



**Annual Review
Sunnyside Coal Mine**

Name of operation	Sunnyside Coal Mine
Name of operator	Whitehaven Coal Mining Pty Ltd
Development consent/project approval number	PA 06_0308
Name of holder of development consent/project approval	Namoi Mining Pty Ltd
Mining lease number	ML 1624
Name of holder of mining lease	Namoi Mining Pty Ltd
Water licence number	WAL 29537
Name of holder of water licence	Namoi Mining Pty Ltd
RMP start date	July 2022, reported on calendar year
Annual review start date	1 st January 2025
Annual review end date	31 st December 2025
<p><i>I, Daryl Robinson, certify that this audit report is a true and accurate record of the compliance status of Sunnyside Coal Mine for the period January 1st 2025 until December 31th 2025, and that I am authorised to make this statement on behalf of Namoi Mining Pty Ltd.</i></p> <p>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.</p> <p>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).</p>	
Name of authorised reporting officer	Megan Martin
Title of authorised reporting officer	Acting Manager - Environment and Mine Rehabilitation Gunnedah Open Cut Operations
Signature of authorised reporting officer	
Date	14/04/2026

Contents

1	STATEMENT OF COMPLIANCE	6
2	INTRODUCTION	7
2.1	Mine Contacts.....	7
3	APPROVALS	9
3.1	Tenements, Licences, and Approvals	9
4	OPERATIONS SUMMARY	10
4.1	Mining Operations	10
4.2	Other Operations.....	10
4.2.1	Hours of Operations	10
4.2.2	Infrastructure Management.....	10
4.2.3	Exploration Drilling	10
4.3	Next Reporting Period	11
5	ENVIRONMENTAL PERFORMANCE	11
5.1	Air Quality	11
5.1.1	Criteria	11
5.1.2	Environmental Management Measures.....	13
5.1.3	Dust Monitoring	13
5.1.4	Key Environmental Performance/Management Issues	13
5.1.5	Proposed Improvements to Environmental Management	13
5.2	Biodiversity	13
5.2.1	Threatened Flora	13
5.2.2	Threatened Fauna.....	14
5.2.3	Ecological Monitoring.....	14
5.2.4	Weeds 20	
5.2.5	Feral Animal Control	20
5.2.6	Koala Management	21
5.2.7	Performance/Management Issues	21
5.2.8	Proposed Improvements to Environmental Management	21
5.3	Blasting	21

5.3.1	Proposed Improvements to Environmental Management	21
5.4	Operational Noise	21
5.4.1	Criteria	21
5.4.2	Environmental Management Measures.....	22
5.4.3	Noise Monitoring Results	22
5.4.4	Key Environmental Performance/Management Issues	22
5.4.5	Proposed Improvements to Environmental Management	22
5.5	Waste Management	22
5.6	Aboriginal Heritage Management	22
5.6.1	Environmental Management Measures.....	22
5.6.2	Consultation.....	23
5.6.3	Key Environmental Performance/Management Issues	23
5.6.4	Proposed Improvements to Environmental Management	24
5.7	Natural Heritage	24
5.8	Spontaneous Combustion	24
5.8.1	Environmental Management Measures.....	24
5.8.2	Key Environmental Performance/Management Issues	24
5.8.3	Proposed Improvements to Environmental Management	24
5.9	Bushfire Management	24
5.9.1	Environmental Management Measures.....	24
5.9.2	Key Environmental Performance/Management Issues	24
5.9.3	Proposed Improvements to Environmental Management	24
5.10	Environmental Performance Summary	25
6	WATER MANAGEMENT	25
6.1.1	Surface Water Management	26
6.1.2	Surface Water Monitoring Results	26
6.1.3	Key Environmental Performance/Management Issues	28
6.1.4	Proposed Improvements to Environmental Management	28
6.1.5	Water Take	28
6.2	Groundwater Management.....	28

