


Annual Review

Vickery Coal Mine

Name of operation	Vickery Coal Mine
Name of operator	Whitehaven Coal Mining Ltd
Development consent/project approval number	SSD-5000 SSD-7480
Name of holder of development consent/project approval	Whitehaven Coal Mining Ltd
Mining lease number	ML 1471, CL 316, ML 1718, ML 1838
Name of holder of mining lease	Whitehaven Coal Mining Ltd (ML 1471), Whitehaven Coal Mining Ltd (CL 316), Whitehaven Coal Mining Ltd (ML 1718), Vickery Coal Pty Ltd (ML 1838)
Water licence number	WAL No. 12651 WAL No. 12653
Name of holder of water licence	Whitehaven Coal Mining Ltd
FWP start date	1 st August 2022 / 15 th June 2023 (FWP1200)
FWP end date	31 st December 2023
Annual review start date	1 st January 2023
Annual review end date	31 st December 2023
<p>I, Matthew Sparkes certify that this audit report is a true and accurate record of the compliance status of Vickery Coal Project for the period January 1st 2023 until December 31st 2023, and that I am authorised to make this statement on behalf of Whitehaven Coal Mining Pty Ltd.</p> <p><i>Note.</i></p> <p>a) <i>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.</i></p> <p>b) <i>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).</i></p>	
Name of authorised reporting officer	Matthew Sparkes
Title of authorised reporting officer	Operations Manager Vickery Coal Mine
Signature of authorised reporting officer	
Date	29/3/24

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STATEMENT OF COMPLIANCE

The compliance status of the Vickery Coal Mine as at the 31st December 2023, is summarised in Table 1 below.

Table 1 - Statement of Compliance

Approval	Were all conditions of the relevant approval(s) complied with?
Development Consent SSD-5000 and SSD-7480	Yes
Coal Lease 316	Yes
ML 1471	Yes
ML 1718	Yes
ML 1838	Yes
WAL No. 12651	Yes
WAL No. 12653	Yes

1. INTRODUCTION

This is the ninth Annual Review (AR) produced for the Vickery Coal Mine (VCM), and has been prepared in accordance with Schedule 5, Condition 4 of Development Consent SSD-5000 and Schedule 2, Condition E9 of Development Consent 7480. The AR follows the format required by the NSW Government Annual Review Guideline (October, 2015).

The VCM is located approximately 15 kilometres (km) south-east of Boggabri and approximately 25 km north of Gunnedah in New South Wales (refer to Figure 1 and Figure 2). Mining operations at the previous VCM ceased in 1998 when approval from the NSW Department of Primary Industries (DPI) was granted to suspend operations and complete rehabilitation works on-site. Whitehaven (WHC) acquired 100 percent (%) of the Coal Lease (CL) 316 and Authorisation (AUTH) 406 from Rio Tinto Limited in January 2010. ML 1718 and ML 1838 were issued under Part 5 of the NSW *Mining Act, 1992* by the NSW Minister for Mineral Resources in September 2015 and September 2022 respectively.

Development Consent (SSD-7480) was granted to VCPL on 12 August 2020 by the NSW Independent Planning Commission as the declared consent authority, under Section 4.38 of the NSW Environmental Planning and Assessment Act, 1979 (EP&A Act). The Development Consent allows for the development of an open cut mine and associated infrastructure with a 25 year mine life, extracting run-of-mine (ROM) coal at up to 10 million tonnes per annum (Mtpa) and processing the coal, as well as coal from WHC's Tarrawonga Mine, at an on-site coal handling and processing plant (CHPP) for off-site transport by rail.

WHC commenced development under Development Consent SSD-7480 for the VCM on 28 April 2022 to undertake pre-construction activities. The Development Consent SSD-5000 was not surrendered in the reporting period; therefore, this AR addresses Development Consent SSD-5000 and Development Consent SSD-7480. SSD-5000 is planned to be surrendered in the 2024 reporting period.

Clearing activities associated with SSD-7480 commenced in late August 2023 and mining activities commenced on 26th October 2023 at Vickery Coal Mine.

1.1 Mine Contacts

The management personnel responsible for the VCM during the reporting period and their relevant contact details are as follows.

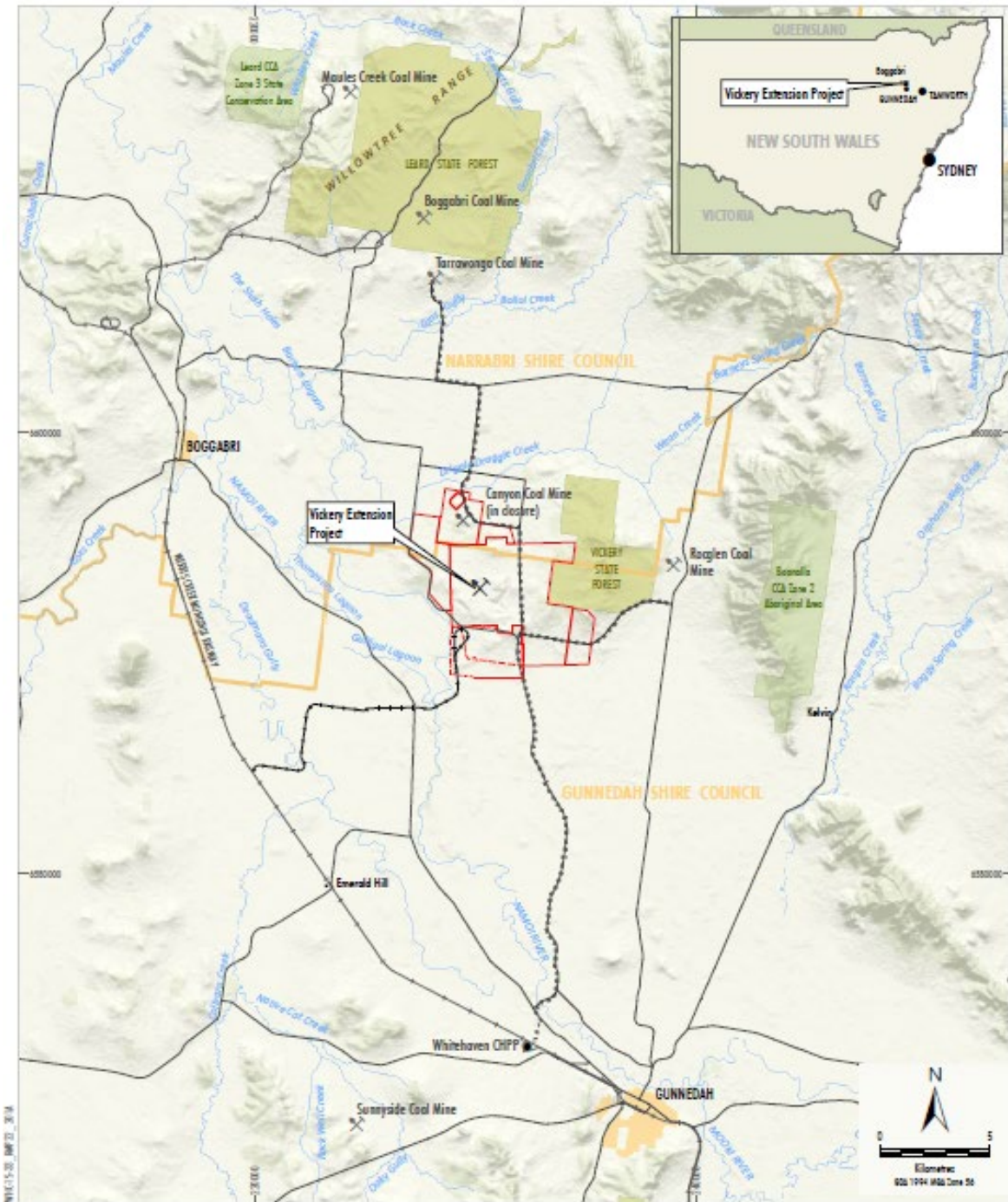
Up until June 2023 VCM was managed as a development project by Mr Mark Stevens, Executive General Manager Project Delivery – (07) 3738 2000.

VCM is now managed as an operating asset. The management of SSD-7480 falls under the Gunnedah Open Cuts (GOC) Operations led by:

- Mr Dean Scott, General Manager – Open Cut Operations. Contact (02) 6741 9300

Key site personnel include:

- Mr Matthew Sparkes – Operations Manager and Mining Engineering Manager ('MEM'); and
- Mrs Megan Martin – Environmental Superintendent (02 6741 9300).

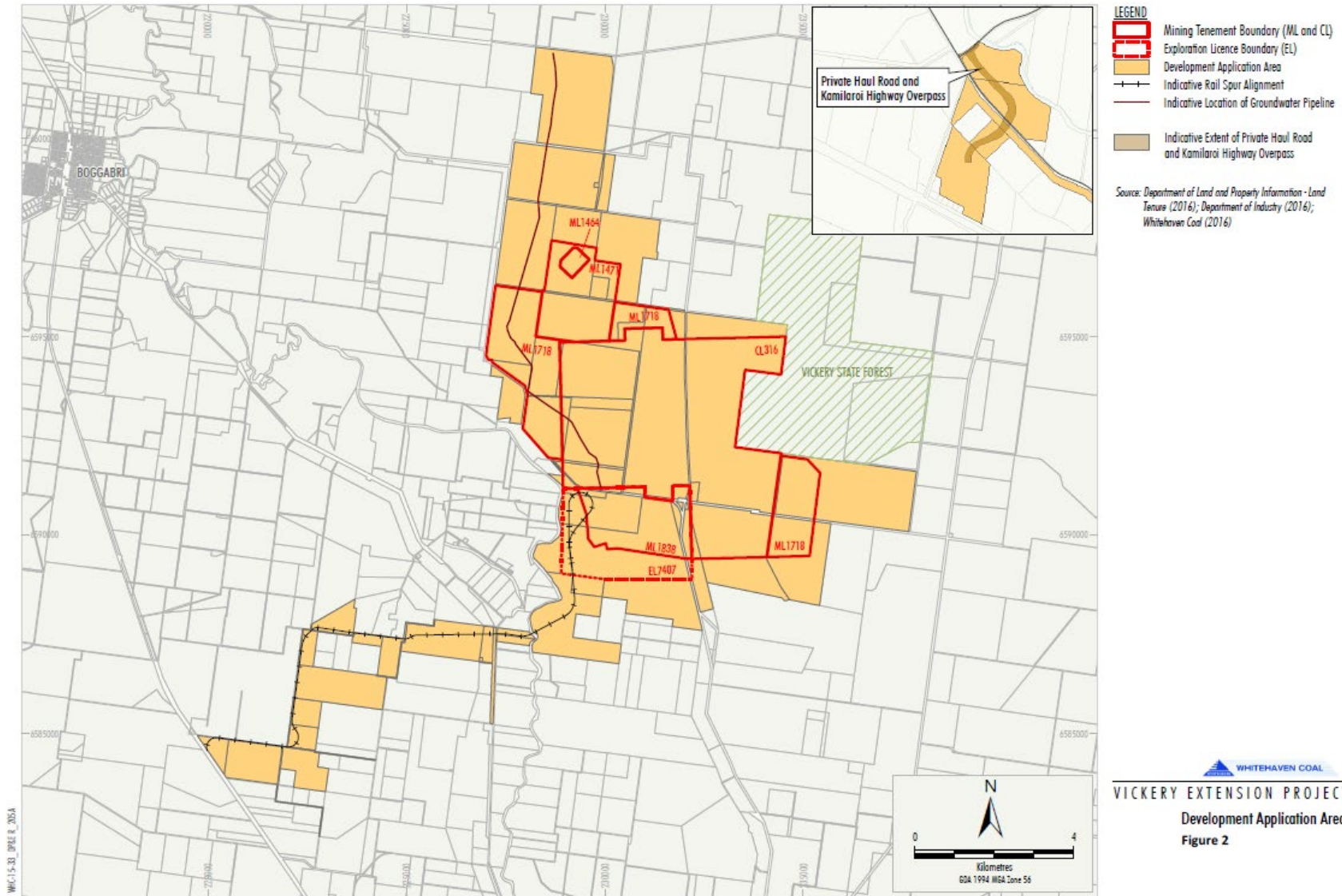


- LEGEND**
- Mining Tenement Boundary (ML and CL)
 - Exploration Licence Boundary (EL)
 - Mining Lease Application (MLA)
 - Local Government Boundary
 - State Forest
 - State Conservation Area, Aboriginal Area
 - Major Roads
 - Railway
 - Approved Road Transport Route
 - Indicative Project Rail Spur

Source: LPMA - Topographic Base (2010); NSW Department of Industry (2015)

Figure 1

Figure 1 Locality Plan



WHITEHAVEN COAL
VICKERY EXTENSION PROJECT
Development Application Area
Figure 2

Figure 2 – VCM Locality Plan 2

2. APPROVALS

2.1 Tenements, Licences and Approvals

Table 2 identifies the approvals in place for the VCM at the end of the reporting period, the issuing/responsible Authority, date of issue and expiry date.

Table 2 - Tenements, Licences and Approvals

Issuing/Responsible Authority	Type of Lease, Licence, Approval	Date of Issue	Expiry
Independent Planning Commission of NSW	Development Consent SSD-7480	12 th August 2020	11 th August 2045
Department of Planning and Environment (DPE)	Development Consent SSD-5000	19 th September 2014	31 st December 2044
Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW)	EPBC 2012/6263	17 th May 2012	Continuing
Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW)	EPBC 2016/7649	15 th September 2021	31 st December 2051
Environment Protection Licence (EPL) – NSW (EPA)	EPL 21283	17 th May 2019	Continuing
Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG)	Mining Lease 1471 (ML 1471)	7 th September 2000	6 th September 2042
Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG)	Coal Lease 316 (CL 316)	15 th June 1988	15 th June 2033
Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG)	Mining Lease 1718 (ML 1718)	15 th September 2015	15 th September 2036
Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG)	Mining Lease 1464 (ML 1464)	31 st October 2023	20 th December 2043
Department of Regional NSW – Division of Mining, Exploration and Geoscience (MEG)	Mining Lease 1838 (ML 1838)	13 th September 2022	13 th September 2043
WaterNSW	Water Access Licence (WAL 12651)	-	In perpetuity
WaterNSW	Water Access Licence (WAL 12653)	-	In perpetuity
WaterNSW	Bore licence (90CA807002)	1 November 2006	31 October 2029

3. OPERATIONS SUMMARY

3.1 Mining Operations

Mining operations have commenced for the VCM (refer to Table 3). Mining operations undertaken in the 2023 reporting period were limited to overburden/waste rock movement, no coal was mined in 2023 reporting period. Therefore, Schedule 2, Condition B76 of SSD-7480 relating to monitoring of coal transport is not relevant in this reporting period.

Table 3 - Production Summary

Material	Approved Limit	Previous Reporting Period (actual)	This Reporting Period (actual)	Next Reporting Period (forecast)
Waste Rock/Overburden (bcm)	1,830 Mbcm ¹	0	1,372,772	16,546,913
ROM Coal/Ore	10 Mtpa ²	0	0	560,466 bcm
Coarse Reject	25 Mt	0	0	500,000 bcm ³
Fine Reject (Tailings)	N/A	0	0	
Saleable Product	N/A	0	0	NA

¹ VEP Environmental Impact Statement – Life of Mine

² Development Consent SSD-7480. Note: Approved coal extraction limit under Development Consent SSD-5000 is 4.5 Mtpa.

³ Anticipated volume includes rejects from coal sourced from Tarrawonga due to shared coal handling and rail facilities. Rejects are a blend of coarse and fine rejects.

3.2 Next Reporting Period

Clearing activities associated with SSD-7480 commenced in late August 2023 and mining activities commenced late October 2023 at Vickery Coal Mine. Vickery Coal mine is expected to mine over 15 million cubic meters of overburden in 2024 and produce over 500,000 Tonnes of Coal as per Table 3. Clearing will continue to allow for mine expansion.

Formal surrender of the development consent SSD-5000 and DA 8-1-2005 is planned to occur during the 2024 reporting period in accordance with condition A18 of SSD-7480 and the extension granted by DPHI until 30th April 2024.

4. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

There were no actions required from DPE in relation to the 2022 Annual Review. However, Table 4 indicates commitments identified by WHC from the last Annual Review.

Table 4 - Actions from the previous Annual Review

Action required from previous Annual Review	Requested by	Action taken by the Operator	Where discussed in Annual Review
Continue CCC Meetings	Operator	CCC Meeting held in April and August 2023	Section 8
Continuation of weed and feral animal monitoring on-site to guide management actions at VCM offset properties	Operator	Weed and feral animal monitoring was undertaken	Section 5.2.9
Implementation of applicable approved Environmental Management Plans to support construction activities	Operator	Management plans have been implemented as VCM construction and mining initiated.	Section 3.1
Continue environmental monitoring and reporting, as required	Operator	Environmental monitoring was continued	Section 5
Inspection of completion and condition of fencing at Aboriginal cultural heritage sites.	Operator	Heritage fencing inspection was undertaken	Section 5.5

5. ENVIRONMENTAL PERFORMANCE

This section describes the environmental performance of the VCM and includes a summary of monitoring results from Air Quality, Blasting and Noise monitoring. The locations of these monitoring points are shown in **Figure 3**. A description of the environmental performance of the VCM in regards to biodiversity, Aboriginal Heritage, Historic Heritage and Waste is also included in this section.

