Coal Shaft Creek;
- AD2 diversion drain;
- Clareval western diversion drain;
- Flood control embankments to prevent inundation of voids;
- A culvert under the Main Coal Haul Road which allows Coal Shaft Creek to flow through the site; and
- Various runoff control drains/bunds about disturbed areas, designed to divert clean water runoff around those areas.

The main elements of the clean water diversion system are shown in **Figure 2** in **Appendix 1**.

Inspections of diversion structures were undertaken during and after rainfall. Remedial and maintenance works were completed as required within the diversion drains and dams during the reporting period.

7.3.1.3 MINE RELATED WATER MANAGEMENT

Mine related water management refers to the control, collection and re-use of water which may have become contaminated by mining operations and associated activities. This water comprises mine water and sediment laden/turbid water. Mine water is water that has come into contact with mining activities. Sediment laden/turbid water has come into contact with disturbed areas but predominantly not core mining areas. Mine waters are typically characterised by higher salinity and on occasion lower pH. Sediment laden waters are characterised by elevated suspended solids and elevated turbidity.

During the reporting period all mine water was contained on site and no spill occurred from mine water storage dams.

The mine related water storages on site are:

- Main Water Dam (MWD)
- Auxiliary Dam 2 (AD2)
- Sediment Dam VC1 (rehabilitated waste dump)
- Sediment Dams RS1 and RS6 (rail siding dams)

The locations of mine water storage areas are shown in **Figure 2** in **Appendix 1**.

7.3.2 SURFACE WATER MONITORING AND PERFORMANCE

Surface water monitoring is conducted in accordance with the approved SWMP and EPL 11701. DCPL monitors surface water quality on and surrounding the mine site by sampling from selected locations comprising both streams and water storage structures. Surface water monitoring is supported by rainfall data recorded at the site meteorological monitoring station. The locations of surface water monitoring sites and the meteorological station are shown on **Figure 3** in **Appendix 1**.

Surface water is sampled and analysed on a monthly basis and in response to an unplanned event such as a sediment dam overtopping.

Water sampling is not undertaken in no-flow conditions. Collected waters are analysed for a suite of physical and chemical parameters. Results are compared with water quality triggers for the DCM developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project*" and EPA requirements (DCM SWMP Appendix B).

7.3.2.1 REVIEW OF LOCAL STREAMS MONITORING RESULTS

Reference should be made to accompanying data tables provided in **Appendix 4**. The routine surface water monitoring sites at the DCM are:

- SW2 – Coal Shaft Creek (CSC)
- SW2 Rail Culvert – Coal Shaft Creek Downstream
- SW6 – Former RS3/4 Culvert
- SW9 – Un-named Tributary (UNT)
- SW10 – Coal Shaft Creek Upstream
- GB1 – Mammy Johnsons River (MJR)
- High Noon – Mammy Johnsons River (MJR)
- Site 9 – Karuah River (KR)
- Site 11 – Mammy Johnsons River (MJR)
- Site 12 – Mammy Johnsons River (MJR)
- Site 15 – Mammy Johnsons River (MJR)
- Site 19 – Karuah River (KR)
- North Drain
- South Drain

Assessment of Performance Indicators

The surface water monitoring results are used to assess the DCM against the performance indicators and performance measures as detailed in Table 7 of the SWMP. If data analysis indicates a performance indicator has been exceeded or is likely to be exceeded, an assessment will be made against the performance measure. If a performance measure is considered to have been exceeded,

the Contingency Plan will be implemented (WMP Section 10). If data analysis indicates that the performance measure has not been exceeded, DCPL will continue to undertake monitoring.

Table 19 and **Table 20** provide a summary of the surface water analysis of the monitoring data during the reporting period. The summarised data is used to assess against the surface water performance indicators presented in **Table 21** and measures outlined in Table 7 of the SWMP.

Table 19 Summary of Surface Water Monitoring Results and Trigger Levels – pH, EC and TSS

Site	**pH**			**EC**		**TSS**	
MJR	20th%ile	80th%ile	Trigger	80th%ile	Trigger	80th%ile	Trigger
Site 11	6.9	7.7	**7.1-7.6**	312	**370**	21	**15**
GB1	7.1	7.5		258		31	
Site 12	7.2	7.6		281		22	
CSC							
SW2 (RC)	7.3	7.7	**7.1-7.9**	300	**544**	11	**80**
SW10	6.8	7.5		139		40	
UT							
SW9	6.8	7.4	**6.4-7.1**	235	**461**	36	**57**
SW10	6.8	7.5		139		40	

Table 20 Summary of Surface Water Monitoring Results and Trigger Levels – Copper, Turbidity, Zinc and Aluminium

Site	**Copper**		**Turbidity**		**Zinc**		**Aluminium**	
MJR	80th%ile	Trigger	80th%ile	Trigger	80th%ile	Trigger	80th%ile	Trigger
Site 11	0.001	**0.002**	35	**24**	0.005	**0.011**	1.93	**1.24**
GB1	0.001		55		0.007		2.29	
Site 12	0.001		40		0.006		1.95	
CSC								
SW2 (RC)	0.002	**0.003**	46	**119**	0.032	**0.064**	2.44	**3.02**
SW10	0.011		232		0.028		16.04	
UT								
SW9	0.004	**0.004**	81	**94**	0.012	**0.024**	2.71	**2.96**
SW10	0.011		232		0.028		16.04	

Assessment of the Performance Indicators and Performance outcomes are presented in **Table 21**.

Table 21 Surface Water Monitoring Performance Outcomes – 2024-25 Reporting Period

Performance Measure	Monitoring of Environmental Consequences			Data Analysis to Assess against Performance Indicators	Performance Indicators	Assessment of Performance Indicators	Assessment of Performance Measure	Relevant Management and Contingency Measures
	Sites	Parameters	Frequency					
No more than a negligible impact on water quality in Mammy Johnsons River as a result of the Duralie Extension Project	Site 11 GB1 Site 12	EC, pH, turbidity, Copper (total), Zinc (total), Aluminium (total). Hardness, TSS, BOD and DO.	Monthly/ Event	The 80th percentile concentration calculations for EC, pH, total copper, turbidity, total zinc, total aluminium, and TSS in addition to The 20th percentile value of pH at Site 11, GB1 and Site 12 are presented in **Table 19** and **Table 20**	Water quality at Site 11 is not worse than the pre-irrigation water quality at Site 11 whilst water quality is better at GB1 and Site 12 compared to the pre-irrigation water quality at these sites.	Data analysis indicates Site 11 exceeded the performance indicator for pH, TSS, Turbidity, and Aluminium. Analysis of the monitoring data shows similar trends observed upstream and downstream for TSS, Turbidity and Aluminium. Whilst pH was outside 20th%ile triggers, and pH, TSS, Turbidity, and Aluminium at Site 11 was outside the 80th%ile triggers it was found not to be significantly different to the average pH, Turbidity, TSS, and Aluminium at the upstream sites GB1 and Site 12. The lower performance indicator for DO was exceeded on five occasions at Site 11. DO was also below the low trigger upstream at Site 12 and GB1 on these occasions.	No further requirement for assessment of Performance Measure.	Continue monitoring.

Table 21 (Continued) Surface Water Monitoring Performance Outcomes – 2024-25 Reporting Period

Performance Measure	Monitoring of Environmental Consequences			Data Analysis to Assess against Performance Indicators	Performance Indicators	Assessment of Performance Indicators	Assessment of Performance Measure	Relevant Management and Contingency Measures
	Sites	Parameters	Frequency					
No more than a negligible impact on water quality in Coal Shaft Creek as a result of the Duralie Extension Project	SW2 (RC) SW10	EC, pH, turbidity, Copper (total), Zinc (total), Aluminium (total). Hardness, TSS, BOD and DO.	Monthly/ Event	The 80th percentile concentration calculations for EC, pH, total copper, turbidity, total zinc, total aluminium, and TSS in addition to the 20th percentile value of pH at SW2 (RC) and SW10 are presented in **Table 19** and **Table 20**	Water quality at Site SW2 (RC) is not worse than the pre-irrigation water quality at Site SW2 (RC), whilst water quality is not worse at SW10 compared to the pre-irrigation water quality at that site.	Data analysis indicates SW2 (RC) exceeded the 80th%ile performance indicator for pH. Analysis of the monitoring data shows an isolated instance of elevated EC in semi-stagnated water. Site SW10 exceeded the performance 20th%ile trigger level for pH, and 80th%ile trigger levels for Copper, Turbidity, and Aluminium. The lower performance indicator for DO was exceeded on two occasions. The upstream site SW10 was dry on these sampling events.	No further requirement for assessment of Performance Measure.	Continue monitoring.

Table 21 (Continued) Surface Water Monitoring Performance Outcomes – 2024-25 Reporting Period

Performance Measure	Monitoring of Environmental Consequences			Data Analysis to Assess against Performance Indicators	Performance Indicators	Assessment of Performance Indicators	Assessment of Performance Measure	Relevant Management and Contingency Measures
	Sites	Parameters	Frequency					
No more than a negligible impact on water quality in Unnamed Tributary as a result of the Duralie Extension Project	SW9 SW10	EC, pH, turbidity, Copper (total), Zinc (total), Aluminium (total). Hardness, TSS, BOD and DO.	Monthly/ Event	The 80th percentile concentration calculations for EC, pH, total copper, turbidity, total zinc, total aluminium, and TSS in addition to the 20th percentile value of pH at SW9 and SW10 are presented in **Table 19** and **Table 20**	Water quality at Site SW9 is not worse than the pre-irrigation water quality at SW9 whilst water quality is better at SW10 compared to the pre-irrigation water quality at that site.	Data analysis indicates SW9 exceeded the 80th%ile performance indicator for pH. Analysis of the monitoring data shows similar trends observed upstream for pH. Upstream site SW10 also exceeded the 80th%ile trigger for pH, Turbidity, Copper, Zinc, and Aluminium. The lower performance indicator for DO was exceeded on two occasions during the reporting period. The upstream site SW10 was not sampled on one of these occasions due to no flow conditions.	No further requirement for assessment of Performance Measure.	Continue monitoring.

7.3.2.2 REVIEW OF MINE WATER MONITORING RESULTS

The management of mine related water is described in **Section 7.3.1.3** of this report. Mine water comprises water that is generated within the mine workings, waste rock emplacements (prior to reshaping and topsoiling), storage areas for such water and runoff from areas where coal is/was handled. Mine water is generally characterised by elevated EC, elevated sulphate concentrations and low turbidity/TSS.

The two principal mine water storage areas are the MWD (sampling location SW3 major), and AD2. Monitoring of mine water quality is also conducted within the Clareval Pit and Weismantel Pit (sampling location SW4). Discussion of mine water monitoring results is included below in **Section 7.3.3.2** with reference to predicted EA levels long term data trends.

Table 22 Summary of Mine Water Monitoring Results – pH, EC and TSS

	pH		EC (µS/cm)		TSS (mg/L)	
Site	**Range**	**Average**	**Range**	**Average**	**Range**	**Average**
MWD (SW3)	7.2-8.6	7.9	1154-2325	1831	<5-13	6
AD2	4.8-7.7	7.0	677.8-2880	1791	*	*
Clareval	6.8-8.1	7.5	2615-4120	3478	<5-34	14
Weismantel (SW4)	6.4-7.6	7.0	1283-5330	3727	9-59	22.5

Notes * = TSS monitoring is not required for AD2, refer to Section 8.2 of SWMP

7.3.3 ANALYSIS DATA TRENDS AND COMPARISON WITH EA PREDICTIONS

7.3.3.1 LOCAL STREAMS MONITORING

Surface water results (**Table 19**, **Table 20**, and **Table 21**) were consistent with previous year's monitoring and the predictions made in the EA 2010. The EA 2010 indicated that water quality in Mammy Johnsons River was variable but was generally good. It was also found that the salinity of the stream was higher during periods of low flow and generally showed a relative reduction in EC during higher flow periods (Gilbert, 2010). The current monitoring results are consistent with these observations.

Table 19, **Table 20**, and **Table 21** indicates some occurrences of exceedances of the performance indicators. If data analysis indicates a performance indicator has been exceeded or is likely to be exceeded, an assessment will be made against the performance measure. The data analysis shows monitoring data also shows similar trends observed upstream and downstream, i.e. exceedances were not due to DCM. Accordingly, no further assessment of the performance measure is required.

Historical monitoring data presented in the DCM EA, Surface Water Assessment (Gilbert, 2010) show that Coal Shaft Creek is generally more saline than Mammy Johnsons River and the Karuah River. Results during the reporting period generally concur with these observations. It is considered that Coal Shaft Creek is generally more saline due to its ephemeral nature and the outcropping/sub-cropping of coal seams within the catchment.

7.3.3.2 MINE WATER MONITORING

The simulated water quality for the MWD was prepared for the EA 2010 including a salinity balance and an assessment of the suitability for irrigation water (Gilberts, 2010). Mine water pH has remained generally near neutral or slightly alkaline for the life of the project. The MWD EC trend has been generally consistent with the simulated EC showing a slightly increasing trend up to 2015 and then staying relatively stable. The average EC (1831 uS/cm) in 2025 is slightly lower than the predicted EC of 2140 uS/cm which is consistent with expected differences and fluctuations between water storages. No sustained deterioration or new monitoring trends are evident within the reporting period.

Thirteen (13) readings were recorded across the period at AD2 with a monthly sample in September 2024 unavailable due to AD2 being dewatered in preparation of decommissioning. Since October 2024, increased rainfall has required AD2 to be utilised as a water storage again and monthly monitoring has continued. Mine water pH at AD2 was mostly neutral (average pH 7.0) but included a single low pH observation (pH 4.8) on 9 January 2025 which was monitored after the DCM received approximately 107mm of rainfall between 8 and 9 January 2025.

Clareval Pit was sampled twelve (12) times during the reporting period with water quality remaining consistent with historical patterns. Monitored pH was neutral (average pH 7.5) and TSS was generally low (average 12mg/L) apart from two elevated results of 34mg/L on 9 January 2025 and 33mg/L which were recorded following above average rainfall. EC remained elevated (average 3478 µS/cm), reflecting saline inflows and evaporation within the pit which is reflective of historical values and the local environment.

Weismantel Pit, also referred to as SW4, was sampled twelve (12) times during the reporting period with consistent water quality results compared to historical values. A non-compliance related to EPL 11701 Condition M2.3 occurred during 2025 at SW4. Sampling of SW4 was unable to be undertaken on one of the required monthly monitoring events (24 April 2025) during the AR period. Access to SW4 in April was not achievable as there was no safe access for sampling personnel.

Over the reporting period, pH at SW4 was neutral (average pH 7.0) and TSS (average 23mg/L) was lower than the long term average of 35mg/L (2016 to 2024) except for one elevated result of 59mg/L on 9 January 2025 after above average rainfall at the DCM. EC remained generally stable in at SW4 with a reporting period average of 3727 µS/cm. Historically, the pit water has shown consistently elevated salinity with frequent readings > 5000 µS/cm which is consistent with groundwater inflow predictions in the EA. Within the reporting period, the average EC suggests that Weismantel Pit is showing slightly fresher conditions compared to the long term average of 5284 µS/cm.

7.4 GROUNDWATER

7.4.1 GROUNDWATER MANAGEMENT

A Groundwater Management Plan (GWMP) (WMP Appendix 3) has been prepared to control potential impacts on local and regional groundwater resources and includes a monitoring program to validate and review the groundwater model predictions.

The groundwater systems within which the DCM lies, specifically relate to:

- Gloucester Basin Water Source (i.e. porous rock aquifer) under the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016.
- Karuah River Water Source (i.e. alluvial aquifers) under the Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009.

Groundwater characteristics of the DCM have been studied prior to and over the life of the DCM and most recently for the EA 2014. A hydrogeological characterisation of the Gloucester Basin is included in the GWMP.

7.4.2 GROUNDWATER MONITORING RESULTS AND PERFORMANCE

Groundwater monitoring is conducted in accordance with the DCM Water Management Plan (WMP) Appendix 3 Groundwater Management Plan (GWMP).

DCM monitors groundwater quality on and surrounding the mine site by sampling from a series of selected monitoring bore locations. The location of these bores is shown in **Figure 3** (**Appendix 1**).

Collected waters are analysed for a suite of physical and chemical parameters. Results are evaluated for observable trending and compared to the predicted results from the EA 2010.

A summary of groundwater monitoring results for the reporting period can be found in **Table 23** and **Appendix 4**.

Comments on analysed parameters for monitoring conducted during the reporting period are as follows:

- Depth to groundwater was comparable with results from the previous reporting period and recent historical data for most monitored wells. Minimal variance in depth was seen at most bores. Exceptions included a slight variance in measured depth at DB8W where depth increased slightly each monitoring round during the reporting period, and WR1 Where depth decreased slightly each monitoring round during the reporting period. Depth to groundwater was consistent with predicted levels.
- Most pH results are comparable with historical data with minor fluctuations apparent. During the reporting period pH varied from somewhat acidic 4.09 (DB1W in February 2025) to a neutral 7.41 (DB97W in February 2025). SI2W and DB1W both had lower pH results than the historical range;
- Electrical conductivity generally showed a high degree of variability across many of the wells which is consistent with results from the previous reporting period and historical data. This would appear to reflect the cycle of dry and wet conditions. Shallow wells intercept generally low conductivity alluvial aquifers, whilst deep wells associated with coal measures generally have higher conductivity;
- Calcium and magnesium concentrations across all wells tended to fluctuate within reasonably tight ranges which has historically been the case. Similar results were observed last reporting period for all wells except DB1W where calcium and magnesium levels were lower than previous. Sulphate concentrations showed a similar trend as previous years;
- Aluminium concentrations are quite low in all the deeper wells but comparatively higher in the shallower wells. The highest concentration recorded was 17.9 mg/l (DB3W in Feb 2025). This is consistent with results from last year and historical data;
- Iron concentrations showed no common trend, as has historically been the case, with rises and falls across wells generally. Concentrations showed a wide range from a low of <0.05 mg/l (SI1W in August 2024 and June 2025) to a high of 32.5 mg/l (BH4BW in August 2024);
- Manganese concentrations across all wells were low and similar to results from the previous reporting period with the highest result being 2.84 mg/l within WR2 in November 2024; and
- Zinc concentrations were essentially low and consistent with available historical data.

Table 23 Summary of Groundwater Monitoring Results – Average depth, pH and EC

Site	Depth (m)	pH	EC (µS/cm)
DB1W	15.6	5.1	1997
DB2W	13.5	6.2	1336
DB3W	3.2	6.3	114
DB4W	6.2	6.6	3270
DB5W	**	**	**
DB6W	20.2	6.7	5460
DB7W	9.9	7.0	2645
DB8W	12.1	*	*
DB9W	17.4	7.2	3139
DB10W	11.1	5.4	4128
DB11W	10.4	7.1	2748
BH4BW	4.9	6.1	313
SI1W	10.6	7.1	1759
SI2W	24.7	7.0	1146
SI3W	28.0	6.9	4735
WR1	10.4	6.3	2781
WR2	22.5	7.0	6722

Note * = Depth only monitored at DB8W
** = No access to DB5W during reporting period due to ground conditions

Results for the reporting period are provided in **Appendix 4**. In summary, hydrographic plots (Graph 1, Graph 2 and Graph 3), indicate that groundwater monitoring results for the period are generally consistent with predicted outcomes as assessed in the EA (2010). Further review occurred in line with the GWMP where inflows to pits and water levels within bores were consistent with modelled predictions and indicators as per the GWMP. No trigger levels or exceedance of performance measures were identified during the reporting period. No complaints related to groundwater were received during the reporting period.

During the reporting period, a new piezometer was installed in line with a past exploration drillhole on ML 1646. The vibrating wire piezometer was installed via drilling to a depth of approximately 150m, utilising the same alignment

Assessment of Performance Indicators

Groundwater monitoring results are assessed against Performance Indicators and Measures as described Section 7.1 and Table 6 of the GWMP. Monitoring data for the reporting period was in accordance with the performance measures which indicate:

- No more than a negligible impact on stream baseflow as a result of the Duralie Project;
- No more than a negligible impact on water levels in groundwater production bores on private land.

Refer to **Table 24** below.

Table 24 Groundwater Monitoring Performance Outcomes – 2024-25 Reporting Period

Performance Measure	Performance Indicators	Assessment of Performance Indicators	Assessment of Performance Measure
No more than negligible impact on stream baseflow and/or natural river leakage of Mammy Johnsons River to the deeper groundwater system as a result of the Duralie Extension Project (incorporating the Open Pit Modification).	Groundwater inflows to open pits are consistent with Duralie Open Pit Modification Environmental Assessment (EA) predictions.	Data analysis indicates groundwater inflows to open pits have been less than the Duralie Open Pit Modification Environmental Assessment (EA) predictions. Refer to the site water balance review for 2024 (ATC Williams, 2025).	No further requirement for assessment of Performance Measure.
	Groundwater levels in alluvium bores are consistent with Duralie Open Pit Modification EA predictions (accounting for temporal changes in rainfall recharge).	Data analysis of daily alluvium bore pressure sensors indicates groundwater levels in alluvium bores are consistent with Duralie Open Pit Modification EA (accounting for temporal changes in rainfall recharge). Refer to groundwater monitoring data.	No further requirement for assessment of Performance Measure.
No more than negligible impact on water levels in groundwater production bores on privately-owned land as a result of the Duralie Extension Project (incorporating the Open Pit Modification).	No groundwater related complaints received	No groundwater related complaints were received during the reporting period.	No further requirement for assessment of Performance Measure.

7.4.3 ANALYSIS DATA TRENDS AND COMPARISON WITH EA PREDICTIONS

Depth to water information from piezometer monitoring indicates that bore water levels are generally consistent between bores and are generally consistent with EA (2010) predictions.

The four bores to the west of the open cut pit (SI1W, SI2W, SI3W and DB6W) are all above or close to maximum levels defined in the EA.

No depressurisation has been observed to date at bore DB11W, located north of operations.

Groundwater quality results for the reporting period indicate results generally consistent with EA predictions and historical groundwater data trends. For this reporting period, the groundwater pH range for bores likely to be influenced by the coal measures was between 4.1 and 7.4. Similarly, the electrical conductivity range for the bores was 100 to 7140 uS/cm. The pH results are generally similar to but are outside the range noted in the EA (pH – 6.0 to 8.0). The EC results are generally similar to and within the range noted in the EA (EC – 100 to 7600 uS/cm).

Irrigation bores (SI Series) indicate no obvious signs of deep drainage generated from irrigation activities. Trends in the monitoring results indicate lower EC and more stable chemistry within the SI series bores. Irrigation activities ceased during 2018 and no impacts from deep drainage would be expected.

No indication of an increase in connectivity between alluvial bores (DB3W and BH4BW) and the deeper groundwater system has been observed based on monitoring results for water quality and groundwater table level.

The waste emplacements bores (WR Series) indicate signs of recharging of the backfilled void, particularly at WR1. This is consistent with the numerical modelling of the post-mining groundwater levels (EA 2010) which shows slow but complete recovery of the groundwater system over many decades and that the Clareval void, once filled with water, would act as a sink, while the Weismantel void lake would act as a flow-through lake system. Chemistry in the WR Series bores indicate a trend of high EC, sulphates and manganese. Compared to the DB (deeper, MJR) SI (deeper, CSC) or A-series bores (shallow) the WR bores are directly influenced by the hydrogeology of the waste rock landform (enhanced permeability) and are not well connected to the regional aquifers. As predicted in the EA, monitoring results show the WR bores are influenced by seepage through the waste rock emplacement and depth to standing water levels generally trend with recorded rainfall. Additional detail is available within the EA for the DEP Modification 2 approved in December 2014.

Monitoring results showed further drop in the depth to standing water level at DB8W during this reporting period and the previous reporting period. The lates depth reading on 20 June 2025 was 12.51m and depth at the start of the reporting period on 27 August 2024 was 11.66m. The approximate increase in nett depth of 0.85m is consistent to the trend observed at DB8W which shows depth fluctuations ranging up to 22.34m in variance since February 2011 when DB8W was first monitored. These results are consistent with the predicted impact assessed in the EA which stated the DB8W was expected to record drawdown from natural and pumping induced changes associated with the DCM.

7.4.4 GROUNDWATER INFLOWS TO OPEN CUT MINING OPERATIONS

Groundwater seepage inflows to mining voids are directed and collected in pit sumps along with rainfall and surface water runoff and seepage through backfilled pit areas. Water level and water

quality analysis of the pit sumps is undertaken on a monthly basis. The volumes of water extracted from the pit sumps is recorded where practicable.

The water quality monitoring results for the open cut pits during the reporting period is included in **Section 7.3.2.2** of this report.

A site water balance review is undertaken on an annual basis to monitor the status of inflows (including groundwater inflows to open pits), storage and consumption. A summary of the 2024 site water balance review (ATC Williams, 2024) is included in **Section 7.2** of this report.

No dewatering from the open cut pits was undertaken during the reporting period. Mining activities have currently ceased in both Weismantel and Clareval Pits. Data analysis indicates groundwater inflows to open pits have been less than the EA 2014 predictions.

7.5 IRRIGATION

All irrigation activities have ceased, and the DCM's irrigation system has been decommissioned and removed.

8.0 REHABILITATION

Rehabilitation at the DCM is undertaken in accordance with the Rehabilitation Management Plan (RMP) and Forward Program (FWP) developed to meet the requirements of the Mining Lease (ML) and Project Approval (PA) conditions.

DCPL has commenced the mine closure phase and is in the process of refining and optimising the final landform as a critical component to achieving a safe, stable and non-polluting landform for future lease relinquishment and sustainable post-mining beneficial land use. Completion of Yancoal's closure planning studies will inform closure execution works and the rehabilitation schedule and will be included in revised Final Landform and Rehabilitation Plan.

DCPL revised relevant EMPs following the cessation of mining operations to reflect the stage of operations and describe mine closure activities. A summary of the rehabilitation objectives, performance indicators and completion criteria relevant to the DCM rehabilitation domains is provided in the Rehabilitation Management Plan (RMP). Plan 1 in the RMP shows the conceptual final landform, relevant primary domains and secondary rehabilitation domains.

8.1 REHABILITATION OF DISTURBED LAND

Rehabilitation of disturbed areas is undertaken progressively. Rehabilitation planning, management and implementation is described in the RMP. The overburden emplacement is rehabilitated in progressive increments to the final landform so the area of disturbed land is minimised and disturbed water catchment areas are reduced. Stage plans for the Duralie disturbance and rehabilitation areas are provided in the RMP and Forward Program.

The DCM rehabilitation progress is generally in accordance with the planned activities described in Plan 2A Mining and Rehabilitation – Year 1 (June 2024 to July 2025) of the 2024 DCM Forward Program. The 2024 forward Program forecast 12.64ha of land proposed for rehabilitation during the reporting period. The forecast rehabilitation was not completed in the reporting period due to change in the onsite works plan. This planned rehabilitation will be completed in the next reporting period (June 2025 to July 2026).

The current (July 2025) total mine footprint (disturbance) is 404.1ha. At the DCM there is approximately 166.5ha of land under active rehabilitation with 0ha of completed rehabilitation with formal regulator sign off.

Table 25 presents a summary of the rehabilitation undertaken at the DCM up to the current reporting period. The current mine and rehabilitation areas as of 30 June 2025 are shown in **Figure 4** in **Appendix 1**.

Table 25 Rehabilitation status

Mine Area Type	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	FY24 (ha)	FY25 "Year 1" (ha)	FY26 "Year 2" (ha)
A. Total mine footprint[1]	400.7	404.1	426.5
B. Total active disturbance[2]	203.8	203.6	218.3
C. Land being prepared for rehabilitation[3]	25.4	34.0	33.1
D. Land under active rehabilitation[4]	171.4	166.5	152.4
E. Completed rehabilitation[5]	0	0	0

*2025/2026 reporting period forecast hectares subject to change following completion of Yancoal's mine closure studies and refinement and optimisation of the final landform.

8.1.1 REHABILITATION RESOURCES

Topsoil resources are managed in accordance with the RMP Section 6.2.4. Total disturbance during the reporting period was 7.0ha which included 3.4ha of new disturbance and 3.6ha of rehabilitation disturbance. No new topsoil stripping was undertaken during the reporting period with reported new disturbance reflecting report of areas historically disturbed but not previously reported such as drainage infrastructure associated with the former Auxiliary Dam 1 (AD1) and historic topsoil stockpiles. Further disturbance may be required for closure purposes at the DCM. There are currently sufficient topsoil resources available to complete rehabilitation of the DCM.

The DCM's topsoil balance will be augmented to incorporate estimates of other materials required to complete rehabilitation of the DCM, including inert capping material (i.e. NAF material) and clay for the Coal Shaft Creek Reconstruction. Estimates of clay volumes required for Coal Shaft Creek

[1] **Total mine footprint** includes all areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to mining and associated activities. As such it is the sum of total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem establishment, ecosystem development and relinquished lands (as defined in RMP Guidelines). Please note that subsidence remediation areas are excluded.
[2] **Total active disturbance** includes all areas ultimately requiring rehabilitation such as: on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), and tailings dams (active/unshaped/uncapped).
[3] **Land being prepared for rehabilitation** includes the sum of mine disturbed land that is under the following rehabilitation phases - decommissioning, landform establishment and growth medium development (as defined in RMP Guidelines).
[4] **Land under active rehabilitation** includes areas under rehabilitation and being managed to achieve relinquishment – includes the following rehabilitation phases as described in the RMP Guidelines – "ecosystem and land use establishment" (area seeded OR surface developed in accordance with final land use) and "ecosystem and land use sustainability" (revegetation assessed as showing signs of trending towards relinquishment OR infrastructure development).
[5] **Completed rehabilitation** requires formal sign-off by DRE that the area has successfully met the rehabilitation land use objectives and completion criteria.

Reconstruction will be determined once the detailed design works for the revised Coal Shaft Creek Reconstruction Plan have been completed.

The requirement for a life-of-mine (LOM) rehabilitation materials register, including topsoil stocktake, is included in the RMP.

8.1.2 REHABILITATION MAINTENANCE

Recommendations for maintenance activities on rehabilitated land have been included in the rehabilitation monitoring reports, refer to **Section 8.2**.

During the reporting period maintenance activities focussed the improvement of surface drainage on the Eastern Waste Emplacement native rehabilitation area. This included the construction of a new crest drain and the improvement and maintenance of the contour drains within the rehabilitated waste emplacement to assist with maintaining a safe, stable and non-polluting landform. Maintenance works also included slashing, clearing of access tracks and weeds spraying. Manual weed control works have been undertaken across the native rehabilitation areas targeting lantana, blackberry, wild tobacco and Giant Parramatta grass.

8.2 REHABILITATION MONITORING

Monitoring of the DCM rehabilitation areas is described in Section 8 of the RMP. Rehabilitation is monitored on a regular basis to ensure vegetation is establishing in the rehabilitation areas and to determine the need for any maintenance and/or contingency measures (e.g. supplementary plantings, weed or erosion control). The monitoring also aims to demonstrate the effectiveness of the rehabilitation techniques and track the progression towards achieving the performance and completion criteria.

The annual rehabilitation monitoring program includes the areas designated for agricultural (grazing) and native ecosystem final land uses.

Visual Monitoring

Rehabilitation monitoring includes a visual assessment:

- Monitoring of soil erosion status and the effectiveness of erosion control methods;
- Observing drains to determine whether substantial silting of inverts and/or any localised failure of the drain embankment has occurred;
- Assessing germination success and vegetation establishment (diversity and abundance);
- Usage of habitat enhancement features;
- Evaluating the behaviour of placed topsoil;
- Evaluating threats posed to rehabilitated areas posed by weed infestation and feral animals; and
- Opportunistic fauna observations.

The visual monitoring provides an early identification of areas requiring remedial planting or other maintenance works to maintain rehabilitation progress. The rehabilitation reports provide a list of maintenance recommendations predominantly relating to erosion control, weeds control and vegetation management and enhancement.

Ecosystem Function Analysis

The assessment of rehabilitation quality and ecosystem value is conducted via the use of Ecosystem Function Analysis (EFA). EFA aims to measure the progression of rehabilitation towards self-sustaining

ecosystems. EFA has been incorporated into the overall DCM rehabilitation monitoring program to provide an assessment of landscape functionality.

EFA Analogue Transects have been established in proximal areas to represent the varying landscapes (i.e. slopes and aspects) and target communities planned for each rehabilitation area. Monitoring of agricultural rehabilitation areas, including areas proposed as pasture for agricultural grazing, will also involve monitoring of LFA indices, including stability, infiltration and nutrient cycling.

Rehabilitation transects were assessed in March to April 2025 as part of the eleventh annual round of monitoring in accordance with Section 8.2 of the RMP. A summary of the findings from the *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025* (Kleinfelder, 2025) can be found in the Duralie Annual Biodiversity Report in **Appendix 7**. DCPL will continue to undertake annual EFA monitoring of rehabilitated areas.

Fauna Monitoring

Fauna usage of the native ecosystem rehabilitation areas is monitored and documented over time. Fauna monitoring is conducted every three years to assess the success of the rehabilitation and revegetation activities in providing habitat for a range of vertebrate fauna. The surveys include an assessment of habitat complexity, species richness and abundance.

The most recent fauna survey was conducted by AMBS Ecology during October and December 2024. A summary of the findings from the *Duralie Coal Mine: Fauna Surveys of the Offset and Mine Rehabilitation Areas 2024* (AMBS, 2024b) can be found in the *Duralie Annual Biodiversity Report 202*5 in **Appendix 7**. The next round of fauna monitoring within the Biodiversity Offset Areas and rehabilitation areas is scheduled for Spring 2027.

Surveys conducted over DCM rehabilitation areas and Biodiversity Offset Areas indicate that these areas provide habitat for a range of native vertebrate fauna, including birds, mammals, reptiles and frogs.

Habitat Enhancement and Nest Box Program

A nest box program for the DEP is being implemented by AMBS Ecology at the DCM in accordance with the BMP. The nest boxes provide nesting habitat for birds, arboreal mammals and bats.

Installation of nest boxes has occurred over six periods with the most recent installation in March 2021. No further nest box installations were required resulting from vegetation clearance activities and the recent installations in the rehabilitation areas is to provide additional habitat enhancement.

The nest boxes are monitored annually by AMBS to observe fauna usage. The most recent annual monitoring report was completed by AMBS with works commencing in September 2024 and completed in April 2025. Overall, a total of 261 of 276 nest boxes, approximately 95%, have been occupied or have shown signs of occupancy since their installation. A summary of the findings from the *Nest Box Programme for the Duralie Offset Area 2025* can be found in the *Duralie Annual Biodiversity Report* in **Appendix 7**.

8.2.1 THREATS TO REHABILITATION COMPLETION

During the reporting period the 2025 rehabilitation monitoring program (Kleinfelder, 2025) recommendations were made regarding the existing rehabilitation and future rehabilitation works. The recommendations mostly related to increasing native tree and shrub structure and biodiversity in

the native rehabilitation areas and targeting high threat weed species by utilising activities such as slashing or manual weed removal.

8.2.2 STATUS OF REHABILITATION RECOMMENDATIONS

A status of the implementation of the recommendations on rehabilitation and maintenance activities made at the DCM is summarised in the *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025* (Kleinfelder, 2025) in **Appendix 7**.

During the next reporting period maintenance work will focus on addressing the recommendations to improve target stem densities in the VMUs that have been identified to require additional in-fill or augmentation planting.

8.3 REHABILITATION TRIALS AND RESEARCH

DCPL has extensive experience in both native woodland/forest revegetation and agricultural pasture rehabilitation, with successful rehabilitation areas completed over the past 20 years at both the Duralie and Stratford mine sites. Learnings from the rehabilitation works undertaken onsite to date along with industry best practice guidelines are employed in the methodology for new rehabilitation areas.

Revegetation trials continue to be implemented in the biodiversity offset area in accordance with the Biodiversity Management Plan. The program has trialled several methods for ground preparation, seeding and planting to determine the most suitable and cost-effective methods for completing the remaining offset revegetation and mine site rehabilitation. A summary of works undertaken during the reporting period is provided in the *Duralie Coal Mine Annual Biodiversity Report 2025* in **Appendix 7**.

During the next reporting period, investigations will be made into trialling smaller scale direct seeding programs at the DCM. VMU AB and VMU AC have been identified as areas where these small-scale seed planting trials could occur to assist with reducing any installation work.

8.4 REHABILITATION TARGETS

Rehabilitation targets are outlined in the RMP and Forward Program.

The rehabilitation targets and proposed rehabilitation schedule over the life of the DCM are described in Section 6.1 of the RMP. The rehabilitation target is a cumulative total of 426ha.

8.5 MINE CLOSURE PLANNING

Condition 5, Schedule 2 of Project Approval PA 08_0203 authorised mining operations to be carried at the DCM until 31 December 2021. Accordingly, DCPL planned for the commencement of the mine closure phase (i.e. after the cessation of mining operations on 31 December 2021).

DCPL is in the process of refining and optimising the final landform as a critical component to achieving a safe, stable and non-polluting landform for future lease relinquishment and sustainable post-mining beneficial land use. Completion of Yancoal's closure planning studies will inform closure execution works and the rehabilitation schedule and will be included in Environmental Management Plan updates and revised Final Landform and Rehabilitation Plan (FLRP).

The mine closure planning program includes technical and environmental assessments that will support the final landform and features. The technical assessments identified in the Mine Closure Planning Program have been informed by the key risks and risk reduction strategies associated with

rehabilitation and mine closure of the DCM. Mine Closure planning is expected to be completed within the next reporting period, followed by Environmental Management Plan and Final Landform and Rehabilitation Plan updates.

A summary of the key mine closure planning items continued and commenced for the DCM during the reporting period included:

- Monitoring and maintenance program
- Review of Environmental Management Plans (EMPs) for closure phase
- Approvals/Licences relinquishment strategy
- Decommissioning and demolition Planning
- Closure waste management planning
- Contaminated Sites Assessment
- Waste rock geochemical characterisation
- Final Voids Strategy
- Final Void water balance
- Review of erosion modelling
- Surface water infrastructure design
- Coal Shaft Creek diversion design
- Detailed final landform design

9.0 COMMUNITY RELATIONS

DCPL is committed to a policy of regular liaison with the local community and strives to maintain positive relationships with stakeholders. DCPL's community objectives aim to:

- Ensure employees and contractors are informed about DCPL's policies and are made aware of their environmental and community responsibilities in relation to DCPL's activities;
- Inform the community of DCPL's activities and consult with the community in an open and honest fashion in relation to DCPL's projects; and
- Address complaints/conflicts and consult to achieve mutually acceptable outcomes.

Dissemination of information to the local community and relevant agencies regarding DCPL, its progress and environmental management performance will be achieved via the following communication and reporting mechanisms.

- Engagement by Community Liaison Officer
- Community Consultative Committee
- Duralie Coal Website
- Duralie Coal Mine Annual Review
- Community Information and Complaints Line

9.1 COMMUNITY ENGAGEMENT ACTIVITIES

YAL is committed to making a positive contribution in the areas in which it operates. To help facilitate this commitment Stratford Coal Pty Ltd (SCPL) have established the Community Support Program (CSP) to provide assistance to local initiatives within the local area in which they operate. The aim of the Community Support Program is to help benefit a diverse range of community needs such as education, environment, health, infrastructure projects, arts, leisure and cultural heritage.

The Stratford Coal Community Support Program has granted over $1,130,000 since commencing in 2010 and during 2025 a total of $106,477 was granted. The community groups to receive grants in 2025 are listed in **Table 26**.

Table 26 Community Support Program 2025

Community Support Program 2025 Recipients	Project Description
St Josephs Primary School Gloucester	Growing Minds Inspiring Leaders Program
Gloucester Chamber of Commerce and Industry Inc.	Gloucester Co-working and Study HUB
Gloucester Agricultural, Horticultural and Pastoral Association Inc.	Fireworks spectacular at Gloucester Show
Stroud Community Care Ltd	Implementing Smart board technology to benefit residents and community members
Wards River Rural Fire Service	In truck radio charging dock and cabling and emergency flare beacons
Gloucester & District Country Music Club Inc.	Purchase of new equipment (computer and printer)
Midcoast RYSTEM Engagement	Science and engineering challenge event days engaging over 2000 primary and secondary students
Stratford Public School	Sensory garden project

Community Support Program 2025 Recipients	Project Description
Stroud Public School	'Softfall' under school equipment
Barrington Public School P&C Association	MaqLit project – To enhance spelling and reading skills in Years 3-6
Manning Support Services	Resilience Doughnut – Providing children with the skills to overcome obstacles that lead to improved outcomes in education, health, and future employment
Stroud Road Community Hall & Progress Assoc. Inc.	Stroud Road Spring 'Bash 'n' Bang'
Booral Rural Fire Service	Lithium-ion battery fire project
Gloucester Junior Cricket Association	Resurfacing swimming pool oval cricket pitch
Gloucester High School P&C	Native bee education in schools
Gloucester Tri Challenge	Gloucester Tri Challenge Event
Stroud Pre-School	A cultural program to enhance Stroud Preschool's connection to Country
Stroud Little Athletics	Purchase of new equipment
Gloucester Creatives NSW Co-Operative Ltd	Coffee Cart project
Gloucester Thunderbolts Swimming Club Inc.	Cover to Compete: Securing excellence in swimming
Barrington Public School	A new computer charging cabinet
Gloucester Worimi First Peoples Aboriginal Corporation	Community events resources
Gloucester & District Netball Association	Upgrading and purchasing essential items
Gloucester Magpies Junior Rugby League	Junior female engagement program
Stroud Road Rural Fire Service	Stroud Road RFS Brigade roller door motor
Stroud Rodeo and Campdraft Association Incorporated	Annual Stroud Rodeo
Gloucester Country Club Ltd	New picnic table shade sails
Stroud Pony Club	Safety and wellbeing of members and horses – Update first aid kits project
Gloucester Pony Club	New jumping equipment trailer
Stroud Show Association Incorporated	2025 Stroud Show including the 2025 Australian Post Splitting Championships
Gloucester Hockey Club	Upgrade canteen facilities
Maitland Piping and Drumming	Hosting of the 2025 State Championships of Piping and Drumming

Stratford Coal Pty Ltd have also continued their commitment to education and training in the Gloucester region through Stratford Coal's Education Support Program, providing much needed funding for the next generation of young students. The Education Support Program is managed by an independent committee and the funds distributed by MidCoast Council. In 2025, $38,000 has been

allocated in funding to help support local students and businesses in university degrees, TAFE courses and apprenticeships.

Since the commencement of mining in 1995, Stratford Coal has contributed almost $1,000,000 to locally based community and training initiatives via the Education Support Program. During that time, the funding has supported over 250 tertiary students, 150 apprentices (including a number of school based traineeships) and 90 businesses.

YAL and SCPL have continued their partnerships with:

- The Clontarf Foundation -Chatham Academy
- QLD University of Technology
- Westpac Rescue Helicopter
- Learning for Good

9.2 COMMUNITY CONSULTATIVE COMMITTEE

The Duralie Community Consultative Committee (CCC) was established in 2003 and operates under the guidance of the DPHI. Meetings are held 6-monthly and provide a forum for open discussion between the community, Council, the Company and other stakeholders on issues relating to the mine's operations, environmental performance and community engagement.

The CCC for the DCM is currently comprised of:

- An independent Chairperson;
- Six (6) local community representatives;
- Two (2) local government representatives (MidCoast Council);
- Two (2) DCPL representatives; and
- One (1) independent Chairperson

The CCC was formed in accordance with Schedule 5, Condition 5 of the PA for the DEP. The Committee operates in such a manner as to generally satisfy the *Community Consultative Committees Guidelines - State Significant Projects* (Department of Planning and Environment, 2023) and to the satisfaction of the Secretary of DPE.

During the 2024 – 2025 reporting period CCC meetings were held biannually in line with the completion of mining operations. Two CCC meetings were held during the reporting period in August 2024 and February 2025. A site tour was undertaken prior to the February 2025 CCC meeting.

Items raised and/or discussed during the CCC meetings held during the reporting period include but are not limited to:

- Mine closure and final land use
- Environment and community activities including monitoring and community programs
- Yancoal CSP

The CCC meeting agendas, presentations and minutes are available on the Duralie Coal website (www.duraliecoal.com.au).

An Annual Report for the Duralie Coal CCC was prepared by the Chair and submitted to DPHI on 19 February 2025 (**Appendix 6**).

9.3 ENVIRONMENTAL COMPLAINTS

DCPL manages complaints received at the DCM in accordance with the protocol established in the Environmental Management Strategy (EMS). DCPL aims to address all complaints/conflicts and consult to achieve mutually acceptable outcomes.

Complaints may be received in any form. DCPL operates a dedicated community information and complaints hotline (1300 658 239) 24 hours per day. The number is advertised within the Sensis White Pages Directory (Newcastle) and the local telephone directory (Pink Pages) and on the company website.

There were no complaints received during the reporting period relating to DCM operations. Complaints (by category) received by DCPL over the last 5 reporting periods are shown in **Table 27**.

Table 27 Community Complaints Summary

Complaint Category	2020/21	2021/22	2022/23	2023/24	2024/25
Noise	0	0	0	0	0
Blasting	0	0	0	0	0
Air Quality	0	0	0	0	0
Water	0	0	0	0	0
Lighting	0	0	0	0	0
Visual	0	0	0	0	0
Train	0	0	0	0	0
Other	0	1	0	0	0
Total Complaints	**0**	**1**	**0**	**0**	**0**

9.4 EMPLOYMENT STATUS AND DEMOGRAPHY

At the end of the reporting period (i.e. June 2025), the total number of Full Time Equivalent Employees (FTEs) employed at the DCM was 10. During the reporting period four Environment and Community representatives were employed and shared with the nearby SMC.

On the basis of a review of employees' living location, approximately 50% of mine employees resided within the greater local area (defined as being bounded by Stroud, Gloucester and Dungog).

10.0 INDEPENDENT ENVIRONMENTAL AUDIT

An Independent Environmental Audit (IEA) of the DCM was conducted in December 2023 by RPS AAP Consulting, in accordance with Project Approval PA 08_0203 Schedule 5, Conditions 8, 9, 9A and 9B. This included both the IEA and the Rail Haulage Audit. The purpose of the audit was to review compliance over the audit period, 2 December 2020 to 13 December 2023, with the conditions and obligations of the DCM environmental licences, approvals and management plans.

The IEA was conducted generally consistent with 'ISO 19011 - *Guidelines for Auditing Management Systems' and the 'Independent Audit Post Approval Requirements May 2020'* (Audit Guidelines) (DPE, 2020).

The IEA 2023 presented a summary of compliance with the DCM statutory requirements and identified a total of 10 non-compliances and associated recommendations (1 Administrative, 5 Low, 4 Moderate).

The key findings/recommendations related to the following matters:

- EPL variation;
- AD2 removal from declared dams register;
- Management Plan revisions.

DCPL received correspondence from DPHI dated 21 June 2024 advising DPHI had reviewed the audit report and seeking further information. A revised report was required to be submitted by 31 July 2024.

DCPL's responses to the recommendations contained in the IEA 2023 Report and the status of actions is provided in **Appendix 8.**

11.0 INCIDENTS AND NON-COMPLIANCES

Activities at the DCM continue to be carried out in accordance with the conditions of PA 08_0203, ML 1427, ML 1646 and EPL 11701. A statement of compliance is included in **Section 1** of this report.

A protocol for managing incidents and non-compliances is included in the DCM EMS. The severity of the incident will determine the level of investigation required. The reporting of incidents to regulators is conducted in accordance with the EMS, Condition 6, Schedule 5 of PA 08_0203 and the *Protection of the Environment Operations Act 1997* (POEO Act) and the PIRMP, where applicable.

During the reporting period there was one event which constituted non-compliance with each of PA 08_0203 and EPL 11701 when uncontrolled discharge occurred from sediment dams RS6 and VC1 as a result of a rainfall event which significantly exceeded design capacity of the dams.

11.1 Spill from Sediment Dam RS6 and VC1

Inspection of RS6 at 7:43am on 20 May 2025 found that water was spilling over the dam wall reporting to Coal Shaft Creek. Shortly after, an inspection at VC1 at 8:16am on 20 May 2025 also found that water was spilling over the sediment dam wall reporting to Coal Shaft Creek.

The volume of both spills is uncertain. RS6 was observed to be spilling between 7:43am on 20 May 2025 and 11:15pm on 21 May 2025; during this period the DCM weather station received 102.8mm of rainfall. VC1 as observed to be spilling between 8:16am on 20 May 2025 and approximately 8:00pm on 21 May 2025; during this period the DCM weather station received 80.8mm of rainfall.

Following identification of the spills the site PIRMP was triggered and implemented and regulatory notifications completed. Pumping of the sediment dams was maintained throughout the period of overtopping and inspections of the dams continued in the period following cessation of the initial spill to confirm no further discharges occurred. Water sampling was conducted at the site of the spills and at locations to characterise receiving waters.

There was no significant difference between water quality monitoring results at VC1, RS6 or at upstream or downstream monitoring locations. The volume spilled is unknown however is assumed to be minimal based on the storage volume, catchment area of the dams, and that dewatering pumps were active throughout the duration of the spills. The volume discharged was considered likely to be negligible compared to the flow in both Coal Shaft Creek and the nearby Mammy Johnsons River which were in flood at the time of the discharge.

DCPL concluded that no material harm to the environment resulted from the overtopping events. Subsequent to finalisation of regulator reporting requirements notification was received from DPHI and EPA advising that no further action would be taken in relation the event.

12.0 ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

DCPL will continue rehabilitation and mine closure activities in accordance with PA 08_0203 and the relevant Environmental Management Plans for DCM.

Condition 5, Schedule 2 of PA 08_0203 authorised mining operations to be carried out at the DCM until 31 December 2021. Under this approval, DCPL is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary and the Resources Regulator. Consequently, PA 08_0203 will continue to apply in all other respects, other than the right to conduct mining operations, until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

The following key activities at the DCM are proposed within the next 12 months:

- Completion of the DCM Detailed Mine Closure Plan
- Further infrastructure decommissioning and demolition
- Continued shaping and rehabilitation earthworks (which may include blasting activities)
- Rehabilitation maintenance activities
- Growth medium establishment activities including topsoil spreading
- Revegetation of the final landform in accordance with the DCM RMP
- Conduct sound power testing
- Review and refinement of monitoring programs and environmental management plans.
- Review and submission of updated Offset Conservation Bond
- Application to DCCEEW to extend the EPBC 2010/5396 consent to allow for ongoing mine closure and rehabilitation activities
- Seek confirmation from DPHI that the Rail Haulage Audit can be excluded prior to next IEA.

13.0 REFERENCES

AMBS Ecology & Heritage (2023). *Feral Animal Study, Duralie Coal Mining Lease and Offset Areas 2023*

AMBS Ecology & Heritage (2024a) *Nest Box Programme for the Duralie Offset Area, Annual Report for 2024*

AMBS Ecology & Heritage (2024b) *DCM Fauna Surveys of the Offset and Mine Rehabilitation Areas 2024*

ATC Williams (2025). *Duralie Coal Mine 2024 Annual Water Balance Review*

Bill Jordan and Associates (BJ&A) (2025) *(Former) Weismantel's Inn Structural Condition Update Assessment Report*

DCPL (2014) *Duralie Open Pit Modification Environmental Assessment*

DCPL (2017). *Duralie Coal Mine Giant Barred Frog Management Plan*

DCPL (2022). *Duralie Coal Mine Air Quality and Greenhouse Gas Management Plan*

DCPL (2021). *Duralie Coal Mine Blast Management Plan*

DCPL (2022). *Duralie Coal Mine Noise Management Plan*

DCPL (2023). *Duralie Coal Mine Water Management Plan*

DCPL (2023). *Duralie Coal Mine Heritage Management Plan*

DCPL (2023). *Duralie Coal Mine Mining Rehabilitation Management Plan*

DCPL (2023). *Duralie Coal Mine Biodiversity Management Plan*

DCPL (2025) *Duralie Coal Mine Annual Biodiversity Report 2025*

Department of Planning and Environment (DPE) (2020) *ISO 19011 - Guidelines for Auditing Management Systems and the Independent Audit Post Approval Requirements May 2020 (Audit Guidelines)*

Department of Planning and Environment (DPE) (2023) *Community Consultative Committees Guidelines - State Significant Projects*

Dr Arthur White (2023) *A Study of the Giant Barred Frog (Mixophyes iteratus) in the Mammy Johnsons River Catchment*

Gilbert and Associates Pty Ltd (2010). *Duralie Extension Project, Surface Water Assessment*

Gilbert and Associates Pty Ltd (2011). *Development of Water Quality Trigger Levels for the Duralie Extension Project*

Gloucester Coal (2010) *Environmental Assessment Duralie Extension Project*

Kleinfelder (2025) *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025*

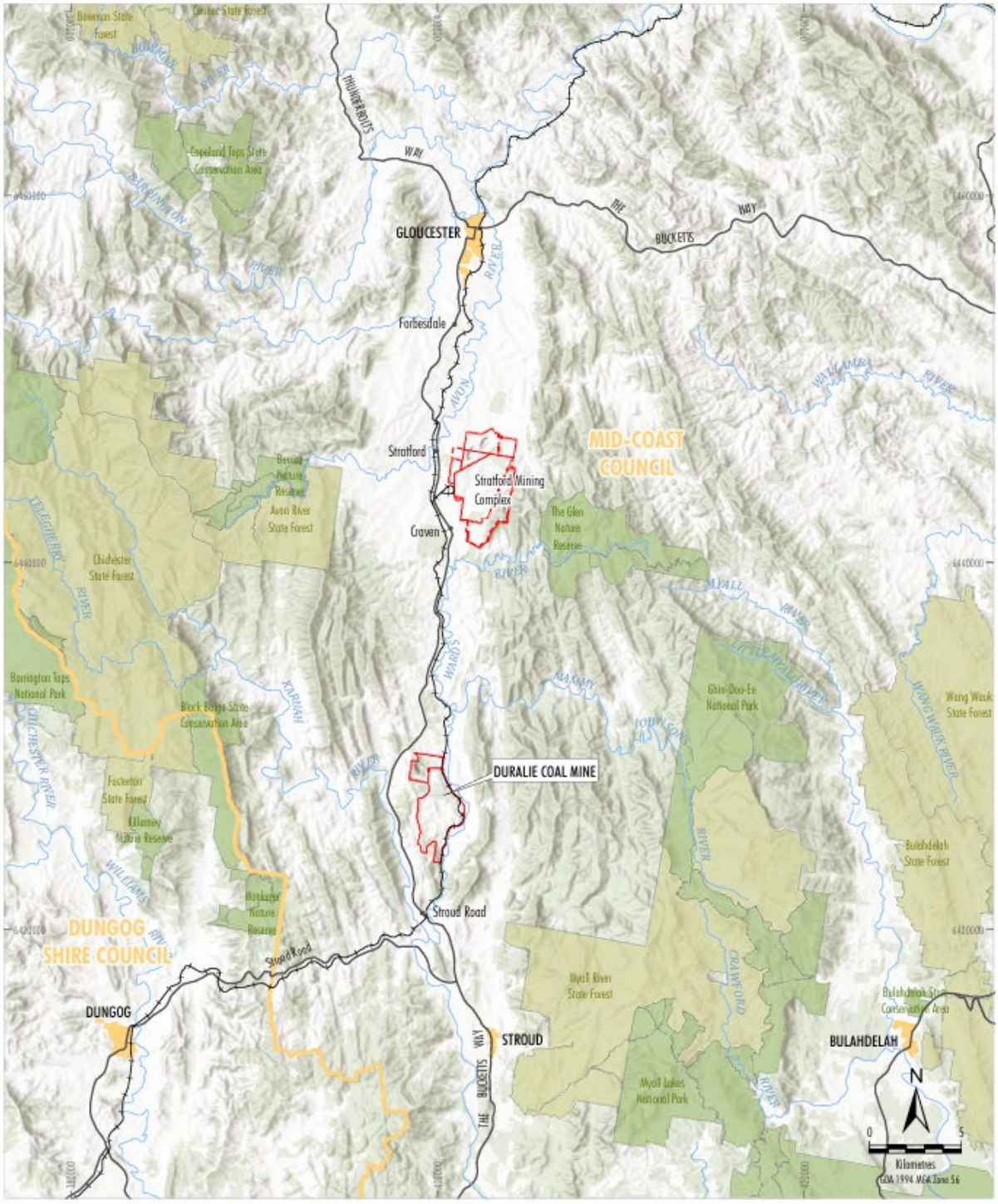
NSW Government (2015) *Annual Review Guideline*

NSW Minerals Council (2000) *Particulate Matter and Mining; a NSW Minerals Council Technical Paper – Interim Report*

RPS (2024). *Duralie Coal Mine 2023 Independent Environmental Audit*

Wedgetail Project Consulting (2024). *Duralie Coal Mine Rehabilitation EFA Monitoring 2024*

APPENDIX 1: Figures



LEGEND

- Mining Lease Boundary
- NSW State Forest
- National Park, Nature Reserve or State Conservation Area
- Local Government Area Boundary

Source: Geoscience Australia (2006); NSW Department of Planning & Environment (2017)

DURALIECOAL

DURALIE COAL MINE 2024 ANNUAL REVIEW

Regional Location

Figure 1

LEGEND

- Mining Lease Boundary
- Approximate Extent of Existing/Approved Surface Development
- Existing/Approved First Flush Protocol Pump Back System
- Existing/Approved Up-catchment Diversion System

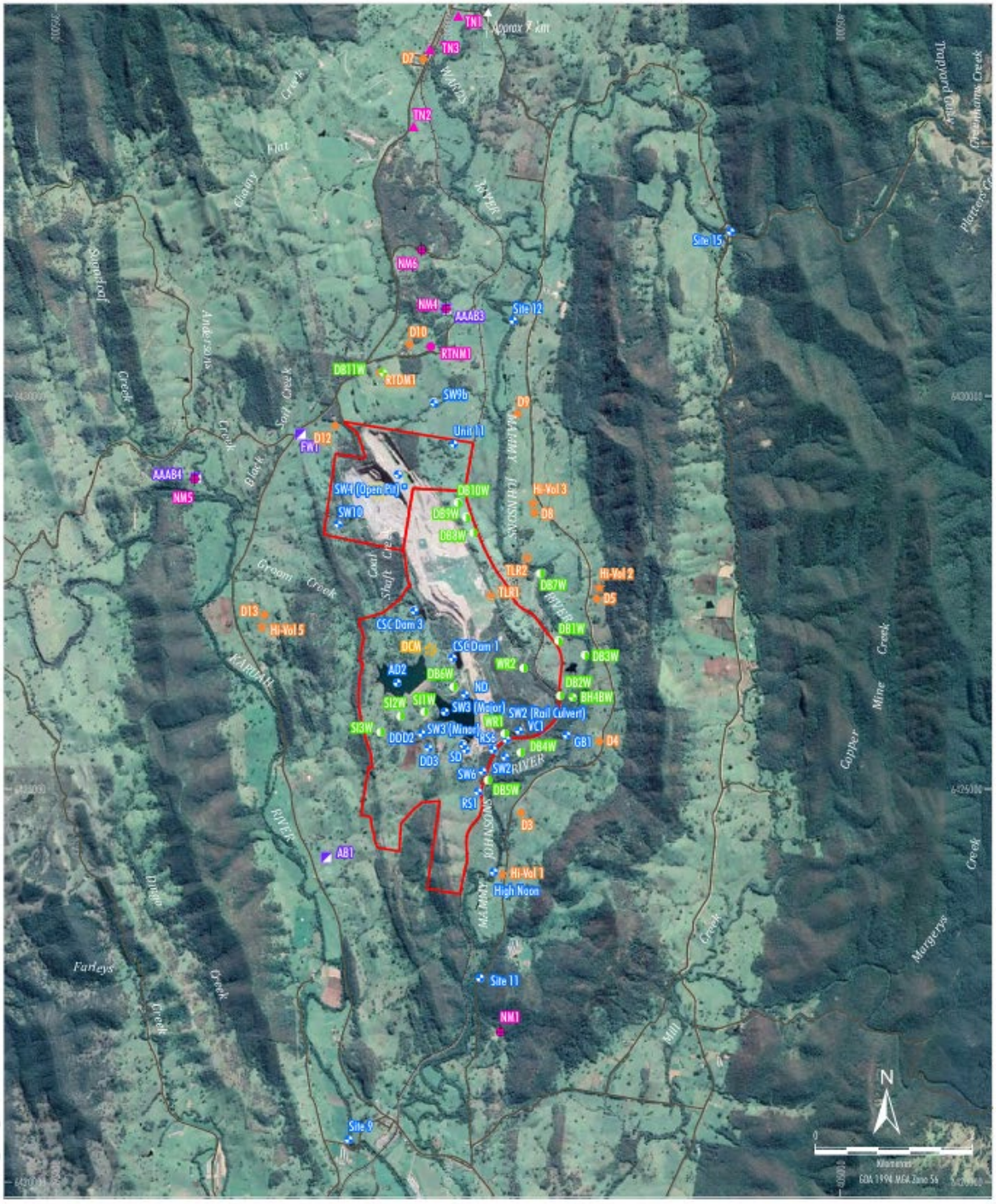
Source: © NSW Spatial Services (2019)
Orthophoto: Google Earth CENS/Airbus (2020)

DURALIECOAL

DURALIE COAL MINE 2024 ANNUAL REVIEW

DCM General Arrangement

Figure 2



LEGEND

- Mining Lease Boundary
- Meterological Station
- Dust Monitoring
- Dust Gauge
- High Volume Sampler
- Real-time Dust Monitor (PM 10)
- Temperature Lapse Rate Monitoring Site
- Blast Monitoring
- Blast Monitoring Site
- Noise Monitoring
- Noise Monitoring Site
- Train Noise Monitoring
- Real-time Noise Monitoring Site
- Surface Water Monitoring
- Surface Water Monitoring Site
- Groundwater Monitoring
- Groundwater Monitoring (Quarterly Water Level Monitoring)
- Groundwater Monitoring (Daily Water Level Monitoring)

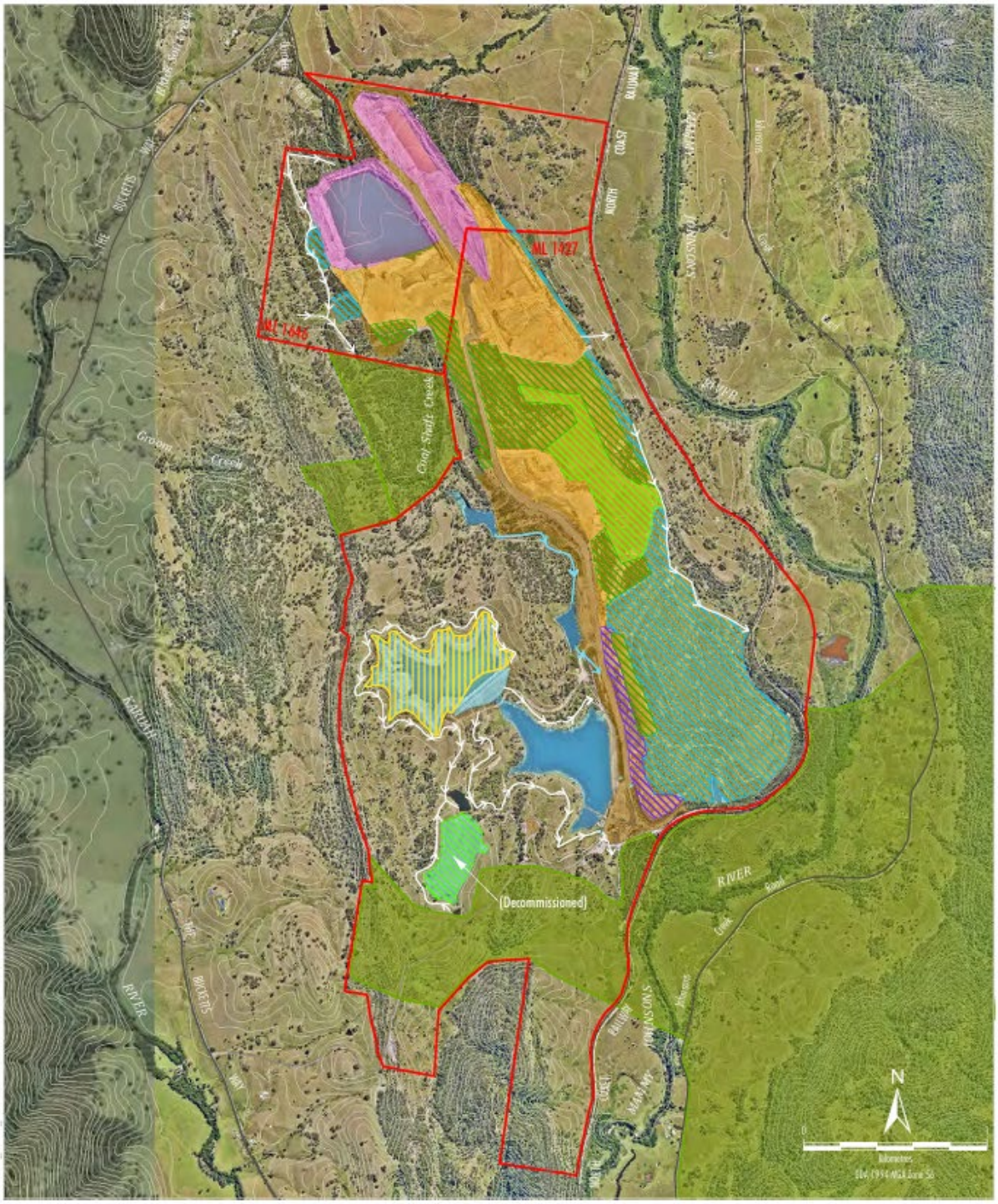
DURALIECOAL

DURALIE COAL MINE 2024 ANNUAL REVIEW

Environmental Monitoring Sites

Note: Environment monitoring sites will be progressively refined following the cessation of mining operations and ROM coal rail transport on 31 December 2021 and throughout the mine closure phase as impacts from mining operations and site activities either reduce in scale or cease all together.

Figure 3



LEGEND

- Mining Lease Boundary
- Up-catchment Diversion
- Culvert
- Indicative Coal Shaft Creek Diversion

Mining Domains

- Infrastructure (1)
- Water Management Area (2)
- Waste Emplacement Area (3)
- Final Void/Open Pit (4)
- Offset Area (5)

Rehabilitation Phase - Final Land Use Domain

- Decommissioning - Agricultural Grazing
- Landform Establishment - Native Ecosystem
- Ecosystem and Land Use Establishment - Agricultural Grazing
- Ecosystem and Land Use Establishment - Native Ecosystem
- Ecosystem and Land Use Development - Native Ecosystem

Source: © NSW Spatial Services (2019)
Orthophoto: Google Imagery (April 2020)

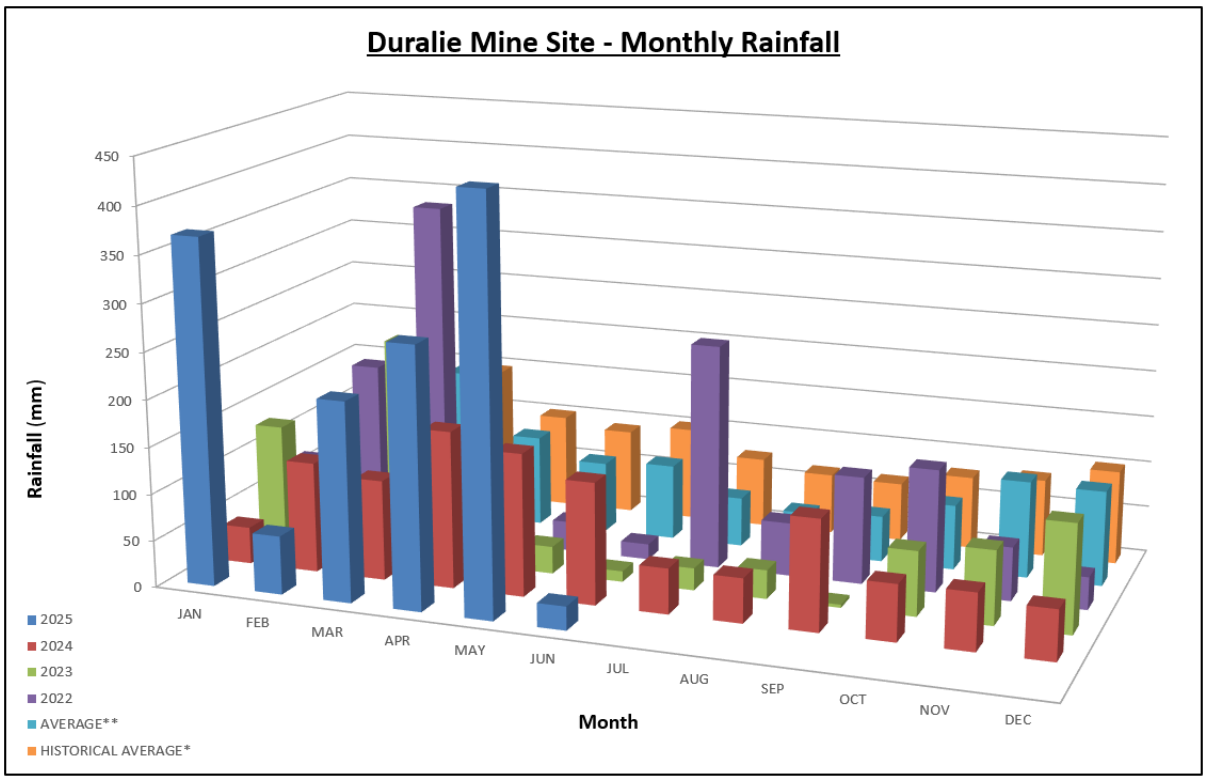
DURALIE COAL

DURALIE COAL MINE 2024 ANNUAL REVIEW

Mining and Rehabilitation Areas

Figure 4

APPENDIX 2: Meteorological Monitoring



*Stroud + Duralie 1889 to 2010 (inclusive)
**Duralie Mine 2022-2025 (inclusive)

Figure 2-1: Monthly Rainfall for 2022 to 2025 and Historical Averages

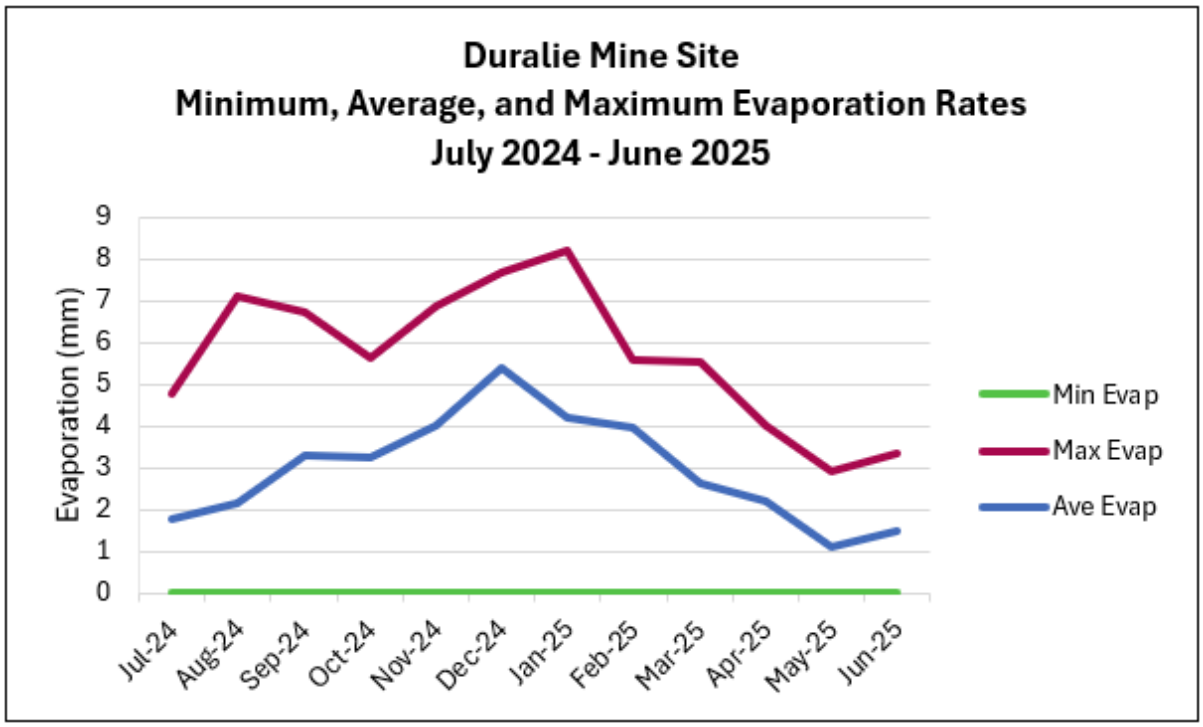


Figure 2-2: Minimum, Maximum, and Average Evaporation Rates During the Reporting Period