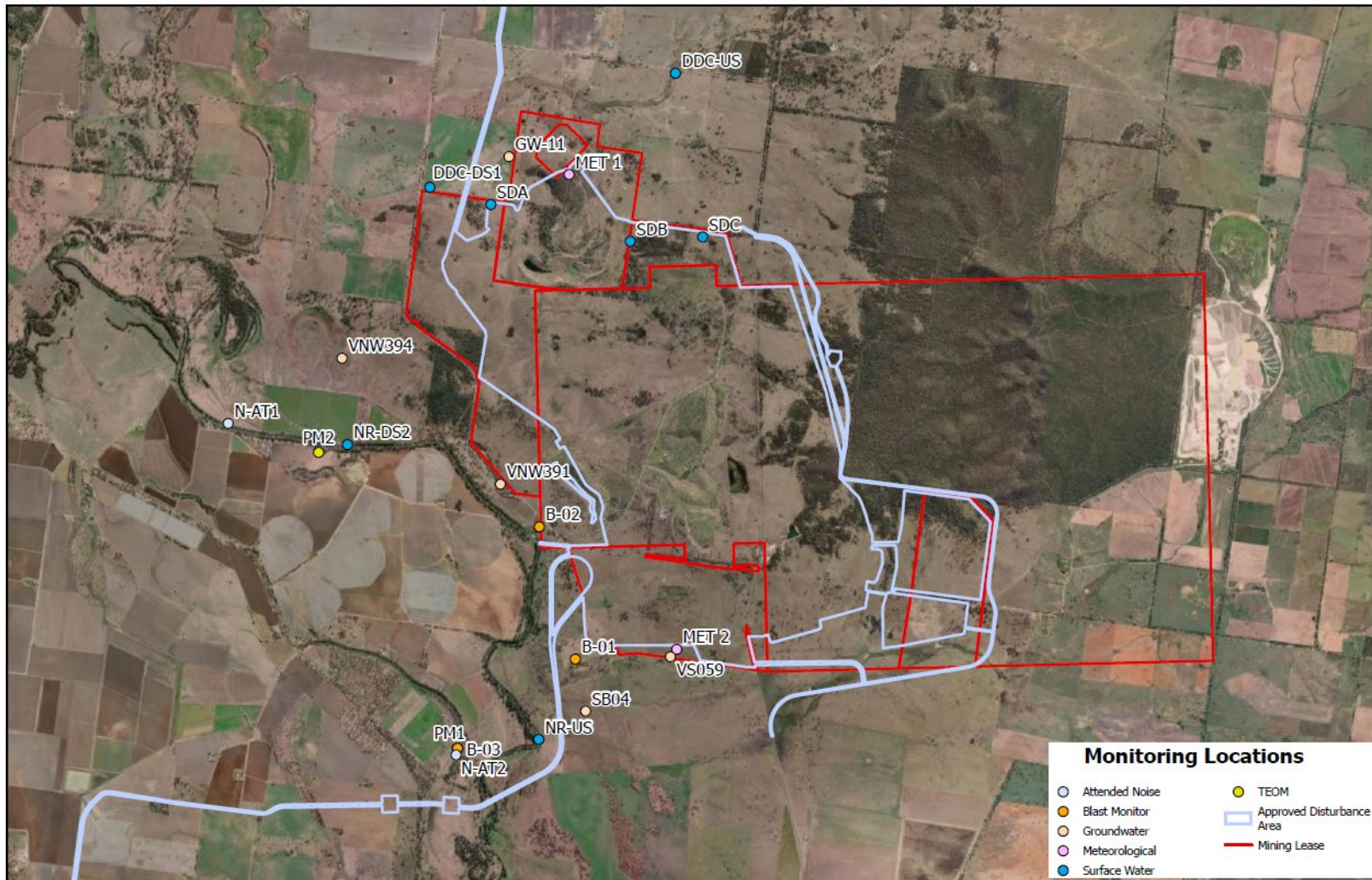


Figure 3 – VCM Environmental Monitoring Locations

5.1 Air Quality

Air quality criteria for VCM is stipulated in SSD-5000 and SSD-7480, Schedule 3 condition 18 and Part B condition B32 respectfully. Air Quality Criteria is summarised in Table 5 below:

Table 5 – Air Quality Criteria

Pollutant	Averaging Period	SSD-7480 (AQ Criteria)	SSD-5000 (AQ Criteria)
Total suspended particulate (TSP) matter	Annual	90 µm/m ³	90 µm/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	25 µm/m ³	30 µm/m ³
Particulate matter < 10 µm (PM ₁₀)	24 Hour	50 µm/m ³	50 µm/m ³
Particulate matter < 2.5 µm (PM _{2.5})	Annual	8 µm/m ³	-
Particulate matter < 2.5 µm (PM _{2.5})	24 Hour	25 µm/m ³	-
Deposited Dust	Annual	-	Max increase: 2 g/m ³ /month Max Total: 4 g/m ³ /month

5.1.1 Environmental Performance/Management

SSD-5000 Deposited Dust Monitoring

Construction and mining activities at the VCM commenced in the reporting period. Monitoring of deposited dust is undertaken on a monthly basis, with results within the mean annual dust deposition criterion of 4 g/m²/month (Table 6).

Table 6 - Depositional Dust

Site	Property Name	Annual mean total insoluble solids (g/m ² /month)
DG1	Ingleburn	1.6
DG2	Mirrabinda	1.5
V1	Greenwood/Shannon Harbour	1.3
V2	Greenwood/Shannon Harbour	0.7*
V3	Welkaree/Tralee	2.2
V4	Shannon Harbour	1.6
V5	Wilga	1.4

*1 anomalous sample excluded due to localised farming activity and no mining activity undertaken in early 2023

Air Quality Monitoring

SSD-5000 - TEOM

Particulate matter for SSD-5000 is measured at a Whitehaven Coal owned property (Willgai), approximately 1.5 km to the east of the north-eastern boundary of ML 1471. Sampled data was analysed from the real time monitoring unit, with a validation process undertaken. There were limited periods during the course of ongoing operation where the TEOM recorded negative values and some minor operational matters in September and December which were rectified as part of regular maintenance inspections.

For the 2023 reporting period, the mean annual PM₁₀ particulate level (9.1 µg/m³) was within the criteria noted in SSD-5000 (30 µg/m³) (Figure 4).

This value is below the predicted mean annual PM₁₀ particulate levels in the EIS (between 15 µg/m³ and 35 µg/m³). The 24-hour average PM₁₀ particulate level (50 µg/m³) was not exceeded during the 2023 reporting period (Figure 4).

For the 2023 reporting period, the mean annual PM TSP particulate level (18.3 µg/m³) was within the criteria stipulated in SSD-5000 (90 µg/m³) (Figure 5).

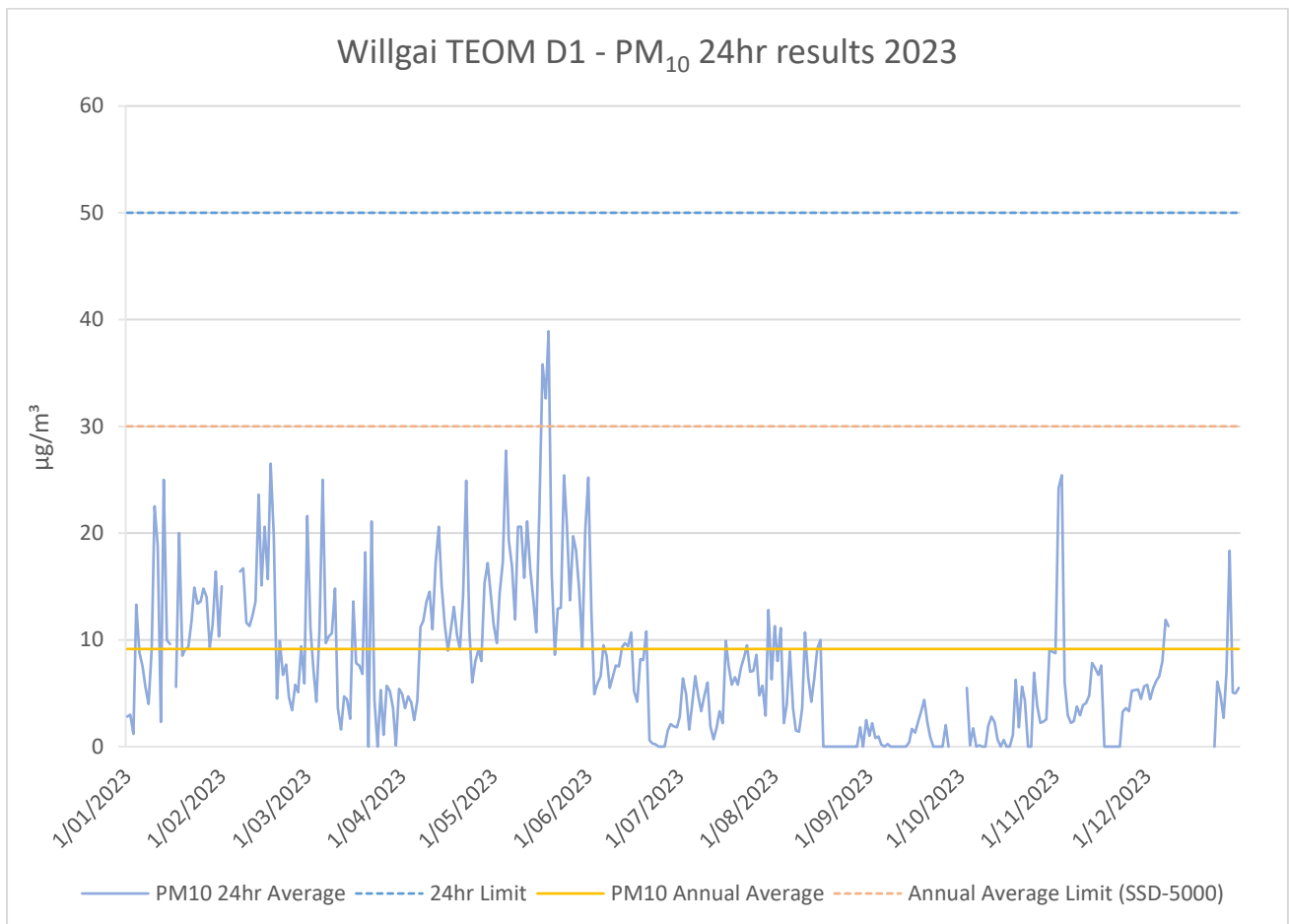


Figure 4 - "Willgai" Particulate Matter (PM₁₀)

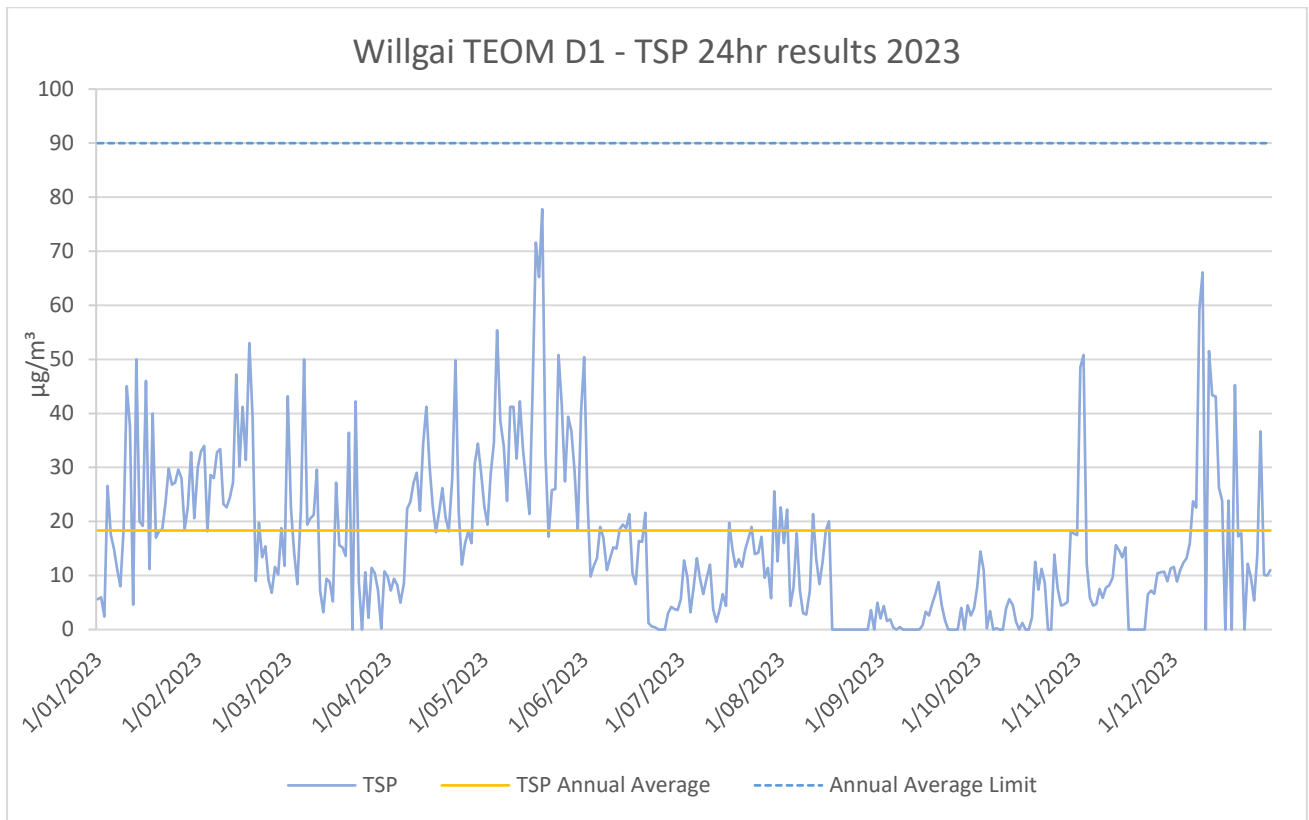


Figure 5 – “Willgai Particulate Matter (TSP)”

SSD-7480 – TEOM’s

Clearing activities commenced in late August 2023 and mining activities commenced late October 2023 at Vickery Coal Mine. Particulate matter for SSD-7480 is measured at privately owned properties (TEOM 1- “Lanreef” & TEOM 2 – “Mirrabinda”) approximately 5 km to the east and South East of Vickery Coal Mine. Sampled data was analysed from the real time monitoring unit, with a validation process undertaken. The Vickery TEOM’s (PM1 & PM2) became operational in mid-August 2023.

The 24-hour average PM_{2.5} particulate level criterion (25 µg/m³) was exceeded at both TEOM 1 and TEOM 2 during the reporting period on the 9th and 10th of December 2023. An exceedance report was provided to DPHI outlining localised bushfire as the likely source for the elevated readings. On the week of 18th December 2023, VCM received correspondence from DPHI outlining that the Pilliga Forest Fire is considered an extraordinary event and any further exceedances for the duration of the event should not be reported as exceedances. PM10 and PM2.5 continued to exceed at both locations on the 18th and 19th of December and as per correspondence were not reported as exceedances.

TEOM 1- “Lanreef”

For the 2023 reporting period, the mean annual PM10 particulate level (13.5 µg/m³) at TEOM 1 was within the criteria noted in SSD-7480 (25 µg/m³) (Figure 6).