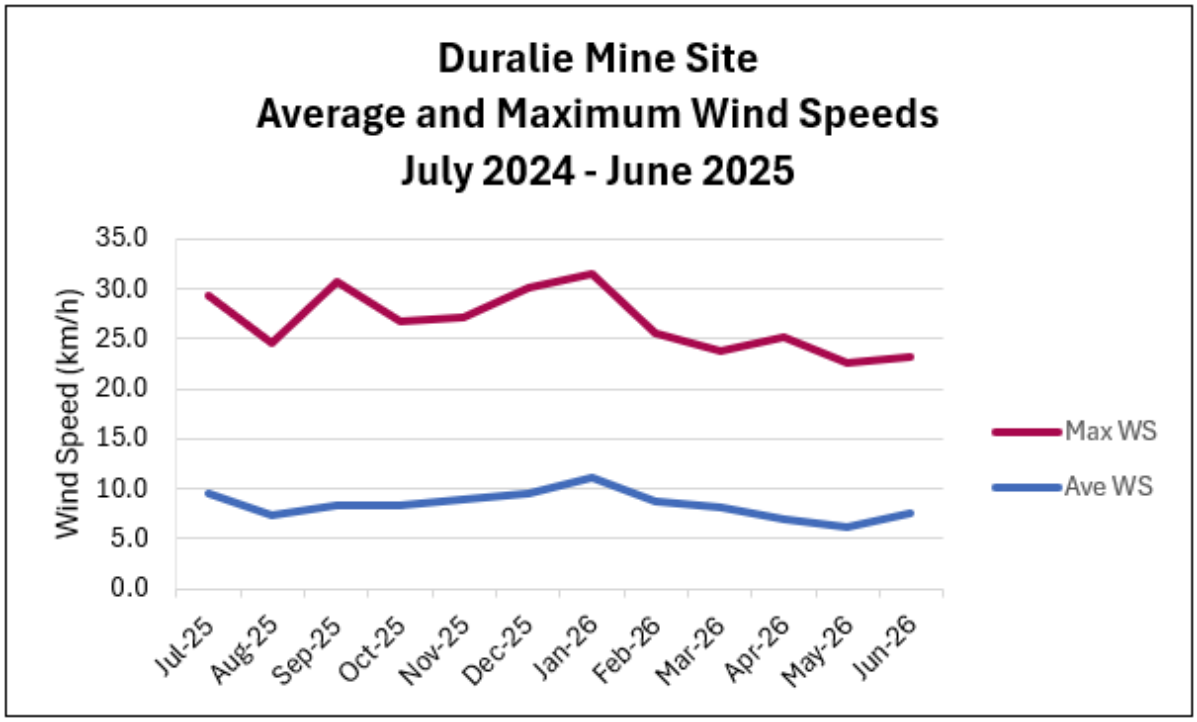


Figure 2-3: Maximum and Average Wind Speeds During the Reporting Period

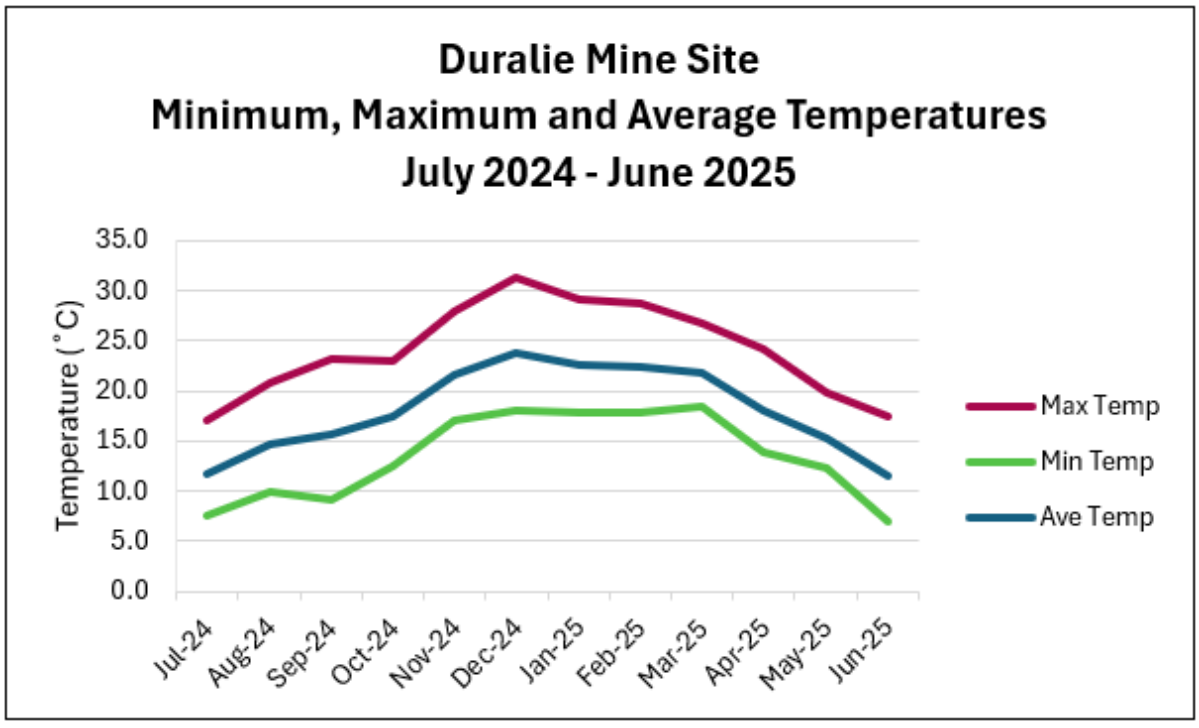
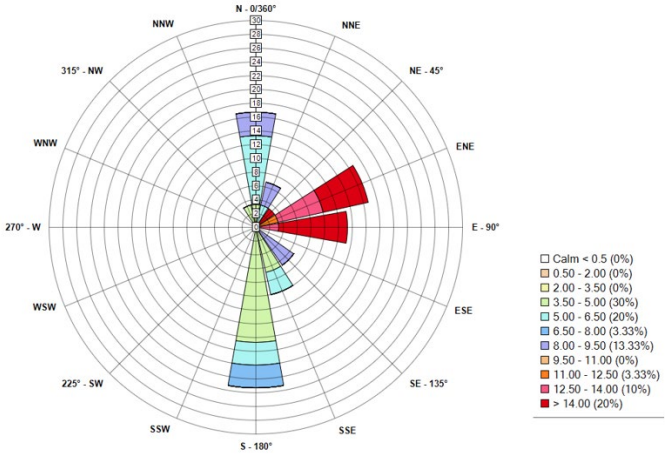
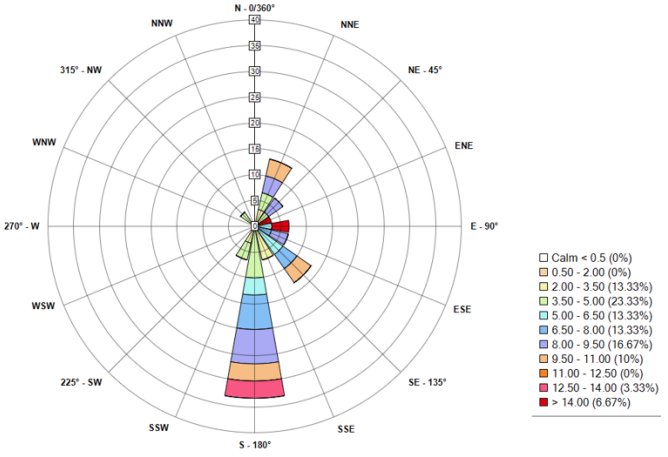


Figure 2-4: Minimum, Maximum, and Average Temperatures During the Reporting Period

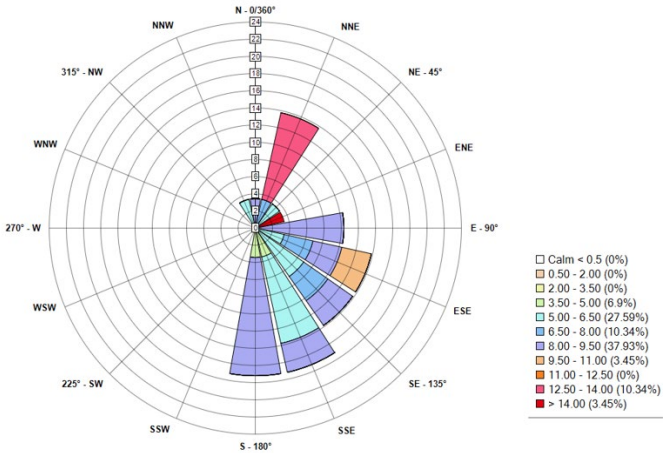
July 2024



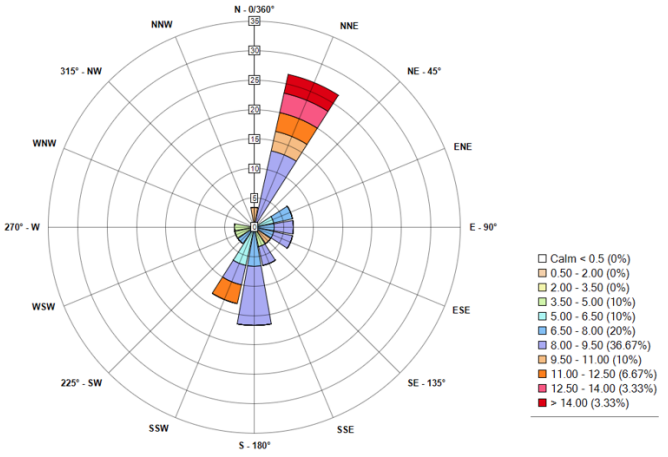
August 2024



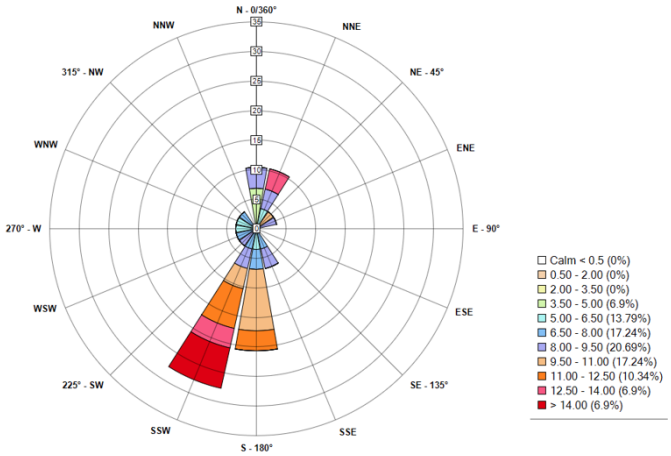
September 2024



October 2024



November 2024



December 2024

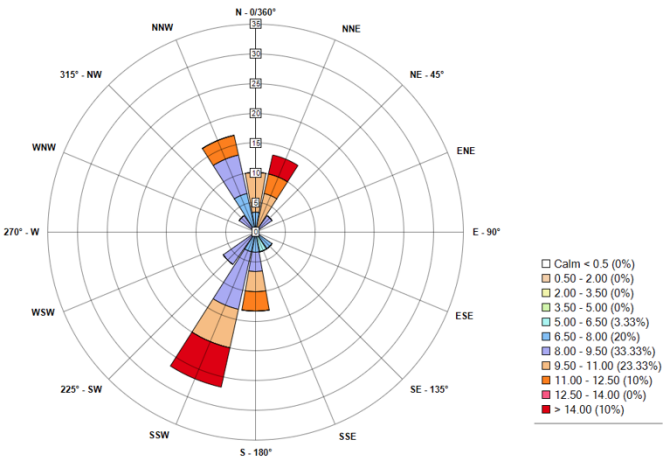
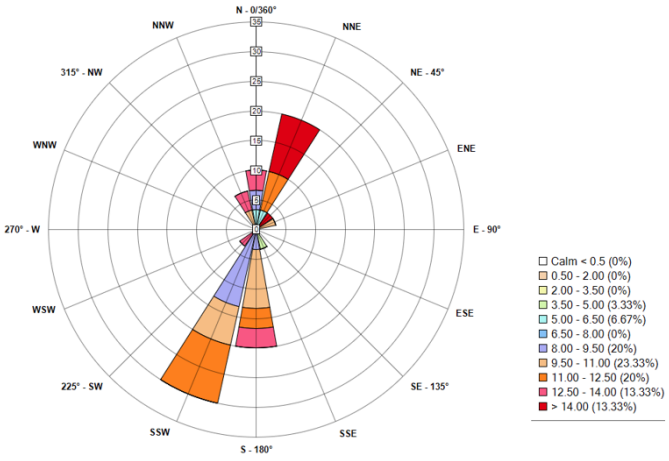
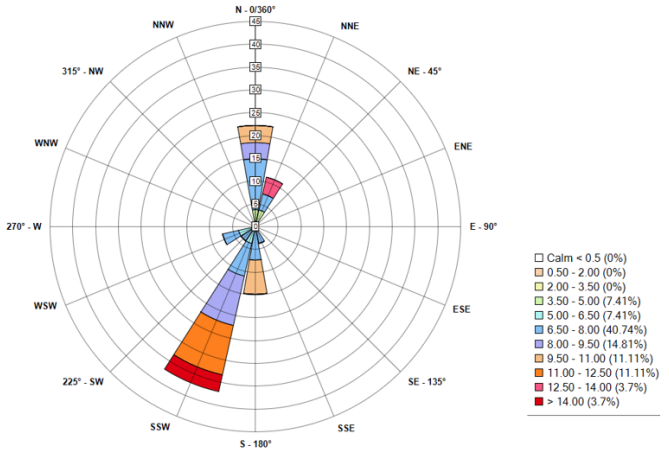


Figure 2-5: Monthly Windrose's showing Wind Directions, Speed, and Frequencies

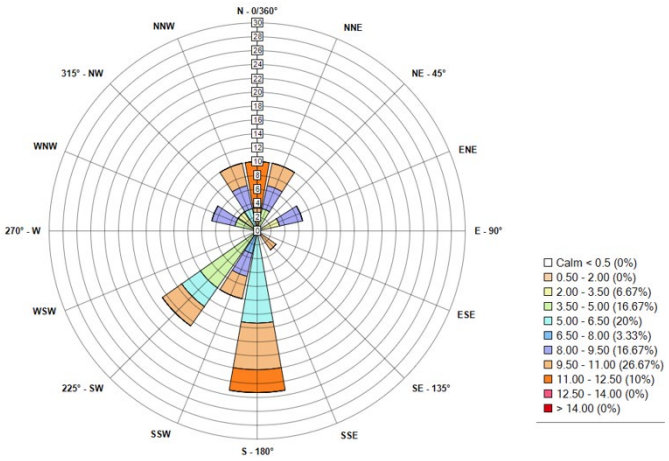
January 2025



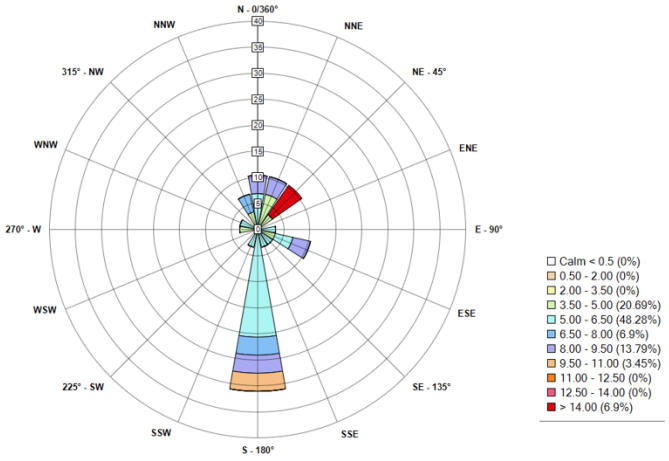
February 2025



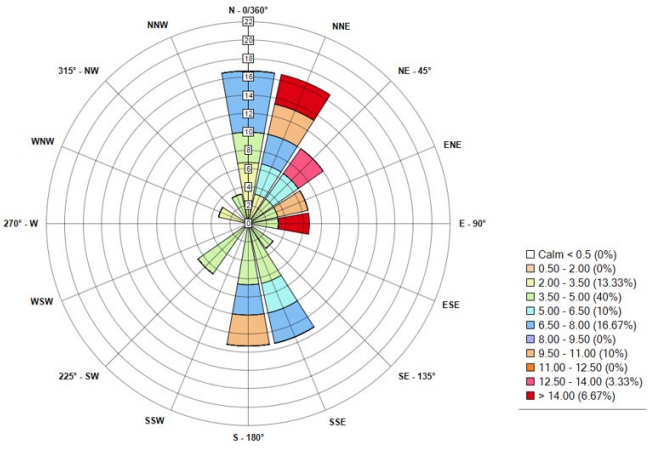
March 2025



April 2025



May 2025



June 2025

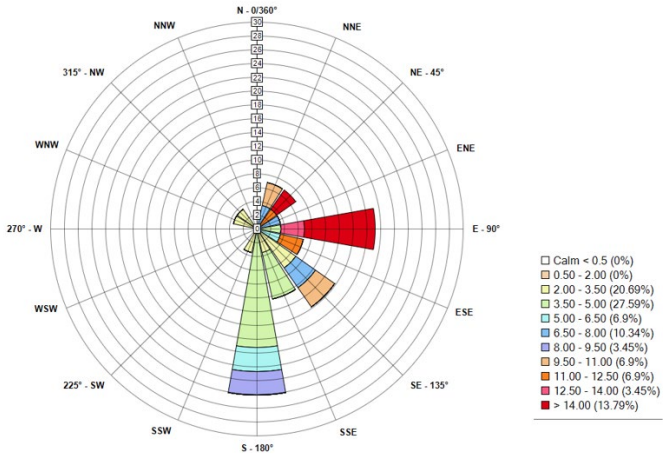


Figure 2-5 (cont.): Monthly Windrose's showing Wind Directions, Speed, and Frequencies

APPENDIX 3:
Air Quality Monitoring

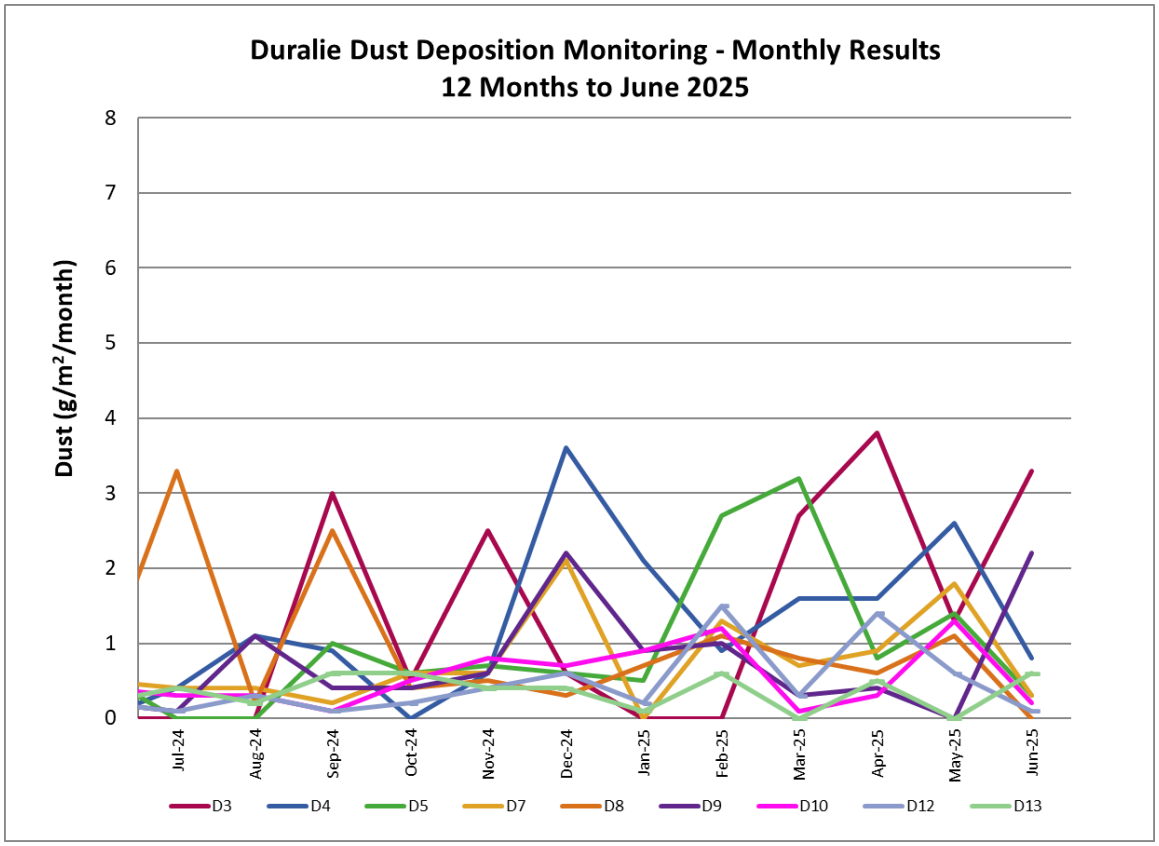


Figure 3-1: Monthly Depositional Dust Monitoring Results (minus contaminated results) during the Reporting Period

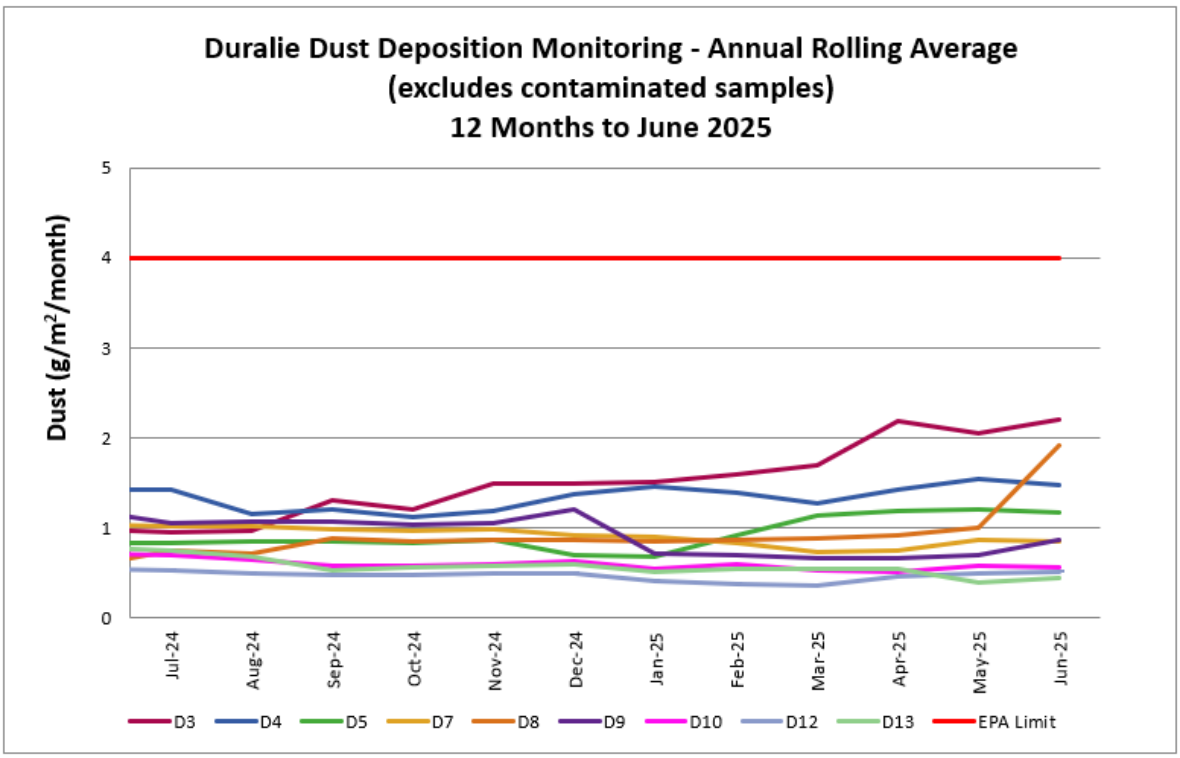


Figure 3-2: Rolling Annual Average Depositional Dust Monitoring Results (minus contaminated results) during the Reporting Period

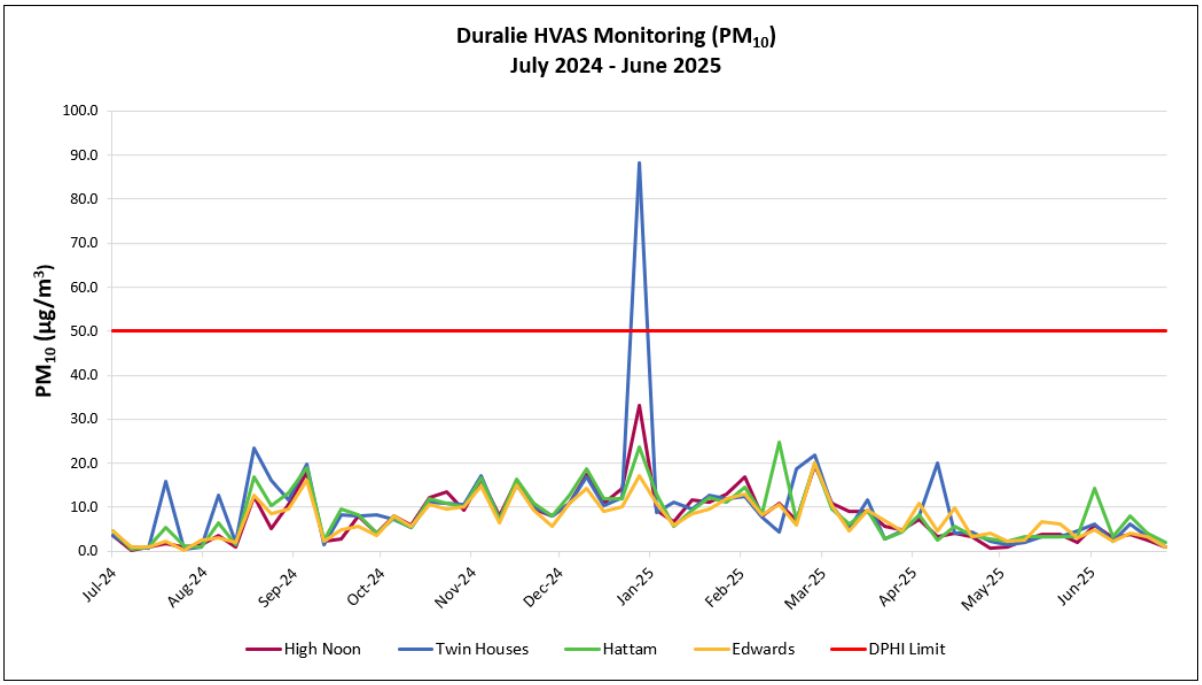


Figure 3-3: High Volume Air Sampling (PM_{10}) Results during the Reporting Period

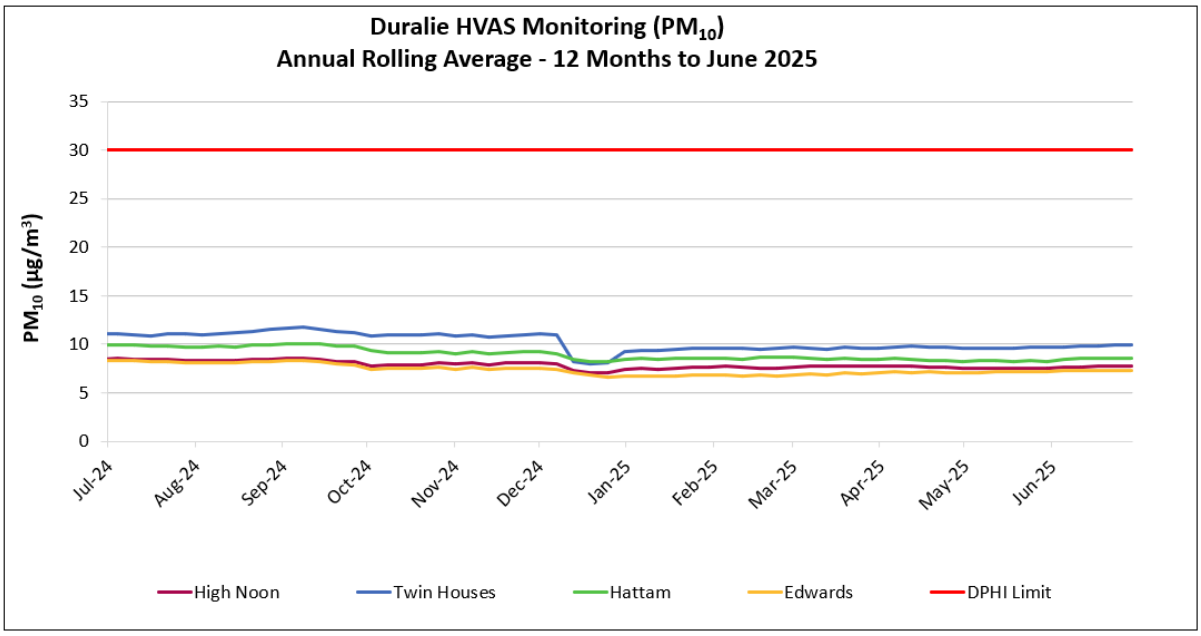


Figure 3-4: Rolling Annual Average HVAS (PM_{10}) Results during the Reporting Period

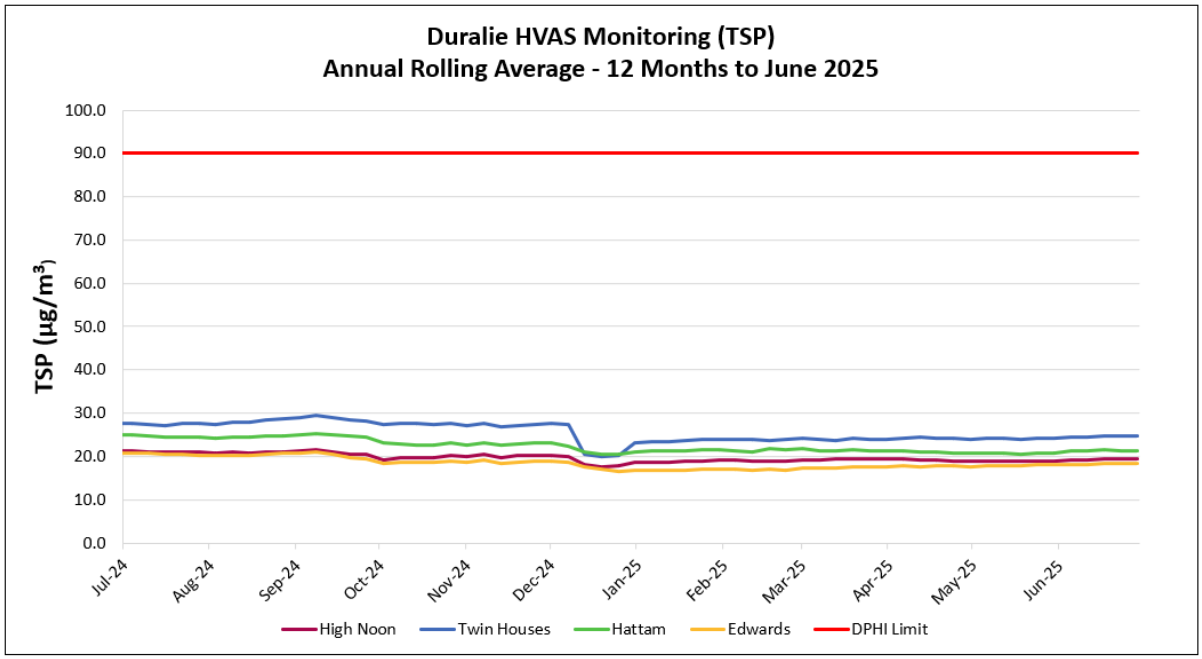


Figure 3-5: Rolling Annual Average HVAS (TSP) Results during the Reporting Period

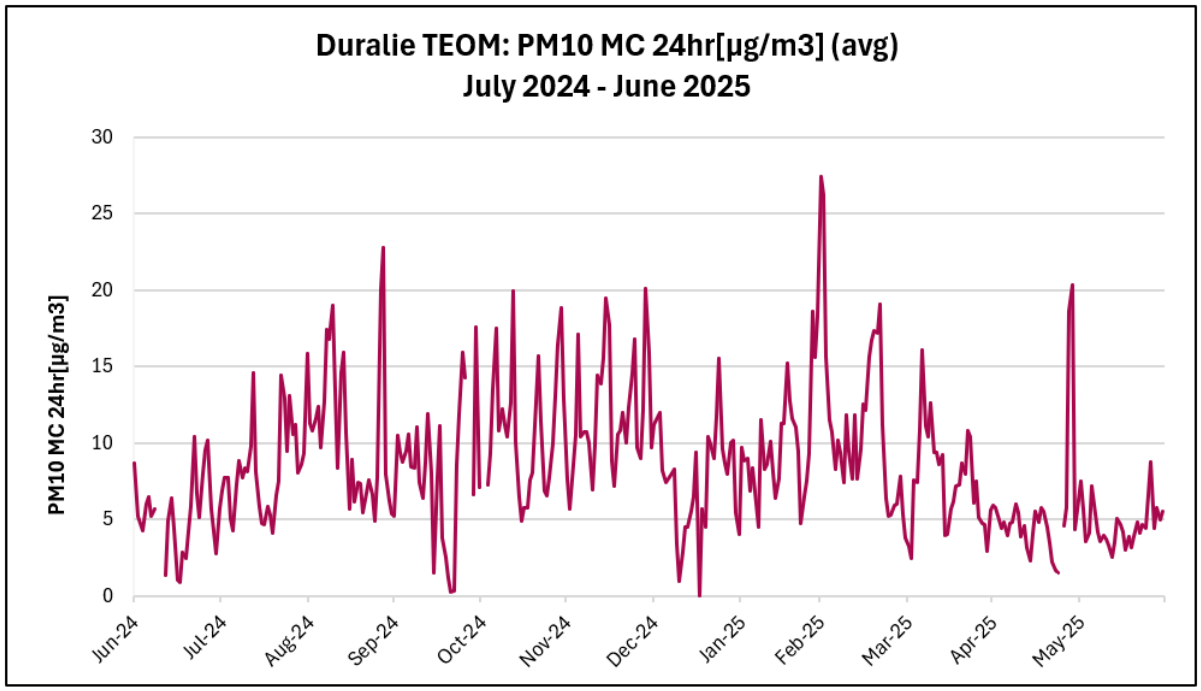


Figure 3-6: Real Time Dust Monitoring (TEOM PM_{10}) Results during the Reporting Period