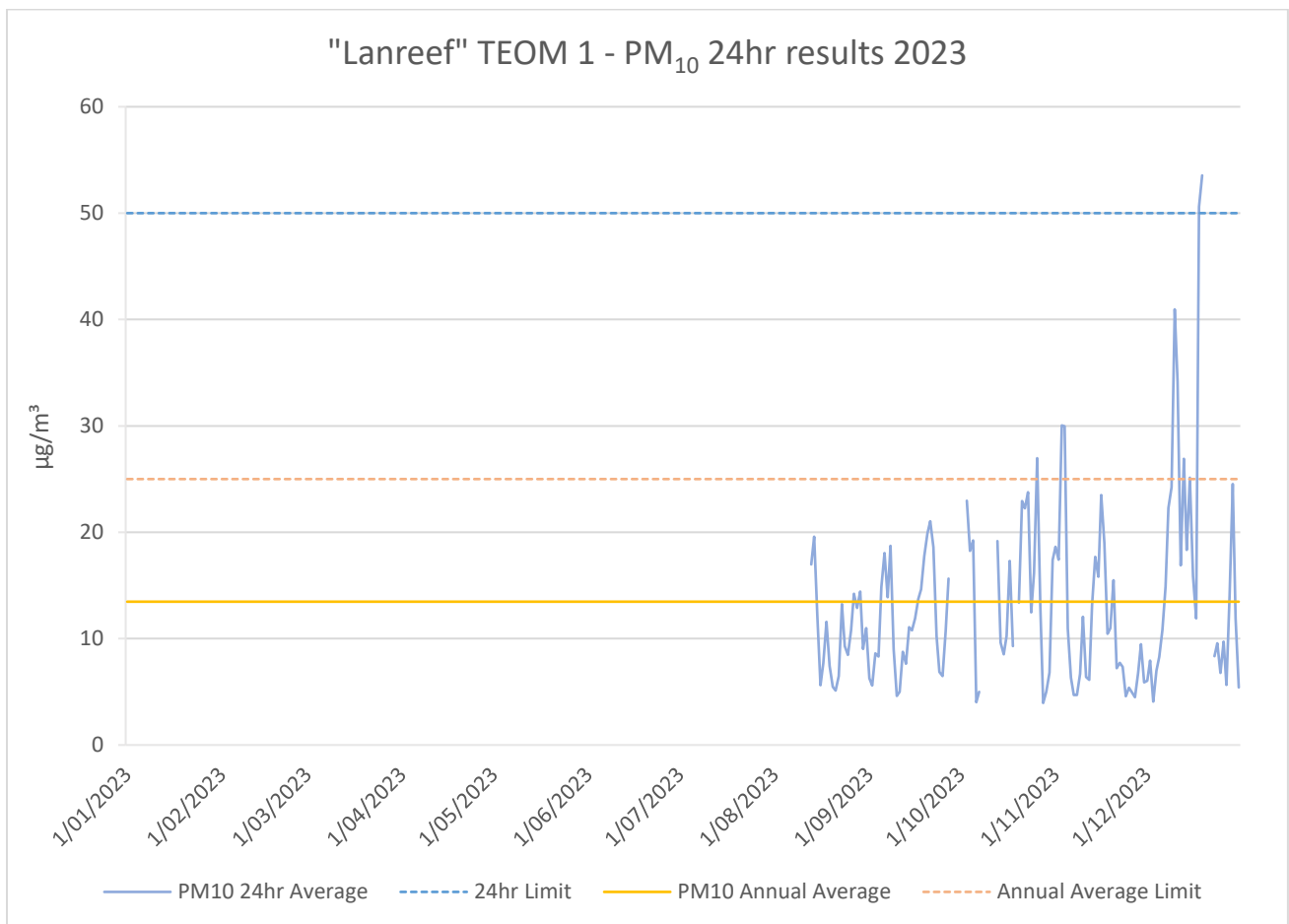


Figure 6 – “Lanreef” TEOM 1 Particulate Matter (PM₁₀)

The mean annual PM_{2.5} particulate level (6.5 µg/m³) was also within the criterion noted in SSD-7480 of 8 µg/m³ (Figure 7).

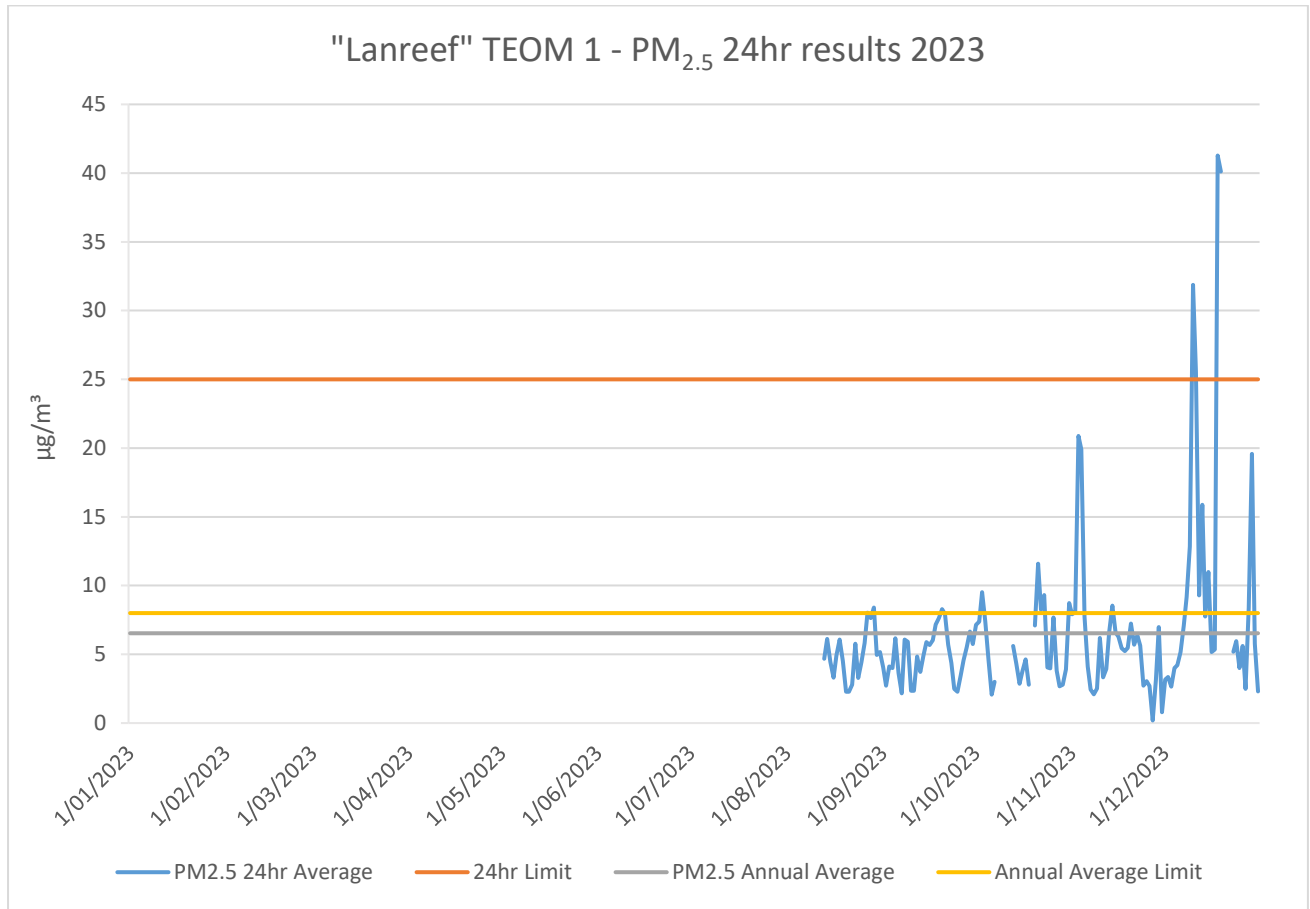


Figure 7 - "Lanreef" TEOM 1 Particulate Matter (PM_{2.5})

For the 2023 reporting period, the mean annual PM TSP particulate level (26.9 $\mu\text{g}/\text{m}^3$) at TEOM 1 was within the criteria noted in SSD-7480 (90 $\mu\text{g}/\text{m}^3$) (Figure 8).

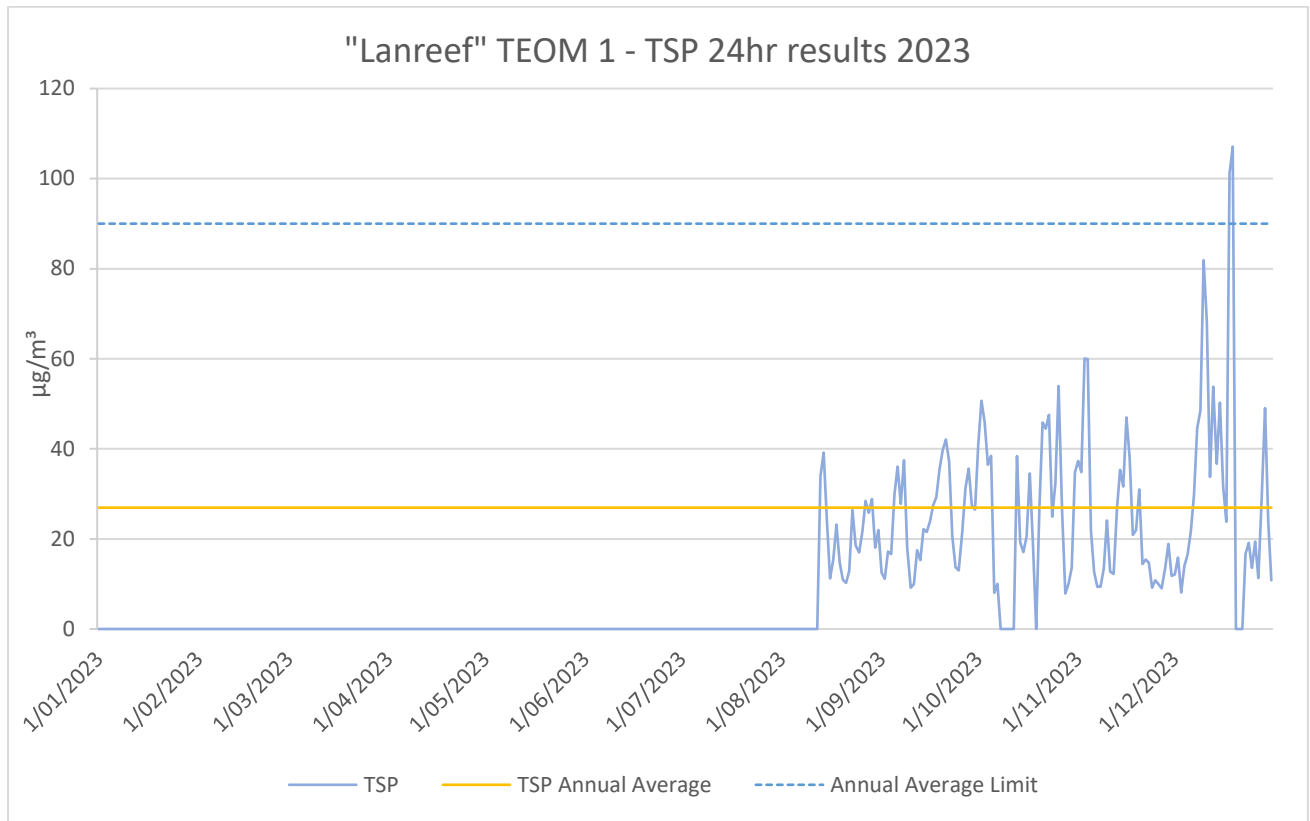


Figure 8 - "Lanreef" TEOM 1 Particulate Matter (TSP)

TEOM 2- “Mirrabinda”

For the 2023 reporting period, the mean annual PM10 particulate level (13.9 µg/m³) at TEOM 2 was within the criteria noted in SSD-7480 (25 µg/m³) (Figure 9).

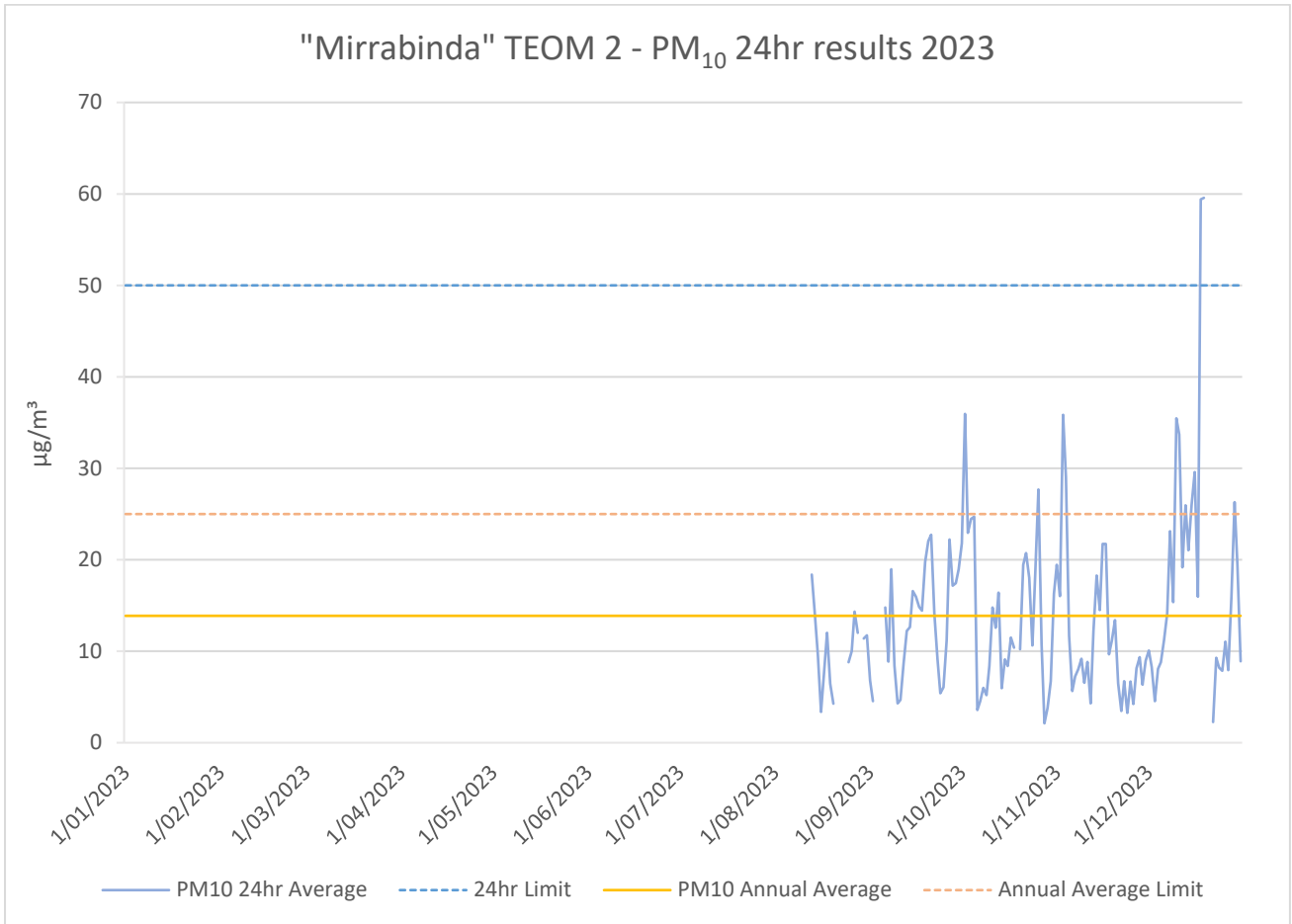


Figure 9 - “Mirrabinda” TEOM 2 Particulate Matter (PM₁₀)

The mean annual PM_{2.5} particulate level (6.5 µg/m³) was also within the criterion noted in SSD-7480 of 8 µg/m³ (Figure 10).

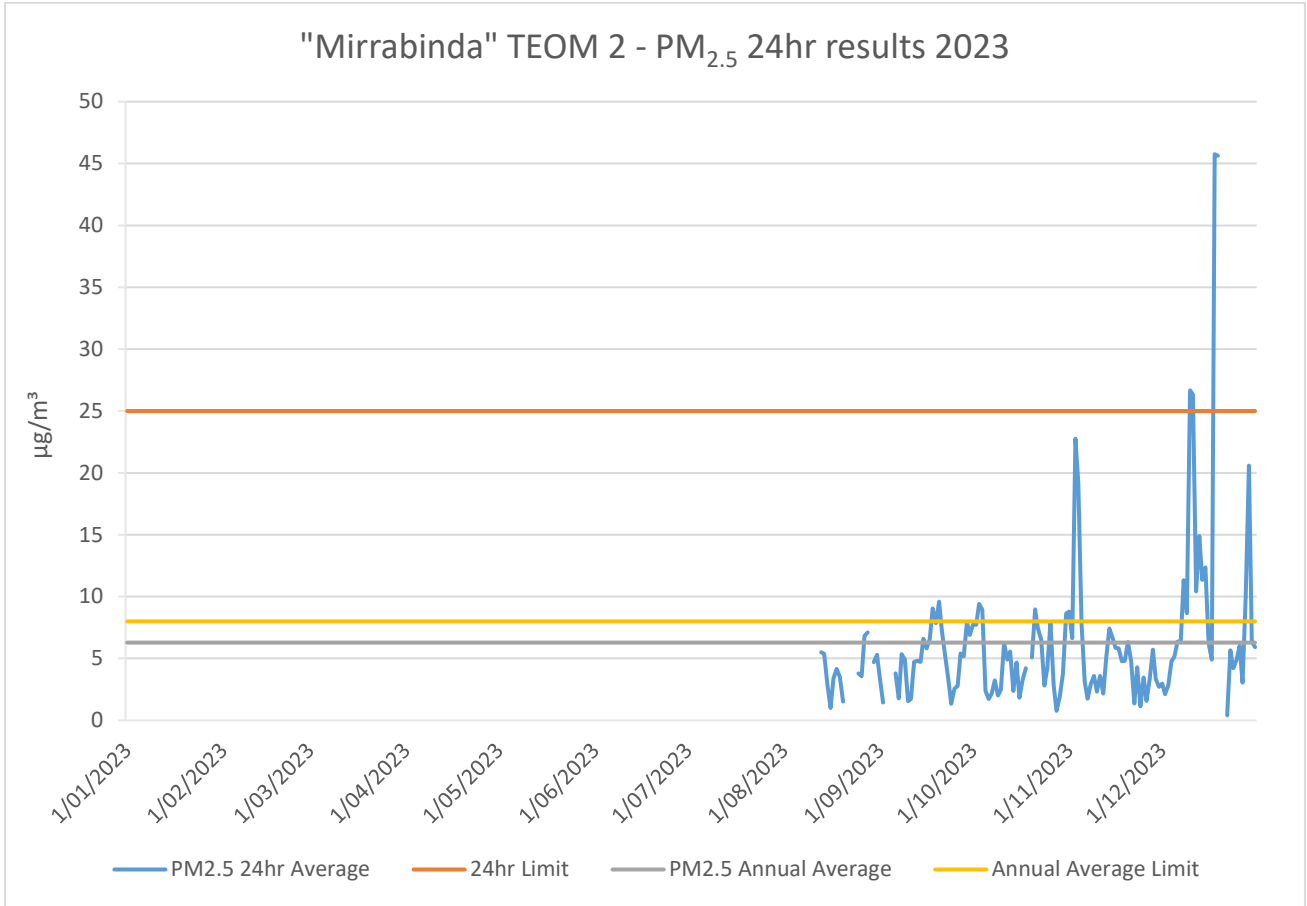


Figure 10 - "Mirrabinda" TEOM 2 Particulate Matter (PM_{2.5})

For the 2023 reporting period, the mean annual PM TSP particulate level (27.7 $\mu\text{g}/\text{m}^3$) at TEOM 2 was within the criteria noted in SSD-7480 (90 $\mu\text{g}/\text{m}^3$) (Figure 11).

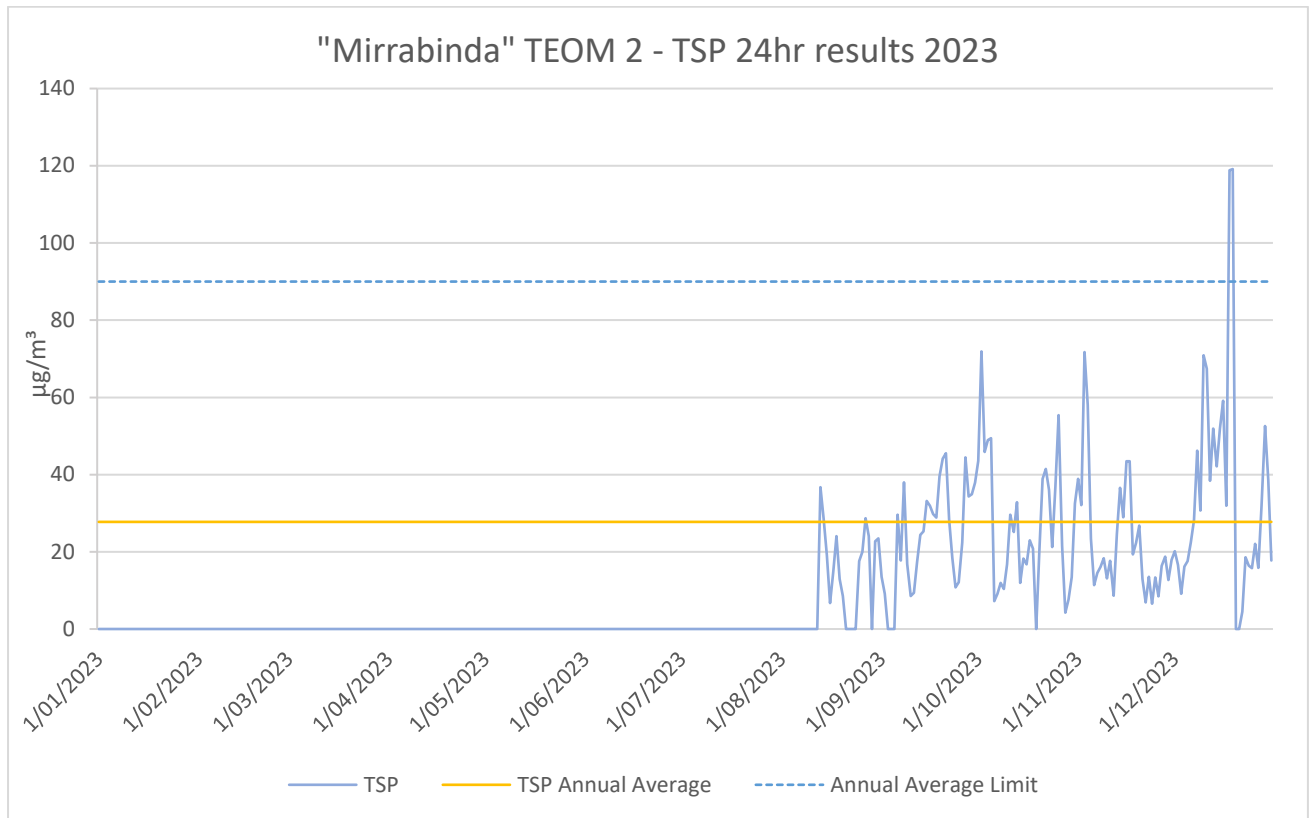


Figure 11 - “Mirrabinda” TEOM 2 Particulate Matter (TSP)

5.1.2 Key Environmental Management/Performance Issues

As discussed above, the 24-hour average PM_{2.5} particulate level criterion (25 $\mu\text{g}/\text{m}^3$) was exceeded at both TEOM 1 and TEOM 2 during the reporting period on the 9th and 10th of December 2023. The Pilliga Forest Fire was considered an extraordinary event and, on the advice of DPHI, any further exceedances for the duration of the event were not reported as exceedances.

5.1.3 Proposed Improvements to Environmental Management

Continue to operate as per the Vickery Coal Mine Air Quality and Greenhouse Gas Management Plan (AQGGMP).

5.2 Biodiversity

5.2.1 Biodiversity Offset Area (BOA) Management

VCM commits to implementing the Biodiversity Offset Strategy (BOS) in particular the requirements of SSD 7480 Conditions B56/B57 and B58/B59 plus EPBC Approval 2016/7649 Conditions 19-21 within 2 years of the date of commencement of the development. The initial Offset Area of the BOS is Willeroi East 1590ha, located in Maules Creek valley (tributary of Namoi River) adjacent to the south eastern boundary of Mount Kaputar National Park. The Revised Biodiversity Offset Strategy for VCM to substitute Offset Areas (Glenroc, Costavale and Wean North) is currently under assessment for approval and in addition, Biodiversity Stewardship Sites were approved (Mt Somner 526ha) and in application (Blue Vale, Bundaleer, Greenwood and Wean Amalgamated which includes parts of the biodiversity properties Bull Mountain, Gundawarra, Woodlands, Wear/Silkdale, Wean, Yarrowonga) during 2023 totalling 3862ha that will establish a restoration corridor linking remnant vegetation adjoining the Vickery State Forest with the Nandewar Range that will collectively be known as the Vickery Biodiversity Management Area (BMA).

5.2.2 Offset Security Management

VCM has commenced compliance with SSD 7480 Condition B56 and B57 by securing in perpetuity the Conservation Agreement CA0060 over the whole Willeroi property (including Willeroi East Offset Area) which was registered on the land title on 24 June 2021. WHC will reengage with NPWS whom have previously shown interest in the Willeroi biodiversity property being transferred to National Park Estate; while in parallel VCM finalises the Conservation Agreements for substituted Offset Areas into the BOS (as per Condition B56). Following commencement of the VCM development being triggered on 28 April 2022; WHC submitted the second and third six-monthly report to the former NSW DPE in April and October 2023 on the progress towards the retirement of Biodiversity Credits required by SSD 7480 Condition B58/B59. To date, a total of 370 Biodiversity Credits (reasonably equivalent to 869 Biobanking Credits) has been retired on behalf of VCM.

5.2.3 Weather Summary of Offset Properties

Regionally central meteorological station to the BMA is the Gunnedah Pool site (BOM 2023) which has recorded highly variable rainfall over the last 5 years; from the driest on record in 140 years of 237mm in 2019, followed by above average rainfall years in 2020, 2021 and 2022 of 833mm, 990mm and 860mm respectively (resulting in numerous major flooding events of the Namoi River). In 2023, the Gunnedah Pool site recorded 496mm being below annual average rainfall of 615mm. WHC maintains a meteorological station within the Willeroi BMA and a summary of weather conditions experienced during the 2023 reporting period was the maximum monthly average temperature was 33°C in January 2023; minimum monthly average temperature was 9°C in June 2023; annual temperature ranges were 4°C to 38°C in 2023 and the total annual rainfall in 2023 was 424mm with the maximum in March (110mm) and minimum in May (1mm).

5.2.4 Infrastructure & Waste Management

During the reporting period, a total of 36.2km of new or repaired fencing (fauna friendly) was constructed along the perimeter of Vickery BMA including Costavale, Wear/Silkdale, Wean, Mt Somner, Blue Vale, Greenwood and Bundaleer as well as maintenance of signage and gates undertaken as required to continue to restrict unauthorised access and minimise livestock incursion. Also during the reporting period, 19.2km of redundant

internal fences were deconstructed from the Costavale, Yarrawonga, Wean, Mt Somner and Blue Vale and 17 items of redundant or derelict assets/ infrastructure were removed, previously associated with the former agricultural use of the Vickery BMA. Waste removed is either recycled (in the case for scrap metal) or disposed offsite (general municipal waste and tyres) at local waste management facilities. Any remaining derelict assets/infrastructure items will continue to be assessed, removed and remediated as required prior to potential transfer of certain VCM biodiversity properties to National Park Estate.

5.2.5 Seed Management

The routine seed assessments on the Vickery BMA aims to identify on a seasonal basis the life cycle stage and development of native plants to identify what, where, when and how to target appropriate resources to collect seed for future revegetation programs. During the reporting period, a total of 5 species were collected resulting in 2.2kg of local provident seed from across the Willeroi biodiversity property that was incorporated with other local and regionally provident seed sourced by reputable seed collectors as part of the WHC group wide revegetation planning. A local revegetation provider was engaged to propagate the seed to produce Box Gum and non-EEC/CEEC Woodland overstorey species seedlings required for the completed 2023 revegetation program as well as planning for the 2024 revegetation program for the Vickery BMA.

5.2.6 Revegetation Management

The Vickery BMA revegetation strategy focuses on restoration and revegetation of previously cleared non-native grassland and native grasslands and assisting natural regeneration in better quality woodland areas. During the reporting period, revegetation ground preparation utilised tractors and skidsteers augering holes (to a depth >0.3m) to relieve compaction, improve permeability and infiltration to increase sub-surface soil moisture for planting. The overstorey revegetation program was undertaken between June and September with 4527 hiko seedlings of woodland species planted over 38ha on the Willeroi East and Mt Somner biodiversity properties. Routine tree watering and maintenance activities post planting have been successful to ensure that 66% survival has been achieved for the Vickery BMA which is commensurate with the target woodland vegetation structure.

5.2.7 Heritage Management

During the reporting period, annual heritage inspections were completed on the 124 known heritage sites (aboriginal archaeological) within the Vickery BMA. Heritage sites are maintained with 18.7km of demarcation fencing around the heritage site perimeter and signage to mitigate access and inadvertent disturbance. During this reporting period, 33 new heritage sites (aboriginal archaeological) were identified on the Willeroi East, Wean North, Wean and Bundaleer biodiversity properties. Further, 5.6km of new heritage site fencing or fence maintenance was carried out during 2023.

5.2.8 Habitat Management

During the reporting period, no specific habitat management works were undertaken for the Vickery BMA.

5.2.9 Weed Management

WHC coordinated routine formal weed monitoring/inspections undertaken across Vickery BMA in February, June, August and November 2023. The priority weeds identified included legacy weeds inherited from previous owners' management regimes such as African Box Thorn, Prickly Pear, St Johns Wort and Coolatai Grass as well as a range of other broadleaf weeds within revegetation areas.

The weed monitoring/inspections ensure that timely and prioritised weed control is undertaken on a seasonal basis with the spatial information directly given to spraying contractors to identify what, where, when and how to target appropriate resources across the Vickery BMA for weed control.

During the reporting period, WHC implemented a weed control program across 152ha being treated between January and December 2023 targeting primarily broadleaf weeds within revegetation areas and along fire break tracks as well as Coolatai Grass, Sweet Briar, Prickly Pear and St Johns Wort weed species as required within the Kenna, Omeo and Caloola North biodiversity properties. Only appropriately qualified and experienced weed contractors (AQF3 accreditation or higher for use of herbicide) were engaged to undertake weed control works for WHC.

5.2.10 Pest Animal Management

WHC aims to apply an even and consistent pest animal management effort by routinely scheduling rolling monitoring and control programs across the Vickery BMA. This standardised approach can also be supplemented with periodic targeted programs that focus on specific areas with high pest animal detection, or, on species which have increasing rates of detection. Both the overall management and targeted programs are planned using data collected from grid-based motion detection camera monitoring program, pest animal observations and the results of previous control programs. Monitoring demonstrated that certain animals like Feral Pigs and Goats were highly detectable across the year. All other pest animal species had scarce to low detection levels across 2023. The pest animal monitoring ensures that timely and prioritised pest animal control is undertaken on a seasonal basis identifying what, where, when and how to target appropriate resources across the Vickery BMA for pest animal management. During the reporting period, WHC implemented a pest animal control program across the Vickery BMA with routine 1080 canid pest ejectors as well as Hoggone baits and Open Range Shooting undertaken throughout 2023.

During the reporting period; there were 132 canid pest ejectors triggered from 537 deployed and 456 Hoggone baits consumed from 1358 presented across the Vickery BMA. Night time open range shooting programs were implemented in conjunction with the other pest animal programs resulting in an additional 7 Rabbits/Hares, 3 Feral Pigs and 3 Deer being controlled in 2023. Feral Goat mustering continued during the reporting period resulting in 97 Goats being captured with saleable Goats on sold to an abattoir. Only appropriately qualified and experienced feral animal contractors (appropriate feral animal management qualifications, NSW fire arm licence and pesticide accreditation where relevant) were engaged to undertake feral animal control works for WHC.

5.2.11 Soil & Erosion Management

Annual inspections were undertaken including unsealed fire break tracks and associated drainage structures across the Vickery BMA to review appropriate erosion and sediment control measures required in accordance with the Blue Book (Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004)). A total of 3 observations were recorded within the Vickery BMA; with all three locations requiring targeted additional track maintenance to mitigate further erosion and sedimentation. The remaining tracks/drainage structures are maintained during routine WHC Biodiversity fire break track maintenance program. There are also a number of legacy erosion sites inherited from previous owners' management regimes that are subject to a separate annual inspection process and updates to the WHC erosion register made. During the reporting period, monitoring or

remediation actions and investigations commensurate to the risk were undertaken for the 3 erosion sites identified within Vickery BMA.

5.2.12 Grazing Management

Vickery BMA continued to be destocked with no strategic grazing occurring during the reporting period having been destocked for Willeroi East since 2015, Glenroc since 2021 and remaining biodiversity properties since 2023. There were 6 instances of stock incursion during the reporting period; with the stock on each occasion retrieved and fencing repaired as required.

5.2.13 Bushfire Management

The Vickery BMA annual fuel load monitoring was undertaken between September and November 2023 as part of planning and assessment of bushfire hazard and ecological burn program for 2024; with the results indicating moderate to high overall fuel loads present. During the reporting period, no bushfires occurred, and no ecological burns were undertaken. Other fire management implemented by WHC during the reporting period was fire break track maintenance carried out over 228.8km to a zero-fuel barrier standard across the Vickery BMA. WHC maintains regular communications throughout the reporting period with both the Liverpool Range and Namoi-Gwydir Zone RFS teams around planning of WHC Biodiversity's ecological burn programs as well as maintaining contact points in case of emergency. WHC maintains a specialist firefighting contractor for an oncall engagement during the fire season to respond in the event of a bushfire on WHC Biodiversity and non-mining lands.

5.2.14 Monitoring

During the reporting period, the ecological monitoring program of the Vickery BMA included winter bird surveys that were undertaken in July and August 2023; spring flora monitoring of 26 plots across four vegetation zones (VZs) undertaken during October 2023 and annual fauna monitoring at 27 bird survey sites, 13 diurnal herpetofauna survey sites, 4 Harp Trap Sites and 12 echolocation monitoring sites between January and November 2023. During the winter bird surveys, one threatened species (Grey-crowned Babbler) were recorded. During spring flora monitoring, two VZs were recorded as meeting or exceeding completion criteria for all four biometrics. Native plant species richness (NPS) completion criteria (NPS benchmark for relevant biometric vegetation communities) was met or exceeded at all four VZs. Native overstorey cover (NOS) completion criteria (minimum NOS benchmark for relevant biometric vegetation communities) was met or exceeded at 2 out of 4 VZs. Native midstorey cover (NMS) completion criteria (minimum NMS benchmark for relevant biometric vegetation communities) was met or exceeded at all four VZs. Native ground cover grass (NGCG) completion criteria (minimum NGCG benchmark for relevant biometric vegetation communities) was met or exceeded at all four VZs. Comparison of individual plot data shows that NPS remained consistent between 2022 and 2023, with 6 out of 6 plots meeting or exceeding completion criteria in both years. NOS remained consistent between 2022 and 2023, with 3 out of 6 plots meeting or exceeding completion criteria in both years. NMS remained consistent between 2022 and 2023, with 6 out of 6 plots meeting or exceeding completion criteria in both years. Native ground cover grass (NGCG) remained consistent between 2022 and 2023, with 6 out of 6 plots meeting or exceeding completion criteria in both years. Apart of the annual fauna monitoring program were standardised bird surveys across 27 survey sites resulting in 83 bird species being recorded with site level richness ranging from 3 to 25. In 2022, 96 bird species were detected while 81 bird

species were detected in 2021. Bird richness across woodland habitats was 67 (average 19.9; range 13 to 25), 29 species were detected at revegetation sites (average = 9.4; range 4 to 13), and 51 species were recorded at naturally regenerating sites (average 15.3; range 11 to 24). Diurnal herpetofauna surveys of 13 sites identified 19 reptile species during 2023 with site species richness between 0 and 7. Habitat type species richness averaged 13 species detected in woodland (average = 5.33 range 4 to 7), 8 species were detected in naturally regenerating sites (average = 2.75, range 1 – 4) and 3 species were detected in revegetated sites (average 1, range 1 to 1). During echolocation and harp trap surveys a total of 21 microbat species were detected including five threatened species listed under the BC Act. Habitat type species richness averaged 19 species detected in remnant woodland (9.5, 5 to 14), 19 species in natural regeneration (average 11.6, range 10 to 14) and 8 species in revegetation sites (average, 5.5, 5 to 6).