APPENDIX 4: Surface Water & Groundwater Monitoring

Surface Water

SW2 – Coal Shaft Creek EPL 11701 Point 30

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TSS (mg/l)	CO3 (as CaCO3) mg/l	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Al (mg/L)	Cu (mg/L)	Mn	Zn (mg/L)	Fe (mg/L)
1-Jul-24	Monthly	Slow flow, slightly turbid and brown in colour	7.43	199	37.50	94.1	9	<1	34	34	6	32	17	9	6	2.64	<0.001	0.036	0.015
6-Aug-24	Discharge	Trickle flow, clear and light brown in colour	**6.96**	314.1	15.13	72.2	<5	<1	57	57	7	34	26	14	8	0.23	<0.001	0.176	0.009
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, clear and colourless	7.33	202	8.46	71.0	<5	<1	57	57	8	23	21	12	8	0.14	<0.001	0.056	0.008
27-Sep-24	Discharge	Slow flow, slightly turbid and brown	7.42	253	17.30	73.9	10	<1	51	51	5	34	28	12	10	0.49	<0.001	0.13	0.007
29-Oct-24	Monthly	Trickle flow, clear and light brown	7.53	276.4	3.51	61.1	<5	<1	87	87	3	22	31	12	10	0.06	<0.001	0.149	<0.005
29-Nov-24	Monthly	No flow																	
30-Dec-24	Monthly	No flow																	
9-Jan-25	Discharge	Slow flow, slightly turbid and brown	**6.69**	231.2	29.2	81.2	15	<1	18	18	7	74	19	12	8	1.26	0.002	0.054	0.025
17-Jan-25	Discharge	Slow flow, slightly turbid and light brown	7.63	284.3	9.1		<5	<1	84	84	3	17	27	14	11	0.59	<0.001	0.023	0.023
27-Feb-25	Monthly	No flow																	
27-Mar-25	Monthly	Slow flow, slightly turbid and light brown	7.31	263.2	9.34	42.0	<5	<1	54	54	9	22	26	12	7	0.23	<0.001	0.141	0.005
29-Mar-25	Discharge	Fast flow, slightly turbid and brown	**6.83**	132.8	30.3	87.2	33	<1	26	26	6	67	11	7	4	1.17	0.002	0.085	0.014
17-Apr-25	Discharge	Steady flow, turbid and light brown	7.42	169.5	25.4		17												
24-Apr-25	Monthly	Steady flow, slightly turbid and brown	7.61	170.7	19.3	88.0	<5	<1	41	41	4	19	16	9	6	1.21	0.002	0.042	0.010
12-May-25	Discharge	Slow flow, slightly turbid and light brown	7.54	130	36.90	86.0	5	<1	26	26	5	27	13	10	6	2.23	0.002	0.067	0.019
14-May-25	Discharge	21-Day continuous flow event. Slow flow, slight turbid and brown	7.46	91.1	42.8		58	10											
16-May-25	Discharge	21-Day continuous flow event. Slow flow, turbid and brown	7.07	94.7	64.6		61	10											
5-Jun-25	Discharge	Slow flow, slightly turbid and light brown	**6.77**	112.6	53.4	79.1	15	<1	27	27	4	20	14	8	4	2.35	0.002	0.116	0.017
***Water Quality Trigger**			**7.1-7.9**	**544**	**199.00**	**85-110**	**80**								**3.02**	**0.003**		**0.064**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW2 – RC – Coal Shaft Creek at Rail Siding Culvert (Entrance)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Slow flow, slightly turbid and light brown	7.65	155.7	70.8	102.3	100	11	<1	35	35	<1	24	13	7	5	18	38
6-Aug-24	Discharge	Slow flow, slightly turbid and brown	7.69	331.9	35.8	96.7	212	12	<1	58	58	3	56	26	17	10	31	84
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, clear and brown	7.69	208	7	101.6	133	<5	<1	51	51	2	22	18	11	8	21	60
27-Sep-24	Discharge	Slow flow	7.66	304.1	12	105.8	195	6	<1	55	55	2	65	26	17	12	37	92
29-Oct-24	Monthly	Trickle flow	**8.62**	263.1	1.48	107.0	168	<5	<1	88	88	1	21	28	12	10	31	71
29-Nov-24	Monthly	Trickle flow, Turbid and brown	7.12	403.5	55.7	**35.1**	258	67	<1	139	139	11	8	33	16	12	44	89
30-Dec-24	Monthly	Dry																
9-Jan-25	Discharge	Steady flow, clear and light brown	**7.00**	193.8	10.31	91.1	124	6	<1	18	18	3	50	17	10	6	20	50
26-Feb-25	Monthly	Trickle, clear and light brown	7.31	295	3.50	**79.2**	189	<5	<1	91	91	4	26	30	16	10	30	81
27-Mar-25	Monthly	Slow flow	7.50	199.7	2.50	90.1	128	<5	<1	56	56	2	18	18	10	6	20	50
29-Mar-25	Discharge	Fast flow, turbid and brown	7.29	175.9	38.2	96.3	113	31	<1	28	28	3	31	10	9	6	14	47
24-Apr-25	Monthly	Fast flow	7.73	189.5	8.75	102.9	121	<5	<1	46	46	2	25	14	11	6	19	52
12-May-25	Discharge	Steady flow, slightly turbid and light brown	7.67	119.1	40.9	99	76	6	<1	26	26	3	22	11	8	5	15	40
5-Jun-25	Discharge	Steady flow, turbid and brown	7.31	132.4	49.0	101.4	85	10	<1	28	28	2	21	9	8	4	11	36
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**85-110**			**80**									

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW2 – RC – Coal Shaft Creek at Rail Siding Culvert (Entrance)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	**4.95**	<0.001	0.016	<0.0001	0.003	0.002	<0.001	0.029	<0.001	0.002	<0.01	<0.001	<0.001	0.024	<0.05	5.32	<0.0001	0.1	0.02	<0.01	<0.01	1.2	**0.16**	<2
6-Aug-24	0.84	<0.001	0.019	<0.0001	<0.001	<0.001	<0.001	0.023	<0.001	0.001	<0.01	<0.001	<0.001	0.018	<0.05	1.00	<0.0001	<0.1	0.02	<0.01	0.03	0.6	0.02	4
21-Aug-24	0.78	<0.001	0.012	<0.0001	<0.001	<0.001	<0.001	0.012	<0.001	0.001	<0.01	<0.001	<0.001	0.012	<0.05	0.87	<0.0001	<0.1	0.01	<0.01	<0.01	0.7	0.03	6
27-Sep-24	0.76	<0.001	0.02	<0.0001	<0.001	<0.001	<0.001	0.031	<0.001	0.002	<0.01	<0.001	<0.001	0.021	<0.05	1.02	<0.0001	0.1	0.06	<0.01	0.07	0.5	0.04	3
29-Oct-24	0.05	<0.001	0.01	<0.0001	<0.001	<0.001	<0.001	0.031	<0.001	0.001	<0.01	<0.001	<0.001	0.018	<0.05	0.47	<0.0001	<0.1	0.03	<0.01	0.01	0.6	0.03	4
29-Nov-24	3.48	<0.001	0.07	<0.0001	0.002	0.002	<0.001	1.94	<0.001	0.005	<0.01	<0.001	<0.001	0.072	<0.05	11.9	<0.0001	<0.1	0.12	<0.01	0.04	**2.1**	**0.11**	6
30-Dec-24																								
9-Jan-25	0.85	<0.001	0.014	<0.0001	<0.001	0.002	<0.001	0.01	<0.001	0.002	<0.01	<0.001	<0.001	0.037	<0.05	0.76	<0.0001	<0.1	0.02	<0.01	0.02	**1.6**	0.03	2
26-Feb-25	0.06	<0.001	0.018	<0.0001	<0.001	<0.001	<0.001	0.164	<0.001	0.002	<0.01	<0.001	<0.001	0.008	<0.05	0.94	<0.0001	<0.1	0.05	<0.01	0.02	0.5	<0.01	6
27-Mar-25	0.12	<0.001	0.01	<0.0001	<0.001	<0.001	<0.001	0.018	<0.001	0.001	<0.01	<0.001	<0.001	0.01	<0.05	0.52	<0.0001	0.2	0.06	<0.01	0.02	0.6	0.04	4
29-Mar-25	2.09	<0.001	0.018	<0.0001	0.002	0.002	<0.001	0.081	<0.001	0.003	<0.01	<0.001	<0.001	0.044	<0.05	2.79	<0.0001	<0.1	0.04	<0.01	0.2	1.2	**0.12**	4
24-Apr-25	0.63	<0.001	0.011	<0.0001	<0.001	<0.001	<0.001	0.02	<0.001	0.001	<0.01	<0.001	<0.001	0.011	<0.05	1.38	<0.0001	<0.1	0.01	<0.01	<0.01	0.7	0.02	2
12-May-25	2.60	<0.001	0.015	<0.0001	0.002	0.002	<0.001	0.039	<0.001	0.003	<0.01	<0.001	<0.001	0.023	<0.05	2.94	<0.0001	<0.1	0.02	<0.01	0.02	0.8	0.04	4
5-Jun-25	2.19	<0.001	0.015	<0.0001	0.002	0.002	<0.001	0.047	<0.001	0.002	<0.01	<0.001	<0.001	0.022	<0.05	2.59	<0.0001	<0.1	0.11	<0.01	0.04	0.8	0.05	4
***Water Quality Trigger**	**3.02**					**0.003**								**0.064**					**0.05**			**1.2**	**0.08**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW6

Date	Category	Comment	pH	EC (µS/cm)	Turbidity (NTU)	DO %	TSS (mg/L)	CO3 as CaCO3 (mg/L)	Bicarb as CaCO3 (mg/L)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Al (mg/L)	Cu (mg/L)	Mn (mg/L)	Zn (mg/L)	Fe (mg/L)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown	7.73	356.8	49.7	162.5	15	<1	64	64	<1	53	31	14	10	2.75	<0.001	0.025	0.006	3.41
6-Aug-24	Discharge	Slow flow, slightly turbid and brown	7.66	428.8	46.5	99.5	13	<1	66	66	3	74	33	22	14	0.53	<0.001	0.020	<0.005	1.42
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, slightly turbid and brown	7.31	517	18.8	98.8	32	<1	97	97	6	91	47	29	21	0.21	<0.001	0.016	<0.005	0.96
27-Sep-24	Discharge	Slow flow, slightly turbid and brown	7.31	481.1	54.1	106.1	29	<1	29	29	2	171	31	30	22	1.35	0.002	0.138	0.010	1.62
29-Oct-24	Monthly	No flow																		
29-Nov-24	Monthly	No flow																		
30-Dec-24	Monthly	Dry																		
9-Jan-25	Discharge	Slow flow, clear and light brown	**6.94**	439.9	11.81	97.1	6	<1	44	44	3	116	43	23	16	0.64	0.001	0.022	<0.005	0.53
26-Feb-25	Monthly	No flow																		
27-Mar-25	Monthly	Trickle flow, slightly turbid and light brown	**6.66**	357.3	11.5	89.9	<5	<1	85	85	5	40	34	17	11	0.43	0.002	0.017	0.012	0.51
29-Mar-25	Discharge	Fast flow, turbid and brown	7.33	155.8	63.6	100.8	**108**	<1	44	44	3	17	13	9	5	**3.27**	0.002	0.049	0.007	2.87
24-Apr-25	Monthly	Fast flow, turbid and brown	7.46	281.9	46.6	103.7	8	<1	62	62	2	32	28	14	8	2.5	0.002	0.028	<0.005	2.93
12-May-25	Discharge	Steady flow, slightly turbid and light brown	7.59	198.6	32.8	100	8	<1	57	57	2	28	19	12	8	1.49	0.002	0.019	<0.005	1.67
5-Jun-25	Discharge	No safe access																		
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**85-110**	**80**									**3.02**	**0.003**		**0.064**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW9 – Un-named Tributary (Fisher-Webster)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Slow flow, slightly turbid and light brown	**7.44**	154.6	39	98.9	24.96	16	<1	13	13	1	19	21	4	3	17	22
6-Aug-24	Discharge	Trickle flow, slightly turbid and brown	6.55	**627.5**	32.6	**61.2**	20.864	12	<1	27	27	11	36	154	24	14	61	118
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, slightly turbid and brown	6.87	248.9	38.2	**63.7**	24.448	7	<1	27	27	6	28	40	10	6	32	50
27-Sep-24	Discharge	Dry																
29-Oct-24	Monthly	No flow																
29-Nov-24	Monthly	No flow																
30-Dec-24	Monthly	No flow																
9-Jan-25	Discharge	Dry																
27-Feb-25	Monthly	No flow																
27-Mar-25	Monthly	Trickle flow, turbid and brown	6.74	214.6	41.6	91.9	26.624	28	<1	30	30	9	12	34	7	4	25	34
29-Mar-25	Discharge	Fast flow, turbid and brown	6.93	76.6	**191**	94	122.24	433	<1	11	11	5	<1	11	2	2	9	13
24-Apr-25	Monthly	Steady flow, turbid and brown	**7.17**	161.1	60.8	103.1	38.912	24	<1	16	16	4	11	24	5	3	18	25
12-May-25	Discharge	Slow flow, slightly turbid and light brown	**7.58**	91.1	49.4	99.4	31.616	23	<1	14	14	6	6	21	5	3	16	25
5-Jun-25	Discharge	Slow flow, slightly turbid and light brown	**7.32**	90.8	94.8	98.8	60.672	38	<1	12	12	3	9	17	4	2	12	18
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**85-110**			**80**									

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW9 – Un-named Tributary (Fisher-Webster)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	1.68	0.002	0.036	<0.0001	0.001	0.001	<0.001	0.072	<0.001	0.002	<0.01	<0.001	<0.001	0.007	<0.05	2.8	<0.0001	<0.1	0.2	<0.01	0.24	**2.4**	**0.37**	2
6-Aug-24	0.30	0.002	0.079	<0.0001	<0.001	<0.001	<0.001	1.16	<0.001	0.004	<0.01	<0.001	<0.001	0.011	<0.05	8.88	<0.0001	<0.1	**0.33**	<0.01	0.03	**1.7**	**0.40**	5
21-Aug-24	1.30	0.003	0.042	<0.0001	0.001	0.001	<0.001	0.182	<0.001	0.004	<0.01	<0.001	<0.001	0.009	<0.05	6.04	<0.0001	<0.1	**0.14**	<0.01	0.11	**2.3**	**0.42**	4
27-Sep-24																								
29-Oct-24																								
29-Nov-24																								
30-Dec-24																								
9-Jan-25																								
27-Feb-25																								
27-Mar-25	2.17	0.004	0.048	<0.0001	0.001	0.003	0.002	0.13	<0.001	0.004	<0.01	<0.001	<0.001	0.011	<0.05	5.09	<0.0001	<0.1	**0.17**	0.01	0.04	**3**	**0.44**	4
29-Mar-25	**5.88**	0.002	0.065	<0.0001	0.003	**0.004**	0.003	0.113	<0.001	0.003	<0.01	<0.001	<0.001	0.018	<0.05	4.64	<0.0001	<0.1	0.08	<0.01	2	**5.4**	**0.61**	7
24-Apr-25	2.41	0.002	0.042	<0.0001	0.002	**0.004**	0.002	0.066	<0.001	0.004	<0.01	<0.001	<0.001	0.012	<0.05	4.21	<0.0001	<0.1	0.09	0.01	0.06	**2.8**	**0.40**	3
12-May-25	2.63	0.002	0.041	<0.0001	0.002	**0.004**	0.002	0.055	<0.001	0.004	<0.01	<0.001	<0.001	0.012	<0.05	3.67	<0.0001	<0.1	**0.13**	<0.01	0.08	**2.2**	**0.46**	5
5-Jun-25	2.76	0.002	0.042	<0.0001	0.002	0.003	0.002	0.066	<0.001	0.003	<0.01	<0.001	<0.001	0.012	<0.05	3.68	<0.0001	<0.1	**0.12**	<0.01	0.11	**2.2**	**0.27**	5
***Water Quality Trigger**	**3.02**					**0.003**								**0.064**					**0.05**			**1.2**	**0.08**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW10 – Coal Shaft Creek (Holmes Upstream)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	No flow																
6-Aug-24	Discharge	Trickle flow, turbid and brown	7.22	169.7	83.8	103.3	109	20	<1	14	14	4	<1	15	5	2	8	21
21-Aug-24	Discharge	21-Day continuous flow event. Dry																
27-Sep-24	Discharge	Trickle flow, slightly turbid and brow	**7.91**	67.9	82.8	89.5	43	17	<1	11	11	3	<1	10	4	2	8	18
29-Oct-24	Monthly	No flow																
29-Nov-24	Monthly	No flow																
30-Dec-24	Monthly	No flow																
9-Jan-25	Discharge	Trickle flow, slightly turbid and light brown	**6.80**	57.6	24.8	92	37	<5	<1	12	12	6	<10	16	4	2	7	18
26-Feb-25	Monthly	No flow																
27-Mar-25	Monthly	No flow																
29-Mar-25	Discharge	Steady flow, turbid and brown	**6.74**	41.4	118	93.5	26	42	<1	11	11	4	1	5	3	1	5	12
24-Apr-25	Monthly	Trickle flow, turbid and brown	7.25	89.5	**275**	**79.4**	57	28	<1	17	17	6	4	13	6	3	8	27
12-May-25	Discharge	Slow flow, turbid and brown	7.51	138.7	**232**	92.4	89	39	<1	25	25	6	<1	14	7	4	11	34
5-Jun-25	Discharge	Trickle flow, To low too sample.																
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**85-110**			**80**									

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW10 – Coal Shaft Creek (Holmes Upstream)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24																								
6-Aug-24	1.00	<0.001	0.010	<0.0001	<0.001	0.002	<0.001	0.061	<0.001	0.002	<0.01	<0.001	<0.001	0.008	<0.05	1.10	<0.0001	<0.1	0.01	<0.01	0.07	**1.9**	**0.13**	8
21-Aug-24																								
27-Sep-24	**5.51**	<0.001	0.012	<0.0001	0.004	**0.005**	<0.001	0.037	<0.001	0.003	<0.01	<0.001	<0.001	0.01	<0.05	4.83	<0.0001	<0.1	0.03	<0.01	0.02	**1.4**	**0.15**	5
29-Oct-24																								
29-Nov-24																								
30-Dec-24																								
9-Jan-25	1.89	<0.001	0.01	<0.0001	0.002	**0.004**	<0.001	0.017	<0.001	0.004	<0.01	<0.001	<0.001	0.006	<0.05	1.61	<0.0001	<0.1	**0.07**	<0.01	0.1	**2.6**	**0.09**	3
26-Feb-25																								
27-Mar-25																								
29-Mar-25	**6.79**	<0.001	0.015	<0.0001	0.004	**0.005**	<0.001	0.042	<0.001	0.004	<0.01	<0.001	<0.001	0.012	<0.05	6.15	<0.0001	<0.1	0.01	<0.01	<0.01	**2.9**	**0.25**	4
24-Apr-25	**15.7**	<0.001	0.035	<0.0001	0.01	**0.012**	<0.001	0.086	<0.001	0.006	<0.01	<0.001	<0.001	0.028	<0.05	13.9	<0.0001	<0.1	0.02	<0.01	<0.01	**2.8**	**0.26**	6
12-May-25	**17.4**	<0.001	0.031	<0.0001	0.011	**0.011**	<0.001	0.063	0.001	0.009	<0.01	<0.001	<0.001	0.028	<0.05	14.8	<0.0001	<0.1	0.05	<0.01	<0.01	**2.2**	<0.05	6
5-Jun-25																								
***Water Quality Trigger**	**3.02**					**0.003**								**0.064**					**0.05**			**1.2**	**0.08**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

GB1 – Mammy Johnsons River (EPL 11701 Point 31)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown	7.32	222	**29.1**	99.2	142	11	<1	34	34	1	11	36	8	5	26	40
6-Aug-24	Discharge	Steady flow, clear and light brown	7.56	298	17.18	99.1	191	6	<1	61	61	4	10	47	14	7	35	64
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.41	266.1	9.2	93.6	170	<5	<1	46	46	3	12	45	13	7	32	61
27-Sep-24	Discharge	Slow flow	7.49	320.4	6.64	**82.2**	205	<5	<1	71	71	3	8	53	16	10	47	81
29-Oct-24	Monthly	Slow flow, clear and light brown	7.40	224.1	10.45	**75.0**	143	<5	<1	46	46	2	4	43	10	6	29	50
29-Nov-24	Monthly	Steady flow	7.50	342.6	2.11	**58.8**	219	<5	<1	79	79	7	4	49	16	8	38	73
30-Dec-24	Monthly	No flow																
9-Jan-25	Discharge	Fast flow, slightly turbid and light brown	**7.04**	102.9	**36.6**	87.4	66	**21**	<1	15	15	4	<1	22	4	2	12	18
17-Jan-25	Discharge	Slow flow, slightly turbid and light brown	**7.70**	210.2	**57.3**		135	**61**	<1	14	14	5	<10	17	4	2	13	18
27-Feb-25	Monthly	Steady flow, clear and light brown	7.53	245.8	14.94	**73.1**	157	8	<1	36	36	4	3	34	9	4	25	39
27-Mar-25	Monthly	Steady flow, slightly turbid and light brown	7.36	191.3	18.7	95.4	122	<5	<1	38	38	3	5	32	7	4	24	34
29-Mar-25	Discharge	Fast flow, slightly turbid and brown	**6.92**	133	**61.7**	96.5	85	**168**	<1	26	26	4	<1	21	5	3	17	25
17-Apr-25	Discharge	Steady flow, slightly turbid and light brown	7.10	195.7	16.91		125	9										
24-Apr-25	Monthly	Steady, slightly turbid and brown	7.49	205.6	**39.5**	104.6	132	**21**	<1	36	36	2	7	34	8	4	26	36
27-Apr-25	Discharge	Fast flow, turbid and light brown	**7.92**	93.0	**94.1**		60	**181**										
12-May-25	Discharge	Steady flow, slightly turbid and light brown	7.44	147.6	**40.4**	99.8	94	**18**	<1	27	27	3	6	32	7	4	23	34
14-May-25	Discharge	21-Day continuous flow event. Steady flow, slight turbid and brown.	7.19	123.0	**51.8**		79	**18**										
16-May-25	Discharge	21-Day continuous flow event. fast flow, turbid and brown.	**6.67**	142	**68.0**		91	**34**										
5-Jun-25	Discharge	Fast flow, slightly turbid and light brown	7.23	159.7	**45.3**	97.7	102	**20**	<1	31	31	2	8	33	7	4	23	34
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**		**15**										

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

GB1 – Mammy Johnsons River (EPL 11701 Point 31)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	0.28	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.039	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.29	<0.0001	<0.1	0.03	<0.01	0.09	**0.9**	0.11	2
6-Aug-24	0.24	<0.001	0.034	<0.0001	<0.001	<0.001	<0.001	0.034	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.02	<0.0001	<0.1	0.01	<0.01	0.06	0.5	0.08	4
21-Aug-24	0.27	<0.001	0.033	0.0001	<0.001	<0.001	<0.001	0.023	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.00	<0.0001	<0.1	0.02	<0.01	0.04	0.5	0.04	5
27-Sep-24	0.23	<0.001	0.042	<0.0001	<0.001	<0.001	<0.001	0.069	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.95	<0.0001	<0.1	0.02	<0.01	0.02	0.4	0.02	<2
29-Oct-24	0.49	<0.001	0.03	<0.0001	<0.001	<0.001	<0.001	0.031	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.31	<0.0001	<0.1	0.01	<0.01	0.01	0.6	0.06	5
29-Nov-24	0.05	0.001	0.041	<0.0001	<0.001	<0.001	<0.001	0.176	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.12	<0.0001	<0.1	0.02	<0.01	0.11	0.6	0.06	4
30-Dec-24																								
9-Jan-25	**2.18**	<0.001	0.033	<0.0001	<0.001	0.002	<0.001	0.057	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.50	<0.0001	<0.1	0.02	<0.01	0.12	**1.3**	0.04	2
17-Jan-25	**6.25**	0.001	0.068	<0.0001	**0.002**	0.002	0.002	0.108	<0.001	0.002	<0.01	<0.001	<0.001	0.01	<0.05	3.28	<0.0001	<0.1	0.03	<0.01	0.14	**1.3**	0.04	2
27-Feb-25	1.10	<0.001	0.035	<0.0001	<0.001	<0.001	<0.001	0.045	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.23	<0.0001	<0.1	0.02	<0.01	0.05	0.4	0.08	5
27-Mar-25	**1.38**	<0.001	0.037	<0.0001	<0.001	<0.001	<0.001	0.033	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.45	<0.0001	<0.1	0.03	<0.01	0.03	0.6	0.07	3
29-Mar-25	**2.46**	0.002	0.058	<0.0001	**0.002**	0.003	0.002	0.18	<0.001	0.002	<0.01	<0.001	<0.001	0.01	<0.05	2.99	<0.0001	<0.1	0.04	<0.01	3.68	**6.7**	**0.38**	6
17-Apr-25																								
24-Apr-25	**1.58**	<0.001	0.041	<0.0001	<0.001	<0.001	<0.001	0.036	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.96	<0.0001	<0.1	0.01	<0.01	0.04	0.6	0.06	3
27-Apr-25																								
12-May-25	**2.12**	<0.001	0.041	<0.0001	<0.001	0.001	0.001	0.049	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.90	<0.0001	<0.1	0.04	<0.01	0.05	0.6	0.06	4
14-May-25																								
16-May-25																								
5-Jun-25	**2.45**	<0.001	0.043	<0.0001	<0.001	0.001	<0.001	0.052	<0.001	<0.001	<0.01	<0.001	<0.001	0.009	<0.05	2.38	<0.0001	<0.1	0.03	<0.01	0.06	0.5	0.04	5
***Water Quality Trigger**	**1.24**				**0.001**	**0.0020**								**0.011**					**0.06**			**0.8**	**0.15**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Highnoon – Mammy Johnsons River (EPL 11701 Point 35)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown	7.31	226.3	**28.1**	96.7	145	9	<1	35	35	<1	10	36	8	5	27	40
6-Aug-24	Discharge	Steady flow, clear and light brown	7.46	344.2	14.28	92.7	220	<5	<1	67	67	4	13	56	15	8	37	70
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.41	259.4	12.99	91.3	166	5	<1	44	44	3	11	44	12	7	31	59
27-Sep-24	Discharge	Slow flow	7.60	321.3	12.88	**77.9**	206	6	<1	68	68	3	11	60	17	10	41	84
29-Oct-24	Monthly	Slow flow	**6.85**	229.6	11.04	**78.6**	147	<5	<1	54	54	3	4	42	10	7	30	54
29-Nov-24	Monthly	Steady flow, slightly turbid and colourless.	7.43	359.7	3.07	**52.3**	230	<5	<1	74	74	6	4	55	16	9	40	77
30-Dec-24	Monthly	Slow flow	**7.64**	276.2	4.94	**76.7**	177	<5	<1	65	65	4	<1	42	13	7	29	61
9-Jan-25	Discharge	Fast flow, slightly turbid and light brown	**6.94**	105.9	**38.3**	88.7	68	**25**	<1	16	16	4	<1	24	4	2	13	18
17-Jan-25	Discharge	Slow flow, slightly turbid and light brown	7.49	115.7	**64.2**		74	**69**	<1	15	15	5	<10	18	4	2	14	18
27-Feb-25	Monthly	Slow flow, slight turbid and brown	**6.87**	234.4	14.96	**65.7**	150	6	<1	35	35	4	3	35	9	4	24	39
27-Mar-25	Monthly	Steady flow, slightly turbid and light brown	7.39	192.9	16.05	92.0	123	<5	<1	39	39	3	5	34	7	4	25	34
29-Mar-25	Discharge	Fast flow, turbid and brown	**6.94**	126.3	**61.3**	91.9	81	**192**	<1	20	20	4	<1	20	5	3	16	25
17-Apr-25	Discharge	Steady flow, slightly turbid and light brown	7.37	204.4	**38.5**		131	**21**										
24-Apr-25	Monthly	Fast flow, slightly turbid and brown	**7.77**	211.8	**35.5**	96.1	136	14	<1	37	37	3	7	34	8	4	27	36
27-Apr-25	Discharge	Fast flow, turbid and brown	**8.13**	94.3	**91.5**		60	**120**										
12-May-25	Discharge	Fast flow, slightly turbid and light brown	7.37	150.9	**45.7**	91.0	97	**28**	<1	33	33	4	6	32	8	5	24	40
14-May-25	Discharge	21-Day continuous flow event. Steady flow, slight turbid and brown.	7.21	124.6	**51.7**		80	**19**										
16-May-25	Discharge	21-Day continuous flow event. fast flow, turbid and brown.	**6.60**	128.2	**83.4**		82	**39**										
5-Jun-25	Discharge	Steady flow, slightly turbid and light brown	7.31	166.9	**41.1**	95.0	107	**20**	<1	34	34	2	8	33	8	4	22	36
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**		**15**										

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Highnoon – Mammy Johnsons River (EPL 11701 Point 35)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	1.2	<0.001	**0.031**	<0.0001	<0.001	<0.001	<0.001	0.025	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.53	<0.0001	<0.1	0.02	<0.01	0.06	0.7	0.08	<2
6-Aug-24	0.36	<0.001	**0.034**	<0.0001	<0.001	0.001	<0.001	0.038	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.15	<0.0001	0.2	0.02	<0.01	0.06	0.6	0.08	6
21-Aug-24	0.40	<0.001	**0.033**	<0.0001	<0.001	<0.001	<0.001	0.023	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.17	<0.0001	<0.1	0.05	<0.01	0.03	0.6	0.06	2
27-Sep-24	0.90	<0.001	**0.038**	<0.0001	<0.001	<0.001	<0.001	0.072	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.49	<0.0001	<0.1	0.02	<0.01	0.03	0.5	0.04	3
29-Oct-24	0.50	0.002	**0.032**	0.0002	<0.001	<0.001	<0.001	0.032	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.28	<0.0001	<0.1	0.02	<0.01	0.02	0.7	0.07	6
29-Nov-24	0.03	0.001	**0.041**	<0.0001	<0.001	<0.001	<0.001	0.164	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.21	<0.0001	<0.1	0.01	<0.01	0.44	1	0.06	4
30-Dec-24	0.03	0.001	**0.037**	<0.0001	<0.001	<0.001	<0.001	0.222	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.04	<0.0001	<0.1	<0.01	<0.01	<0.01	0.8	0.1	8
9-Jan-25	**2.32**	<0.001	**0.036**	<0.0001	<0.001	0.001	<0.001	0.068	<0.001	<0.001	<0.01	<0.001	<0.001	0.006	<0.05	1.58	<0.0001	<0.1	0.02	<0.01	0.14	1.4	0.04	2
17-Jan-25	**6.53**	0.001	**0.074**	<0.0001	**0.002**	0.002	**0.003**	0.13	<0.001	0.002	<0.01	<0.001	<0.001	**0.014**	<0.05	3.71	<0.0001	<0.1	0.04	<0.01	0.12	**2.3**	0.14	4
27-Feb-25	1.06	<0.001	**0.034**	<0.0001	<0.001	<0.001	<0.001	0.051	<0.001	<0.001	<0.01	<0.001	<0.001	0.010	<0.05	1.23	<0.0001	<0.1	0.04	<0.01	0.05	0.6	0.11	6
27-Mar-25	**1.32**	<0.001	**0.035**	<0.0001	<0.001	<0.001	<0.001	0.029	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.44	<0.0001	<0.1	**0.07**	<0.01	0.03	0.6	0.07	4
29-Mar-25	**3.93**	<0.001	**0.053**	<0.0001	**0.002**	**0.003**	0.002	0.133	<0.001	0.002	<0.01	<0.001	<0.001	0.011	<0.05	3.51	<0.0001	<0.1	**0.09**	<0.01	0.06	**1.9**	**0.3**	7
17-Apr-25																								
24-Apr-25	**1.52**	<0.001	**0.041**	<0.0001	<0.001	<0.001	<0.001	0.039	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.97	<0.0001	<0.1	0.01	<0.01	0.17	0.8	0.07	4
27-Apr-25																								
12-May-25	**2.36**	<0.001	**0.044**	<0.0001	<0.001	0.001	0.001	0.054	<0.001	0.001	<0.01	<0.001	<0.001	0.006	<0.05	2.11	<0.0001	<0.1	0.03	<0.01	0.06	0.7	0.08	5
14-May-25																								
16-May-25																								
5-Jun-25	**2.22**	<0.001	**0.042**	<0.0001	<0.001	<0.001	<0.001	0.047	<0.001	<0.001	<0.01	<0.001	<0.001	0.007	<0.05	2.28	<0.0001	<0.1	0.03	<0.01	0.06	0.7	0.06	5
***Water Quality Trigger**	**1.24**		**0.002**		**0.001**	**0.0020**								**0.011**					**0.06**			**0.8**	**0.15**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 9 – Karuah River (Near Stroud Road Village)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jun-24	Overflow	Fast flow, clear and brown	7.44	114.8	121	99.8	73	114	<1	31	31	4	<10	17	7	4	14	34
21-Jun-24	Discharge	Steady flow	7.34	120.4	5.06	99.9	77	<5	<1	31	31	2	5	23	6	4	15	31
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown	7.55	191.3	54.4	100.1	122	47	<1	49	49	<1	4	28	8	5	22	40
6-Aug-24	Discharge	Steady flow	7.69	187.2	5.11	97.6	120	<5	<1	48	48	3	5	26	10	5	20	46
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.45	181.6	8.75	101.9	116	<5	<1	46	46	3	5	27	10	6	21	50
27-Sep-24	Discharge	Slow flow	7.65	195.5	10.99	100.6	125	8	<1	63	63	2	4	30	12	7	25	59
29-Oct-24	Monthly	Slow flow, clear and light brown	8.03	127.5	18.2	96.2	82	<5	<1	39	39	2	<1	21	7	4	16	34
29-Nov-24	Monthly	Steady flow, slightly turbid and colourless	7.86	176.6	4.8	77.3	113	7	<1	48	48	4	3	20	9	4	17	39
30-Dec-24	Monthly	Steady flow	7.89	163.3	3.49	90.4	105	<5	<1	50	50	2	2	21	10	5	20	46
9-Jan-25	Discharge	Fast flow, slightly turbid and brown	6.91	71.8	113	93.6	46	170	<1	15	15	4	<10	14	3	1	8	12
27-Feb-25	Monthly	Steady flow	8.12	179.4	9.82	93.4	115	<5	<1	33	33	3	2	23	6	3	14	27
27-Mar-25	Monthly	Steady flow	7.19	132.8	7.52	97.0	85	7	<1	38	38	2	2	20	6	3	16	27
29-Mar-25	Discharge	Fast flow, slightly turbid and light brown.	7.50	146.7	30.5	95.9	94	51	<1	40	40	3	<1	19	7	4	16	34
24-Apr-25	Monthly	Fast flow, slightly turbid and brown.	7.60	187.1	20.7	100.6	120	8	<1	51	51	2	3	25	9	5	21	43
12-May-25	Discharge	Fast flow, slightly turbid and light brown.	7.66	118.8	18.8	98.7	76	<5	<1	31	31	3	4	24	7	4	18	34
5-Jun-25	Discharge	Fast flow, slightly turbid and light brown	7.41	122.2	20.3	97.3	78	6	<1	30	30	1	4	24	7	4	17	34
***Water Quality Trigger**			**N/A**	**N/A**	**N/A**													

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project*".

Site 9 - Karuah River (Near Stroud Road Village)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jun-24	6.28	<0.001	0.039	<0.0001	0.005	0.002	0.001	0.174	<0.001	0.003	<0.01	<0.001	<0.001	0.019	<0.05	5.92	<0.0001	<0.1	0.08	<0.01	0.1	1.4	0.21	2
21-Jun-24	0.18	<0.001	0.014	<0.0001	0.002	<0.001	<0.001	0.008	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.38	<0.0001	<0.1	<0.01	<0.01	0.06	0.3	0.01	<2
1-Jul-24	2.24	<0.001	0.035	<0.0001	0.002	<0.001	<0.001	0.091	<0.001	<0.001	<0.01	<0.001	<0.001	0.005	<0.05	2.67	<0.0001	<0.1	0.04	<0.01	0.06	2	0.21	<2
6-Aug-24	0.16	<0.001	0.015	<0.0001	<0.001	<0.001	<0.001	0.014	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.39	<0.0001	<0.1	0.02	0.08	0.02	0.3	0.02	5
21-Aug-24	0.38	<0.001	0.018	<0.0001	<0.001	0.004	<0.001	0.011	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.76	<0.0001	<0.1	0.16	<0.01	0.03	0.5	0.02	2
27-Sep-24	0.32	<0.001	0.02	<0.0001	<0.001	<0.001	<0.001	0.028	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.71	<0.0001	<0.1	0.02	0.01	0.02	0.4	0.03	3
29-Oct-24	1	<0.001	0.018	0.0001	<0.001	<0.001	<0.001	0.02	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.03	<0.0001	<0.1	0.03	<0.01	0.03	0.4	0.05	6
29-Nov-24	0.13	<0.001	0.018	<0.0001	<0.001	<0.001	<0.001	0.039	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.53	<0.0001	<0.1	0.01	<0.01	0.13	0.5	0.04	4
30-Dec-24	0.14	<0.001	0.017	<0.0001	<0.001	<0.001	<0.001	0.028	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.5	<0.0001	<0.1	0.02	<0.01	0.07	0.4	0.08	4
9-Jan-25	3.11	0.001	0.043	<0.0001	0.001	0.003	0.002	0.159	<0.001	0.002	<0.01	<0.001	<0.001	0.013	<0.05	2.86	<0.0001	<0.1	0.12	<0.01	0.41	1.5	0.2	3
27-Feb-25	0.69	<0.001	0.018	<0.0001	<0.001	<0.001	<0.001	0.019	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.75	<0.0001	<0.1	0.08	<0.01	0.1	0.3	0.05	5
27-Mar-25	0.52	<0.001	0.016	<0.0001	<0.001	<0.001	<0.001	0.014	<0.001	<0.001	<0.01	<0.001	<0.001	0.007	<0.05	0.62	<0.0001	<0.1	0.02	<0.01	0.04	0.4	0.05	4
29-Mar-25	1.65	<0.001	0.023	<0.0001	0.001	0.002	<0.001	0.076	<0.001	0.001	<0.01	<0.001	<0.001	0.005	<0.05	1.82	<0.0001	<0.1	0.03	<0.01	0.09	0.9	0.18	4
24-Apr-25	1.08	<0.001	0.022	<0.0001	<0.001	0.001	<0.001	0.022	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.24	<0.0001	<0.1	0.02	<0.01	0.06	0.6	0.1	4
12-May-25	1.18	<0.001	0.02	<0.0001	<0.001	<0.001	<0.001	0.017	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.11	<0.0001	<0.1	0.01	<0.01	0.03	1	0.19	5
5-Jun-25	1.02	<0.001	0.019	<0.0001	<0.001	<0.001	<0.001	0.024	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.06	<0.0001	<0.1	0.14	<0.01	0.14	0.5	0.03	4
***Water Quality Trigger**																								

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project*".