5.2.15 Mine Site Biodiversity

Lepidium monoplacoides Management

In accordance with SSD-7480 and EPBC approval requirements, monitoring of Winged Peppergrass (*Lepidium monoplacoides*) was undertaken in late spring and summer 2023-24; which noted poor, dry growing conditions. A total of 100 plants were observed in August within the Canyon Protection Area, and a total of 71 plants observed between the five reference transects in the Pilliga National Park. Following this, no more *Lepidium monoplacoides* were observed within the Canyon Protection Area for the remainder of the monitoring period, and no seed collection opportunities were available.

The Pilliga National Park reference population was monitored only once during the monitoring period (August) due to either high rainfall events or wildfires. Monitoring continued of the germination and propagation trial for the Winged Peppergrass established in 2021 with a total of 216 seedlings grown from seed collected from the Canyon Protection Area in October 2020 was planted as well as 1,000 seeds direct seeded within the Canyon Protection Area. Monitoring of the 216 seedlings grown from seed collected from the Canyon Protection Area recorded no germinations. No Winged Peppergrass plants were observed within direct seeding cells during the reporting period. The low numbers of Winged Peppergrass observed during the current monitoring period is likely due to a hot dry spell of weather during the beginning of the monitoring period.

Digitaria Porrecta Management

The population of *Digitaria porrecta* (Finger Panic Grass) within the mining disturbance area was inspected during the reporting period and approximately 50 individuals were identified. In line with the Vickery Biodiversity Management Plan (BMP) stripping of the area for the advancement of mining operations was postponed. The *Digitaria porrecta* was surveyed by a suitably qualified ecologist in the correct seasonal period to evaluate the complete extent of the population. Seed collection from the population of *Digitaria porrecta* was also completed by specialist native seed consultants once the individual plants produced seed. This seed will be evaluated for use in germination trials or inclusion in a rehabilitation native seed mix.

In addition to the actions described in the Biodiversity Management Plan the topsoil in which the Finger Panic Grass was growing was relocated and direct placed with scrapers at an onsite location that is part of the life of mine infrastructure and will not be disturbed. This occurred ahead of stripping of the area in advance of mining. This area will be demarcated and protected with appropriate signage. Monitoring of the direct-placed topsoil will

occur in the next reporting period. Seed collection is planned to occur from any Finger Panic Grass that establishes from the seed bank in the direct-placed topsoil. If germination is successful and the *Digitaria porrecta* population re-establishes then this area is anticipated to remain as a feature of the landform. An update on the direct-placed *Digitaria porrecta* topsoil will be included in the next Annual Review.

Dam Clearing

Dam clearing works have been undertaken during the reporting period with specialist aquatic ecologists engaged to supervise dam dewatering and clearing. These dams primarily contained Eastern long-necked turtle (*Chelodina longicollis*) and Spangled Perch (*Leiopotherapon unicolor*). Turtles were captured with fyke nets and Seine nets. Seine nets were dragged through the dams repeatedly until no more turtles were collected. All turtles were successfully released with good health noted for all individuals. Over 30 turtles were collected during dam clearing activities and relocated to nearby water ways.

As instructed by DPI Fisheries (ELA 2023 *MCCM Dam Dewatering Plan*), no fish were relocated from the dams. Fish species present included mosquitofish (*Gambusia holbrooki*) and spangled perch (*Leiopotherapon unicolor*).

5.2.16 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

5.2.17 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

5.3 Blasting

Blasting criteria for the VCM are noted in SSD 5000 and SSD-7480 however, they are not relevant for this reporting period as no blasting was undertaken on site. Mining of previous overburden dumps do not require blasting.

5.4 Operational Noise

5.4.1 Environmental Performance/Management

Attended monitoring is undertaken on a monthly basis by an independent consultant and is used to assess compliance with licence and approval limits for mine contributed noise. Attended noise monitoring identified no exceedances of the noise criteria during the reporting period (2023). As a comparison to the EA, all but 1 readings were below the EA predictions. The Summary Tables for the 2023 reporting period is outlined below.

Throughout the attended noise monitoring surveys conducted in the 2023 calendar year, the identified noise sources during day-time period attended noise monitoring included birds, dogs, traffic, insects, aeroplanes, cows, and VCM operational noise.

5.4.2 Key Environmental Performance/Management Issues

No Noise Management Issues

5.4.3 Proposed Improvements to Environmental Management

Continue to monitor noise levels as the mine progresses

Table 7 - VCM Operational Noise Monitoring Results Leq(15min) – Day-Time Period

Date	Location	Time	dB(A), Leq	VCM Contribution dB(A),Leq	Criterion dB(A),Leq	Wind speed (m/s) /Dir	Stability Class	Exceedance (Yes/No) ¹	EA Predicted Level ¹	Difference ²
27/07/24	N-AT1	2:42pm	42	IA ³	40	3.0 / 312	A	No	21	-
	N-AT2	4:28pm	40	IA ³	40	0.8 / 113	A	No	30	-
29/08/24	N-AT1	2:23pm	40	IA ³	40	1.7 / 248	A	No	21	-
	N-AT2	12:35pm	41	IA ³	40	3.3 / 268	B	No	30	-
28/09/24	N-AT1	12:33pm	45	IA ³	40	3.3 / 197	B	No	21	-
	N-AT2	2:44pm	39	IA ³	40	3.2 / 193	B	No	30	-
19/10/24	N-AT1	12:48pm	51	IA ³	40	2.9 / 230	B	No	21	-
	N-AT2	3:01pm	39	IA ³	40	2.2 / 200	B	No	30	-
27/11/24	N-AT1	1:40pm	61	22	40	2.5 / 257	B	No	21	+1
	N-AT2	3:56pm	37	IA ³	40	1.8 / 256	A	No	30	-
12/12/24	N-AT1	1:17pm	52	IA ³	40	3.0 / 201	B	No	21	-
	N-AT2	3:37pm	40	IA ³	40	4.1 / 213	C	No	30	-

1. 'Max' predicted level as per Tables 5 to 8 of the EA Report.
2. '-' in column means VCM was 'inaudible', therefore comparison is not possible
3. IA = Inaudible (VCM)

Table 8- VCM Operational Noise Monitoring Results Leq(15min) – Evening Period

Date	Location	Time	dB(A), Leq	VCM Contribution dB(A),Leq	Criterion dB(A),Leq	Wind speed (m/s) /Dir	Stability Class	Exceedance (Yes/No)	EA Predicted Level ¹	Difference ²
27/07/24	N-AT1	9:29pm	43	IA ³	35	0.9 / 148	E	No	29	-
	N-AT2	8:46pm	32	IA ³	42 ¹	0.5 / 091	F	No	36	-
29/08/24	N-AT1	9:24pm	38	IA ³	35	0.9 / 306	E	No	29	-
	N-AT2	8:36pm	33	IA ³	37	3.0 / 305	E	No	36	-
28/09/24	N-AT1	8:54pm	57	25	40 ¹	4.5 / 144	E	No	29	-4
	N-AT2	7:39pm	47	IA ³	42 ¹	5.5 / 158	D	No	36	-
19/10/24	N-AT1	9:08pm	52	IA ³	35	1.9 / 116	E	No	29	-
	N-AT2	7:52pm	55	IA ³	42 ¹	1.6 / 087	F	No	36	-
27/11/24	N-AT1	9:30pm	40	24	35	1.7 / 144	E	No	29	-5
	N-AT2	6:16pm	38	IA ³	37	0.8 / 200	E	No	36	-
12/12/24	N-AT1	9:30pm	38	IA ³	35	2.4 / 159	E	No	29	-
	N-AT2	5:46pm	45	IA ³	42 ¹	3.7 / 231	D	No	36	-

1. 'Max' predicted level as per Tables 5 to 8 of the EA Report.
2. '-' in column means VCM was 'inaudible', therefore comparison is not possible
3. IA = Inaudible (VCM)

Throughout the attended noise monitoring surveys conducted in the 2023 calendar year, the identified noise sources during evening period attended noise monitoring included birds, dogs, traffic, insects, aeroplanes, cows, and VCM operational noise.

Table 9 - VCM Operational Noise Monitoring Results Leq(15min) – Night-Time Period

Date	Location	Time	dB(A), Leq	VCM Contribution dB(A),Leq	Criterion dB(A),Leq	Wind speed (m/s) /Dir	Stability Class	Exceedance (Yes/No)	EA Predicted Level ¹	Difference ²
27/07/24	N-AT1	10:00pm	42	IA ³	35	1.6 / 087	F	No	29	-
	N-AT2	11:13pm	35	IA ³	37	0.8 / 295	E	No	36	-
29/08/24	N-AT1	10:00pm	31	IA ³	35	2.1 / 094	E	No	29	-
	N-AT2	11:28pm	32	IA ³	37	0.9 / 115	E	No	36	-
28/09/24	N-AT1	10:00pm	42	25	35	2.9 / 129	E	No	29	-4
	N-AT2	11:53pm	37	IA ³	37	1.8 / 123	E	No	36	-
19/10/24	N-AT1	10:00pm	44	22	35	2.8 / 096	E	No	29	-7
	N-AT2	11:46pm	39	IA ³	37	2.2 / 159	E	No	36	-
27/11/24	N-AT1	10:00pm	.39	29	40 ¹	3.2 / 148	D	No	29	0
	N-AT2	11:40pm	46	29	37	2.6 / 149	D	No	36	-7
12/12/24	N-AT1	10:00pm	.36	IA ³	35	1.7 / 172	E	No	29	-
	N-AT2	11:43pm	42	IA ³	37	2.4 / 090	E	No	36	-

1. 'Max' predicted level as per Tables 5 to 8 of the EA Report.
2. '-' in column means VCM was 'inaudible', therefore comparison is not possible
3. IA = Inaudible (VCM)

Throughout the attended noise monitoring surveys conducted in the 2023 calendar year, the identified noise sources during night-time period attended noise monitoring included birds, dogs, traffic, insects, and VCM operational noise.

Table 10 - VCM Operational Noise Monitoring Results LAmax – Sleep Disturbance

Date	Location	Time	dB(A), LA _{max}	VCM Contribution dB(A),LA _{max}	Criterion dB(A),LA _{max}	Wind speed (m/s) /Dir	Stability Class	Exceedance (Yes/No)	EA Predicted Level ¹	Difference ²
27/07/24	N-AT1	10:00pm	69	IA ³	52	1.6 / 087	F	No	38	-
	N-AT2	11:13pm	71	IA ³	52	0.8 / 295	E	No	42	-
29/08/24	N-AT1	10:00pm	54	IA ³	52	2.1 / 094	E	No	38	-
	N-AT2	11:28pm	63	IA ³	52	0.9 / 115	E	No	42	-
28/09/24	N-AT1	10:00pm	59	29	52	2.9 / 129	E	No	38	-9
	N-AT2	11:53pm	47	IA ³	52	1.8 / 123	E	No	42	-
19/10/24	N-AT1	10:00pm	57	25	52	2.8 / 096	E	No	38	-13
	N-AT2	11:46pm	49	IA ³	52	2.2 / 159	E	No	42	-
27/11/24	N-AT1	10:00pm	58	33	57 ¹	3.2 / 148	D	No	38	-5
	N-AT2	11:40pm	72	32	52	2.6 / 149	D	No	42	-10
12/12/24	N-AT1	10:00pm	52	IA ³	52	1.7 / 172	E	No	38	-
	N-AT2	11:43pm	65	IA ³	52	2.4 / 090	E	No	42	-

1. 'Max' predicted level as per Tables 5 to 8 of the EA Report.
2. '-' in column means VCM was 'inaudible', therefore comparison is not possible
3. IA = Inaudible (VCM)

Throughout the attended noise monitoring surveys conducted in the 2023 calendar year, the identified LA_{max} noise sources during night-time period attended noise monitoring included birds, dogs, insects, and frogs. VCM LA_{max} noise was audible and quantifiable during three night-time period attended noise monitoring surveys at N-AT1, and one night-time period attended noise monitoring survey at N-AT2, but was below the applicable noise criterion.

Sound Power Level Testing

Annual Sound Power Level testing was undertaken on the 14th December 2023 for the limited mining equipment at VCM. The majority of the mining equipment used at Vickery coal mine has been transported from Werris Creek Coal Mine as this site’s production declines towards the operation closing in 2024. These machines have been power level tested historically at that operation.

Sound power levels are calculated in accordance with the methodologies of ISO 6395, for the uphill and downhill motion for trucks and first gear operation for dozers, are summarised in Table 11.

Table 11 – Calculated Sound Power Levels =(+/- 1.0dB)

Plant Item		dB(A) Leq (2023)
Type	No.	
Excavator Hitachi EX3600	EXC810	114
CAT D11T Dozer	DOZ895	121
Haul truck CAT 785C	RDT615	116
Haul truck CAT 793F XQ	RDT666	115
Haul truck CAT 793F XQ	RDT668	113
Haul truck CAT 793F XQ	RDT808	114
Water Cart CAT 777F	WAT818	115

The noise emissions from the mine are the result of the combined noise emissions from all individual plant items working concurrently. As such the critical factors are the combined sound power levels of all plant items and the location of each relative to any individual receiver. The overall aim of the noise measurement process is to ensure that the mine is operating in compliance with off-site noise limits.

Noise levels well below VCM’s criteria have been recorded during the 2023 calendar year, suggesting that no plant items are producing excessive noise. No plant items measured during the survey exhibited unusual noise emissions in terms of quality or level and no further noise monitoring of the measured items is recommended within the current three-year measurement cycle. Additional mining equipment has mobilised to site since the sound power levels were measured in 2023. These items of plant will be targeted in the next reporting period.

5.5 Aboriginal Heritage Management

5.5.1 Environmental Performance/Management

The search of the AHIMS database has revealed that fifty-one (51) Aboriginal cultural heritage sites east of the Namoi River will be impacted by the development of the VCM. Most sites (n=39) will be fully impacted, while twelve (12) sites will be only partially impacted. All fifty-one (51) sites were targeted for archaeological salvage. Those sites scheduled for partial impact were only partially salvaged (i.e. only those areas of the site scheduled for impact); the remaining (unimpacted) portions of these site extents will be protected in accordance with procedures contained within the approved VCM ACHMP. The remaining portion of these sites will be fenced for the life of the mine to avoid inadvertent harm, with annual audits undertaken to inspect the condition of the site and fence. The annual audit will also include inspection of all sites within 1 km of the Vickery approved disturbance boundary.

The Vickery salvage program targeted all fifty-one (51) artefact sites located within the Vickery approved disturbance boundary. A total of 596 artefacts were collected from the surface of twenty-nine (29) sites; artefacts could not be identified at twenty-two (22) sites (43%). The majority of surface artefacts (68%) were collected from sites located along or close to the Greenwood Creek watercourse, a small ephemeral creek that flows into Driggle Draggie Creek.

The shovel test pitting program excavated one-hundred-and-twenty (120) STPs along the rail loop, two artefact scatters on the Greenwood Creek watercourse, and at a small site that yielded unexpectedly high artefact numbers (VCP-IF-017, AHIMS 20-4-0368). Shovel test pitting revealed a relatively shallow soil profile across much of the testing area, with an average maximum depth of 175 mm (maximum depth was 560 mm). A total of twenty-eight (28) artefacts were recovered from seventeen (17) STPs, from a maximum depth of 200 mm. A total of 3 m² of controlled excavation at the two ovens was also undertaken, with eleven artefacts being recovered from the excavation of Oven 1.

No new confirmed Aboriginal cultural heritage sites were identified in the reporting period.



Figure 12: Excavation of Trench 2, Oven 1

5.5.2 Key Environmental Performance/Management Issues

No key environmental performance/management issues were identified during the reporting period.

5.5.3 Proposed Improvements to Environmental Management

In accordance with the VCM Aboriginal Cultural Heritage Management Plan, annual inspections of the fencing will be undertaken and recommendations actioned.

Aboriginal cultural heritage sites required to be salvaged will be salvaged in accordance with the ACHMP.

5.6 Historic Heritage Management

The Kurrumbede Homestead Complex was listed on the State Heritage Register during the 2022 reporting period, in accordance with the decision made by the Minister for Environment and Planning made on 28 April 2022.

The Kurrumbede Homestead Complex is managed in accordance with the approved Vickery Coal Mine Historic Heritage Management Plan. Management activities in this reporting period were limited to ongoing maintenance of the gardens. A contemporary structural assessment of the homestead was completed in December 2023 to replace previous assessments prior to blasting operations commencing. This assessment will be used as the baseline for future monitoring.

5.7 Waste

5.7.1 Environmental Performance/Management

VCM aims to implement all reasonable and feasible measures to minimise waste and ensure it is appropriately stored, handled and disposed of. Waste materials at VCM are managed in accordance with:

- Schedule 2 Condition 92 of SSD-7480;
- Schedule 3 Condition 40 of SSD-5000;
- VCM Waste Management Plan; and
- NSW legislative requirements.

VCM waste streams include general waste and sewage, and are collected and disposed of at authorised waste disposal sites by a licenced contractor. Sewage is treated on site and serviced by a licenced waste disposal contractor on an as needs basis.

The engaged waste management service provider records waste generation quantities at the point of either disposal or collection. The quantities of each generated waste type removed from site by licenced contractor have been summarised in Table 12 for the 2023 period.

Table 12 – Approximate Waste Quantities Removed From Site By Licenced Contactor

Waste Stream	2023
Waste Oil (kL)	5.7
Scrap Metal (tons)	1.0
General Waste (tons)	34.8
Co-Mingled Recycling (tons)	0.46
Timber (tons)	0.82
Liquid Waste – J120 / Septic (L)	510,800
Empty IBCs (tons)	0
Hydraulic Hoses + Filters (tons)	0
Batteries (tons)	0
Tyres (each)	0

Asbestos

Five Asbestos contaminated locations within the project boundary were cleared and contaminated material collected for disposal during the reporting period. Approximately 466 tonnes of contaminated material was collected and transported to licenced waste facilities. Each site is outlined in detail below:

Sites 1 & 2 – Northern and Southern Gully

Approximately 431 tonnes of waste was generated during the asbestos removal works between 26 October and 2 November 2023. The waste was transported and disposed of at both the Narrabri Waste Management Facility (loads transported via “truck and dog”) and the Gunnedah Waste Management Facility (loads transported via rigid 15 t and rigid 12 t trucks) as “Asbestos waste” under NSW Environment Protection Authority waste tracking protocols (NSW EPA Waste Locate).

Site 3 - Tank Site

Approximately five kilograms (5 kg) of waste was generated during the asbestos removal works. The waste was transported and disposed of at the Gunnedah Waste Management Facility (17 October 2023) as “Asbestos waste” under NSW Environment Protection Authority waste tracking protocols (NSW EPA Waste Locate).

Site 4 – Stockpile Site

Approximately 34 tonnes of waste was generated during the asbestos removal works. The waste was transported and disposed of at the Gunnedah Waste Management Facility (2 and 3 November 2023) as “Asbestos waste” under NSW Environment Protection Authority waste tracking protocols (NSW EPA Waste Locate).

Site 5 – Cottage Site

Approximately 1 tonne of waste was generated during the asbestos removal works. The waste was transported and disposed of at the Gunnedah Waste Management Facility as “Asbestos waste” under NSW Environment Protection Authority waste tracking protocols (NSW EPA Waste Locate).

5.7.2 Key Environmental Performance/Management Issues

No management issues

5.7.3 Proposed Improvements to Environmental Management

Waste tracking to continue as mine increases in size and other waste streams come online.

5.8 Environmental Performance Summary

An environmental performance summary for VCM is presented in **Table 13** below.

Table 13 - Environmental Performance

Aspect	Approval Criteria/ EIS Prediction	Performance During the Reporting Period	Trend/Key Management Implications	Implemented/Proposed Management Actions
Noise	Day–40 LAeq (15 min) Evening–35 LAeq (15 min) Night–35 LAeq (15 min) Night–52 LAF max	Compliant with criterion.	Within criteria	Continue Regular Monthly Monitoring
Blasting	N/A – No blasting undertaken in 2023			
Mean annual dust deposition	4 g/m ² /month (SSD- 5000 only)	Compliant with criterion.	Within criteria	Nil
Mean annual PM ₁₀ particulate level	30 µg/m ³ (SSD-5000) 25 µg/m ³ (SSD-7480)	9.1 µg/m ³ 13.5 µg/m ³	Within criteria	Continue Regular Monitoring
Mean annual PM _{2.5} particulate level	8 µg/m ³ (SSD-7480)	6.5 µg/m ³	Within criteria	Continue Regular Monitoring
24 hour average PM ₁₀ particulate level	50 µg/m ³	>Criterion due to Pilliga Forest Fire	Annual Averages below Criteria	Continue Regular Monitoring
24 hour average PM _{2.5} particulate level	25 µg/m ³ (SSD-7480)	>Criterion due to Pilliga Forest Fire	Annual Averages below Criteria	Continue Regular Monitoring
Mean annual Total Suspended Particulate (TSP) matter	90 µg/m ³	18.3 µg/m ³	Within criteria	Continue Regular Monitoring
Waste	No Approval Criteria	Initial year 1 data collected	Year 1 Data collected	Continue Regular Monitoring
Biodiversity	EPBC 2012/6263 and 3(33) of SSD-5000, requires the translocation and protection of the Winged Peppercross.	Progress made towards protecting the species.	N/A	Continue regular monitoring and maintenance of fence.

6. WATER MANAGEMENT

6.1 Surface Water Management

6.1.1 Environmental Performance/Management

The VCM is largely located within the Stratford Creek and Driggle Draggie Creek catchments, which ultimately flow into the Namoi River south of Boggabri. Areas to the south-west of the Vickery Extension Project drain directly to the Namoi River catchment.

The water management strategy for VCM is based on targeted management of water from different sources based on water quality. Water on the site is categorised as either:

- clean water – water from areas not disturbed by mining;
- dirty water – runoff from areas disturbed by stripping or placement of waste rock material (sediment laden);
- mine water – surface runoff in mining areas that is likely to have come into contact with coal or other contaminants; or
- external water – Water imported to site from licensed extraction points, either surface water or bore water

The objectives of the site water management system are to ensure:

- clean water runoff from undisturbed catchment areas is diverted away from the mining area, where possible and practical to do so;
- dirty water runoff from disturbed areas is re-used in the mine water management system or released into the receiving environment if water quality meets EPL requirements (i.e. treatment may be required);
- no discharge of mine water off-site; and
- mine water (including water that accumulates within, or drains from, active mining areas, coal reject emplacement areas and Coal Processing Plant (CPP) infrastructure areas) and groundwater collected within open cut pits is contained and reused on-site;
- on-site water demands are satisfied whilst minimising external water supply requirements.

In the 2023 reporting period construction commenced on the Vickery Extension Project (SSD-7480) with vegetation clearing for the Mine Infrastructure Area and Water Management Infrastructure as the first construction activity to occur in August 2023. The life of mine water management infrastructure for the western emplacement area was constructed in 2023 resulting in a dirty water drain/clean water bund extending along the south-western to north-western boundary of the VCM. A large sediment dam and licenced discharge point was also constructed in the reporting period. This infrastructure is designed to accommodate run-off from a completed western overburden emplacement area and, as such, will not have to be enlarged or extended in the life of the project.

6.1.2 Surface Water Monitoring

Surface water monitoring is undertaken monthly at the locations outlined in Table 14. The monthly monitoring began in August, in line with the commencement of mining activities. Over the 2023 reporting period local rivers and drainage lines lowered in level and in most cases ceased to flow or dried up.

MWD2 has not finished construction and as such grab-sample monitoring has not commenced. There were no Water discharges during the 2023 reporting period and site surface water will be monitored when not dry.

Off-site surface water monitoring results from the Namoi River and local ephemeral creeks are displayed in Figure 13. Figure 14 contains monitoring data obtained from Water NSW website¹ and shows EC plotted alongside river height. The VCM surface water monitoring points NR-US and NR-DS returned monitoring results that are consistent with this data. The resultant water quality from this monitoring is commensurate with the lower rainfall experienced in 2023 compared to the previous two calendar years. As no discharges occurred from VCM these monitoring results are relevant baseline data. The VCM Monitoring Regime is outlined below in Table 14 and Table 15.

Table 14 – Surface water Monitoring Summary

Monitoring Location		Parameters	Frequency
Onsite		Rainfall	Continuous
Namoi River	NR-US NR-DS	Table 15	Monthly if flowing; within 12 hours of a discharge
Driggle Draggie Creek	DDS-US DDS-DS	Table 15	Monthly if flowing; within 12 hours of a discharge
North-West Drainage Line	VUS	Table 15	Monthly if flowing;
Stratford Creek	SC-US SC-DS	Table 15	Monthly if flowing; within 12 hours of a discharge
MWD2		Table 15	Quarterly
All Dams		Water Level	Weekly
Sediment Dam Overflows		Table 15	As soon as practicable and not more than 12 hours after discharge

Table 15 – Discharge and Receiving Environment Water Quality Parameters

Parameter	Unit	Parameter	Unit
pH (in situ and lab)	-	Bromine (filtered)	mg/L
Turbidity (in situ and lab)	NTU	Cadmium (filtered)	mg/L
EC (in situ and lab)	µs/cm	Copper (filtered)	mg/L
Oil and Grease	mg/L	Iron (filtered)	mg/L
Total Dissolved Solids	mg/L	Lead (filtered)	mg/L
Iron (Fe) – Filtered and total	mg/L	Lithium (filtered)	mg/L
Sulphate as SO ₄ ⁻ - Turbidimetric	mg/L	Manganese (filtered)	mg/L
Bicarbonate Alkalinity as CaCO ₃	mg/L	Mercury (filtered)	mg/L
Carbonate Alkalinity as CaCO ₃	mg/L	Molybdenum (filtered)	mg/L
Hydroxide Alkalinity as CaCO ₃	mg/L	Nickel (filtered)	mg/L
Total Alkalinity as CaCO ₃	mg/L	Rubidium (filtered)	mg/L
Chloride	mg/L	Selenium (filtered)	mg/L
Calcium	mg/L	Silver (filtered)	mg/L
Magnesium	mg/L	Strontium (filtered)	mg/L
Sodium	mg/L	Zinc (filtered)	mg/L
Potassium	mg/L	Ammonia as N	mg/L
Aluminium (filtered)	mg/L	Nitrite as N	mg/L
Antimony (filtered)	mg/L	Nitrate as N	mg/L
Arsenic (filtered)	mg/L	Nitrite + Nitrate as N	mg/L
Barium (filtered)	mg/L	Total Phosphorus as P	mg/L
Boron (filtered)	mg/L		

¹ Data obtained from: <https://realtimedata.waternsw.com.au/water.stm> (March 2024)

		pH Field	pH Lab	EC Field	EC at 25°C (Lab)	TDS (dried at 180°C)	Turbidity	TSS	Calcium (dissolved)	Sodium (dissolved)	Magnesium (dissolved)	Sulphate (SO ₄)	Chloride	Arsenic (dissolved)	Barium (dissolved)	Cadmium (dissolved)	Copper (dissolved)	Iron (dissolved)	Iron (total)	Lead (dissolved)	Manganese (dissolved)	Nickel (dissolved)	Zinc (dissolved)	Mercury (dissolved)	Ammonia (N)	Phosphorus (total)	Total Nitrogen as N	Nitrate (as N)	Nitrite (as N)	Oil & Grease	
STANDARDS		pH	pH	µS/cm	µS/cm	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	
Vickery WMP Triggers AR POINTS	SAMPLE TIME	> 6.5, < 8.6	> 6.5, < 8.6	<670	<670	<400	> 6, < 50	< 70	< 50	< 60	< 30	< 50	< 70	< 0.013	< 1000	< 0.0002	< 0.005	< 1.9	<1.9	< 0.0034	< 100	< 11	< 20	< 0.6	< 0.03	< 200	< 1	< 0.7	< 1	<10	
Namoi DS 3	18/12/2023	7.8	8.1	210	421	236	41.1		33	31	20	39	22	0.001	29	< 0.0001	0.001	< 0.05	0.93	< 0.001	< 1	1	< 5	< 0.1	0.01	120		< 0.01	< 0.01	< 5	
	23/11/2023	8.2	8.23	435	390	276	28.4		31	31	17	37	24	0.002	237	< 0.0001	0.002	0.07	1.63	< 0.001	11	2	547	< 0.1	0.01	70		< 0.01	< 0.01	< 5	
	25/10/2023	8.4	8.2	490	441	254	31.8		36	31	19	40	26	0.001	28	< 0.0001	0.002	< 0.05	0.46	< 0.001	2	< 1	< 5	< 0.1	0.01	70		< 0.01	< 0.01	6	
	25/09/2023	8.3	8.15	445	477	276	27.8		37	34	21	41	58	0.001	28	< 0.0001	0.002	< 0.05	0.48	< 0.001	3	1	< 5	< 0.1	0.01	50		0.19	< 0.01	< 5	
	30/08/2023	8.3	8.34	860	1020	616	41.8		69	92	52	91	132	0.001	49	< 0.0001	0.002	< 0.05	1.91	< 0.001	3	1	5	< 0.1	0.02	150		0.41	< 0.01	< 5	
	30/03/2023	7.3	7.39	535	465	362	78.4	101				43		0.002											240	1.6				< 5	
	15/03/2023	7.3	7.99	535	450	256	71.9	82				29		0.003												200	1.9				< 5
Namoi DS 1	18/12/2023	8.4	8.13	455	435	272	35.1		33	32	19	40	25	0.001	29	< 0.0001	< 0.001	< 0.05	2.15	< 0.001	2	1	< 5	< 0.1	0.35	110		0.04	< 0.01	< 5	
	23/11/2023	8.2	8.28	435	402	296	24.1		32	31	18	39	25	0.002	45	< 0.0001	< 0.001	< 0.05	1.72	< 0.001	4	< 1	5	< 0.1	0.01	90		< 0.01	< 0.01	< 5	
	25/10/2023	8.2	8.04	470	451	257	26.8		37	33	21	36	25	0.001	38	< 0.0001	0.002	< 0.05	1.04	< 0.001	18	< 1	24	< 0.1	0.01	80		0.03	< 0.01	< 5	
	25/09/2023	8	8.09	445	474	278	22.1		37	33	21	41	56	0.001	27	< 0.0001	0.001	< 0.05	0.92	< 0.001	2	< 1	< 5	< 0.1	0.01	50		0.18	< 0.01	< 5	
	30/08/2023	8.3	8.44	855	1020	588	30.8		71	91	52	93	123	0.002	53	0.0001	0.002	0.31	1.29	< 0.001	134	1	15	< 0.1	0.03	130		0.72	< 0.01	< 5	
	30/03/2023	7.8	7.48	610	605	403	231	398				47		0.004												590	2.7				< 5
	15/03/2023	7.2	8.02	460	416	252	60.9	84				32		0.004												220	6.1				< 5
Namoi DS 2	18/12/2023	8.4	8.21	445	422	248	39.1		34	34	20	39	22	0.002	40	< 0.0001	0.001	< 0.05	0.85	< 0.001	7	1	17	< 0.1	0.01	120		< 0.01	< 0.01	< 5	
	23/11/2023	8.1	8.31	430	402	284	29.6		31	30	18	39	27	0.001	48	< 0.0001	< 0.001	0.1	3.71	< 0.001	6	< 1	5	< 0.1	0.02	110		< 0.01	< 0.01	< 5	
	25/10/2023	8.3	8.29	465	432	219	19.6		37	32	19	38	25	0.001	29	< 0.0001	< 0.001	< 0.05	0.32	< 0.001	5	< 1	< 5	< 0.1	0.03	60		0.03	< 0.01	< 5	
	25/09/2023	7.9	8.07	450	468	256	23.3		37	34	21	41	55	0.001	27	< 0.0001	0.002	< 0.05	0.99	< 0.001	2	1	< 5	< 0.1	0.03	60		0.2	< 0.01	< 5	
	30/08/2023	8.2	8.43	845	1020	593	25.4		72	90	52	90	123	0.001	56	0.0002	0.003	0.15	1.16	< 0.001	115	1	34	< 0.1	0.03	160		0.67	< 0.01	< 5	
Namoi US	18/12/2023	8.2	8.04	450	419	242	59.6		34	31	20	39	22	0.002	38	< 0.0001	0.002	0.55	2.58	< 0.001	125	2	6	< 0.1	0.03	120		< 0.01	< 0.01	< 5	
	23/11/2023	7.7	8.25	435	400	285	24.6		32	32	18	40	26	0.001	59	< 0.0001	< 0.001	0.06	1.55	< 0.001	7	< 1	46	< 0.1	0.02	80		< 0.01	< 0.01	< 5	
	25/10/2023	7.7	8.22	470	426	248	24.9		34	29	18	37	25	0.001	25	< 0.0001	0.001	< 0.05	0.43	< 0.001	5	< 1	< 5	< 0.1	0.02	70		< 0.01	< 0.01	< 5	
	25/09/2023	8.2	8.17	445	472	260	21.2		36	32	20	42	32	0.001	28	< 0.0001	0.001	< 0.05	0.64	< 0.001	2	1	< 5	< 0.1	0.01	40		0.16	< 0.01	< 5	
	30/08/2023	8.1	8.47	845	1030	610	27.5		71	94	52	115	122	0.001	50	< 0.0001	0.002	< 0.05	1.74	< 0.001	3	< 1	13	< 0.1	0.03	130		2.47	< 0.01	< 5	
Driggle Draggle US	30/03/2023	7.2	6.51	155	115	208	70.2	48				< 10		0.002												380	2.1				< 5
Driggle Draggle DS 1	30/03/2023	7.1	6.25	230	177	309	131	89				< 1		0.002												690	8.1				< 5
Driggle Draggle DS 2	30/03/2023	6.9	6.36	160	123	245	43.1	38				< 10		0.002												530	2.6				< 5
North West Drainage Line US	30/03/2023	7	6.52	140	112	213	67.7	38				< 10		0.002												420	2.1				< 5
North West Drainage Line DS	30/03/2023	7.5	6.39	155	111	214	41	62				< 10		0.002												550	3.4				< 5
Stratford Creek DS	30/03/2023	7.6	6.64	170	132	274	95.6	30				< 10		0.001												150	1.7				< 5
Stratford Creek US	30/03/2023	7.7	6.62	155	118	272	137	145				< 10		0.001												300	2.7				< 5
Stratford Creek	30/03/2023	7.7	6.52	160	125	220	37.6	16				< 10		0.001												190	2				< 5