Site 11 – Mammy Johnsons – Downstream of High Noon

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown	7.28	227.6	**30.1**	96.4	146	13	<1	37	37	<1	10	36	8	5	27	40
6-Aug-24	Discharge	Steady flow, clear and light brown	7.38	329.6	13.43	93.4	211	<5	<1	60	60	4	12	47	13	7	36	61
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.33	250.5	12.77	91.7	160	<5	<1	46	46	3	11	44	12	7	32	59
27-Sep-24	Discharge	Slow flow	**7.83**	310.3	21.9	88.2	199	10	<1	60	60	2	8	49	14	8	37	68
29-Oct-24	Monthly	Slow flow	**6.7**	268	12	**78.9**	172	<5	<1	59	59	3	4	41	13	8	30	65
29-Nov-24	Monthly	Steady flow, slightly turbid and colourless.	7.42	357.8	3.96	**51.3**	229	<5	<1	82	82	9	4	54	16	9	41	77
30-Dec-24	Monthly	Trickle flow,	**7.98**	315.6	2.92	**65.7**	202	<5	<1	73	73	5	1	46	15	9	33	74
9-Jan-25	Discharge	Fast flow, slightly turbid and light brown	**6.84**	110.4	**39.1**	84.9	71	28	<1	16	16	5	<1	25	4	2	13	18
27-Feb-25	Monthly	Fast flow, slightly turbid and brown	**6.89**	244.4	13.96	**73.5**	156	5	<1	36	36	4	3	36	9	4	24	39
27-Mar-25	Monthly	Fast flow, slightly turbid and light brown	**7.63**	201.1	15.66	89.8	129	7	<1	39	39	3	5	34	7	4	25	34
29-Mar-25	Discharge	Fast flow, turbid and brown	**6.84**	94.1	**32.4**	96.6	60	184	<1	18	18	4	<10	19	4	3	15	22
24-Apr-25	Monthly	Fast flow, Slightly turbid and brown	**8.07**	202.5	**31.0**	95.6	130	13	<1	34	34	3	8	35	8	4	26	36
12-May-25	Discharge	Fast flow, slightly turbid and light brown	7.37	156	**48.2**	96.1	100	30	<1	32	32	4	6	32	8	5	24	40
5-Jun-25	Discharge	Fast flow, slightly turbid and light brown	7.31	161.1	**45.9**	94.0	103	17	<1	38	38	2	8	33	8	4	22	36
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**			**15**									

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 11 – Mammy Johnsons – Downstream of High Noon

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	1.15	<0.001	0.032	<0.0001	<0.001	<0.001	<0.001	0.024	<0.001	<0.001	<0.01	<0.001	<0.001	0.006	<0.05	1.49	<0.0001	<0.1	0.02	<0.01	0.06	0.9	0.08	<2
6-Aug-24	0.48	<0.001	0.034	<0.0001	<0.001	<0.001	<0.001	0.030	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.10	<0.0001	0.2	0.02	<0.01	0.06	0.5	0.07	5
21-Aug-24	0.69	<0.001	0.034	<0.0001	0.006	<0.001	<0.001	0.023	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.43	<0.0001	<0.1	<0.01	<0.01	0.03	0.6	0.07	4
27-Sep-24	**1.52**	<0.001	0.035	<0.0001	<0.001	0.0010	<0.001	0.048	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.82	<0.0001	<0.1	0.01	<0.01	0.1	0.6	0.04	<2
29-Oct-24	0.66	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.032	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.39	<0.0001	<0.1	0.02	<0.01	0.02	0.7	0.09	5
29-Nov-24	0.05	0.001	0.043	<0.0001	<0.001	<0.001	<0.001	0.218	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.17	<0.0001	<0.1	0.03	<0.01	0.1	0.6	0.05	5
30-Dec-24	0.04	0.001	0.036	<0.0001	<0.001	<0.001	<0.001	0.266	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.10	<0.0001	<0.1	0.03	<0.01	0.01	0.6	0.08	2
9-Jan-25	**2.06**	<0.001	0.036	<0.0001	<0.001	0.0010	<0.001	0.071	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.53	<0.0001	<0.1	0.02	<0.01	0.14	0.3	0.05	2
27-Feb-25	1.04	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.043	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.21	<0.0001	<0.1	0.03	<0.01	0.05	0.6	0.14	5
27-Mar-25	**1.25**	<0.001	0.033	<0.0001	0.001	<0.001	<0.001	0.028	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.46	<0.0001	<0.1	0.02	<0.01	0.03	0.6	0.07	3
29-Mar-25	**2.66**	<0.001	0.039	<0.0001	0.002	**0.0020**	**0.002**	0.102	<0.001	<0.001	<0.01	<0.001	<0.001	0.009	<0.05	2.16	<0.0001	<0.1	0.02	<0.01	0.1	**1.7**	**0.23**	8
24-Apr-25	**1.85**	<0.001	0.039	<0.0001	0.001	0.0010	0.001	0.042	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	2.08	<0.0001	<0.1	0.01	<0.01	0.04	0.6	0.08	2
12-May-25	0.97	<0.001	0.041	<0.0001	<0.001	0.0010	<0.001	0.05	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.34	<0.0001	<0.1	0.04	<0.01	0.06	0.6	0.05	5
5-Jun-25	**2.3**	<0.001	0.046	<0.0001	<0.001	<0.001	0.001	0.052	<0.001	<0.001	<0.01	<0.001	<0.001	0.006	<0.05	2.48	<0.0001	<0.1	0.03	<0.01	0.07	0.7	0.06	5
***Water Quality Trigger**	**1.24**					**0.001**	**0.0020**							**0.011**					**0.06**			**0.8**	**0.15**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 12 – Mammy Johnsons – Relton Property

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brow	7.24	275.8	22.5	104.6	177	9	<1	46	46	1	13	43	10	6	31	50
6-Aug-24	Discharge	Steady flow, clear and light brown	7.38	323.8	14.4	100.0	207	<5	<1	58	58	4	12	56	14	7	36	64
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.34	262.9	8.2	100.6	168	<5	<1	42	42	3	11	46	13	7	32	61
27-Sep-24	Discharge	Slow flow	7.46	304.1	9.5	**83.3**	195	8	<1	65	65	3	11	61	17	9	41	80
29-Oct-24	Monthly	Slow flow, clear and light brown	7.34	206.2	12.9	**80.8**	132	<5	<1	46	46	3	3	40	10	6	28	50
29-Nov-24	Monthly	Steady flow	7.34	327.7	3.1	**54.1**	210	8	<1	77	77	7	5	48	12	6	31	55
30-Dec-24	Monthly	No flow																
9-Jan-25	Discharge	Fast flow, slightly turbid and light brown	7.21	115.1	**32.3**	89.4	74	**18**	<1	19	19	5	<1	25	4	2	14	18
27-Feb-25	Monthly	Steady flow, clear and light brown	**7.61**	239.1	14.4	**82.1**	153	<5	<1	37	37	4	8	36	7	4	21	34
27-Mar-25	Monthly	Steady flow, slightly turbid and light brown	7.45	186.8	15.9	91.9	120	<5	<1	36	36	3	5	33	6	4	24	31
29-Mar-25	Discharge	Fast flow, slightly turbid and brown	**6.90**	112.9	**140.0**	93.4	72	**178**	<1	20	20	4	<10	18	5	3	14	25
24-Apr-25	Monthly	Steady flow, slightly turbid and brown	**7.61**	192.2	**44.2**	104.2	123	**25**	<1	33	33	2	6	32	7	4	24	34
12-May-25	Discharge	Fast flow, slightly turbid and light brown	7.35	142.6	**32.6**	102.1	91	**20**	<1	24	24	4	6	34	7	4	23	34
5-Jun-25	Discharge	Fast flow, slightly turbid and light brown	7.19	159.1	**39.1**	97.1	102	**10**	<1	34	34	2	8	35	8	4	23	36
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**		**15**										

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 12 – Mammy Johnsons – Relton Property

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	0.94	<0.001	0.041	<0.0001	<0.001	<0.001	<0.001	0.034	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.7	<0.0001	<0.1	0.02	<0.01	0.06	0.7	0.1	2
6-Aug-24	0.31	<0.001	0.037	<0.0001	<0.001	<0.001	<0.001	0.046	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.15	<0.0001	<0.1	0.02	<0.01	0.06	0.5	0.06	5
21-Aug-24	0.41	<0.001	0.034	<0.0001	<0.001	<0.001	<0.001	0.021	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.97	<0.0001	<0.1	0.04	<0.01	0.02	0.4	0.03	3
27-Sep-24	0.36	<0.001	0.044	<0.0001	<0.001	<0.001	<0.001	0.112	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.52	<0.0001	<0.1	0.02	<0.01	0.05	0.6	0.05	3
29-Oct-24	0.58	<0.001	0.031	<0.0001	<0.001	<0.001	<0.001	0.029	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.28	<0.0001	<0.1	0.02	<0.01	0.02	0.6	0.04	5
29-Nov-24	0.07	0.001	0.045	<0.0001	<0.001	<0.001	<0.001	0.173	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.07	<0.0001	<0.1	0.02	<0.01	0.36	0.8	0.04	5
30-Dec-24																								
9-Jan-25	1.07	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.104	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.18	<0.0001	<0.1	0.02	<0.01	0.1	**1.3**	0.06	3
27-Feb-25	0.93	<0.001	0.034	<0.0001	<0.001	<0.001	<0.001	0.041	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.12	<0.0001	<0.1	0.06	<0.01	0.05	0.6	0.03	5
27-Mar-25	**1.39**	<0.001	0.034	<0.0001	<0.001	0.001	<0.001	0.026	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.37	<0.0001	<0.1	0.02	<0.01	0.04	0.5	0.08	4
29-Mar-25	**7.89**	0.002	0.119	<0.0001	**0.004**	0.004	0.007	0.348	<0.001	0.004	<0.01	<0.001	<0.001	**0.022**	<0.05	7.85	<0.0001	<0.1	0.05	<0.01	0.09	**2.7**	**0.42**	4
24-Apr-25	**1.94**	<0.001	0.045	<0.0001	<0.001	0.001	0.001	0.048	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	2.21	<0.0001	<0.1	0.01	<0.01	0.03	0.7	0.07	4
12-May-25	**1.81**	<0.001	0.039	<0.0001	<0.001	<0.001	<0.001	0.038	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.57	<0.0001	<0.1	0.01	<0.01	0.04	0.5	0.05	5
5-Jun-25	**1.97**	<0.001	0.041	<0.0001	<0.001	<0.001	<0.001	0.04	<0.001	<0.001	<0.01	<0.001	<0.001	0.009	<0.05	1.83	<0.0001	<0.1	0.02	<0.01	0.08	0.6	0.04	4
***Water Quality Trigger**	**1.24**				**0.001**	**0.0020**								**0.011**					**0.06**			**0.8**	**0.15**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 15 – Mammy Johnsons – Tereek

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Fast flow, slightly turbid and light brown	7.36	180.9	15.38	102.4	116	<5	<1	20	20	<1	9	34	6	4	23	31
6-Aug-24	Discharge	Steady flow	7.60	234.8	8.58	101.1	150	<5	<1	29	29	3	8	41	8	4	25	36
21-Aug-24	Discharge	21-Day continuous flow event. Steady flow	7.30	196.4	7.03	102.7	126	<5	<1	26	26	2	8	41	9	5	25	43
27-Sep-24	Discharge	Slow flow	**7.65**	211.4	6.72	98.1	135	<5	<1	29	29	2	7	46	10	6	28	50
29-Oct-24	Monthly	Slow flow, clear and light brown	**7.95**	195.8	9.14	95.5	125	5	<1	30	30	2	3	41	8	5	25	40
29-Nov-24	Monthly	Steady flow	7.47	238.8	3.78	**73.3**	153	<5	<1	43	43	4	5	42	11	6	30	52
30-Dec-24	Monthly	Trickle flow, clear and light brown	**7.75**	222.5	3.57	**52.1**	142	<5	<1	65	65	4	2	36	10	6	28	50
9-Jan-25	Discharge	Fast flow, slightly turbid and light brown	**7.63**	82.6	**30.7**	97.9	53	8	<1	12	12	4	<10	20	3	2	11	16
27-Feb-25	Monthly	Steady flow, clear and light brown	**7.70**	204.5	17.74	94.1	131	<5	<1	28	28	3	4	33	6	3	20	27
27-Mar-25	Monthly	Fast flow, slightly turbid and light brown	**7.87**	172.2	18.27	100.8	110	<5	<1	28	28	2	4	32	5	3	22	25
29-Mar-25	Discharge	No safe access																
24-Apr-25	Monthly	Fast flow, slight turbid and brown	**7.67**	140.4	**41.3**	101.3	90	**16**	<1	18	18	2	3	28	5	3	19	25
12-May-25	Discharge	Fast flow, slight turbid and light brown	7.44	115.5	**37.6**	100.7	74	12	<1	11	11	3	<1	32	5	3	20	25
5-Jun-25	Discharge	Fast flow, slight turbid and light brown	7.32	125.6	**39.7**	100.3	80	**16**	<1	19	19	2	6	30	5	3	18	25
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**		**15**										

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 15 – Mammy Johnsons – Tereek

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	0.44	<0.001	0.027	<0.0001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.65	<0.0001	<0.1	0.02	<0.01	0.03	0.4	0.04	<2
6-Aug-24	0.25	<0.001	0.028	<0.0001	<0.001	<0.001	<0.001	0.013	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.84	<0.0001	<0.1	<0.01	<0.01	0.05	0.2	0.06	4
21-Aug-24	0.25	<0.001	0.03	<0.0001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.58	<0.0001	<0.1	<0.01	<0.01	0.01	0.3	0.03	5
27-Sep-24	0.29	<0.001	0.034	<0.0001	<0.001	<0.001	<0.001	0.022	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.85	<0.0001	<0.1	0.02	<0.01	0.02	0.3	0.02	<2
29-Oct-24	0.54	<0.001	0.031	<0.0001	<0.001	<0.001	<0.001	0.017	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.86	<0.0001	<0.1	0.03	<0.01	0.02	0.4	0.02	4
29-Nov-24	0.26	<0.001	0.035	<0.0001	<0.001	<0.001	<0.001	0.06	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.12	<0.0001	<0.1	0.03	<0.01	0.03	0.4	0.03	4
30-Dec-24	0.11	<0.001	0.032	<0.0001	<0.001	<0.001	<0.001	0.094	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.97	<0.0001	<0.1	<0.01	<0.01	<0.01	0.5	0.04	<2
9-Jan-25	1.12	<0.001	0.027	<0.0001	<0.001	<0.001	<0.001	0.025	<0.001	0.025	<0.01	<0.001	<0.001	0.007	<0.05	0.74	<0.0001	<0.1	0.01	<0.01	0.08	0.3	0.04	<2
27-Feb-25	**1.48**	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.023	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.2	<0.0001	<0.1	0.03	<0.01	0.04	0.3	<0.01	6
27-Mar-25	**1.58**	<0.001	0.033	<0.0001	0.001	<0.001	<0.001	0.018	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.22	<0.0001	<0.1	0.05	<0.01	0.02	0.4	0.08	3
29-Mar-25																								
24-Apr-25	**1.9**	<0.001	0.035	<0.0001	<0.001	<0.001	<0.001	0.028	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.59	<0.0001	<0.1	0.01	<0.01	0.04	0.6	0.06	2
12-May-25	**2.26**	<0.001	0.036	<0.0001	<0.001	<0.001	<0.001	0.024	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.42	<0.0001	<0.1	0.01	<0.01	0.06	**0.9**	0.03	4
5-Jun-25	**1.94**	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.028	<0.001	<0.001	<0.01	<0.001	<0.001	0.011	<0.05	1.46	<0.0001	<0.1	**0.14**	<0.01	0.05	0.6	0.04	5
***Water Quality Trigger**	1.24				0.001	0.0020								0.011					0.06			0.8	0.15	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 19 – Karuah River (Washpool Turnoff)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	DO %	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	Fast flow, slightly turbid and light	**7.63**	175.4	**42.9**	100.7	112	14	<1	34	34	1	<1	29	6	4	22	31
6-Aug-24	Discharge	Steady flow	7.55	**372.9**	12.11	95.9	239	8	<1	65	65	4	11	61	16	9	35	77
21-Aug-24	Discharge	21-Day continuous flow event. Slow flow	7.50	222.9	13.87	100.1	143	<5	<1	51	51	3	8	36	12	7	28	59
27-Sep-24	Discharge	Slow flow, slightly turbid and brown	7.57	**404.1**	15.35	99.4	259	13	<1	82	82	2	16	71	22	15	53	117
29-Oct-24	Monthly	Slow flow, clear and brown	**7.74**	185.6	15.2	92.5	119	6	<1	50	50	2	6	32	8	5	24	40
29-Nov-24	Monthly	Steady flow	7.38	197.2	5.25	**78.3**	126	8	<1	54	54	3	3	27	10	5	22	46
30-Dec-24	Monthly	Steady flow	**7.72**	176.9	2.30	96.4	113	<5	<1	54	54	2	3	23	10	5	21	46
9-Jan-25	Discharge	Fast flow, slightly turbid and brown	**6.77**	166.2	**67.5**	89.4	106	**88**	<1	26	26	5	1	27	6	3	14	27
27-Feb-25	Monthly	Fast flow, clear and light brown	**7.81**	203.1	11.0	87.8	130	<5	<1	38	38	3	2	29	8	4	19	36
27-Mar-25	Monthly	Steady flow, slightly turbid and light brown	**6.68**	174.7	12.4	94.6	112	6	<1	40	40	3	3	26	7	4	21	34
29-Mar-25	Discharge	Fast flow, turbid and brown	7.34	227.4	**77.2**	97.7	146	**135**	<1	49	49	5	<1	31	10	6	23	50
24-Apr-25	Monthly	Fast flow, turbid and brown	7.52	207.8	**35.5**	102.1	133	14	<1	43	43	3	15	32	9	5	25	43
12-May-25	Discharge	Fast flow, turbid and brown	**8.19**	118.3	**79.1**	99.7	76	**20**	<1	36	36	4	<1	22	6	4	18	31
5-Jun-25	Discharge	Fast flow, slightly turbid and light brown	7.27	161.1	**47.3**	97.7	103	10	<1	37	37	2	6	28	8	4	20	36
***Water Quality Trigger**			**7.1-7.6**	**370**	**24**	**85-110**		**15**										

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site 19 – Karuah River (Washpool Turnoff)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	**2.51**	<0.001	0.025	<0.0001	0.002	<0.001	<0.001	0.024	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	2.3	<0.0001	<0.1	0.03	<0.01	0.04	**1**	0.11	3
6-Aug-24	0.30	<0.001	0.026	<0.0001	<0.001	<0.001	<0.001	0.056	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.08	<0.0001	0.1	0.02	<0.01	0.09	0.5	0.04	5
21-Aug-24	0.77	<0.001	0.026	<0.0001	<0.001	<0.001	<0.001	0.018	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.3	<0.0001	<0.1	0.17	<0.01	0.04	0.7	0.1	6
27-Sep-24	0.58	<0.001	0.035	<0.0001	<0.001	<0.001	<0.001	0.084	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.31	<0.0001	0.1	0.04	<0.01	0.1	0.7	0.03	<2
29-Oct-24	0.76	<0.001	0.024	<0.0001	<0.001	<0.001	<0.001	0.023	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.05	<0.0001	<0.1	0.02	<0.01	0.03	0.6	0.08	5
29-Nov-24	0.16	<0.001	0.022	<0.0001	<0.001	<0.001	<0.001	0.051	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.64	<0.0001	<0.1	0.04	<0.01	0.08	0.5	0.04	5
30-Dec-24	0.09	<0.001	0.017	<0.0001	<0.001	<0.001	<0.001	0.037	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.43	<0.0001	<0.1	0.02	<0.01	0.03	0.4	0.04	<2
9-Jan-25	**2**	0.001	0.036	<0.0001	0.001	0.002	0.001	0.134	<0.001	0.001	<0.01	<0.001	<0.001	0.007	<0.05	2.08	<0.0001	<0.1	0.04	<0.01	0.28	**2.4**	0.12	2
27-Feb-25	0.76	<0.001	0.023	<0.0001	<0.001	**0.071**	<0.001	0.029	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	0.91	<0.0001	<0.1	0.04	<0.01	0.08	0.5	0.14	6
27-Mar-25	0.84	<0.001	0.027	<0.0001	<0.001	<0.001	<0.001	0.021	<0.001	<0.001	<0.01	<0.001	<0.001	<0.005	<0.05	1.04	<0.0001	<0.1	**0.11**	<0.01	0.04	0.6	0.06	2
29-Mar-25	**3.68**	0.002	0.05	<0.0001	**0.003**	**0.004**	0.002	0.133	<0.001	0.003	<0.01	<0.001	<0.001	**0.013**	<0.05	3.96	<0.0001	0.1	0.06	<0.01	0.11	**2.3**	**0.73**	6
24-Apr-25	**1.91**	<0.001	0.032	<0.0001	0.001	0.001	<0.001	0.039	<0.001	0.001	<0.01	<0.001	<0.001	<0.005	<0.05	2.27	<0.0001	<0.1	0.02	<0.01	0.04	0.8	0.12	3
12-May-25	**4.15**	0.001	0.034	<0.0001	**0.003**	**0.003**	0.002	0.037	<0.001	0.002	<0.01	<0.001	<0.001	0.010	<0.05	3.27	<0.0001	<0.1	0.03	<0.01	0.11	<1.0	0.1	5
5-Jun-25	**2.43**	<0.001	0.03	<0.0001	0.001	0.001	<0.001	0.037	<0.001	0.001	<0.01	<0.001	<0.001	0.007	<0.05	2.34	<0.0001	<0.1	**0.14**	<0.01	0.09	**0.9**	0.12	5
***Water Qual**	**1.24**				**0.001**	**0.0020**								**0.011**					**0.06**			**0.8**	**0.15**	

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW3 – Main Water Dams (Major) (EPL 11701 Point 3)

Date	Category	Storage RL	pH	EC (µS/cm)	Turbidity NTU	TDS (mg/l)	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/l)	Hardness (mg/l)
1-Jul-24	Monthly	RL 68.275	7.84	2325	2.83	1488	13	<1	126	126	1	830	195	158	92	208	773
6-Aug-24	Discharge	RL 68.217	8.3	2284	4.34	1462	9	<1	128	128	2	746	212	170	93	232	807
27-Sep-24	Discharge	RL 68.350	8.43	2000	1.03	1280	5	<1	124	124	<1	756	212	187	105	234	899
29-Oct-24	Monthly	No RL recorded	8.6	1996	2.09	1277	<5	15	103	118	<1	687	183	157	98	210	796
29-Nov-24	Monthly	RL 68.270	8.03	2143	1.98	1372	5	<1	97	97	1	726	195	164	102	230	830
30-Dec-24	Monthly	No RL recorded	8.38	2010	2.65	1286	<5	<1	82	82	<1	978	208	155	106	240	824
9-Jan-25	Discharge	RL 68.277	7.41	1857	2.84	1188	<5	<1	92	92	3	829	157	142	76	169	668
26-Feb-25	Monthly	RL 68.27	8.12	1801	4.88	1153	<5	<1	79	79	1	656	168	130	77	169	642
27-Mar-25	Monthly	No RL recorded	7.59	1881	2.40	1204	5	<1	92	92	<1	696	163	136	81	174	673
29-Mar-25	Discharge	No RL recorded	7.98	1154	5.26	739	13	<1	89	89	3	466	63	110	43	88	452
24-Apr-25	Monthly	RL 68.297	7.67	1696	1.23	1085	<5	<1	102	102	3	643	140	137	79	174	667
12-May-25	Discharge	RL 68.7	7.22	1387	4.25	888	<5	<1	96	96	5	588	129	129	66	148	594
5-Jun-25	Discharge	RL 71.3	7.59	1272	3.73	814	5	<1	91	91	2	504	86	110	53	116	493
***Water Quality Trigger**			**N/A**	**N/A**	**N/A**												

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW3 – Main Water Dams (Major) (EPL 11701 Point 3)

Date	Al (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Cu (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	Ag (mg/L)	U (mg/L)	Zn (mg/L)	B (mg/L)	Fe (mg/L)	Hg (mg/L)	F (mg/L)	NH3 as N (mg/L)	NO2 as N (mg/L)	NO3 as N (mg/L)	N (mg/L)	P (mg/L)	BOD (mg/L)
1-Jul-24	0.04	<0.001	0.03	<0.0001	<0.001	<0.001	<0.001	0.666	0.001	0.006	<0.01	<0.001	<0.001	<0.005	<0.05	0.12	<0.0001	0.3	0.14	<0.01	0.27	1	0.03	<2
6-Aug-24	<0.01	<0.001	0.028	<0.0001	<0.001	<0.001	<0.001	0.274	0.001	0.007	<0.01	<0.001	<0.001	<0.005	<0.05	0.09	<0.0001	0.2	0.06	<0.01	0.13	1.2	0.04	8
27-Sep-24	<0.01	<0.001	0.026	<0.0001	<0.001	<0.001	<0.001	0.435	0.002	0.007	<0.01	<0.001	<0.001	<0.005	<0.05	<0.05	<0.0001	0.2	0.07	<0.01	0.06	0.6	0.04	4
29-Oct-24	<0.01	<0.001	0.019	<0.0001	<0.001	<0.001	<0.001	0.253	0.001	0.006	<0.01	<0.001	<0.001	<0.005	<0.05	<0.05	<0.0001	0.2	0.02	<0.01	<0.01	0.6	0.04	6
29-Nov-24	<0.01	<0.001	0.026	<0.0001	<0.001	<0.001	<0.001	0.085	0.002	0.005	<0.01	<0.001	<0.001	<0.005	<0.05	<0.05	<0.0001	0.2	0.02	<0.01	0.02	0.5	0.02	3
30-Dec-24	0.02	<0.001	0.032	<0.0001	<0.001	<0.001	<0.001	0.119	0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.06	<0.0001	0.2	0.02	<0.01	<0.01	0.5	0.02	3
9-Jan-25	0.04	<0.001	0.033	<0.0001	<0.001	<0.001	<0.001	0.08	0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.05	<0.0001	0.2	0.08	<0.01	0.12	1.4	0.03	<2
26-Feb-25	0.08	<0.001	0.03	<0.0001	<0.001	<0.001	<0.001	0.178	<0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.24	<0.0001	0.2	0.03	<0.01	<0.01	0.7	0.07	6
27-Mar-25	0.01	<0.001	0.032	<0.0001	<0.001	<0.001	<0.001	0.097	<0.001	0.003	<0.01	<0.001	<0.001	<0.005	<0.05	0.07	<0.0001	0.3	0.12	<0.01	0.02	0.7	0.08	2
29-Mar-25	0.12	<0.001	0.027	<0.0001	<0.001	<0.001	<0.001	0.148	0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.20	<0.0001	0.2	0.06	<0.01	0.28	1.3	0.05	4
24-Apr-25	0.02	<0.001	0.032	<0.0001	<0.001	<0.001	<0.001	0.562	<0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.11	<0.0001	0.1	0.09	<0.01	0.02	0.6	<0.01	4
12-May-25	0.09	<0.001	0.03	<0.0001	<0.001	<0.001	<0.001	0.682	<0.001	0.006	<0.01	<0.001	<0.001	<0.005	<0.05	0.17	<0.0001	0.1	0.22	<0.01	0.03	0.6	<0.01	4
5-Jun-25	0.07	<0.001	0.027	<0.0001	<0.001	<0.001	<0.001	0.741	<0.001	0.004	<0.01	<0.001	<0.001	<0.005	<0.05	0.09	<0.0001	0.1	0.34	0.01	0.12	0.8	<0.01	5
***Water Qual**																								

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

SW3 – Main Water Dams (Minor)

Date	Category	Capacity & Comment	pH	EC (µS/cm)	Turbidity (NTU)
1-Jul-24	Monthly	80%	7.95	1106	4.4
6-Aug-24	Discharge	80%	8.05	1082	2.4
27-Sep-24	Discharge	90%	8.59	1078	3.2
29-Oct-24	Monthly	80%	8.67	1056	1.3
29-Nov-24	Monthly	70%	7.05	1174	4.0
30-Dec-24	Monthly	70%	8.36	1236	4.7
9-Jan-25	Discharge	70%	7.07	1066	17.7
26-Feb-25	Monthly	70%	7.52	705.3	2.5
27-Mar-25	Monthly	90%	6.99	861.6	1.2
29-Mar-25	Discharge	80%	7.51	805.3	2.4
24-Apr-25	Monthly	70%	7.48	758.6	6.1
12-May-25	Discharge	80%	7.22	388.7	56.2
5-Jun-25	Discharge	80%	7.40	515.5	52.5

SW4 – Strips 15-16 (Weismantel Pit) (EPL 11701 Point 4)

Date	Category	Comment	pH	EC (µS/cm)	Turbidity NTU	TSS (mg/l)	CO3 (as CaCO3) (mg/l)	Bicarb (as CaCO3) (mg/l)	Alkalinity as CaCO3 (mg/L)	Acidity as CaCO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Ca (mg/L)	Mg (mg/L)	Al (mg/L)	Cu (mg/L)	Mn (mg/L)	Zn (mg/L)	Fe (mg/L)
1-Jul-24	Monthly	Slightly turbid and colourless	7.02	3540	37.5	39	<1	116	116	12	2090	128	461	128	0.14	<0.001	5.45	0.094	2.54
6-Aug-24	Discharge		7.17	3550	23.4	13	<1	159	159	13	2010	156	526	134	0.09	<0.001	7.48	0.087	1.42
27-Sep-24	Discharge	Slightly turbid and brown	7.31	3720	27.1	13	<1	188	188	11	2250	162	576	171	0.22	0.05	7.38	0.069	2.18
21-Oct-24	Non-routine	Sampled by client	7.07	4040	41.2	27	<1	239	239	11	2410	182	533	173	0.05	<0.001	8.88	0.046	2.42
29-Oct-24	Monthly	No access																	
29-Nov-24	Monthly	Slightly turbid and colourless	7.61	4880	17.28	14	<1	272	272	14	2760	238	599	241	0.06	<0.001	13.60	0.041	1.56
30-Dec-24	Monthly	Slightly turbid and brown	6.95	5330	68.3	9	<1	188	188	30	3690	244	696	350	0.05	<0.001	19.70	0.037	4.46
9-Jan-25	Discharge	Slightly turbid and light brown	7.31	1283	71.3	59	<1	43	43	5	778	8	269	33	1.24	0.00	1.80	0.032	1.56
26-Feb-25	Monthly	Pit, clear and light brown	6.80	3900	23.2	23	<1	147	147	29	2720	173	554	197	0.30	<0.001	11.80	0.095	3.77
27-Mar-25	Monthly	Pit sample	6.61	4210	13.41	14	<1	144	144	33	2590	160	509	206	0.56	<0.001	11.30	0.107	2.18
29-Mar-25	Discharge	No access																	
24-Apr-25	Monthly		7.02	3530	13.63	12	<1	144	144	20	2360	163	495	196	0.61	<0.001	12.10	0.106	2.18
12-May-25	Discharge	No access																	
29-May-25	Discharge	Sampled from Strip 16	6.44	3120	23.6	22	<1	59	59	19	2260	132	444	181	0.83	0.00	10.5	0.249	7.54
5-Jun-25	Discharge	Pit sample, slightly turbid and light brown	6.88	3620	22.7	15	<1	83	83	23	2280	138	486	186	0.6	<0.001	10.60	0.185	4.00

Site – Southern Arm of MWD Diversion Drain

Date	Category	Capacity & Comment	pH	EC (µS/cm)	Turbidity (NTU)	TSS (mg/l)
1-Jul-24	Monthly	Steady flow, slightly turbid and light brown (drain)	7.61	362.8	51.6	7
6-Aug-24	Discharge	Slightly turbid and brown (drain)	7.67	**556.1**	49.4	16
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, clear and light brown	**6.85**	542.0	20.7	5
27-Sep-24	Discharge	Trickle flow, slightly turbid and brown	**7.06**	515.8	32.5	10
29-Oct-24	Monthly	Trickle flow, slightly turbid and brown	7.11	500.1	5.22	<5
29-Nov-24	Monthly	No flow				
30-Dec-24	Monthly	No flow				
9-Jan-25	Discharge	steady flow, clear and light brown (drain)	**6.51**	472.7	8.55	<5
17-Jan-25	Discharge	Slow flow, slightly turbid and light brown	**7.09**	153.7	15.79	<5
26-Feb-25	Monthly	No flow				
27-Mar-25	Monthly	No flow				
29-Mar-25	Discharge	Fast flow, turbid and brown	7.19	86.0	33.5	12
17-Apr-25	Discharge	Steady flow, turbid and brown	**7.06**	227.0	33.7	9
24-Apr-25	Monthly	Steady flow, slightly turbid and brown	7.32	317.3	50.5	8
27-Apr-25	Discharge	Fast flow, turbid and brown	7.84	64.7	84.8	22
12-May-25	Discharge	Flowing into drain. Steady flow, slightly turbid and light brown	7.48	267.8	33.7	10
14-May-25	Discharge	21-Day continuous flow event. Flowing into drain. Slow flow, slight turbid and brown.	**6.80**	241.4	44.1	15
16-May-25	Discharge	21-Day continuous flow event. Flowing into drain. fast flow, turbid and brown.	**6.70**	166.5	80.0	26
5-Jun-25	Discharge	Flowing into drain. Steady flow, slightly turbid and light brown	7.80	265.3	33.8	5
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**80**

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

Site - Northern Arm of MWD Diversion Drain

Date	Category	Capacity & Comment	pH	EC (µS/cm)	Turbidity (NTU)	TSS (mg/l)
1-Jul-24	Monthly	Slow flow, slightly turbid and light brown	**7.94**	88.7	**136**	11
6-Aug-24	Discharge	No flow				
21-Aug-24	Discharge	21-Day continuous flow event. Trickle flow, slightly turbid and brown	**6.65**	138.8	85.6	14
27-Sep-24	Discharge	Trickle flow, slightly turbid and brown	7.52	75.2	66.7	7
29-Oct-24	Monthly	Trickle flow, slightly turbid and light brown	7.44	152.2	11.23	<5
29-Nov-24	Monthly	No flow				
30-Dec-24	Monthly	No flow				
9-Jan-25	Discharge	Slow flow, clear and light brown	7.40	91.4	9.52	<5
17-Jan-25	Discharge	Slow flow, slightly turbid and light brown	7.49	115.7	22.9	7
26-Feb-25	Monthly	No flow				
27-Mar-25	Monthly	Trickle flow, slightly turbid and brown	**6.87**	124.0	3.25	<5
29-Mar-25	Discharge	Fast flow, turbid and brown	7.49	93.6	59.6	18
17-Apr-25	Discharge	Steady flow, turbid and brown	7.11	78.1	113	16
24-Apr-25	Monthly	Steady flow, slightly turbid and brown	7.44	148.2	75.3	18
27-Apr-25	Discharge	Fast flow, turbid and brown	7.82	53.3	**137**	25
12-May-25	Discharge	Steady flow, turbid and brown	7.71	122.9	89.4	10
14-May-25	Discharge	21-Day continuous flow event. Slow flow, slight turbid and brown.	**6.51**	102.0	82.0	14
16-May-25	Discharge	21-Day continuous flow event. fast flow, turbid and brown.	**6.82**	82.7	90.0	14
5-Jun-25	Discharge	Steady flow, turbid and brown	7.52	76.8	76.3	5
***Water Quality Trigger**			**7.1-7.9**	**544**	**119**	**80**