Figure 13 – VCM Offsite Surface Water Monitoring

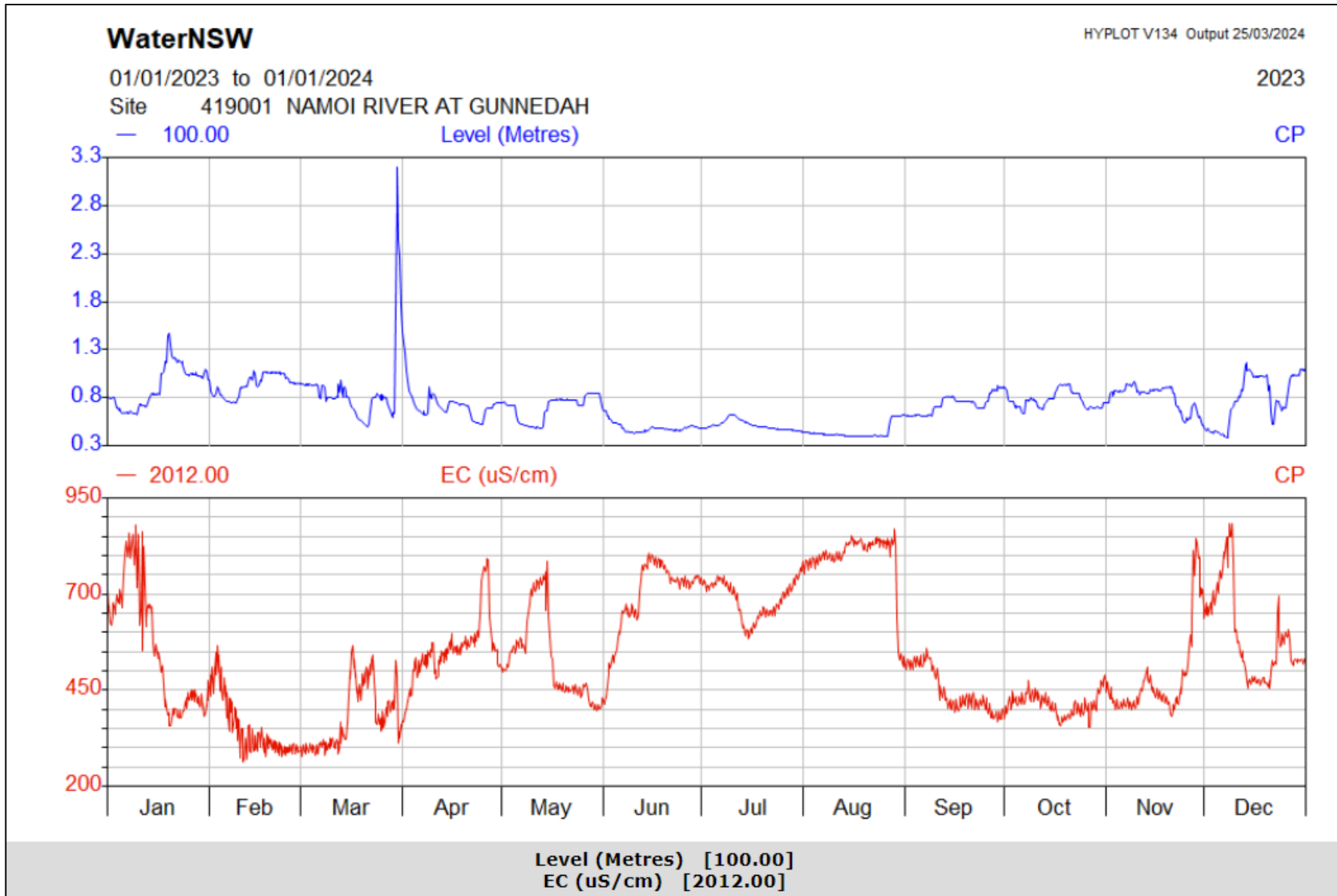


Figure 14 – Water NSW 2023 Namoi River Data

6.1.3 Key Environmental Performance/Management Issues

Some offsite water quality monitoring locations remain dry due to climatic conditions. Samples will be labelled as Dry when a sample cannot be taken.

6.1.4 Proposed Improvements to Environmental Management

No improvements are proposed for the next reporting period.

6.2 Groundwater Management

6.2.1 Environmental Performance/Management

Groundwater monitoring was undertaken in the reporting period as construction and mining activities commenced.

The VCM Ground Water Management Plan (GWMP) outlines the groundwater monitoring network of 49 monitoring sites outlined below and shown in Figure 15:

- 24 monitoring locations in Alluvial aquifer; and
- 25 monitoring locations in Permian aquifer.

VCM will incorporate an additional eleven monitoring locations commensurate with the commencement of mining, including:

- Two locations (WR1 and WR2) positioned to monitor the potential for seepage from the spoil dump;
- Two locations screening the alluvium to the southeast of the mine, situated outside the 1 metres predicted drawdown impact zone of the mine;
- Five locations screening the alluvium to the north of the mine in proximity of the proposed VCM bore field; and
- Two locations screening the Permian aquifer to the north of the mine.

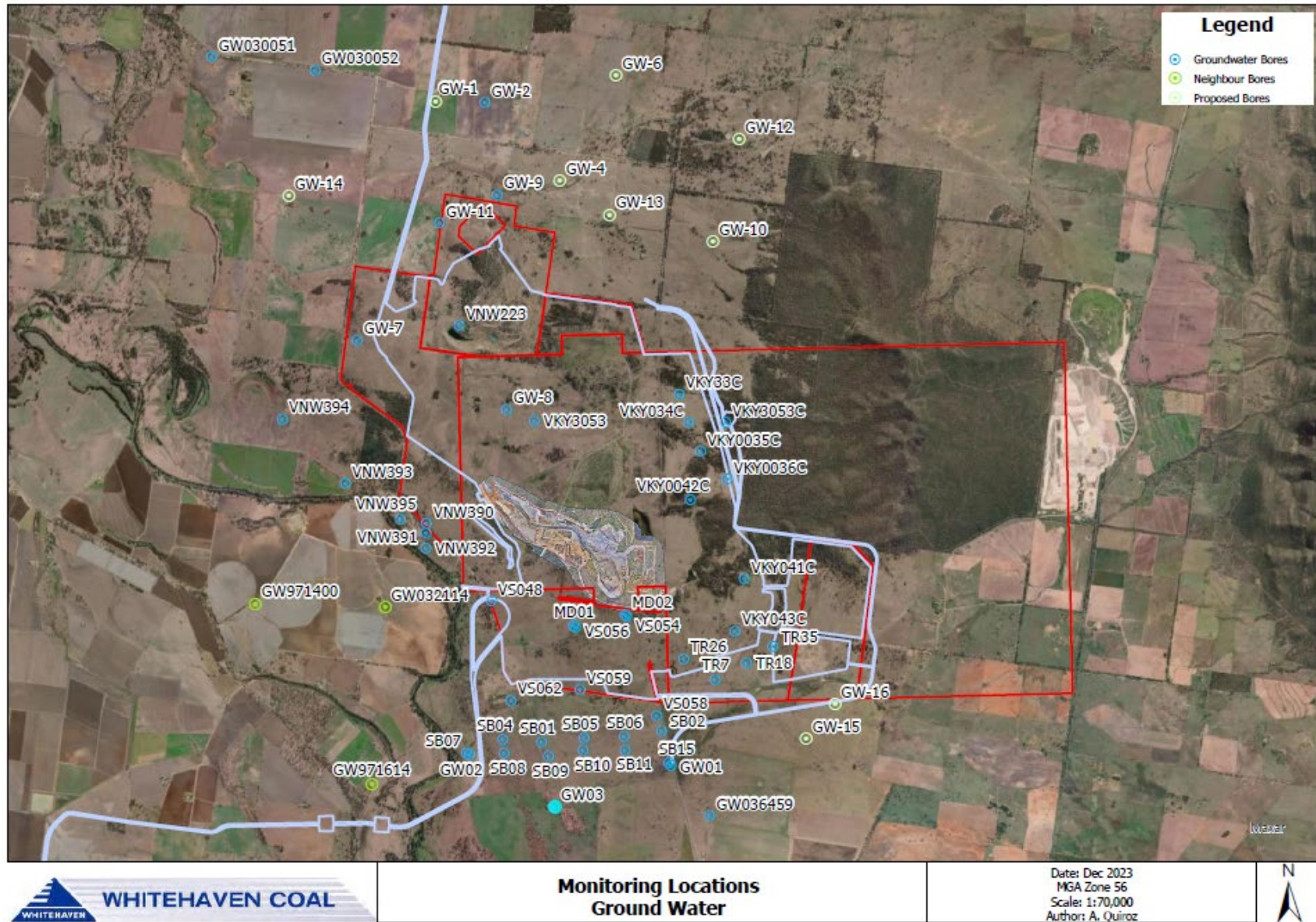


Figure 15 – VCM Groundwater Monitoring Locations

Groundwater Levels

Groundwater levels in the Permian and Alluvial bores have remained steady with no significant change in levels between April 2023 and October/November 2023 (Figure 16 and Figure 17). Given no extractive activities below the water table occurred during the reporting period, this is as expected. There is insufficient data (less than 2 years) to provide any commentary on seasonal fluctuations or changes in responds to climate conditions (residual rainfall mass). Analyses on these patterns will be included when more than 2 years of data has been collected.

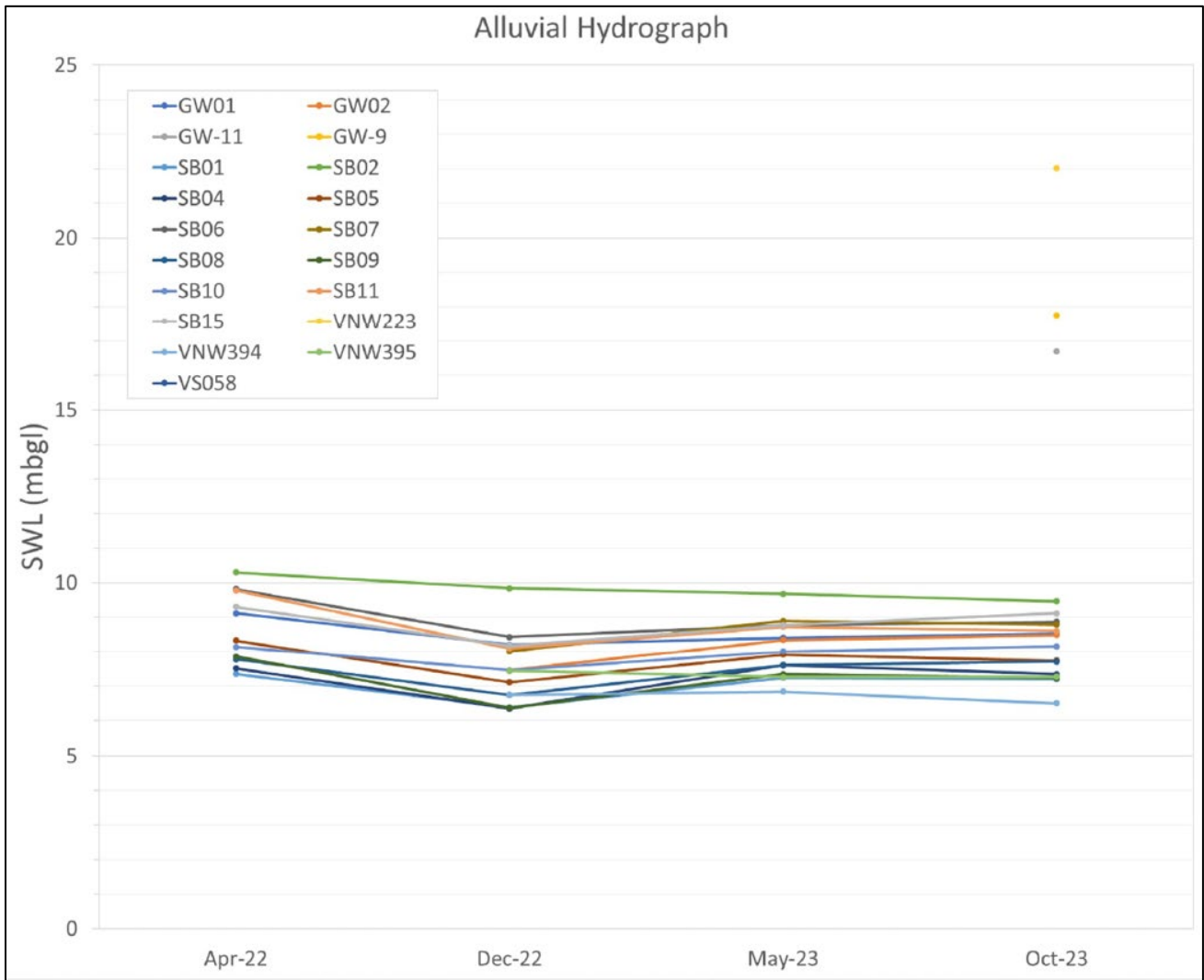


Figure 16 – VCM Alluvial Hydrograph

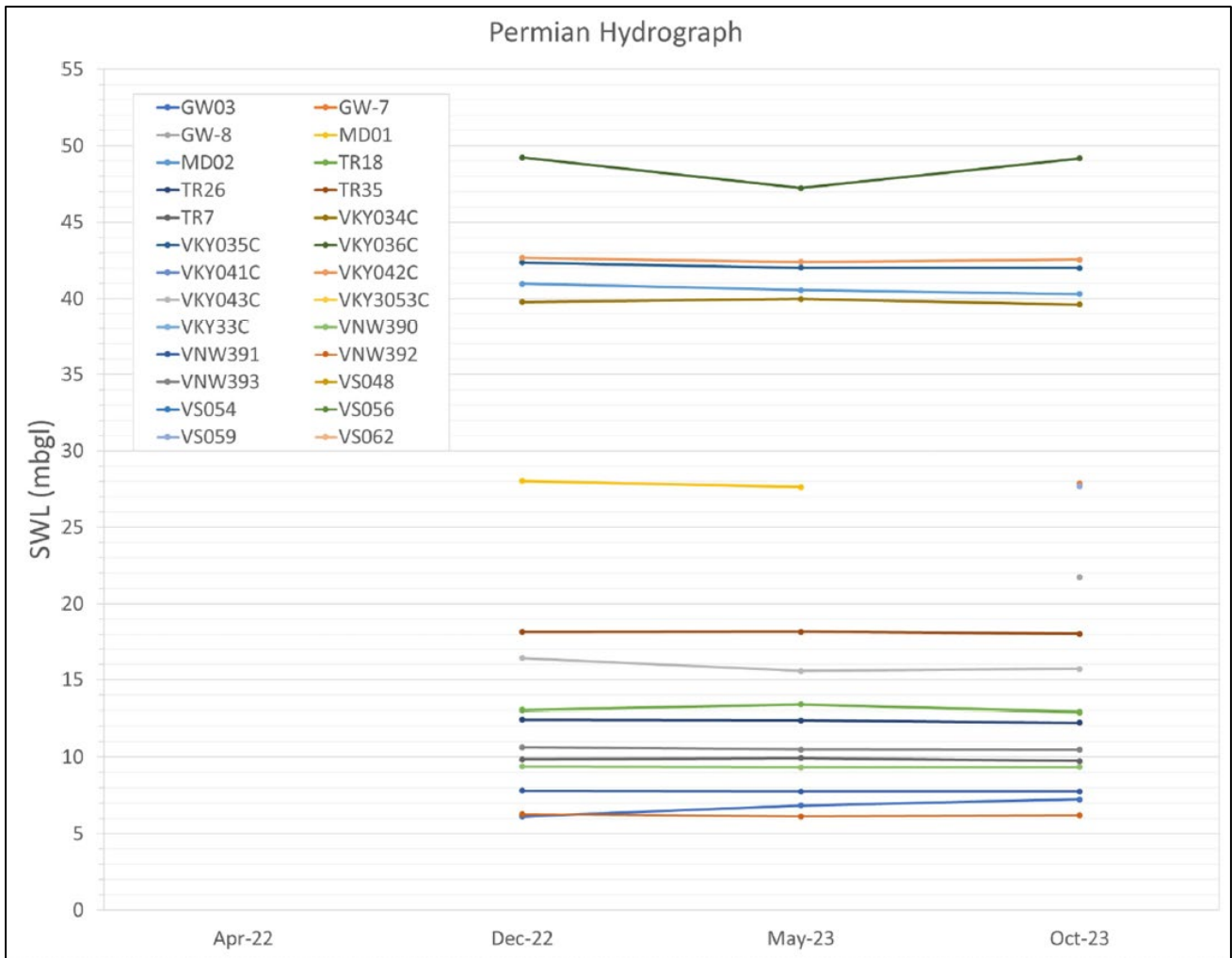


Figure 17 – VCM Permian Hydrographs

Ground Water Quality

Initial groundwater quality monitoring has been undertaken during October and November 2023. Table 16 summarises the bores that have exceedances of the interim trigger values as set out in Table 8-3 of the GWMP.