*Water quality triggers for the Duralie Coal Mine developed in accordance with the methodology in ANZECC/ARMCANZ (2000). "*Gilberts & Associates 2011 – Development of Water Quality Trigger Levels for the Duralie Extension Project".*

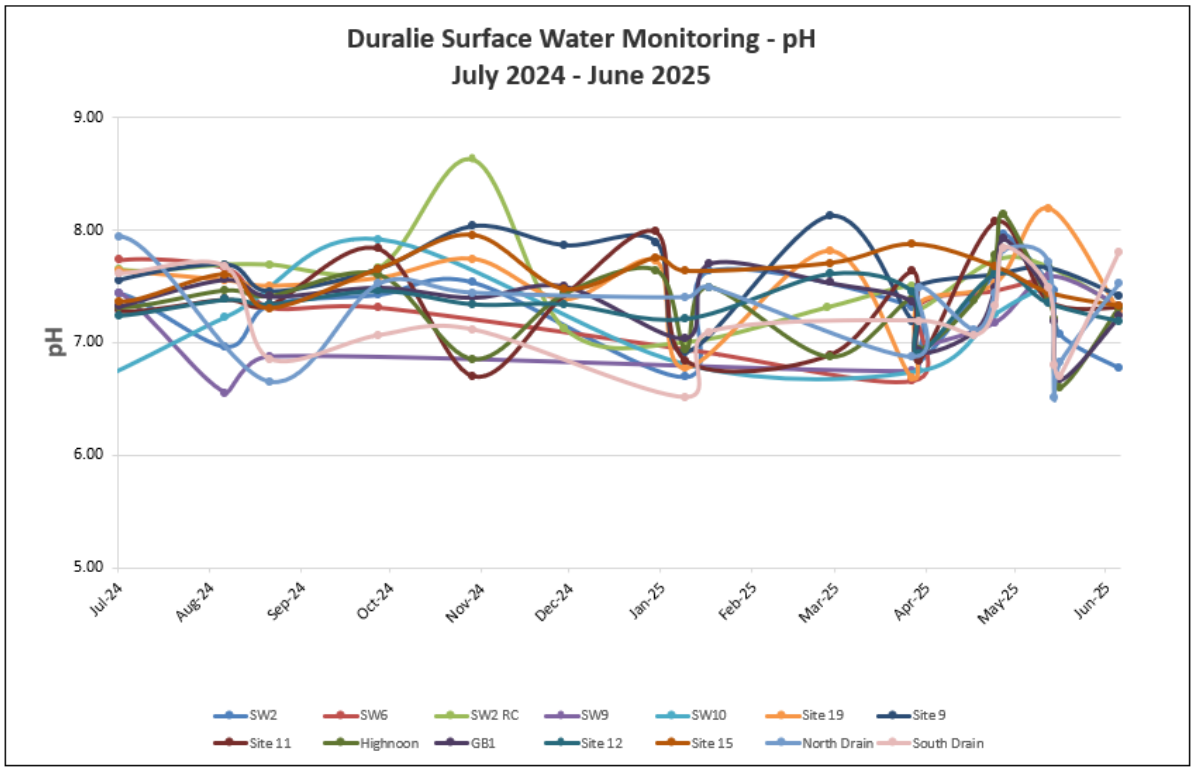


Figure 4-1: Surface Water Monitoring pH Results during the Reporting Period

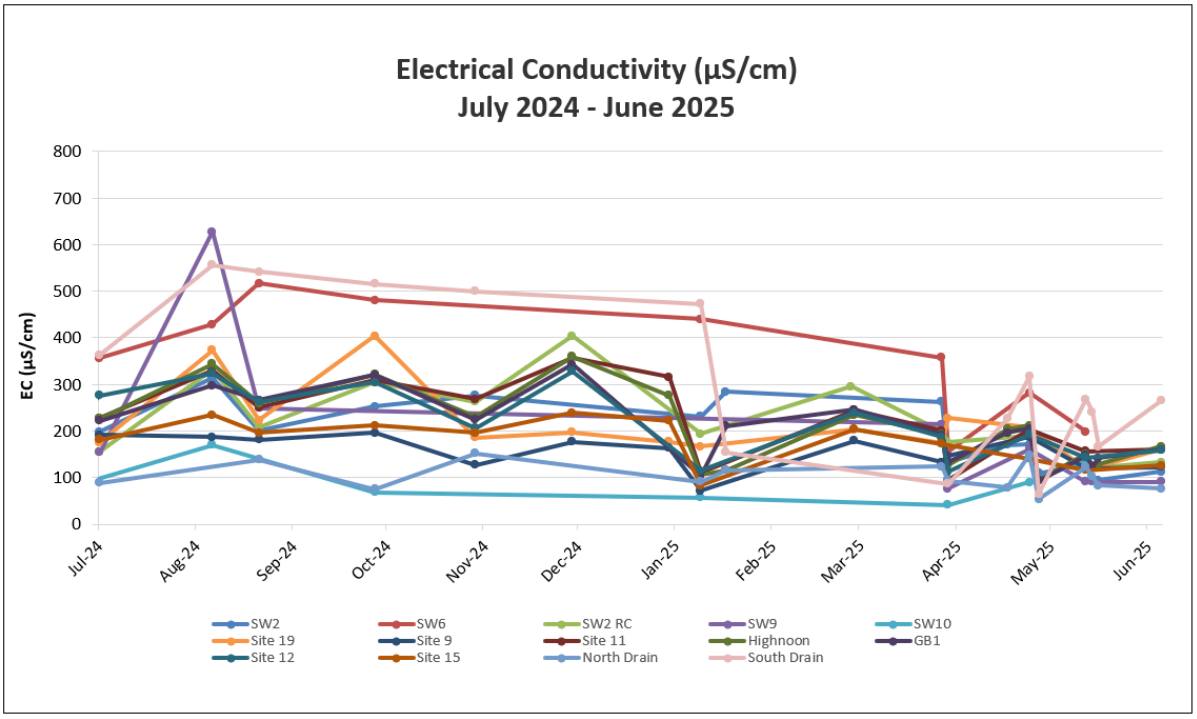


Figure 4-2: Surface Water Monitoring EC Results during the Reporting Period

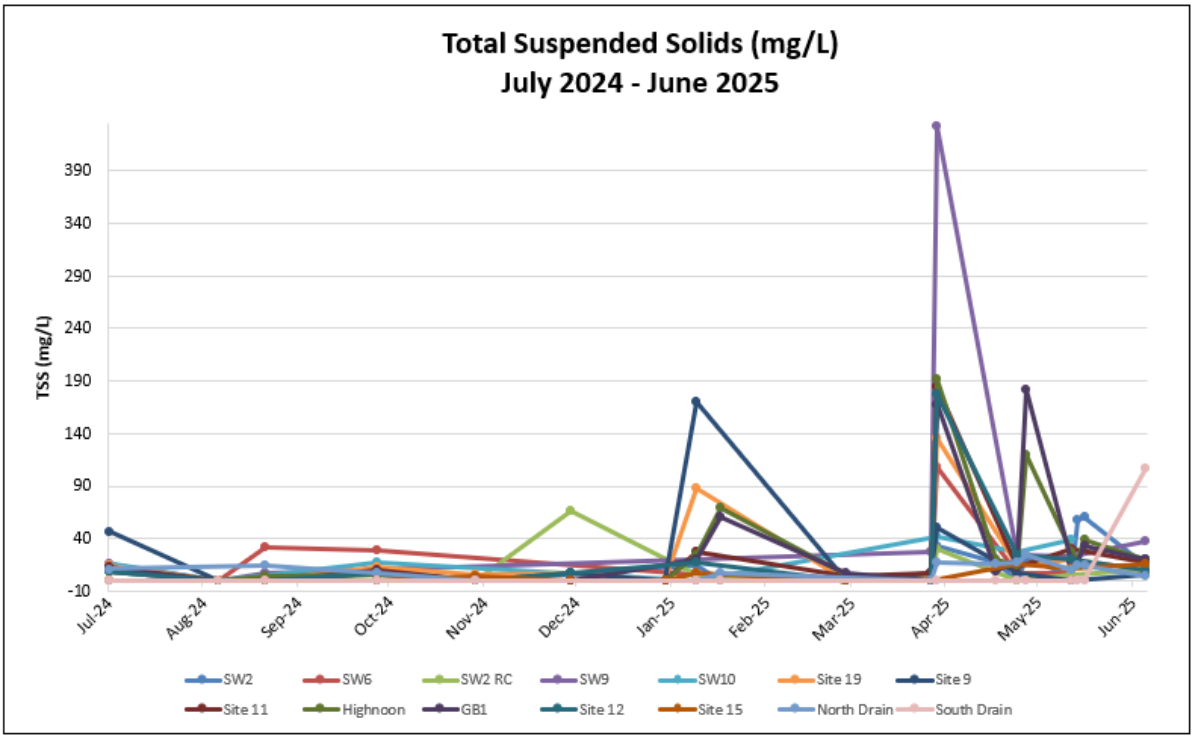


Figure 4-3: Surface Water Monitoring TSS Results during the Reporting Period

Ground Water

DB1W

Parameter	Units	27-Aug-24	12-Nov-24	6-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	15.60	15.74	15.52		15.3	15.76	16.37	0.05	0.22
pH		5.50	5.81	4.09		4.09	5.95	7.70	0.18	0.42
Conductivity	(µS/cm)	1144	3820	1028		1028	3993	5020	623740	790
ORP	(mV)	70	73	275		-69	52	275	4362	66
Dissolved Oxygen	(%)	31.4	18.9	38.9		7.50	26.94	55.00	71.03	8.43
TDS	(mg/l)	722	2710	814		722	2776	3550	305274	553
Total Alkalinity as CaCO3	(mg/l)	12	116	<1		12	110	157	792	28
Acidity as CaCO3	(mg/l)	24	129	130		24	140	240	2020	45
Sulphate	(mg/l)	185	372	206	No Access	185	360	854	6261	79
Chloride	(mg/l)	227	1080	256		227	1069	1400	41589	204
Calcium	(mg/l)	31	263	6		6	248	339	4019	63
Magnesium	(mg/l)	17	57	17		17	62	81	136	12
Sodium	(mg/l)	148	477	157		148	490	657	8489	92
Aluminium	(mg/l)	3.00	0.46	4.31		0.20	2.24	44.70	37.25	6.10
Manganese	(mg/l)	0.176	0.91	0.104		0.10	0.95	1.32	0.05	0.21
Zinc	(mg/l)	0.197	0.066	0.245		0.04	0.11	1.56	0.04	0.21
Iron	(mg/l)	12.7	31.1	18.6		12.70	33.16	50.20	44.94	6.70

DB2W

Parameter	Units	28-Aug-24	15-Nov-24	6-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	13.53	13.56	13.33		13.1	14.88	46.60	20.06	4.48
pH		6.15	6.00	6.42		5.80	6.31	6.72	0.04	0.20
Conductivity	(µS/cm)	1620	1487	902		902	1409	1807	30648	175
ORP	(mV)	-65	-42	16		-75	17	137	2077	46
Dissolved Oxygen	(%)	25.1	19.6	33.6		8.40	27.19	46.70	72.92	8.54
TDS	(mg/l)	1070	996	697		693	926	1170	14196	119
Total Alkalinity as CaCO3	(mg/l)	166	155	153		132	168	200	282	17
Acidity as CaCO3	(mg/l)	20	98	44		20	89	159	988	31
Sulphate	(mg/l)	224	210	92	No Access	87	171	303	1068	33
Chloride	(mg/l)	309	335	232		180	401	7610	1000840	1000
Calcium	(mg/l)	117	110	66		66	97	117	140	12
Magnesium	(mg/l)	26	25	17		17	24	29	6	2
Sodium	(mg/l)	168	159	110		110	150	196	326	18
Aluminium	(mg/l)	0.05	<0.01	0.32		0.01	0.06	0.32	0.01	0.09
Manganese	(mg/l)	0.753	0.775	0.62		0.59	0.85	1.46	0.01	0.12
Zinc	(mg/l)	0.014	0.025	0.033		0.01	0.02	0.04	0.00	0.01
Iron	(mg/l)	11.8	13.6	2.51		1.32	13.09	20.90	7.68	2.77

DB3W

Parameter	Units	27-Aug-24	12-Nov-24	6-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	3.38	3.33	2.81		2.2	3.17	4.55	0.35	0.59
pH		6.36	6.21	6.42		5.70	6.54	9.00	0.24	0.49
Conductivity	(µS/cm)	116.70	100.40	125.40		80	139	305	2062	45
ORP	(mV)	30	155	92		-21	73	184	3366	58
Dissolved Oxygen	(%)	80.3	56	46.7		21.30	51.04	87.00	363.20	19.06
TDS	(mg/l)	151	216	408		54	214	670	19594	140
Total Alkalinity as CaCO3	(mg/l)	35	28	40		25	38	54	34	6
Acidity as CaCO3	(mg/l)	5	20	18		5	19	41	56	7
Sulphate	(mg/l)	4	3	5	No Access	2	7	32	38	6
Chloride	(mg/l)	12	13	14		8	15	36	28	5
Calcium	(mg/l)	2	2	3		1	3	17	5	2
Magnesium	(mg/l)	1	1	2		1	2	28	14	4
Sodium	(mg/l)	18	19	22		16	22	38	17	4
Aluminium	(mg/l)	2.78	10.3	17.9		0.36	31.52	169.00	1890.73	43.48
Manganese	(mg/l)	0.038	0.083	0.132		0.02	0.38	2.34	0.28	0.53
Zinc	(mg/l)	0.016	0.04	0.105		0.01	0.14	0.68	0.03	0.16
Iron	(mg/l)	5.84	18.3	25.4		1.30	42.69	283.00	3392.77	58.25

DB4W

Parameter	Units	28-Aug-24	12-Nov-24	6-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	6.34	6.39	6.30	5.57	5.3	6.79	9.34	0.62	0.79
pH		6.29	6.59	6.91	6.45	6.00	6.58	7.40	0.10	0.31
Conductivity	(µS/cm)	4200	3450	2337	3092	332	3698	4750	427983	654
ORP	(mV)	-109	-183	91	-93	-280	-84	215	13294	115
Dissolved Oxygen	(%)	10.2	3.1	20.2	28.5	3.10	22.54	55.00	210.95	14.52
TDS	(mg/l)	2600	2370	2300	1800	1800	2405	3087	88052	297
Total Alkalinity as CaCO3	(mg/l)	260	283	248	214	142	257	364	5258	73
Acidity as CaCO3	(mg/l)	16	42	37	21	9	59	167	1857	43
Sulphate	(mg/l)	234	99	140	87	40	172	375	12482	112
Chloride	(mg/l)	1050	1010	915	700	700	1008	1210	9774	99
Calcium	(mg/l)	182	155	139	122	122	163	215	448	21
Magnesium	(mg/l)	98	58	61	55	52	79	125	553	24
Sodium	(mg/l)	531	486	417	383	383	520	628	1741	42
Aluminium	(mg/l)	<0.01	0.02	0.33	0.05	0.01	0.09	0.80	0.03	0.16
Manganese	(mg/l)	1.74	1.18	1.3	1.45	0.95	1.52	2.55	0.22	0.46
Zinc	(mg/l)	0.012	<0.005	0.038	0.006	0.01	0.02	0.08	0.00	0.02
Iron	(mg/l)	0.74	0.24	0.48	0.07	0.06	3.81	33.40	29.00	5.39

DB5W

Parameter	Units	27-Aug-24	12-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)									
pH										
Conductivity	(µS/cm)									
ORP	(mV)									
Dissolved Oxygen	(%)									
TDS	(mg/l)									
Total Alkalinity as CaCO3	(mg/l)									
Acidity as CaCO3	(mg/l)									
Sulphate	(mg/l)	No Access	No Access	No Access	No Access					
Chloride	(mg/l)									
Calcium	(mg/l)									
Magnesium	(mg/l)									
Sodium	(mg/l)									
Aluminium	(mg/l)									
Manganese	(mg/l)									
Zinc	(mg/l)									
Iron	(mg/l)									

DB6W

Parameter	Units	27-Aug-24	12-Nov-24	5-Feb-25	6-May-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	20.25	20.18	20.70	20.00	20.02	19.0	21.02	23.68	1.30	1.14
pH		6.95	6.60	6.77	6.53	6.53	6.03	6.67	7.36	0.04	0.20
Conductivity	(µS/cm)	5080	5700	4970	5880	5670	1690	5761	6860	492053	701
ORP	(mV)	55	-41	3	-26	-92	-94	15	170	4653	68
Dissolved Oxygen	(%)	87.5	22.1	34.3	27.3	31.5	9.00	30.10	87.50	172.08	13.12
TDS	(mg/l)	4030	4180	4750	5470	3800	1014	3939	5470	400341	633
Total Alkalinity as CaCO3	(mg/l)	550	567	636	583	512	164	600	682	6308	79
Acidity as CaCO3	(mg/l)	35	103	96	392	64	16	112	392	3595	60
Sulphate	(mg/l)	100	86	95	81	67	30	89	110	154	12
Chloride	(mg/l)	1480	1660	1660	1650	1550	445	1577	2070	42374	206
Calcium	(mg/l)	314	362	339	355	277	90	307	384	1657	41
Magnesium	(mg/l)	193	211	220	214	206	54	202	253	680	26
Sodium	(mg/l)	602	649	673	665	643	182	631	745	4869	70
Aluminium	(mg/l)	1.37	0.04	0.12	0.02	0.42	0.02	0.30	2.47	0.21	0.45
Manganese	(mg/l)	0.443	0.358	0.382	0.329	0.36	0.11	0.32	0.44	0.00	0.04
Zinc	(mg/l)	0.074	0.016	0.016	0.026	0.039	0.01	0.02	0.27	0.00	0.04
Iron	(mg/l)	3.65	5.02	4.61	4.62	4.62	1.28	4.12	5.70	0.53	0.73

DB7W

Parameter	Units	27-Aug-24	12-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	10.25	10.41	9.09		9.0	10.36	11.36	0.37	0.60
pH		7.07	6.79	7.04		6.42	6.93	7.70	0.06	0.24
Conductivity	(µS/cm)	2970	2570	2396		2180	2746	3091	43392	208
ORP	(mV)	-147	-59	87		-208	-72	188	9794	99
Dissolved Oxygen	(%)	22.2	35.5	21.6		9.10	29.46	48.00	79.91	8.94
TDS	(mg/l)	1530	1690	1680		1430	1665	2002	14476	120
Total Alkalinity as CaCO3	(mg/l)	424	372	416		282	393	440	1208	35
Acidity as CaCO3	(mg/l)	10	37	35		10	37	79	275	17
Sulphate	(mg/l)	52	61	58	No Access	42	82	136	574	24
Chloride	(mg/l)	635	677	682		513	662	788	2173	47
Calcium	(mg/l)	138	153	143		118	142	161	81	9
Magnesium	(mg/l)	52	53	53		48	54	62	9	3
Sodium	(mg/l)	350	352	351		329	378	667	2396	49
Aluminium	(mg/l)	0.07	0.32	0.06		0.03	1.21	20.60	14.51	3.81
Manganese	(mg/l)	0.555	0.651	0.623		0.55	0.68	0.96	0.01	0.08
Zinc	(mg/l)	<0.005	0.064	0.02		0.01	0.02	0.09	0.00	0.02
Iron	(mg/l)	0.06	0.9	0.1		0.06	1.24	20.30	11.42	3.38

DB8W

Parameter	Units	27-Aug-24	13-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	11.66	11.95	12.15	12.51	7.18	19.30	29.52	31.20	5.59

DB9W

Parameter	Units	27-Aug-24	13-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	17.66	17.53	17.36	16.94	16.7	20.29	22.17	2.83	1.68
pH		7.34	7.07	7.41	7.12	6.60	7.13	8.00	0.07	0.27
Conductivity	(µS/cm)	3750	3170	2740	2894	2410	3740	8940	1259216	1122
ORP	(mV)	-8	51	95	28	-143	21	213	6510	81
Dissolved Oxygen	(%)	30.4	38.5	50.9	46.7	1.90	34.15	66.00	195.49	13.98
TDS	(mg/l)	2200	2100	1950	2040	1660	2365	6620	1081452	1040
Total Alkalinity as CaCO3	(mg/l)	130	65	69	73	65	142	309	2243	47
Acidity as CaCO3	(mg/l)	3	9	6	5	2	11	52	64	8
Sulphate	(mg/l)	331	302	276	253	194	310	1350	35039	187
Chloride	(mg/l)	931	887	856	813	604	981	2740	128752	359
Calcium	(mg/l)	164	162	131	138	128	188	572	6798	82
Magnesium	(mg/l)	27	21	16	14	9	30	202	1640	40
Sodium	(mg/l)	553	514	479	507	429	575	1120	20201	142
Aluminium	(mg/l)	<0.01	0.16	0.35	0.55	0.01	0.28	6.14	0.85	0.92
Manganese	(mg/l)	0.211	0.131	0.135	0.047	0.03	0.37	3.12	0.33	0.58
Zinc	(mg/l)	0.006	0.026	0.035	0.049	0.01	0.04	0.96	0.02	0.13
Iron	(mg/l)	0.67	0.70	0.67	0.63	0.17	1.68	13.00	8.26	2.87

DB10W

Parameter	Units	27-Aug-24	13-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	11.47	11.21	11.08	10.62	9.9	13.65	21.18	5.75	2.40
pH		5.46	5.38	5.48	5.36	4.60	5.64	7.10	0.19	0.44
Conductivity	(µS/cm)	4490	4310	3780	3930	2380	4013	5060	225971	475
ORP	(mV)	11	68	78	66	-141	88	289	6127	78
Dissolved Oxygen	(%)	19.7	25.6	37.0	36.1	8.40	31.66	60.00	156.71	12.52
TDS	(mg/l)	2680	3000	2940	2760	1547	2867	18600	5251597	2292
Total Alkalinity as CaCO3	(mg/l)	35	33	15	25	3	31	85	282	17
Acidity as CaCO3	(mg/l)	37	117	69	75	2	89	184	1408	38
Sulphate	(mg/l)	465	435	429	438	362	425	492	848	29
Chloride	(mg/l)	1130	1190	1210	1140	722	1044	1320	15660	125
Calcium	(mg/l)	94	92	96	89	59	81	128	215	15
Magnesium	(mg/l)	91	93	99	95	68	82	100	79	9
Sodium	(mg/l)	683	694	718	700	569	647	740	2236	47
Aluminium	(mg/l)	0.94	0.14	0.11	0.3	0.05	3.63	81.50	142.50	11.94
Manganese	(mg/l)	0.831	0.94	0.93	0.971	0.67	0.89	1.84	0.03	0.17
Zinc	(mg/l)	0.126	0.182	0.086	0.091	0.04	0.21	2.43	0.09	0.31
Iron	(mg/l)	14.0	16.3	6.94	7.83	6.92	15.80	53.40	70.21	8.38

DB10W

Parameter	Units	7-Aug-24	12-Nov-24	6-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	10.54	10.47	10.35	10.05	7.0	10.42	11.06	0.37	0.61
pH		7.31	6.85	7.24	7.08	6.17	6.99	7.90	0.12	0.34
Conductivity	(µS/cm)	2851	2730	2682	2727	1960	3086	5530	464541	682
ORP	(mV)	146	-64	59	-138	-138	-16	186	6232	79
Dissolved Oxygen	(%)	43.5	22.4	26.9	31.3	7.10	30.26	52.00	115.94	10.77
TDS	(mg/l)	2080	1910	2200	1780	1274	2106	3890	262269	512
Total Alkalinity as CaCO3	(mg/l)	247	256	270	268	190	271	318	932	31
Acidity as CaCO3	(mg/l)	8	26	18	12	6	25	110	280	17
Sulphate	(mg/l)	193	179	197	139	130	195	324	1308	36
Chloride	(mg/l)	748	740	792	714	378	794	1710	56008	237
Calcium	(mg/l)	206	184	198	196	110	222	533	5197	72
Magnesium	(mg/l)	40	28	37	38	7	39	127	419	20
Sodium	(mg/l)	373	346	364	369	299	386	602	2909	54
Aluminium	(mg/l)	0.50	0.01	0.06	0.26	0.01	0.25	3.98	0.38	0.61
Manganese	(mg/l)	1.07	0.69	1.26	1.24	0.28	0.95	2.62	0.19	0.43
Zinc	(mg/l)	0.093	<0.005	0.018	0.029	0.01	0.02	0.15	0.00	0.03
Iron	(mg/l)	1.29	3.36	1.59	1.94	1.05	3.62	11.60	3.79	1.95

BH4BW

Parameter	Units	27-Aug-24	12-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	4.96	5.06	4.55		3.7	4.71	5.50	0.18	0.42
pH		6.19	5.96	6.08		5.68	6.29	8.00	0.12	0.35
Conductivity	(µS/cm)	318.80	302.60	318.40		160	317	573	10332	102
ORP	(mV)	7	42	67		-76	61	199	3599	60
Dissolved Oxygen	(%)	58.1	29.2	45.3		10.20	37.92	75.00	160.50	12.67
TDS	(mg/l)	197	203	320		96	337	5710	645549	803
Total Alkalinity as CaCO3	(mg/l)	82	84	48		48	85	111	257	16
Acidity as CaCO3	(mg/l)	16	68	53		14	51	168	590	24
Sulphate	(mg/l)	2	<1	18	No Access	1	9	39	54	7
Chloride	(mg/l)	36	44	49		12	37	102	688	26
Calcium	(mg/l)	11	16	17		6	15	29	18	4
Magnesium	(mg/l)	8	10	10		4	10	15	6	2
Sodium	(mg/l)	26	28	39		17	30	50	59	8
Aluminium	(mg/l)	12.7	1.47	3.88		0.65	33.43	175.00	1945.43	44.11
Manganese	(mg/l)	0.693	0.803	0.342		0.34	1.90	6.87	2.31	1.52
Zinc	(mg/l)	0.122	0.033	0.097		0.01	0.18	0.73	0.03	0.17
Iron	(mg/l)	32.4	13.6	6.25		2.83	49.88	198.00	2471.40	49.71

SI1W

Parameter	Units	7-Aug-24	12-Nov-24	5-Feb-25	19-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	10.68	10.81	10.72	10.14	8.4	9.73	11.23	0.43	0.65
pH		7.04	7.21	7.29	6.93	6.7	7.11	7.63	0.03	0.18
Conductivity	(µS/cm)	1819	1791	1720	1704	1704.0	2573.07	3170.00	142910.45	378.03
ORP	(mV)	167	21	51	-50	-50.0	92.37	279.00	6018.34	77.58
Dissolved Oxygen	(%)	35.9	31.7	27.6	40.4	12.0	34.82	60.00	79.43	8.91
TDS	(mg/l)	1280	1140	1300	1130	1130.0	1863.38	2890.00	104626.16	323.46
Total Alkalinity as CaCO3	(mg/l)	408	396	437	425	296.0	504.84	3336.00	147910.46	384.59
Acidity as CaCO3	(mg/l)	12	28	25	24	10.0	34.33	61.00	208.98	14.46
Sulphate	(mg/l)	370	344	341	303	223.0	608.39	928.00	30441.81	174.48
Chloride	(mg/l)	217	229	236	196	196.0	296.47	408.00	1758.75	41.94
Calcium	(mg/l)	104	112	102	94	94.0	157.23	199.00	842.36	29.02
Magnesium	(mg/l)	94	85	91	81	81.0	138.19	257.00	787.84	28.07
Sodium	(mg/l)	206	201	216	206	164.0	260.79	1450.00	26837.20	163.82
Aluminium	(mg/l)	0.04	0.06	0.17	<0.01	0.0	0.15	1.80	0.07	0.26
Manganese	(mg/l)	0.003	0.011	0.01	0.003	0.0	0.01	0.07	0.00	0.01
Zinc	(mg/l)	<0.005	0.011	0.017	0.006	0.0	0.01	0.05	0.00	0.01
Iron	(mg/l)	<0.05	0.2	0.29	<0.05	0.1	0.25	0.99	0.05	0.22

SI2W

Parameter	Units	7-Aug-24	13-Nov-24	5-Feb-25	19-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	25.15	25.45	24.87	23.27	16.8	20.13	26.73	7.06	2.66
pH		7.25	7.25	7.16	6.19	6.2	7.23	8.20	0.09	0.30
Conductivity	(µS/cm)	1715	2142	570	156	155.9	2667.78	3930.00	556543.48	746.02
ORP	(mV)	233	-50	43	-56	-82.0	71.84	281.00	8422.64	91.77
Dissolved Oxygen	(%)	47.7	23.0	37.9	36.4	8.9	28.39	62.00	121.39	11.02
TDS	(mg/l)	1300	1710	450	151	151.0	1983.08	2540.00	238530.61	488.40
Total Alkalinity as CaCO3	(mg/l)	256	254	130	72	72.0	337.37	664.00	13341.09	115.50
Acidity as CaCO3	(mg/l)	5	14	12	13	1.0	21.61	89.00	259.08	16.10
Sulphate	(mg/l)	534	637	120	587	76.0	814.25	1250.00	111839.75	334.42
Chloride	(mg/l)	170	249	40	9	9.0	275.30	634.00	13982.39	118.25
Calcium	(mg/l)	87	129	24	6	6.0	133.47	193.00	1183.04	34.40
Magnesium	(mg/l)	73	95	19	6	6.0	133.35	237.00	2219.16	47.11
Sodium	(mg/l)	243	279	71	24	24.0	328.39	878.00	10672.06	103.31
Aluminium	(mg/l)	0.19	0.05	0.94	1.11	0.0	0.12	1.11	0.05	0.21
Manganese	(mg/l)	0.096	0.092	0.071	0.033	0.0	0.04	0.24	0.00	0.05
Zinc	(mg/l)	<0.005	0.006	0.023	0.029	0.0	0.03	0.52	0.01	0.08
Iron	(mg/l)	0.55	0.46	1.57	1.47	0.1	0.34	1.57	0.14	0.38

SI3W

Parameter	Units	7-Aug-24	13-Nov-24	5-Feb-25	20-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)		28.33	28.19	27.37	27.3	27.95	28.58	0.07	0.26
pH				6.95	6.76	6.5	6.97	7.47	0.03	0.18
Conductivity	(µS/cm)			5340	4130	4130.0	6523.21	8920.00	1491206.82	1221.15
ORP	(mV)			43	193	-154.0	91.67	289.00	10341.83	101.69
Dissolved Oxygen	(%)			34.1	74.4	17.0	51.13	83.30	293.62	17.14
TDS	(mg/l)			5280	3080	2490.0	4615.20	6620.00	1217453.39	1103.38
Total Alkalinity as CaCO3	(mg/l)			360	273	220.0	347.54	486.00	3993.43	63.19
Acidity as CaCO3	(mg/l)			43	22	8.0	36.87	75.00	233.92	15.29
Sulphate	(mg/l)	Dry @	Too low to	645	492	66.0	672.06	968.00	25636.42	160.11
Chloride	(mg/l)	28.23m	sample	1710	1100	919.0	1765.17	2480.00	163804.69	404.73
Calcium	(mg/l)			431	287	138.0	500.62	680.00	13061.97	114.29
Magnesium	(mg/l)			147	94	86.0	153.08	285.00	1231.09	35.09
Sodium	(mg/l)			722	577	524.0	779.38	1090.00	12818.20	113.22
Aluminium	(mg/l)			0.26	1.12	0.1	1.54	11.20	4.94	2.22
Manganese	(mg/l)			8.66	1.69	0.0	0.97	8.66	2.75	1.66
Zinc	(mg/l)			0.123	0.079	0.0	0.07	0.25	0.00	0.05
Iron	(mg/l)			1.06	2.88	0.1	1.64	9.36	3.57	1.89

WR1

Parameter	Units	27-Aug-24	12-Nov-24	5-Feb-25	6-May-25	19-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	12	11.71	10.73	9.46	7.92	7.9	11.54	15.19	3.51	1.87
pH		6.23	6.30	6.52	6.23	6.18	6.0	6.46	7.23	0.06	0.25
Conductivity	(µS/cm)	3050	2760	2630	2655	2810	1770.0	2497.43	3420.00	186691.68	432.08
ORP	(mV)	158	58	21	54	62	-68.0	97.47	301.00	5743.30	75.78
Dissolved Oxygen	(%)	38.8	19.8	41.2	27.1	29.9	3.6	39.41	78.40	290.63	17.05
TDS	(mg/l)	2170	2140	2080	2170	2060	984.0	1699.98	2200.00	102702.87	320.47
Total Alkalinity as CaCO3	(mg/l)	257	248	274	256	289	199.0	265.50	310.00	602.39	24.54
Acidity as CaCO3	(mg/l)	42	79	74	286	62	6.0	71.30	286.00	1860.48	43.13
Sulphate	(mg/l)	604	621	633	495	630	330.0	527.63	759.00	12164.77	110.29
Chloride	(mg/l)	624	541	599	545	545	159.0	387.04	624.00	16915.86	130.06
Calcium	(mg/l)	278	251	254	253	251	121.0	192.30	278.00	2325.59	48.22
Magnesium	(mg/l)	62	58	59	56	56	24.0	39.65	63.00	135.39	11.64
Sodium	(mg/l)	358	363	357	350	355	250.0	316.54	430.00	1528.79	39.10
Aluminium	(mg/l)	0.10	2.33	0.92	0.09	2.46	0.1	8.09	42.60	119.78	10.94
Manganese	(mg/l)	1.05	1.11	1.04	0.994	1.14	0.5	0.90	3.71	0.22	0.47
Zinc	(mg/l)	0.007	0.022	0.029	0.029	0.054	0.0	0.04	0.18	0.00	0.04
Iron	(mg/l)	2.25	3.83	2.6	3.04	3.63	1.4	5.35	20.40	18.78	4.33

W2

Parameter	Units	7-Aug-24	13-Nov-24	5-Feb-25	6-May-25	19-Jun-25	Min	Avg	Max	Variance	Std Dev
Depth to standing WL	(m)	23.12	22.16	22.72	22.02	22.30	19.5	51.44	76.44	493.89	22.22
pH		6.95	6.92	7.25	7.05	7.00	6.6	7.00	7.79	0.05	0.22
Conductivity	(µS/cm)	6750	7140	6100	6600	7020	3660.0	5989.78	7800	1305529.49	1142.60
ORP	(mV)	78	53	85	126	3	-142.0	61.71	283	11588.44	107.65
Dissolved Oxygen	(%)	39.1	16.0	37.1	24.2	36.4	15.0	33.19	74.10	232.72	15.26
TDS	(mg/l)	6160	6910	6560	5190	5580	2540.0	5171.36	7110	997988.79	998.99
Total Alkalinity as CaCO3	(mg/l)	258	260	266	255	207	53.0	213.68	311	3047.29	55.20
Acidity as CaCO3	(mg/l)	26	39	33	421	28	12.0	43.68	421	4247.15	65.17
Sulphate	(mg/l)	528	589	655	508	625	438.0	881.05	1340	90363.39	300.61
Chloride	(mg/l)	2100	2160	2110	2230	2410	811.0	1569.41	2520	298668.67	546.51
Calcium	(mg/l)	976	955	788	962	882	531.0	909.80	1080	11712.54	108.22
Magnesium	(mg/l)	158	156	163	168	142	12.0	69.25	184	2970.01	54.50
Sodium	(mg/l)	442	448	460	462	440	217.0	365.61	462	4029.31	63.48
Aluminium	(mg/l)	0.06	0.09	0.24	0.11	0.15	0.0	4.50	50.40	74.85	8.65
Manganese	(mg/l)	2.57	2.84	2.49	2.39	2.64	0.3	2.61	4.74	0.79	0.89
Zinc	(mg/l)	0.018	0.025	0.03	0.013	0.008	0.0	0.14	1.09	0.04	0.20
Iron	(mg/l)	4.71	2.80	7.82	0.70	3.17	0.7	10.08	72.30	187.48	13.69

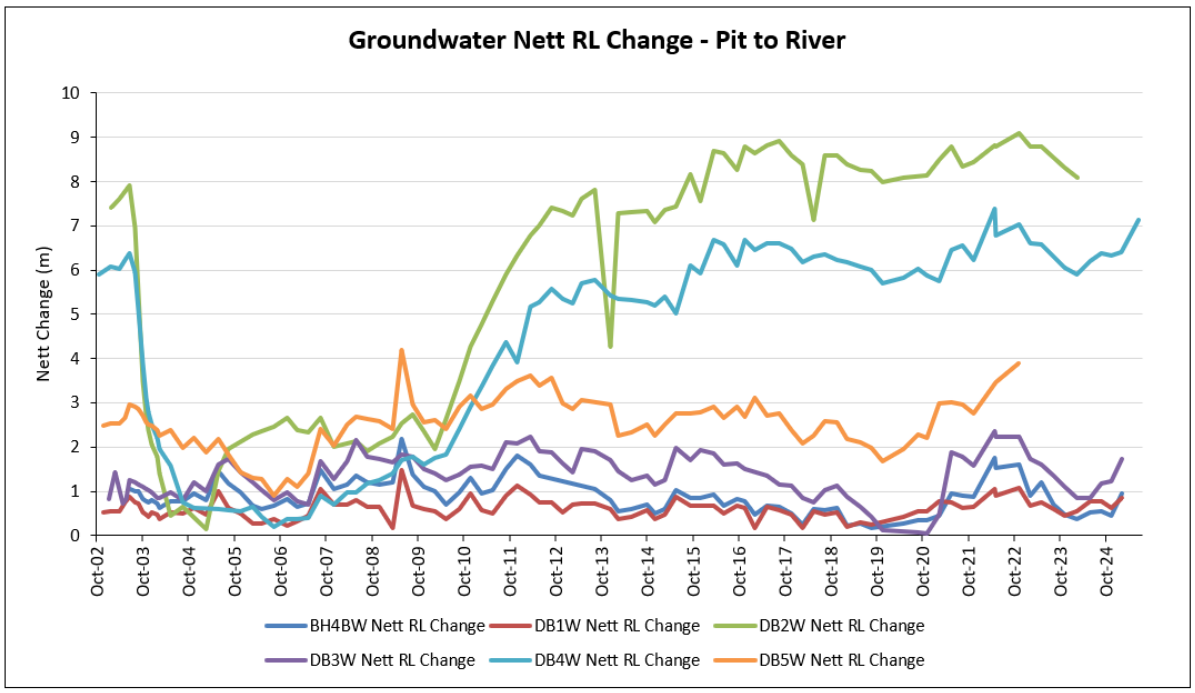


Figure 4-4: Groundwater Nett RL Change – Pit to River

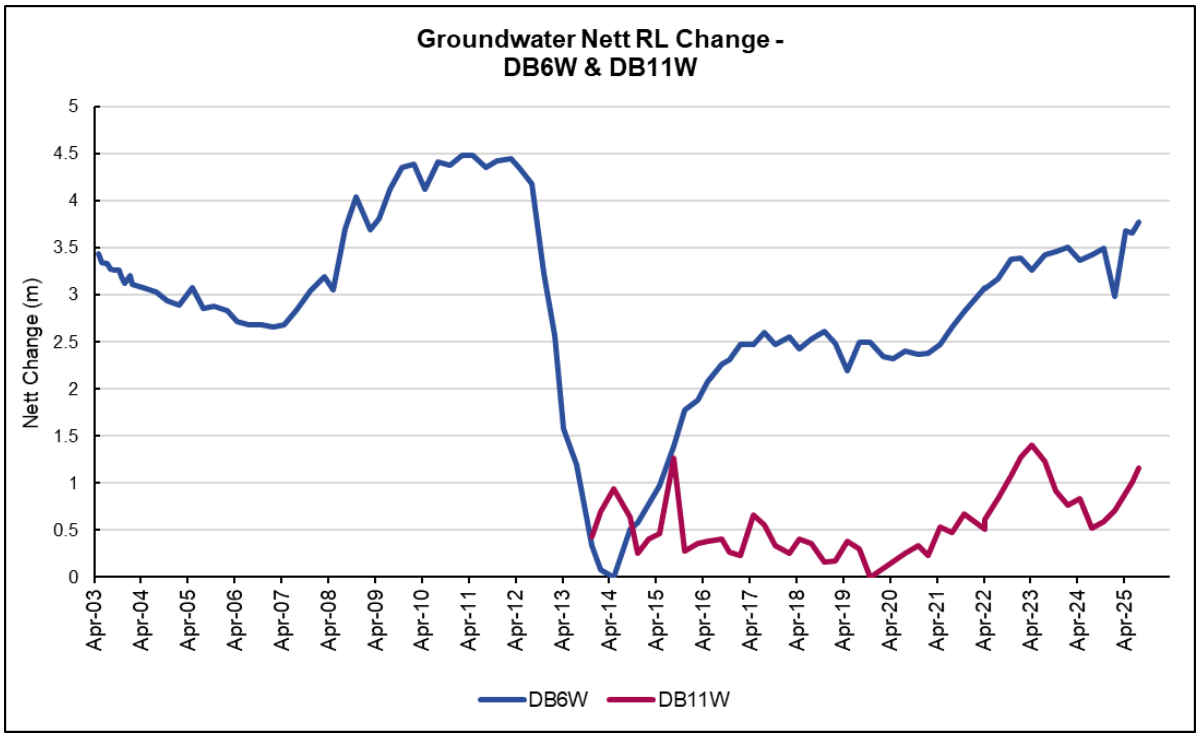


Figure 4-5: Groundwater Nett RL Change – DB6W & DB11W

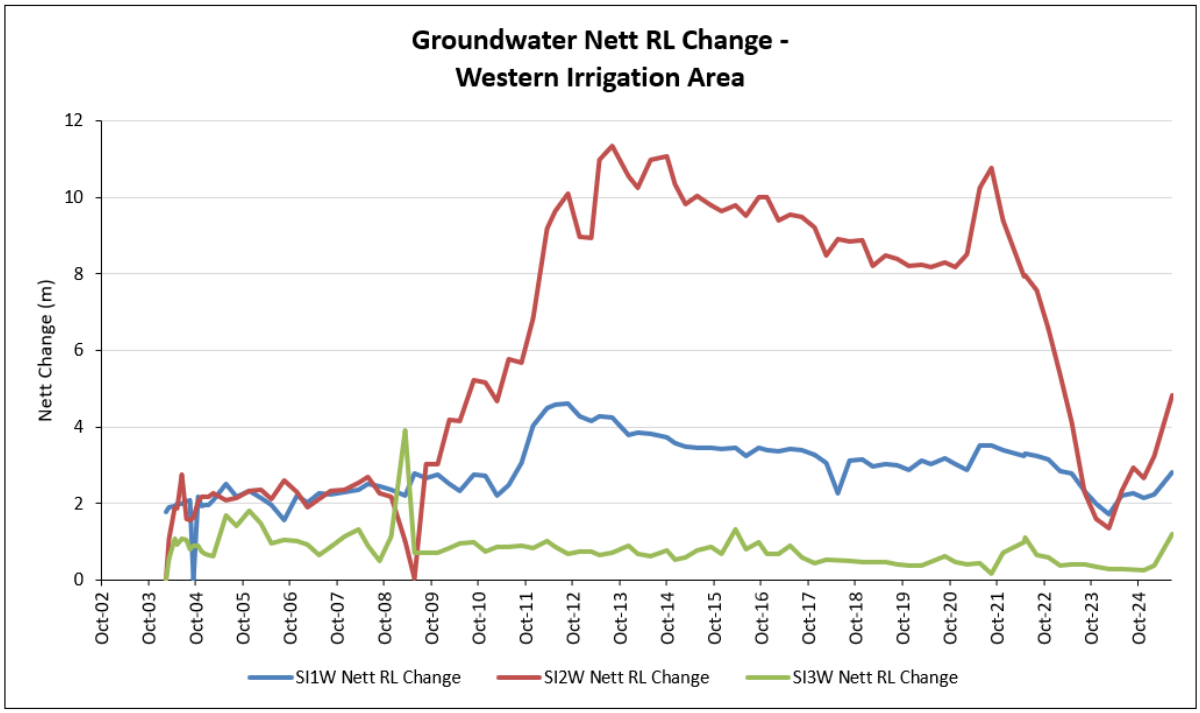


Figure 4-6: Groundwater Nett RL Change – Western Irrigation Area

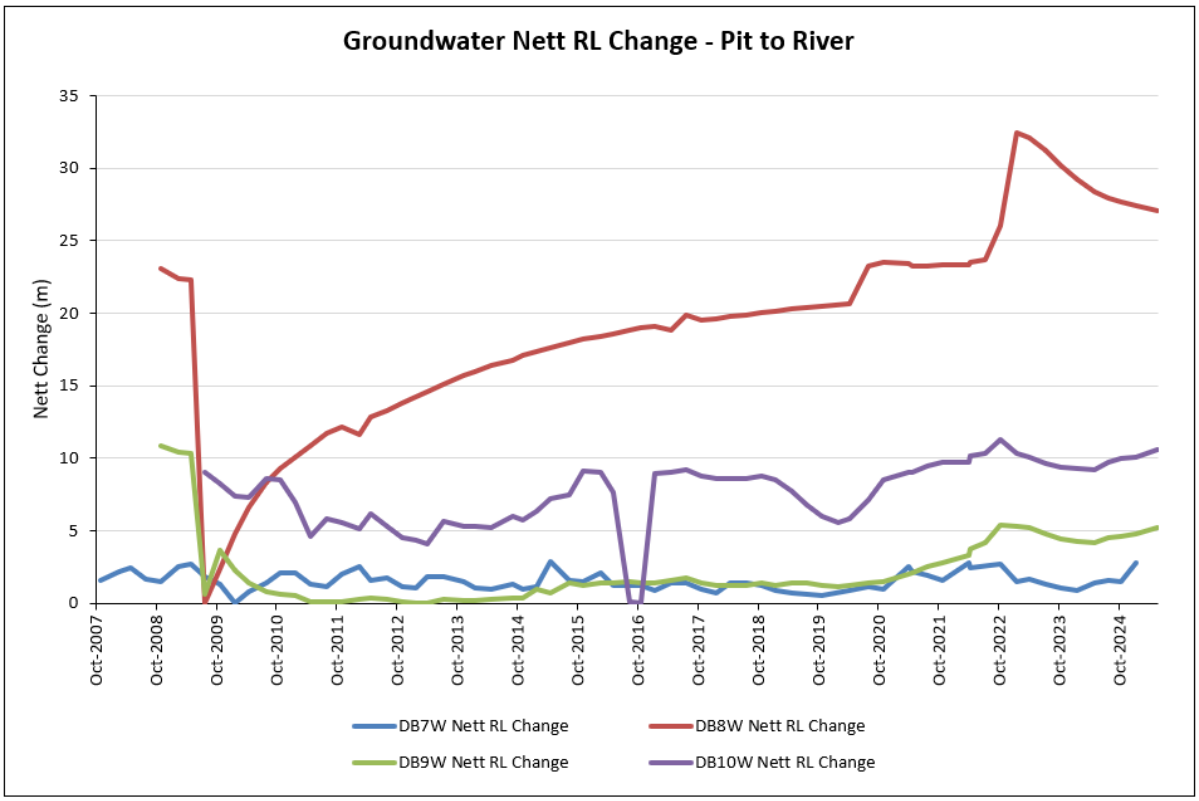


Figure 4-7: Groundwater Nett RL Change – Pit to River

APPENDIX 5:
Noise Monitoring

Table 1: Noise Performance Assessment – Operations – 14-15 November 2025 Survey

Location	Estimated DMC Noise Level $L_{Aeq(15minute)}$ (dBA)			Noise Criteria $L_{Aeq(15minute)}$ (dBA)			Compliance		
	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night
NM1	I/A[1]	I/A[1]	I/A[1]	35	35	35	Yes	Yes	Yes
NM4	I/A[1]	I/A[1]	I/A[1]	35	35	37	Yes	Yes	Yes
NM5	I/A[1]	I/A[1]	I/A[1]	35	35	35	Yes	Yes	Yes
NM6	I/A[1]	I/A[1]	I/A[1]	35	35	39	Yes	Yes	Yes

Note 1: I/A = Inaudible.

Table 2: Noise Performance Assessment – Operations – 27 February 2025 Survey

Location	Estimated DMC Noise Level $L_{Aeq(15minute)}$ (dBA)			Noise Criteria $L_{Aeq(15minute)}$ (dBA)			Compliance		
	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night
NM1	I/A[1]	I/A[1]	23	35	35	35	Yes	Yes	Yes
NM4	I/A[1]	I/A[1]	I/A[1]	35	35	37	Yes	Yes	Yes
NM5	I/A[1]	I/A[1]	I/A[1]	35	35	35	Yes	Yes	Yes
NM6	I/A[1]	I/A[1]	I/A[1]	35	35	39	Yes	Yes	Yes

Note 1: I/A = Inaudible.

Table 3: Noise Performance Assessment – Operations – 11 June 2025 Survey

Location	Estimated DMC Noise Level $L_{Aeq(15minute)}$ (dBA)			Noise Criteria $L_{Aeq(15minute)}$ (dBA)			Compliance		
	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night
NM1	I/A[1]	-	-	35	35	35	Yes	-	-
NM4	I/A[1]	-	<25	35	35	37	Yes	-	Yes
NM5	I/A[1]	-	-	35	35	35	Yes	-	-
NM6	I/A[1]	-	-	35	35	39	Yes	-	-

Note 1: I/A = Inaudible.

APPENDIX 6: Complaints List & CCC Annual Report

Duralie Complaint Summary

Period: 12 Months to July 2025

Total No. of Complaints: 0 (0 noise, 0 blasting, 0 air quality (inc. odour), 0 other)

Total No. of Complainants: 0

Date/Time of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Investigation/Outcome

Duralie Community Consultative Committee (CCC) – 2024 Annual Report

CCC project name:	**Duralie Coal Mine**	Reporting period:	**January 1 to December 31 2024**
Independent chairperson:	**Margaret MacDonald-Hill**	Proponent contact:	**Tom Kirkwood, Environment and Community Superintendent**

1. Executive summary / introduction

The Duralie Community Consultative Committee was established in 2003 with the approval of the Duralie Coal Mine Consent. The mine is located on The Bucketts Way between the villages of Wards River and Stroud Road within the MidCoast Local Government Area.

The Committee is comprised of:

- Six local community representatives;
- Two MidCoast staff representatives;
- Two Stratford Coal representatives with attendance from other personnel as required;
- One independent Chairperson.

2. CCC activities over last 12 months:

- Mining activities have ceased at Duralie and mine closure planning is underway. Demolition and decommissioning, future land use and opportunities continue as the main focus of the committee. Reflective of this, MidCoast Council has resolved to replace elected councillors on the committee with staff representatives with relevant expertise. There weren't any community complaints throughout the year. It is anticipated the committee will continue to meet biannually and review the schedule from 2026.
- The committee held two meetings for the reporting period, in February and August. At the February meeting guest speakers from MidCoast Council presented on the Council's Koala Project and Beyond the Shed. The Koala Project briefed the committee on koala mapping, conservation of habitat and efforts to improve the safety and health of the koala population and building upon the knowledge to enhance the long term benefits of all wildlife. Beyond the Shed is one of several Council initiatives to encourage local landholders to better manage their properties and the catchment through Landcare programs and funding. One of the programs included a sustainable farming practice with a major demonstration project on improving poultry farming in the Karuah Catchment. Both presentations and Council's goals were highly commended by the committee members.
- Committee members remain focused on potential land use options and opportunities for the area to remain sustainable, retaining population, employment and tourism values. As both the Duralie and Stratford mines move to closure, the members are keen that the company continues to engage with the broader, local community. The appointment of specialised staff has provided more available information with newsletters, community information sessions and updated websites.

- The proposal for the Stratford Renewable Energy Hub (SREH) is not within the scope of this committee, nevertheless members are extremely interested in the project and what it may offer. This comes into the broader picture of employment opportunities, relocation of workforce, property values, alternate land use options and divestment of mine owned property.
- Committee presentations are amenable to the interests of the committee and include general environmental management and monitoring, operational activities including decommissioning, land management and rehabilitation activities, potential use of voids and final land use options, complaints, company reports and community sponsorship.
- Meetings are held on site with a tour of the rehabilitation areas undertaken prior to the February meeting.
- The meetings remain of interest to members, although it is noted there has been a reduction in attendance numbers during this year. A review of the meeting schedule will be canvassed with all members at the 2025 meetings.
- The currency of the committee's Terms of Reference was confirmed at the August meeting.

3. Key issues

Issue	Actions taken	Next steps
Mine Closure Planning	Ongoing consultation with CCC and broader community on mine closure planning via website and newsletters. Appointment of specialist staff to assist with ongoing community liaison. Investigation of future land use and employment opportunities.	Ongoing liaison will support preparation of detailed mine closure planning and guide future consultation with all key stakeholders. Future proposals and information will be discussed with the CCC as it evolves.
MidCoast Council Annual Financial Report on Community Enhancement Funding	Comprehensive Report provided by Council to CCC.	Ongoing annual action.

4. Focus for next 12 months:

- Engage with Yancoal and the broader community and other specialists as required on post mining planning and options in accordance with regulatory requirements.
- Address any emerging issues of the committee.

Name of chairperson:	**Margaret MacDonald-Hill**
Date:	February 17 2025.

APPENDIX 7: Annual Biodiversity Report 2024

Duralie Coal Mine Annual Biodiversity Report 2025

FOR THE 12 MONTHS ENDING 30 JUNE 2025

CONTENTS

LIST OF APPENDICES

1 INTRODUCTION

The Duralie Coal Mine (**DCM**), located in the Southern part of the Gloucester Basin NSW, is approximately 30 kilometres (km) south of Gloucester and is owned and operated by Duralie Coal Pty Ltd (**DCPL**), a fully owned subsidiary of Yancoal Australia Limited (**YAL**). This Annual Biodiversity Report has been prepared in accordance with the DCM Biodiversity Management Plan (**BMP**).

1.1 Scope

In accordance with the Duralie Extension Project, Project Approval 08_0203 (as modified December 2014), the proponent (DCPL) is required, in accordance with Schedule 3, condition 43 to prepare and implement a BMP. This Plan must include:

> *"a program to monitor and report on the effectiveness of the measures in the Biodiversity Management Plan and conditions 33-43 of this approval, and the performance of the Offset Strategy, with summary reporting to be carried out annually and comprehensive reporting every three years following the independent environmental audit".*

This DCM Annual Biodiversity Report provides a review of the effectiveness of measures in the BMP for the year ending 30 June 2025 in accordance with Section 10.1.1 of the BMP. The scope of the review includes the Mining Lease area ML1427 and ML1646 and Biodiversity Offset Areas as indicated on **Plan A**.

This report (and associated Appendices) is included as an Appendix of the DCM Annual Review which is available on the Duralie Coal website www.yancoal.com.au/our-sites/duralie/.

A revised BMP was submitted to the NSW Department of Planning and Environment (DPE) and approved on 22 February 2023 (**Appendix A**). The revised BMP was prepared to reflect the current status of DCM and current mine closure planning. The key changes to the BMP include relevant updates to the performance and completion criteria tables with consideration to the works which have been completed to date.

2 STATUS OF BMP PERFORMANCE CRITERIA

Performance criteria as prescribed in the BMP is presented **in Tables 1 to 10**. The performance criteria have been developed to meet the specific objectives for the areas described in Section 2 of the BMP. All performance criteria are linked to the management specifications listed in the BMP Section 5 and Section 6, and monitoring/reporting specifications in the BMP Section 7. The status of BMP performance criteria is provided in the subsequent sections of this report.

Insert Plan A

3 VEGETATION CLEARANCE PROTOCOL

3.1 Vegetation Clearance Report

Vegetation clearance is undertaken in accordance with the BMP Section 5.4 Vegetation Clearance Plan. Prior to any clearance operations a Clearing Plan is prepared, and vegetation pre-clearance surveys are undertaken.

During the 2024/2025 reporting period, approximately 3.39 hectares (ha) of vegetation was cleared at the DCM to assist with mine closure civil works and to achieve final landform designs for rehabilitation. Appendix C contains the pre-clearance survey associated with the vegetation clearance and summarises the fauna observed and any habitat features that were salvaged, cleared or relocated in 2024/2025. Information obtained during vegetation clearance activities (i.e. habitat features, hollows cleared and fauna observed) has been used to determine the requirements for nest box replacement in the Biodiversity Offset Areas (refer **Section 4**).

The area of disturbance at the end of June 2025 is shown in the DCM Annual Review 2024 Figure 4 (**Appendix B**).

3.2 Salvaged and Reused Material for Habitat Enhancement

Section 5.8 of the BMP requires salvaged material from vegetation clearance activities to be used for habitat enhancement within the revegetation or rehabilitation areas. Habitat features such as trunks, logs, large rocks, branches, stumps and roots are salvaged and relocated where practicable.

During the reporting period cleared vegetation was managed as follows:

- Vegetation was mulched and where applicable used as temporary erosion and sediment control, spread on existing rehabilitation areas and incorporated into topsoil.
- 12 nest boxes were relocated in the rehabilitation area.

4 NEST BOX PROGRAM

Nest box management is undertaken in accordance with the BMP Section 6.4. Nest boxes will be installed to provide habitat opportunities in the short to medium-term for a number of arboreal fauna species including the Squirrel Glider (*Petaurus norfolcensis*).

Table 1: Nest Box Program Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Nest box strategy including target species, habitat trees/feature, nest box designs maintenance and monitoring	Nest box plan developed following habitat assessment and pre-clearance surveys (Section 5.4).		
Nest box installation Includes installation of 18 Squirrel Glider boxes, however may be expanded as required.	Hollow bearing habitat features (nest boxes) installed (Section 6.4).		Nest boxes installed.
Maintenance and monitoring of installed nest boxes. Including monitoring for European bee invasion and repair/replacement	Monitoring in autumn and spring completed. Maintenance undertaken where required (Sections 6.4 and 7.1).	Annual nest box monitoring and maintenance (Sections 6.4 and 7.1).	Nest boxes monitored and maintained, being replaced where required.

Legend	Not commenced	In progress	Completed

AMBS Ecology & Heritage (AMBS) was commissioned to implement the Nest Box Program. The installation of nest boxes has occurred over six periods with the most recent installation in March 2021. No further nest box installations were required resulting from vegetation clearance activities and the recent installations in the rehabilitation areas are to provide additional habitat enhancement.

The current program involves monitoring:

- 18 nest boxes targeting the Squirrel Glider (*Petaurus norfolcensis*), installed during February 2013;
- 106 nest boxes targeting a variety of hollow-dependent species, installed during August 2013;
- 45 nest boxes targeting a variety of hollow-dependent species, installed during September 2014;
- 41 nest boxes targeting a variety of hollow-dependent species, installed during September 2016*;*
- 26 nest boxes targeting a variety of hollow-dependent species that were installed in the Rehabilitation Area during October 2019;
- 9 nest boxes targeting the Feathertail Glider (*Acrobates pygmaeus*) that were installed during September and October 2019;
- 24 nest boxes targeting a variety of hollow-dependent species that were installed in the Rehabilitation Area during May 2021; and
- Several additional boxes in poor condition that could not be removed historically due to being occupied.

A *Nest Box Programme for the Duralie Offset Area, Annual Report 2024* was completed by AMBS with works commencing in **September 2024** and completed in **April 2025** (**Appendix D**). A summary of the results from the report is provided below.

- A total of 14 species were recorded within nest boxes or showed signs of previous occupation with one of the species recorded listed as vulnerable under the *Biodiversity Conservation Act 2016* (BC Act), the Brush-tailed Phascogale (*Phascogale tapoatafa*)
- Four nest boxes contained hives of the European Honey Bee (*Apis mellifera*) and five nest boxes contained native bees
- A total of 261 out of 276 nest boxes, or approximately 95% have been occupied or shown signs of occupancy since their installation
- Occupancy of nest boxes has generally increased over time; however, the previous few years have experienced some noticeable fluctuations, possibly due to the climatic swings that have occurred over the previous several years, first with drought conditions and more recently the La Niña conditions which persisted between 2020 and 2023 bringing high levels of rainfall
- A total of 27 vertebrate species have now been recorded within nest boxes during the Nest Box Programme. This includes 16 species of mammal, 7 species of bird, 3 species of reptiles, and 1 frog species.

Plate 1 – Common Brushtail Possum (*Trichosurus vulpecula*)

Plate 2 – Brush-tailed Phascogales (*Phascogale tapoatafa*)

During the 2024/2025 reporting period, a review of the DCM Nest Box Program was undertaken by AMBS. The review concluded that over the eleven (11) years since the commencement of nest box installations, 92% of nest boxes within the DCM rehabilitation and Biodiversity Offset Areas have been utilised by vertebrate fauna. In accordance with Section 8.5 of the BMP, DCPL will reduce nest box monitoring to a biennial frequency, while annual maintenance inspections will continue to ensure ongoing functionality and habitat value of the installed nest boxes.

5 WEED CONTROL AND MONITORING

Weed control is undertaken in accordance with the BMP Section 5.9 and Section 6.5. The weed control program aims to manage weeds to minimise their impact on native flora and fauna.

Table 2: Weed Control Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Weed Control/treatment program in remnant enhancement and regrowth management VMUs (vegetation management units)	Primary woody weed control (Sections 5.9 and 6.5). Primary control of priority target weeds described in Sections 5.9 and 6.5 commenced. Follow-up woody and priority weed control undertaken as per Sections 5.9 and 6.5.	Follow-up woody and priority weed control undertaken as per Sections 5.9 and 6.5.	Target/priority weed coverage within offset VMUs reduced by 90%.

Weed control/ management in Installation (revegetation) VMUs	Pre-cultivation spraying in all installation VMUs undertaken including control of exotic Sporobolus and fireweed (Figure 7 and Section 6.11). Second cultivation spray in all installation VMUs undertaken including control of exotic Sporobolus and fireweed where necessary (Section 6.11). Additional pre-planting weed treatment in all installation VMUs undertaken if required (Section 6.11). Control of competitive plants within revegetation areas as detailed in Section 6.11.	Additional pre-planting weed treatment in all installation VMUs undertaken if required (Section 6.11). Control of competitive plants within revegetation areas as detailed in Section 6.11.	Control of competitive plants within revegetation areas until maintenance phase (detailed in Section 6.11) is complete i.e. 90% of canopy and shrub species have survived 12 months after planting including replanting of lost species.
Monitoring and reporting	Monitoring and documentation of weed species, occurrence and densities a per Section 7.1.	Monitoring and documentation of weed species, occurrence and densities as per Section 7.1.	Monitoring and reporting undertaken.

The general procedure for controlling weeds involves:

- Monitoring to identify locations and densities of priority weeds;
- Identification of suitable control measures;
- Implementation of the selected control measure by a suitable qualified person; and
- Follow-up inspections to evaluate effectiveness of weed control.

Weed spraying activities are generally undertaken between the months of September and April each year. Physical management measures such as mechanical removal, slashing and/or back-burning can be undertaken at other times of the year as required.

In August 2013, Greening Australia conducted a weed assessment of the Biodiversity Offset Area to guide weed control priorities and actions. The assessment, presented as a mapping survey, identified and ranked weed infestations within each Vegetation Management Unit (**VMU**) based on species importance and infestation size. This information supports strategic weed control, helps contractors locate infestations, and aids ongoing monitoring of weed spread and control effectiveness

Two contractors are engaged at the DCM to undertake weed management activities on an ongoing basis. Follow-up weed treatment of all remnant enhancement and regrowth management VMUs continued from September 2024 through to April 2025 when weather permitted. Weed control will recommence in Spring 2024. The key species targeted include blackberry, lantana, privet, wild tobacco and giant parramatta grass.

Weeds monitoring to evaluate the effectiveness of control measures is undertaken in conjunction with the annual vegetation monitoring and is documented in the *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025* (**Appendix F**).

The 2025 monitoring report indicates that the above average rainfall over the 2020 – 2025 period has benefitted weed species. The walkover survey recorded primarily woody weed species including blackberry, lantana, small leaved privet, wild tobacco, while to a lesser extent, ‘softer’ weeds such as moth vine were also observed. The largest thickets of blackberries were observed in VMUs AH and U. Lantana densities were highest in VMU P which is located in the heavily wooded Buckleys Range which can act as a source of weeds. A recommendation to expand weed control efforts was made, recognising that weed control will always be a requirement until the Offsets are surrendered.

6 FERAL ANIMAL CONTROL AND MONITORING

Feral animal control is undertaken in accordance with the BMP Section 5.10 and Section 6.5. The objective of feral animal control program is to manage feral animals to minimise their impact on native flora and fauna in the Biodiversity Offset Areas or the impact on agricultural production in other surrounding areas.

Table 3: Feral Animal Management Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Feral animal control program	Initial study undertaken.	Feral animal control as required.	Feral animal numbers within offset areas minimised as evidenced through monitoring data.
Monitoring and reporting	Monitoring and documentation of feral animal species undertaken.	Monitoring undertaken.	-

AMBS was commissioned to undertake the initial invasive animal survey, in accordance with Section 5.10 of the BMP in 2013. The objective of the study was to determine the range of invasive animals that occur or are likely to occur within the DCM and Biodiversity Offset Areas and provide recommendations for invasive animal control.

MDP Vertebrate Pest Management has been engaged by DCPL since 2016 to implement feral animal control programs across property owned by DCPL including both the Stratford and Duralie Mining Leases and the Stratford and Duralie Biodiversity Offset Areas. During the reporting period no feral animal control programs were implemented at Duralie. Wild dog and fox control was last undertaken between **August 2023** to **September 2023**. The program involved a combination of trapping and shooting. The programs were productive with a total of three wild dogs, two feral cats and two foxes trapped and shot over the control programs.

During the control programs no non-target species were trapped. Soft jaw wild dog traps were used to trap targeted pest animals. Trail camera monitoring was used to find and locate wild dog and fox signs in the program area for trap placement. The wild dog and fox numbers were moderate in the previous controlled areas of the Stratford/Duralie Mining Lease and Biodiversity Areas which demonstrates the control programs are being successful in having an impact and lowering the numbers and presence of wild dogs and foxes within that area. The program is showing positive results of reducing the impacts of wild dogs and foxes within the area to the native animals and reducing the impact of livestock attacks to the surrounding agricultural properties.

Plate 3 – Wild Dog

Plate 4 – Wild Dog

In accordance with the BMP a feral animal monitoring survey was undertaken by AMBS Ecology & Heritage between August and September 2023 to monitor the success of control programs and determine priorities for ongoing control measures. The feral animal survey covered the Duralie Mining Lease and Duralie Biodiversity Offset Area.

An extracted summary of the survey results from the *Feral Animal Study of the Duralie Coal Mining Lease and Offset Areas, Gloucester Valley 2023* is provided below. The full report is provided in **Appendix E**.

> *A total of 16 feral species have been recorded in the study area in the past or during recent surveys or are considered to have the potential to occur. Twelve of these species were either not recorded or were recorded in very low numbers during the current surveys and are of little concern at the current time.*
>
> *In summary:*
>
> - *Foxes and Feral Cats may represent a threat to biodiversity within the study area, and both the Fox and Feral Cat are considered Priority Pest Animals under the Hunter Regional Strategic Pest Animal Management Plan 2018- 2022 (HRSPAMP);*
> - *Wild Dogs are present in the study area, and while they may or may not be a threat to biodiversity, are currently considered a Priority Pest animal in the HRSPAMP. Wild dog control in the study area should only focus on reducing negative impacts to stock and landholders, to ensure a balance is struck between the control of Wild Dogs and conservation of Dingoes;*
> - *The European Rabbit is present at low densities, but its abundance can increase rapidly, particularly if Dog, Fox and Cat numbers decrease, and it is also considered a Priority Pest Animal in the HRSPAMP; and*
> - *The abundances of Foxes, Feral Cats, Wild Dog and the European Rabbit within the study area are likely to be inter-related.*

A feral animal survey of the Duralie Mining Lease and Duralie Biodiversity Offset Area is scheduled to be undertaken in August 2025. Feral animal monitoring will guide the ongoing management efforts for controlling feral animals.

7 CONTROLLING ACCESS AND MANAGING GRAZING

Controlling access and managing grazing is undertaken in accordance with the BMP Section 5.11, 6.6 and 6.7.

Table 4: Managing Grazing and Agriculture Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Managing grazing and agriculture	Livestock excluded from the Offset through installation of gates and fencing illustrated in Figure 9 (Section 6.7).		Livestock excluded from the offset.
Monitoring and maintenance of fencing and gate infrastructure	Monitoring of gates and fencing to exclude livestock. Where required, maintenance undertaken and documented (Section 7.1).	Monitoring of gates and fencing to exclude livestock. Where required, maintenance undertaken and documented (Section 7.1).	Gates and fencing monitored and maintained.

Table 5: Controlling Access Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	CC
Operational Review to facilitate site access for offset management activities including installation, inspection and bushfire management	Operational Review developed. Review includes road, fire trail and culvert construction and requirements for fencing and revegetation cultivation/site preparation[2]. Maintenance activities, particularly track maintenance and slashing have been considered (Section 6.7, plus related Sections 6.9 and 6.5).		Operational Review undertaken and outcomes implemented.
Community and stakeholder engagement	Assessment of surrounding landholders and the local community to evaluate opportunities for participation in implementation of this Biodiversity Management Plan undertaken. Local council consultation has commenced regarding placement of signage on the Johnson's Creek Road bisect area of the Offset (see Figure 9 for location) (Section 6.7). Signage has been installed on the Johnson's Creek Road bisect area of the Offset to alert drivers of potential fauna on the roads.		Opportunities for landholder and community participation in the BMP identified. Local council consulting regarding signage. Signage installed on Johnsons Creek Road.
Infrastructure including access tracks, fencing, fire trails and culverts	Access tracks, fire trails, firebreaks, fencing and culverts have been completed as per Figure 9 and the Operational Review[2] (Section 6.7).		Access related infrastructure identified in the Operational Review and completed.
Monitoring and maintenance of infrastructure including tracks, fire trails, signs, culverts and fences.	Monitoring and maintenance of all access tracks and fire trails has been undertaken[2] (Sections 6.7, 6.9 and 7.1).	Monitoring and maintenance of all access tracks, fire trails and warning signs has been undertaken[2] (Sections 6.7, 6.9 and 7.1).	Regular monitoring and maintenance program for roads, tracks, fire trails, signs, fences and culverts.

The implementation of the BMP management measures commenced in 2013. The BMP requires works to be undertaken to exclude livestock and control access to the Biodiversity Offset Areas.

Installation works to control access and manage grazing in the Biodiversity Offset Areas was completed in 2014. During the reporting period contractors were engaged to undertake maintenance activities on access tracks, culverts, gates and fences. The works included slashing of tracks, firebreaks and repairs to damaged gates and culverts. Additional signage was also installed on the key access points to the Biodiversity Offset Areas. Fencing repairs were completed following the March 2022 flood event.

The *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025* (**Appendix F**) found fencing on external boundaries was in good condition. There were no signs of livestock at the time of the survey.
Livestock continue to be excluded from the Biodiversity Offset Areas with the exception of 'crash grazing' programs in preparation for revegetation activities following a field assessment by a qualified consultant.

Roadside Flora and Fauna signage has been installed in accordance with advice from Mid Coast Council (MCC) (previously Great Lakes Council (GLC)) and with regard to Australian Standard AS1742.2. Further correspondence was held with GLC Ecologist in 2015 regarding future requirements for traffic controls within the Biodiversity Offset Areas.

Plate 5 – Biodiversity Offset fencing and signage

8 BUSHFIRE MANAGEMENT

Bushfire management is undertaken in accordance with the BMP Section 5.12 and Section 6.9. The objective of bushfire management in the Biodiversity Areas is to prevent impacts from unplanned bushfire and to use fire to promote biodiversity.

Table 6: Bushfire Management Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Operational Review to facilitate site access for offset management activities including installation, inspection and bushfire management.	Operational Review completed[2]. Areas addressed within the review include road, fire trail and culvert construction along with maintenance activities, particularly track slashing (Sections 5.12 and 6.7).		
Fire excluded from the offset for initial 3 years.	Fire excluded from offset prior to 2015 (Section 6.9).		Fire excluded from offset prior to 2015.
Bushfire management activities through hazard reduction actions installation and maintenance of relevant access infrastructure.	Access tracks, fire trails, firebreaks, fencing and culverts have been completed as per Figure 9 and the Operational Review 2 (Sections 6.7 and 6.9Fire management activities have been undertaken as required, including yearly access trail inspection, maintenance and repair of inaccessible tracks within one month of identification2, hazard reduction burning (Sections 5.12, 6.7 and 6.9).	Fire management activities have been undertaken as required, including yearly access trail inspection, maintenance and repair of inaccessible tracks within one month of identification2, hazard reduction burning (Sections 5.12, 6.7 and 6.9).	Regular bushfire management measures in place.
Monitoring and maintenance	Fuel loads monitored and documented (Sections 6.9 and 7.1). Identified issues incorporated into future management planning	Fuel loads monitored and documented (Sections 6.9 and 7.1). Identified issues incorporated into future management planning.	Fuel loads monitored and maintained. Risks identified and managed as part of part of hazard reduction actions.