Table 16 – Summary of GW Interim Trigger Values Compared to Initial Results

Groundwater Bore ID	Parameters	Trigger Levels	Unit	Monitoring Results
GW03	EC	811	µS/cm	839
GW11	pH	7.0-9.3	pH Unit	6.7
TR7	pH	7.4-7.8	pH Unit	6.99
GW7	pH	7.7-8.5	pH Unit	8.85
GW9	SO ₄ ²⁻	86	mg/L	104
SB02	SO ₄ ²⁻	365	mg/L	1120
SB06	SO ₄ ²⁻	365	mg/L	372
SB05	SO ₄ ²⁻	365	mg/L	735
MD01	pH	6.7-8.4	pH Unit	8.85
TR26	SO ₄ ²⁻	86	mg/L	194
TR18	SO ₄ ²⁻	86	mg/L	702
	EC	12,315	µS/cm	13,000
TR35	SO ₄ ²⁻	86	mg/L	660
	EC	12,315	µS/cm	14,900
VKY042C	SO ₄ ²⁻	86	mg/L	302
VKY035C	SO ₄ ²⁻	86	mg/L	87

The exceedances summarised in Table 16 are unlikely to be a result of mining and highly likely to be due to natural variation in water quality as mining has not progressed below the water table. These results indicate that more data and analysis is required to develop specific trigger levels for each bore. The interim trigger values have been developed from generic triggers due to not having 2 years of data and therefore will be developed further as more data is collected.

The groundwater quality results indicate a 'normal condition' TARP response. If the same levels are observed in the next quarterly monitoring results this will become a level 1 TARP trigger whereby a resample of GW quality will be initiated. The pH at MD01 is anomalous and a purge of the bore will be undertaken prior to the next reporting period.

As discussed above, generic trigger levels (i.e. SO₄²⁻ 86 mg/L for Permian) have been implemented for each water source (Alluvium or Permian) for sites with less than 2 years of data. Subsequent monitoring events will inform the development of specific trigger levels for each bore. Following the initial monitoring period, where these trigger levels have been developed, certain bores may be removed from the monitoring program if the data indicates that some monitoring locations are superfluous. Similarly additional monitoring locations will be established if the analysis of monitoring results indicates that data beneficial to refining the groundwater model or trigger levels can potentially be obtained by monitoring different locations.

Ground Water Extraction

One extraction point was used in the 2023 reporting period. The two WALs (12651 and 12653) associated with this extraction point and usage are summarised in Table 17.

Table 17 - Water take for 2023 Reporting Period

Water Licence #	Water sharing plan, source and management zone	Entitlement (unit shares)	Passive take / inflows (ML)	Active pumping (ML)	Total (ML)
12651	<i>Water Sharing Plan for the Namoi Alluvial Groundwater Sources Order 2020</i>	52 unit shares (104 ML)	14.7	31.47	46.17
12653	Upper Namoi Zone 4, Namoi Valley (Keepit Dam to Gin's Leap) Groundwater Source	166 unit shares (332 ML)			

6.2.2 Key Environmental Performance/Management Issues

Only one full groundwater sampling event was undertaken in 2023 following the approval of the GWMP in august. Future sampling events will inform the review of the groundwater triggers as more data becomes available.

6.2.3 Proposed Improvements to Environmental Management

The monitoring procedures will be reviewed and updated as required, following future groundwater sampling campaigns.

6.3 Water Balance

The VCM water balance model (WBM) has been developed using the GoldSim modelling platform and incorporates VCM and Canyon Coal Mine (CCM). The initial WBM for this site was based on the conceptual mine plans for VEP. The model was updated in 2023 for the VCM Water Management Plan.

This report describes the update of the VCM WBM (also known as the VEP WBM) to reflect the 2023 site configuration and validation of the performance of the model against site observations and recorded data. The outcomes from this assessment, as well as a comparison against the predicted water balance in the Environmental Impact Statement (EIS), are provide in the following sections. The water balance is summarised in Table 18 below.

Table 18 – Vickery Coal Mine Water Balance

Aspect	Year 2023 Volume (ML)	Basis	EIS Year 1 Median Volume (ML)
<u>Water inflows</u>			
Namoi River pumping	0		~550
Olivedene Bore	0		
Brighton Bore	0	<i>Measured</i>	~15
Roma Bore	0		
BIS/Kurrumbede Bore	27.3		
Rainfall and runoff	239.4	<i>Estimated</i>	~100
In-void groundwater inflows	14.7	<i>Inferred</i>	0
Total inflows	281.4		~665
<u>Water outflows</u>			
Dust suppression and construction use	106.8	<i>Measured</i>	~350
Evaporation	319.5	<i>Estimated</i>	~180
Offsite discharges	0	<i>Measured</i>	0
Total outflows	426.3		~530
<u>Change in storage</u>			
Start of Jan 2023 ¹	424.0		
End of Dec 2023 ¹	279.1		
Net change in storage	-144.9		
WATER BALANCE	-144.9²		

Notes:

1 Modelled volumes across all storages

2 For a balanced system, this value should equal the “net change in storage”

A comparison of Year 2023 water balance against the predictions in the EIS (for median Year 1 conditions) is as follows:

- Actual Namoi River pumping inflow (0 ML) was much lower than predicted in the EIS for Year 1 (550 ML). This is attributed to the mine construction commencing late in 2023 with mine water storages still yet to be constructed.
- Actual bore water imports (27 ML) were comparable to predicted bore imports (15 ML) in the EIS for Year 1.
- Rainfall and runoff (239 ML) was higher than predicted in the EIS for Year 1 (100 ML).
- Estimated in-pit groundwater inflows (15 ML) are comparable to those predicted in the EIS for Year 1 (0 ML).
- Dust suppression and construction usage (107 ML) was lower than predicted in the EIS for Year 1 (350 ML). This is due to the mine construction commencing late in 2023.
- Evaporative losses (320 ML) are higher than predicted in the EIS for Year 1 (180 ML).
- Offsite discharges (0 ML) was the same as predicted in the EIS for Year 1.

7. REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD

7.1 Status of Mining and Rehabilitation

Total mine footprint consists of previously disturbed areas, including land under active rehabilitation combined with active disturbance. As VCM progresses, previously disturbed (active rehab) will be disturbed.

Table 19 summarises the rehabilitation status at Vickery.

Table 19 - Rehabilitation Status

Mine Area Type ¹	Previous Reporting Period (Actual) (ha)	This Reporting Period (Actual) (ha)	Next Reporting Period (Forecast) (ha)
	2022	2023	2024
Total Mine Footprint ³	719.34 ²	898.62 ²	1,545.47 ²
Total Active Disturbance	243.27 ³	489.02 ³	1,186.15 ³
Land Being Prepared for Rehabilitation	0	0	0
Land Under Active Rehabilitation	476.07 ⁴	409.6 ⁴	255.92 ⁴
Completed Rehabilitation	0	0	0

¹ Refer to Annual Review Guidelines (p.11) for description of mine area types.

² Previously Disturbed ground + Active Disturbance (Rehab, void, etc)

³ Vickery Coal Mine Active Disturbance

⁴ Prior mining land under rehabilitation

7.2 Post Rehabilitation Land Uses

Two final rehabilitation land uses are to be established at Vickery – land suitable for grazing (780 ha) and native forest/woodland (1,360 ha).

7.3 Key Rehabilitation Performance Indicators

No rehabilitation occurred during the reporting period related to mining.

7.4 Renovation or Removal of Buildings

No renovation or removal of buildings occurred during the reporting period.

7.5 Departmental Sign-off of Rehabilitated Areas

Departmental sign-off has not been requested for any rehabilitated areas.

7.6 Variations in Activities against Forward Program

Activities in line with Forward Program.

7.7 Trials, Research Projects and Initiatives

No rehabilitation trials, research projects or other initiatives were undertaken during the reporting period.

7.8 Key Issues to Achieving Successful Rehabilitation

No specific issues in achieving rehabilitation success have been determined to date.

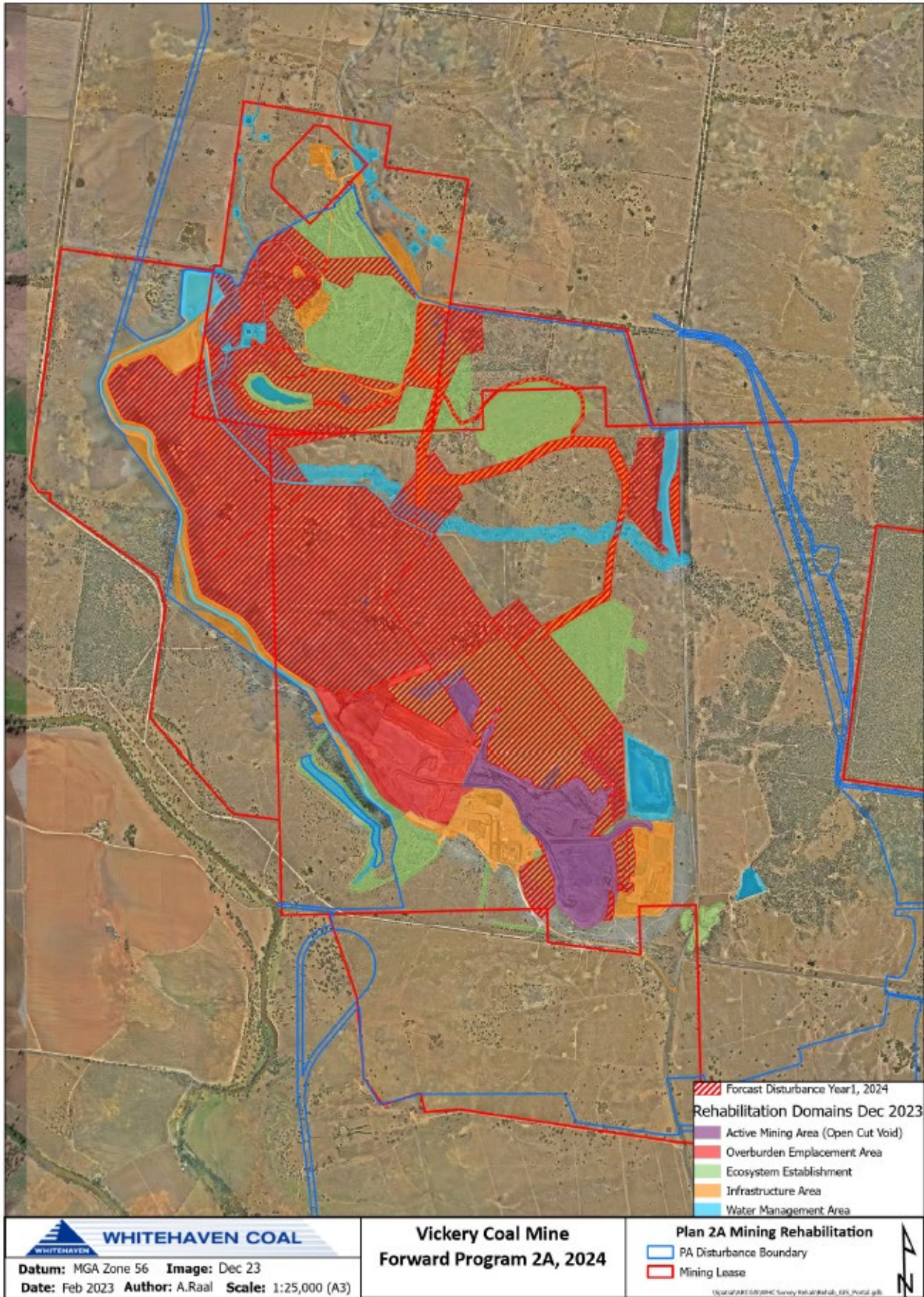


Figure 18 – VCM Forward Program and Rehabilitation Status

8. COMMUNITY

In accordance with Schedule 5, Condition 6 of SSD-5000 and Schedule 2, Condition A23 of SSD-7480, the Community Consultative Committee (CCC) met twice in 2023 in conjunction with the Canyon Coal Mine. Minutes of the CCC meetings were published on the project website. No complaints were received during the 2023 reporting period.

VCM received 1 complaint during the reporting period regarding accessing an incorrect property for monitoring purposes. Measures have been implemented to prevent re-occurrence and follow-up contact was made with the landholder.

Community contributions are managed in accordance with the Whitehaven Coal Donations and Sponsorship Policy. In 2023 Whitehaven Coal donated \$245,490.80 to local Gunnedah groups and over \$339,094.89 to support local groups in Narrabri during the reporting period. Groups and activities which received contributions included, but were not limited to the following;

Gunnedah LGA:

Yawiriawiri Murri Ganuur Descendants	Gunnedah Junior Rugby Club Incorporated
Rotary Club Gunnedah West	Eric & Carol Hannan
Carroll Community Bus Incorporated	Boggabri Gunnedah Gun Club
Swimming Gunnedah Incorporated	Gunnedah Ministers Fraternal
The Combined Catholic Schools P&F	Dorothea Mackellar Poetry Awards
Winganga Li Early Learning And Care Sevices	Lake Keepit Fishing Club
Crossfit Gunnedah	The Red Chief - Local Aboriginal Local Council
Gunnedah High School	Gunnedah Shire Council
Gunnedah Filipino Australia Community	Gunnedah Shire Council
Gunnedah Junior Rugby Club Incorporated	Gunnedah Swimming
Gomeri Roos	Cougar Warriors
Australian Whipcrackers & Plaiters Association	Gunnedah Shire Council
Multicultural Women's Association Inc Charity No.	Plains Of Plenty
Gunnedah And District Bulldogs Afl	Gunnedah Meals On Wheels
Naidoc Week Committee Incorporated	Curlewis Ps P&C
The Central Noth Rugby Union	Movember Foundation
Gunnedah Bulldogs	Gunnedah And District Chamber Of Commerce
Gunnedah Shire Council	Gunnedah South Public School P&C Association
Gunnedah And District Chamber Of Commerce	Gunnedah Can Assist
Women In Mining	Gunnedah Shire Council
Gomeri Allstars	Gunnedah High School
Gunnedah Pistol Club	Gunnedah & District Chamber Of Comm
Lions Club Of Gunnedah	Pcyc Gunnedah

Narrabri LGA:

North Branding	Wee Waa Community Band Inc.
Narrabri Industrial Network Inc	Narrabri Dolphins Water Polo Club Incorporated
Education Public Schools	Wee Waa Show Society Inc.
North Western Courier	Narrabri Industrial Network Inc
Boggabri Golf Club	Narrabri Oztag
Forest Coaches	Narrabri Rugby League Football Club
Narrabri Arts Eisteddfod Inc	Namoi Women's Shed Incorporated
Eulah Creek Recreation Reserve Trust	Narrabri Industrial Network Inc
Wee Waa & District Historical Society Inc	Richard Barry
Presbyterian Social Service	Narrabri Rsl Sub-Branch
Narrabri District Junior Rugby League Club	Maules Creek Campdraft And Junior Rodeo 2023
Rotary Club Narrabri	Yarrie Lake Flore & Fuana Trust
Narrabri Shire Community Radio Inc	St Xaviers Narrabri
The Rotary Club Of Narrabri Inc.	Boggabri Rugby League Football Club
Narrabri And District Chamber Of Commerce	Nosh Narrabri Committee
Narrabri & District Community Aid Service Incorporated	Boggabri Public School
Narrabri Dolphins Water Polo Club Incorporated	Whc - Clontarf

9. INDEPENDENT AUDIT

In accordance with Condition E10 of SSD 7480 an independent review was undertaken during the 2023 reporting period. The audit was undertaken in May 2023 and was undertaken by Environmental Resources Management Australia (ERM). No Non-compliances or actions were noted during the independent audit.

The Independent Environmental Audit report is located on the project website.

10. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

10.1 Reportable Incidents

There were no reportable incidents recorded during the reporting period.

10.2 Non-compliances

There were no non-compliances during the reporting period.

10.3 Regulatory Actions

There were no regulatory actions during the reporting period.

11. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

Formal surrender of the development consent SSD-5000 is anticipated to occur during the 2024-reporting period in accordance with condition A18 of SSD-7480.

The following measures will continue, or be implemented, in the next reporting period to improve the environmental or community performance of the operation:

- Continuation of the CCC meetings;
- Continuation of weed and feral animal monitoring on-site to guide management actions,
- Inspection of completion and condition of fencing at Aboriginal cultural heritage sites;
- Environmental management related to exploration, and rehabilitation of previous boreholes;
- Continued environmental monitoring and reporting, as required; and
- Implementation of applicable approved Environmental Management Plans to support construction activities.

12. REFERENCES

Annual Review Guideline – Post Approval requirements for State significant mining developments (October 2015), NSW Government, available: <https://www.planning.nsw.gov.au/en/Policy-and-Legislation/Mining-and-Resources/~media/3AA21D35168042FE813DD0FB92E00E58.ashx>, accessed on 19/01/2022.