Where possible, fire was excluded from the Biodiversity Offset Areas during the first three years (up to 2015) to assist with native regeneration. To assist with bushfire management, access tracks and firebreaks have been constructed and maintained as shown in the BMP Figure 9.

Hazard reduction burning has been undertaken in consultation with the NSW Rural Fire Service (RFS). Continued discussions have been held with the RFS to conduct fire management activities and any such activities will be assessed and implemented to ensure the most appropriate period for ecological burn activities whilst also giving due consideration to personnel and asset safety. Following the revegetation works, the aim is to exclude fire from the Biodiversity Offset Areas for at least five years to allow for tube-stock and seedlings to establish.

Monitoring of fuel loads to evaluate bushfire risk and guide bushfire hazard reduction activities is undertaken in conjunction with the annual vegetation monitoring. Further detail is included in Section 10 and **Appendix F**. Bushfire risk will continue to be mitigated through the maintenance of access tracks and fire breaks.

The 2025 and previous annual reports noted that VMUs that have been subjected to multiple disturbances such as ground preparation associated with revegetation and/or bushfire (Buckleys Range Fire) have LFA scores equivalent to, or exceeding their 2013 baseline score, indicating these VMUs have recovered from the past disturbance.

9 REVEGETATION MANAGEMENT

9.1 Seed Collection and Propagation

Seed collection and propagation is undertaken in accordance with the BMP Section 5.7 and 6.10.

Table 7: Seed Collection and Tube-stock Supply Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	CC
Collecting and propagating seed	Seed collection (of required species as specified in Section 6.10 and Appendix D) has commenced during vegetation clearance or an alternate seed source has been obtained. (Sections 5.7 and 6.10). Seed collection from cleared vegetation finalised (Section 5.7). Seed collection to obtain required quantities and species for future revegetation continued (Section 6.10, Appendix D).		Seed collection necessary to obtain required quantities and species for future revegetation completed.
Plant propagation/ tube-stock supply	Propagation of species required for revegetation work in Offsets commenced. Species and quantity as per guidelines in Section 5.7, 6.10 and Appendix D or adjusted based on additional literature/field trial results.	Propagation of species required for revegetation/supplementary infill planting work in Offsets undertaken as per guidelines in Sections 5.7 and 6.10 and Appendix D.	Plant propagation necessary to obtain quantities and species required for revegetation completed.

Revegetation in the BMP Revegetation Areas has occurred via seed and tube-stock. Local endemic species are preferentially used where a seed supply is available, however consideration will be given to the use of a high quality seed sourced further from the site as required.

Where possible, seed required for revegetation activities has been collected from within the Biodiversity Offset Area and surrounds. Specific tree and shrub species which have not been available for collection have been sourced through external third-party suppliers. Further seed collection may be undertaken if found necessary to meet the completion criteria of the BMP offset revegetation and mine site rehabilitation.

Kleinfelder, along with several nurseries have been engaged to assist in the propagation of native plant species with tube-stock grown under controlled nursery conditions and delivered to site as required for revegetation works.

9.2 Revegetation and Regeneration

Revegetation management is undertaken in accordance with the BMP Section 6.11 and 6.12. The aim of revegetation is to establish a range of habitat niches including native canopy, and understorey, with the goal of achieving self-sustaining vegetation communities as well as increasing the resilience to identified risks such as fire, herbivory and future weed invasion. The Revegetation Areas in the Biodiversity Areas will be revegetated to substantially increase the area of native vegetation and maximise habitat diversity and a range of successional stages.

Table 8: Revegetation Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
Operational Review	Operational review including access, tracks and cultivation requirements for implementing revegetation completed (Section 6.7).		Operational Review completed and implemented.
Implementing Revegetation - Weed management and maintenance	Pre-cultivation spraying in all installation VMUs including control of exotic Sporobolus and fireweed undertaken (Sections 6.5 and 6.11). Pre-plant weed treatment in all installation VMUs as per Figure 7 undertaken as required (Sections 6.5 and 6.11). Control of competitive plants within revegetation areas as detailed in Section 6.11. Maintenance including watering and herbivory controls, undertaken as required (Section 6.11).	Pre-plant weed treatment in all installation VMUs as per Figure 7 undertaken as required (Sections 6.5 and 6.11). Control of competitive plants within revegetation areas as detailed in Section 6.11. Maintenance including watering and herbivory controls, undertaken as required (Section 6.11).	Pre-planting weed control undertaken, including control of threatening weeds Sporobolus and Fireweed. Competitive plants controlled during revegetation establishment.
Implementing revegetation	Initial cultivation of all proposed trial installation VMUs commenced (Vegetation Management Units I, S, U and AB.) according to guidelines in Section 6.11. Trial revegetation for VMUs I, S, U and AB completed. Plant palettes adjusted where field trails or research demonstrate alternative species/density (Section 6.10). Propagation of species required for revegetation work in Offsets commenced. Species and quantity as per guidelines in Sections 5.7 and 6.10 and Appendix D.	Revegetation planting finalised. All plants prescribed in Appendix D have been installed. (Section 6.11). Based on learnings from the revegetation trials, planting of tube-stock/direct seeding in installation VMUs according to species palette and quantity guidelines in Appendix D and Section 6.1 has been completed	Species type and quantities planted according to threshold guidelines in the species palette or as guided by on site trials. 90% survival of canopy and shrub-layer plants 12 months after installation, including replacement of lost plants to above threshold levels. Revegetation areas have met Assessment Criteria and Completion criteria described in Table 24, Section 8 (e.g. 90% of all initial canopy species rates are present within VMUs).
Monitoring and reporting	Monitoring and reporting of trial revegetation results, changes to plant palette, plant health, establishment success and maintenance activities. (Section 7.1).	Monitoring and reporting of trial revegetation results, changes to plant palette, plant health, establishment success and maintenance activities. (Section 7.1).	Annual Monitoring and reporting completed.

Revegetation Planning, Trials and Schedule

Pre-cultivation weed spraying was undertaken in Summer to Autumn 2016 in preparation for the trial revegetation works. Initial revegetation works for VMUs I, S and U commenced in Autumn of 2016. Preparation works were completed including seed collection, inoculation, growing of tube-stock and ground preparations including weed spraying. The trial revegetation program included methods involving both tube-stocking, and direct seeding. Ground preparation was site-specific and included weed spraying, crash grazing and back burning as required.

Revegetation works in VMUs AF, AE, AA and Z were undertaken during **December 2016** and included ground preparation and direct seeding of approximately 80 hectares. Due to the inability to undertake controlled burning, slashing was undertaken as an alternative option prior to direct and broadcast seeding.

Plate 6 - Loading seed for revegetation works.

Plate 7 - Spreading native tree and shrub seed.

Revegetation Implementation

Tube-stock was propagated during Summer 2016/2017 in preparation for Autumn planting in 2017. VMUs Y, AD and S, (approximately 40 hectares), located on alluvial flats near Mammy Johnsons River were prepared for planting by slashing, spraying for weeds and ripping. This was followed by the planting of approximately 7,200 tube-stock in April 2017. The results of the 2017 revegetation activities are reported in the DCM Biodiversity Offsets Revegetation Program Report Spring 2016 - Autumn 2017.

Following the hazard reduction burning in August 2017, revegetation works in VMUs Z, AB and AC were undertaken. In September 2017, direct seeding of approximately 52 hectares was completed, followed by harrowing.

Tube-stock planting of VMUs F, V, W and X was proposed for Autumn 2018 including approximately 16,000 plants over 61 hectares. The native tree seed was propagated over the Summer of 2017/2018 by Cumberland Plain Seeds. However, due to the slower than expected establishment of the tube-stock, planting was postponed during winter and completed in **September 2018**. The results of the 2018 revegetation activities are reported in the *DCM Biodiversity Offsets Results of Spring 2018 Planting Report*.

Plate 8: Tube-stock being prepared for the biodiversity offset

Plate 9: Planted tube-stock

Plate 10: *Tube-stock planted in September 2018*

Plate 11: *Tube-stock planted in September 2018*

During Spring 2019 tube-stock was propagated in preparation for further revegetation works in Autumn 2020 to reach the required woodland density and species diversity in VMUs F, V, W, X, AA and AH. The results of the 2020 revegetation activities are reported in the *DCM Biodiversity Offsets Planting Program Report Autumn 2020*.

During Spring 2020 tube-stock was propagated in preparation for further revegetation works in Autumn 2021 to reach the required woodland density and species diversity in VMUs AB, AC, AE, AF, Z, U and S.

The 2021 Duralie Offsets Planting Program revegetated, or in-fill planted into seven VMUs. The 2021 planting campaign successfully installed 24, 718 plants over 112 ha of the Offsets areas. This included the large sections of Grey Box – Forest Red Gum – Grey Ironbark Open Forest in VMUs AB, AE, AF and Z, 89 ha of the total. These areas had been unsuccessfully seeded previously, potentially due to drought conditions. The installation of the tube-stock and hikos ensures that revegetation of the three strata has begun.

The 2022 Duralie offset infill planting areas proposed in VMU Y and AD did not go ahead due to high rainfall totals throughout the year.

The 2024 Duralie Offsets Planting Program focused on infill planting within ten VMUs across five vegetation communities. Although increased rainfall in April and May restricted access to several VMUs, the program successfully planted 7,632 tube-stock across eight VMUs in three vegetation communities.

The proposed autumn 2025 program was postponed due to the high rainfall totals recorded during the first half of the year and has been rescheduled for spring 2025.

The 2026 infill planting program is being finalised and will focus on areas across the Duralie Offsets which require further infill planting or that could not be previously accessed.

Monitoring

Following the initial revegetation works in 2015, annual vegetation monitoring (including LFA and vegetation dynamics) was undertaken in **January 2017** and continues to be undertaken annually. Vegetation monitoring was undertaken again between **March and April 2025**. The results from the biodiversity offset monitoring are shown in Section 10. Results from the annual monitoring will be used to measure revegetation against the performance criteria and completion criteria and to determine future works requirements and maintenance activities.

10 BIODIVERSITY OFFSET MONITORING AND REPORTING

The Biodiversity Offset monitoring and reporting program is prescribed in the BMP Section 7. The program aims to monitor and report on the effectiveness of the BMP management measures and progress against the detailed performance and completion criteria.

Table 9: Monitoring and Reporting Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	CC
Monitoring and reporting	Monitoring and reporting has been undertaken[3] as per requirements in Sections 7.1 and 7.2. Independent Environmental Audit has been supplied to the NSW Secretary of the DP&E for review.	Monitoring and reporting has been undertaken[3] as per requirements in Sections 7.1 and 7.2.	Monitoring requirements completed when all completion criteria are achieved in accordance with Section 8 (e.g. 357.5 ha of revegetated woodland/open woodland habitat areas and 36 ha of revegetated forest habitat areas are a self-sustaining ecosystem).

As described in the Section 7 of the BMP an annual report reviewing DCPL's environmental performance and progress against the requirements of the BMP including monitoring and reporting is prepared annually and appended to the *Duralie Coal Mine Annual Review*. The Annual Biodiversity Report, reports on monitoring for:

- Effectiveness of revegetation in the offset area;
- Usage of the offset areas by fauna;
- Effectiveness of weed control;
- Effectiveness of feral animal control; and
- Nest box monitoring program.

10.1 Habitat and Vegetation Condition Monitoring

Habitat and vegetation condition monitoring is undertaken to quantitatively measure the change in habitat and vegetation condition over time. The visual monitoring and photo monitoring programs are undertaken concurrently with the vegetation monitoring to provide additional information on the change of the Biodiversity Offset Areas over time and inform maintenance requirements.

To monitor the effectiveness of revegetation in the Biodiversity Offset Areas, Greening Australia was commissioned to undertake the baseline monitoring of LFA and vegetation structure within the Biodiversity Offset areas in **February 2013**. The baseline monitoring provides information to track the progression towards meeting the completion criteria of the BMP.

The annual vegetation and landscape function monitoring continues to be undertaken and was repeated in **February 2024.** The results are provided in the *Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring Report 2025* prepared by Kleinfelder (**Appendix F**). An extracted summary is reproduced below. The next round of monitoring is scheduled for 2026.

> *In accordance with Section 7 of the Duralie Coal Mine – Biodiversity Management Plan, monitoring and assessment of the effectiveness of the Offset Area revegetation is required. This assessment will be conducted using the stipulated methodologies which are both components of Ecosystem Functional Analysis (EFA) which include Landscape Functional Analysis (LFA) and Vegetation Dynamics to measure the progression of the rehabilitation towards a self-sustaining ecosystem, floristic surveys and walkover surveys to assess the effectiveness of the revegetation efforts and weed control. The Offsets Area have been divided into Vegetation Management Units (VMUs) ease of management and based upon vegetation community. There were 33 VMUs established across the Offsets Area. A subset of VMU transects, which were established in the 2013 baseline survey, were selected.*
> *Overall, the revegetation of the Duralie Coal Mine offsets areas is progressing well with the results of the LFA monitoring improving and exceeding the 2013 VC comparison indices in the majority of the VMUs.*
>
> - *This year's monitoring of the biophysical processes measured by the LFA indices has shown that the VMUs have largely achieved targets and any variation that has been recorded is almost entirely due to seasonal factors, such as high rainfall and the subsequent stimulation of vegetation growth.*
> - *The older areas of revegetation – VMUs AD, Y, S and U - have individual trees measured at 10 m in height with many individual trees bearing fruit. To date only VMU S can confidently be said to have second generation seedlings, but with so many trees bearing fruit, other VMUs will also have second generation seedlings when conditions are favourable.*
> - *The combination of good survival and excellent natural recruitment was stimulated by the above average rainfall experienced over the previous three years.*

10.2 Fauna Monitoring

Monitoring of fauna usage within the Biodiversity Areas is conducted every three years to document the fauna species response to improvement in vegetation and habitat in the Biodiversity Areas and assess the performance in providing habitat for a range of vertebrate fauna. The surveys include an assessment of habitat complexity, species richness and abundance.

AMBS was engaged to undertake fauna monitoring within the Biodiversity Offset Areas and native mine rehabilitation areas during Spring 2024. The results are provided in the *DCM Fauna Surveys of the Offset and Mine Rehabilitation Areas, December 2024* (**Appendix G**). The previous fauna monitoring within the Biodiversity Offset Areas and native mine rehabilitation areas was undertaken in 2021 and the next round of fauna monitoring is scheduled for spring 2027. An extracted summary of the 2024 report is provided below.

"Targeted fauna surveys were undertaken at five sites within the Duralie Offset Area and two sites in the Duralie Mine Rehabilitation Area between October and December 2024. At most sites survey techniques included pitfall traps, funnel traps, Elliott A traps, harp traps, ultrasonic call recording, spotlighting, diurnal bird surveys and reptile searches. Opportunistic observations of signs of fauna were noted throughout the field survey period, including during transit between surveys sites".
"A total of 160 species of vertebrate were recorded, comprising 15 frogs, 13 reptiles, 97 birds and 35 mammals…, most of which were native. A similar number of frog, reptile, mammal and bird species were recorded at Mine Rehabilitation Area sites compared with Offset Area sites. Two introduced species were recorded during the surveys, including the Black Rat (Rattus rattus) and Red Fox (Vulpes vulpes)".

"Fourteen of the species detected are listed as threatened or migratory on the schedules of the Biodiversity Conservation Act 2016 (NSW) and/or the Environment Protection Biodiversity Conservation Act 1999 (Cth).

Plate 12: Koala (*Phascolarctos cinereus*)

Plate 13: Eastern Chestnut Mouse (*Pseudomys gracilicaudatus)*

11 MAMMY JOHNSONS RIVER STABILISATION

In accordance with Section 6.8 of the BMP a detailed design for the in-stream rehabilitation of a severely eroded section of Mammy Johnsons River (MJR) has been prepared by Alluvium (2013) (**Appendix H**). In 2023 Hydrobiology Consultants were engaged to provide a detailed review of the streambank stabilisation advice prepared by Alluvium in 2013 to inform further planning.

No works on the MJR bank stabilisation have commenced during the reporting period.

Table 10: MJR Bank Stabilisation Performance Criteria (PC) and Completion Criteria (CC)

Management Action	Completed Activities to June 2018	Annually from June 2018 onwards PC Maintenance Phase	Completion Criteria
River bank stabilisation design	Design for the in-stream rehabilitation of a severely eroded section of Mammy Johnsons River has been prepared. Office of Water engaged regarding plan approval[1] (Section 6.8).		Design of stabilisation plan completed and approved by the Office of Water
River bank in-stream rehabilitation		In-stream rehabilitation works undertaken[1] (Section 6.8).	Rehabilitation of severely eroded section of Mammy Johnsons River completed.

12 LONG TERM SECURITY AND CONSERVATION BOND

12.1 Long Term Security

In accordance with Condition 42, Schedule 3 of Project Approval 08_0203, DCPL is required to make suitable arrangements for the long-term security of the Duralie Extension Project Biodiversity Offset Area. DCPL used the mechanisms available under section 88E(3) of the NSW *Conveyancing Act 1919*, namely:

- Registration of a Positive Covenant under section 88E(3) of the NSW *Conveyancing Act 1919*; and
- Registration of a Restriction on the Use of Land by a Prescribed Authority under section 88E(3) of the NSW *Conveyancing Act 1919*.

Public Positive Covenants and Restrictions on the Use of Land for the Biodiversity Offsets have been registered on title with NSW Land and Property Information (LPI) in **May 2015**.

12.2 Conservation Bond

In accordance with Condition 44, Schedule 3 of Project Approval 08_0203, DCPL is required to lodge a Conservation Bond with the DP&E which covers the cost of implementing the Biodiversity Offset Strategy detailed in the BMP.

The conservation bond for the Biodiversity Offset areas was calculated by Greening Australia and verified by Rider Levett Bucknell in December 2013. The terms of the conservation bond in the form of a Bank Guarantee were approved by NSW Department of Planning & Environment (DP&E) on 12 December 2013. The Bank Guarantee has been subsequently provided to DP&E.

In December 2023, an Independent Environmental Audit of the DCM was undertaken in accordance with PA 08_0203. A revision of the BMP was approved in February 2023 in accordance with PA 08_0203 Schedule 5 Condition 4. Following this, a revision of the conservation bond will be prepared and lodged with DP&E in accordance with Schedule 3 Condition 45.

A revision of the Duralie Offset Conservation bond has commenced within the reporting period. The revised conservation bond will be lodged with DPIE in the next reporting period.

13 COMMONWEALTH EPBC APPROVAL COMPLIANCE REPORTS

In accordance with Condition 20 of the Commonwealth Approval [EPBC 2010/5396], during the reporting period DCPL submitted to the Department of Agriculture, Water and Environment (DAWE) the following compliance report:

- *Duralie Coal Extension Project Annual Compliance Report 2024-2025,* submitted on **12 April 2025** (Condition 20) (**Appendix I**).

Additionally, the following reports were submitted annually for the first five years following the commencement of the operation:

- *DCM Implementation of the Giant Barred Frog Management Plan Annual Reports (Condition 10);*
- *DCM Implementation of the Biodiversity Management Plan Annual Reports (Condition 14(i)).*

These reports are now required to be submitted every **fifth** (5) year before the anniversary of the commencement of the operations.

APPENDICES

Appendix A: DPE approval of the BMP

Appendix B: DCM Annual Review 2024 – Figure 4 Mining and Rehabilitation Areas

Appendix C: Pre-Clearance Surveys – Spoil Emplacement and Coal Shaft Creek Rework 2024

Appendix D: AMBS Ecology & Heritage - Nest Box Programme for the Duralie Offset Area, Annual Report for 2024

Appendix E: AMBS Ecology & Heritage - Feral Animal Study, Duralie Coal Mining Lease and Offset Areas 2023

Appendix F: Kleinfelder - Duralie Coal Mine Offsets Ecosystem Functional Analysis Monitoring 2025

Appendix G: AMBS Ecology & Heritage - DCM Fauna Surveys of the Offset and Mine Rehabilitation Areas 2022

Appendix H: Alluvium - Mammy Johnson's River – Bank Stabilisation Detailed Design 2013

Appendix I: Duralie Coal Extension Project Annual Compliance Report 2024-2025

(Appendices available on request)

APPENDIX 8:
IEA 2024 Response Table

DURALIECOAL
Part of the Yancoal Australia Group

Duralie Coal Mine - Independent Environmental Audit 2023
Response to Recommendations

Table 1: IEA 2023 Audit Findings - Non Compliances					
Condition Number (ID)	**Compliance Requirement**	**Independent Audit Finding**	**Independent Audit Recommendation**	**Stratford Coal Proposed Action/Action Taken/Response**	**Proposed Action Due Date**
Project Approval 08_0203					
Schedule 2, Condition 8	**The Proponent shall:** **(a) only dispatch shuttle trains from the site between 6am and 10pm;** **(b) only receive shuttle trains on site between 6am and midnight; and** **c) only operate shuttle trains on the North Coast railway between midnight and 1am in exceptional circumstances**	**A shuttle train was dispatched from Duralie at 5:55 am on Wednesday 27 October 2021 which is outside the approved hours (between 6am and 10pm).** **Reported to the EPA and DPE on 29 October 2021.** **No further actions are required.**	No further action required	Reported in accordance with PA08_0203 and PIRMP. No further action required	
Schedule 3, Condition 7	**(c) include a noise monitoring program that:** **•Uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project;** **•Includes a program to evaluate the effectiveness of the noise mitigation measures referred to in 7(b) above;** **•Includes a protocol for determining exceedances of the relevant conditions of this approval; and** **•Includes a program to monitor the actual sound power levels of the plant on site, compare it with the benchmark levels used in the EA, and evaluate the effectiveness of any attenuation.**	**Annual mobile plant sound power monitoring was not undertaken at Duralie during the 2021 reporting period. This was due to the reduced fleet, reduced operating periods and no evening or night-time operations.** **No adverse effects were anticipated resulting from the noncompliance and no noise complaints were received. Sound power monitoring was conducted in September 2021. The NMP has been revised to reflect monitoring requirements during periods of reduced operations. The NMP was revised in October 2021.** **No further actions are required.**	No further action required	DCPL notes that the sound power testing did not occur through the 2021 EPL annual return period but was completed within the 2021 Calender year. Sound Power level testing successfully occurred in the 2022 and 2023 EPL annual return periods. Action: Ensure sound power level testing occurs annually within the EPL annual return period.	Annually reoccurring.
Schedule 3, Condition 19	**The Proponent shall ensure that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 5, 6 or 7 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.**	**Cracked sample bottle at EPL Point 32 causing failure to monitor (Depositional Dust Gauge 8) which resulted in less than required depositional dust monitoring. Table 6.5 in the AR shows a "no result" reading for gauge D8 in April 2022.** **Dust monitor has been effective after this date.** **No further actions are required.**	No further action required	Cracked sample bottle due to wind damage or similar impact insitu. DCPL notes that there has been no further missed samples from Depositional Dust Gauge during the reporting period. No further action required	
Schedule 3, Condition 25	**The Proponent shall ensure that:** **(a) mine water or runoff from the irrigation area is not discharged directly into Mammy Johnsons River; and** **(b) all surface water discharges from the site comply with section 120 of the POEO Act or, if an EPL has been issued regulating water discharges from the site, the discharge limits (both volume and quality) set for the project in the EPL.**	**Uncontrolled discharge of mine related water (rehabilitated area runoff) on 21 March 2021 from sediment dam VC1 south of established rehab area (EPL Monitoring Point 27) reporting to Coal Shaft Creek as a result of significant rainfall event exceeding design capacity. Reported to the EPA on 26 March 2024 .1** **Pumping of sediment dam was undertaken and water samples were collected from monitoring sites upstream, downstream and at point of discharge and sent for analysis. It was concluded that no material harm resulted from the discharge.** **No further actions are required.**	No further action required	Reported in accordance with PA08_0203 and PIRMP. No further action required	
Schedule 3, Condition 25		**Two pH results outside of the 100 percentile concentration limit at point 36 on 28 February 2021 and point 27 on 21 March 2021. Marginal exceedance with downstream monitoring point 35 within 100 percentile concentration limits on all dates the results are outside the 100 percentile.** **No further actions are required.**	No further action required	Reported in accordance with PA08_0203 and WMP. No further action required	

Schedule 3, Condition 25		**Uncontrolled discharge of mine related water (rehabilitated area runoff) from sediment dam RS1 (EPL Point 15) near rail sighting on 4 March 2022. Reported to DPE and EPA on 4 March 2022. Pumping of sediment dam was undertaken and water samples were collected from monitoring sites upstream, downstream and at point of discharge and sent for analysis. It was concluded that no material harm resulted from the discharge. No further actions are required.**	No further action required	Reported in accordance with PA08_0203 and PIRMP. No further action required	
Schedule 3, Condition 25		**Two pH results (Point 36 - North Drain) during the audit period were marginally outside the pH criteria. Recorded pH value of 6.05 (below the range of 6.5 - 8.5). This is negligible in the context of the monitoring undertaken and was not determined to be related to operational impacts. No further directives were received from regulators. No further actions are required.**	No further action required	Reported in accordance with PA08_0203 and PIRMP. No further action required	
Schedule 3, Condition 45	**After each Independent Environment Audit (see Condition 8 of Schedule 5), the Proponent shall review and adjust the sum of the bond to the satisfaction of the Secretary.**	**The bond is required to be reviewed after each Independent Environmental Audit. The review of the bond has commenced but has not been completed in the audit period. At the time of the site inspection, a third revision was being undertaken. Provide evidence for 2nd and third revisions and status please – or confirm wrapped in with Stratford. Recommend bond provided to DPE asap for approval and ensure undertaken in next audit**	Recommend bond provided to DPE asap for approval and ensure undertaken in next audit period.	Biodiversity Offset Conservation bond is currently under review and is expected to be submitted H1 2024. Bond total security is expected to be reduced by 60%. Action: Complete Biodiversity Conservation Bond Review for DCM and submit to DPHI	26-Jun-26
EPL 11701					
M2.3	**Water and/ or Land Monitoring Requirements**	**Less than required monitoring undertaken as per EPL 11701 - M2.3 Water and or Land Monitoring Requirements – Point 4. A sample is required once a month (min. of 4 weeks) and was not sampled on 31 January 2023, 27 April 2023, 31 May 2023, 29 June 2023, 31 July 2023 and 28 August 2023. Access to Point 4 (Weismantel Open Cut Pit) on these dates was not achieved due to progressive backfilling within the pit footprint. As water is contained in the pit no adverse effects resulted from the non-compliance. DCM investigated alternative methods to complete monitoring at unsafe locations. WMP to be updated to include finalised methods.**	WMP to be updated to include finalised methods.	DCPL notes that no safe access was available to complete pit water samples at Weismantel Open Cut Pit due to backfilling within the pit footprint. DCPL investigated alternate methods for sampling including drone and pit pump line sampling however were not deemed viable at the time of investigation. DCM WMP does not currently require the suggested update. Following completion of backfilling works access to this Weismantel Pit has been reinstated to allow pit water sampling. Action: DCPL to review if water monitoring within the Weismantle Pit is likely to be impacted, alternate sampling methods must be updated within the DCM WMP	27-Feb-25
Mining Lease 1646					

Condition 3	**a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General.** **(b) The MOP must:** **(i) identify areas that will be disturbed by mining operations;** **(ii) detail the staging of specific mining operations;** **(iii) identify how the mine will be managed to allow mine closure;** **(iv) identify how mining operations will be carried out in order to prevent and or minimise harm to the environment;** **(v) reflect the conditions of approval under:** **•the Environmental Planning and Assessment Act 1979** **•the Protection of the Environment Operations Act 1997** **•and any other approvals relevant to the development including the conditions of this lease; and** **•have regard to any relevant guidelines adopted by the Director-General.** **The lease holder may apply to the Minister to amend an approved MOP at any time. It is not a breach of this condition if: the operations constituting the breach were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Work Health and Safety (Mines and Petroleum Sites) Act 2013 and Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 or the Work Health and Safety Act 2011; and Work Health and Safety Regulation 2011 (ii) the Director General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.** **c) A MOP ceases to have effect 7 years after date of approval or other**	**Alleged failures to conduct mining operations in compliance with the DCM Mining Operations Plan (MOP). Specifically, the commitments set out in Table 13 in Section 8 of the MOP were not completed in the required timeframe.** **Official Caution Notice issued by Resources Regulator on 20 August 2021 and Section 240 notice issued on 31 August 2021. Section 240 requests were completed.**	No further action required	An Official Caution Notice was issued by Resources Regulator on 20 August 2021 regarding alleged failures to conduct mining operations at the Duralie Coal Mine (DCM) in compliance with the DCM Mining Operations Plan (MOP). Specifically, the commitments set out in Table 13 in Section 8 of the MOP were not completed in the required timeframe. Following on from this a Section 240 Notice was issued by the Resources Regulator on 31 August 2021. The Mining Act Section 240 Notice gives directives for mine closure planning and also relates to the recent Landform Establishment TAP. Mine closure planning directives were established for the audit period and were complied with by DCPL. No further action required	

Table 2: IEA 2023 Audit Findings - Recommendations

Condition Number (ID)	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Stratford Coal Proposed Action/Action Taken/Response	Proposed Action Due Date
Project Approval 08_0203					
Schedule 3, Condition 7	**The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:** **(a) be prepared in consultation with EPA, and submitted to the Secretary for approval within 3 months of the date of this approval, unless otherwise agreed by the Secretary;**	**Consider whether variation to EPL is required for revised noise monitoring requirements.**	**Consider whether variation to EPL is required for revised noise monitoring requirements.**	DCPL accepts this recommendation Action: Consider whether variation to EPL is required for revised noise monitoring requirements.	Investigation underway.
Schedule 3, Condition 29	**The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with EPA and NOW by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary within 3 months of the date of this approval.** **In addition to the standard requirements for management plans (see Condition 2 of Schedule 5), this plan must include:** **(a) a Site Water Balance that:** **•includes details of:** **-sources of water supply;** **-water use on site;** **-water management on site; and** **-reporting procedures; and** **•describes what measures would be implemented to minimise potable water use on site; and**	**The presence of monitoring aligns with operations and currently going through the process of ceasing monitoring**	**All plans will be updated for detailed closure planning in the next audit period.**	DCPL accepts this recommendation Action: Complete environment management plan revision and update following the completion of Detailed Mine Closure Plan	27-Feb-25
Schedule 3, Condition 29	**b) a Surface Water Management Plan that includes:** **•a detailed description of the water management system on site, including the:**	**Three dams on site have declared status with Dam Safety NSW (DSNSW), application to de-declare AD1 is with with Dams Safety NSW.AD2 will be removed from the declared dams register following removal of the dam structure.**	**Ensure completion of removal of declared dam status for rehabilitated declared dam, AD2.**	DCPL notes that de-declaration of AD1 is currently with Dam Safety NSW for approval. Application to de-declare AD2 will commence directly following decommissioning of the dam wall structure. Action: Apply to de-declare AD2 directly following decommissioning of the dam wall structure	Directly following Dam decommissioning

Schedule 3, Condition 57	**The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the Secretary of DTIRIS.** **This plan must:** **a) be prepared in consultation with the Department, OEH, NOW, Council and the CCC;** **b) be prepared in accordance with any relevant DRE guideline;** **(c) build, to the maximum extent practicable, on the other management plans required under this approval;** **c1) address all aspects of mine closure and rehabilitation, including post-mining land use domains, rehabilitation objectives, completion criteria and rehabilitation monitoring and management;** **(d) provide for scientific knowledge gained during the rehabilitation, to be made publicly available;** **(e) be submitted to the Secretary of DTIRIS for approval within 3 months of the date of this approval, unless otherwise agreed by the Secretary.**	**Yancoal advised that there is no new knowledge to be gained. Viewed Annual Rehabilitation Report and Forward Program dated July 2022 which states that "amendments to the monitoring programs during the post-closure phase, following identification of any rehabilitation performance issues or knowledge gaps in the Annual Rehabilitation Report, will be reflected in the relevant environmental management plan revisions as well as future iterations of the ARRFP". Recommend RMP updated at next update to include this statement to address condition.**	**Recommend RMP is updated at next update to include a statement regarding scientific knowledge to make clear scientific knowledge will be made public if gained.**	DCPL accepts this recommendation Action: At next revision of DCM RMP, include a statement regarding scientific knowledge to make clear scientific knowledge will be made public if gained.	27-Feb-25
Schedule 3, Condition 57			**Update RMP to specifically if new scientific knowledge is gained during rehabilitation monitoring programs to be made publicly available and include information at public location (e.g. website)**	DCPL accepts this recommendation Action: Update RMP to specify if new scientific knowledge is gained during rehabilitation monitoring programs to be made publicly available and include information at public location (e.g. website)	Directly following new knowledge gained
Schedule 5, Condition 9A	**By the end of December 2013, and with every Independent Environmental Audit thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of a Rail Haulage Audit of the project. This audit must:** **(a) be conducted by a suitably qualified, experienced and independent experts whose appointment has been endorsed by the Secretary;** **(b) review the existing rail haulage operations and determine whether all reasonable and feasible measures are being implemented to minimise the:** **• noise and dust impacts of these operations;** **• use of the shuttle train during the approved night-time hours;** **• dispatch of trains from the site between 9.25pm and 1am the following day; and** **(c) recommend appropriate measures or actions to improve the efficiency of these rail haulage operations and minimize their associated impacts; and** **(d) evaluate the use of the exceptional circumstances provision in condition 8 of schedule 2, and the associated reporting on any use of this provision on the Proponent's website (see condition 8A in schedule 2).** **Within 6 weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report**	**Seek confirmation from DPE that the Rail Haulage Audit can be excluded from future audits as rail haulage complete**	**Seek confirmation from DPE that the Rail Haulage Audit can be excluded from future audits as rail haulage complete**	DCPL accepts this recommendation. Action: Seek confirmation from DPE that the Rail Haulage Audit can be excluded from future audits as rail haulage complete	27-Feb-25
EPL 11701					
A1.1	**This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.**	**Consider whether a licence variation to reduce the scale of the activities is appropriate (currently includes coal works, extractive activities and mining for coal).**	**Consider whether a licence variation to reduce the scale of the activities is appropriate (currently includes coal works, extractive activities and mining for coal).**	DCPL Accepts this recommendation. Action: Consider whether a variation to EPL 11701 to reduce the scale of the activities is appropriate (currently includes coal works, extractive activities and mining for coal).	Complete. Deemed not appropriate.

L4.2	**To determine compliance:** **a) with the Leq(15 minute) noise limits in condition L4.1, the noise measurement equipment must be located:** **•approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or** **•within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable** **•within approximately 50 metres of the boundary of a National Park or a Nature Reserve.** **b) with the LA1(1 minute) noise limits in condition L4.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.** **c) with the noise limits in condition L4.1, the noise measurement equipment must be located:** **•at the most affected point at a location where there is no dwelling at the location; or** **•at the most affected point within an area at a location prescribed by conditions L4.2(a) or L4.2(b).**	**Noise monitoring was conducted guided by the requirements of the NMP and EPL11701. Operator-attended noise measurements were conducted during the day, evening and night-time periods for 15 minutes per period at each of the four nominated noise monitoring locations.**	**NMP should be updated at new review to include discussion for each monitoring location's relationship to the 30 m condition.**	DCPL Accepts this recommendation. Action: Update NMP at next review to include discussion for each monitoring location's relationship to the 30 m condition.	27-Feb-25
L4.7	**For the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used.**	**At next review of NMP that condition details are specifically described (i.e. for the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used).At next review of NMP that condition details are specifically described (i.e. for the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used).**	**At next review of NMP that condition details are specifically described (i.e. for the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used).**	DCPL Accepts this recommendation. Action: At next review of NMP that condition details are specifically described (i.e. for the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used).	27-Feb-25
P1.2	**The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.**	**Request this condition deleted in next variation as it has no content.** **The condition states "The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area" however does not contain a table of values.**	**Request this condition deleted in next variation as it has no content.** **The condition states "The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area" however does not contain a table of values.**	DCPL Accepts this recommendation. Action: Request EPL11701 Condition P1.2 is deleted in next variation as it has no content. The condition states "The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area" however does not contain a table of values.	27-Feb-25
P1.3	**The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.**	**At next variation, the figure dated '20 October 2017' should be updated to current version reference.**	**At next variation, the figure dated '20 October 2017' should be updated to current version reference.**	DCPL Accepts this recommendation. Action: At next variation, update the figure dated '20 October 2017' to reference current version	Complete.