6.2.1	Environmental Performance/Management	28
6.2.2	Groundwater Monitoring	28
6.2.1	Groundwater Levels	29
6.2.2	Groundwater quality	33
6.2.3	Groundwater Management.....	34
6.2.4	Key Environmental Performance/Management Issues	34
6.2.5	Proposed Improvements to Environmental Management	34
7	REHABILITATION	34
7.1	Rehabilitation Performance during the Reporting Period	34
7.1.1	Status of Mining and Rehabilitation	34
7.1.2	Post Rehabilitation Land Uses	35
7.1.3	Rehabilitation Monitoring	37
7.1.4	Weed Management.....	37
7.1.5	Renovation or Removal of Buildings	37
7.1.6	Other Rehabilitation Undertaken.....	37
7.1.7	Departmental Sign-off of Rehabilitated Areas	37
7.1.8	Variations in Activities against RMP	37
7.1.9	Trials, Research Projects and Initiatives	37
7.1.10	Key Issues to Achieving Successful Rehabilitation	37
8	COMMUNITY	37
9	INDEPENDENT AUDIT.....	42
10	INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD 42	
10.1	Reportable Incidents	42
10.2	Non-compliances	42
10.3	Regulatory Actions.....	42
11	ACTIONS TO BE COMPLETED IN THE NEXT REPORTING PERIOD 42	
12	APPENDIX 1: SURFACE WATER MONITORING DATA	43
13	APPENDIX 2: GROUNDWATER MONITORING DATA.....	45

TABLES

Table 1a Statement of Compliance.....	6
Table 1b Non-compliances.....	6
Table 1c Compliance status key for Table 1B	6
Table 3.1 Tenements, Licences and Approvals.....	9
Table 4.1 Production Summary.....	10
Table 5.6.2 Aboriginal Artefacts.....	23
Table 5.10 Environmental Performance	25
Table 6.1.2 Summary Surface Water Monitoring Results	27
Table 6.2.2 Groundwater Monitoring Points.....	28
Table 7.1.1 Rehabilitation Status	35
Table 8 Community Complaints.....	38

FIGURES

Figure 1 - Locality Plan	8
Figure 2 - Monitoring Sites.....	12
Figure 3 - Woodland surface cover at Sunnyside Coal Mine and Analogue sites.	15
Figure 4 - Woodland native grass cover at Sunnyside Coal Mine and Analogue sites.	17
Figure 5 - Woodland native mid-storey cover at Sunnyside Coal Mine and Analogue sites.	18
Figure 6 - Woodland native overstorey cover at Sunnyside Coal Mine and Analogue sites.	19
Figure 7 - Pasture surface cover at Sunnyside Coal Mine and Analogue sites.	20
Figure 8 - Monitoring piezometer water depth.....	30
Figure 9 - Production bore water depth	31
Figure 10 - Production bore water depth, piezometer water depth and the monthly rainfalls.....	32
Figure 11 - Status of Mining and Rehabilitation	Error! Bookmark not defined.

1 STATEMENT OF COMPLIANCE

The compliance status of the Sunnyside Coal Mine as of 31st December 2025 is summarised in [Table 1a](#). non-compliances that occurred during the reporting period are listed in [Table 1b](#).

Table 1a Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	
PA 06_0308 Consolidated	Yes
ML 1624	Yes
WAL 29537	Yes

Table 1b Non-compliances

Relevant Approval	Schedule (Condition) Number	Condition Description (summary)	Compliance status	Comment	Where Addressed in Annual Review
No non-compliances in reporting period					

Table 1c Compliance status key for [Table 1B](#)

Risk Level	Colour code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Potential for moderate environmental consequences, but is unlikely to occur; or • Potential for low environmental consequence, but is likely to occur
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g., submitting a report to government later than required under approval conditions)

2 INTRODUCTION

This Annual Review (AR) has been prepared in accordance with Conditions 4 and 5 of Mining Lease (ML 1624) (Mining Act 1992) and Condition 5 (Schedule 5) of PA 06_0308 (consolidated). The AR follows the format required by the NSW Government Annual Review Guideline (October 2015).

Covering the period from 1st January 2025 to 31st December 2025 (the reporting period), where relevant the AR provides information on historical aspects of the operation and longer-term trends in environmental monitoring results.

The Sunnyside Coal Mine is located within the Gunnedah Shire, approximately 15 km west of Gunnedah. The mine is owned by Namoi Mining Pty Ltd (NMPL) and operated by Whitehaven Coal Mining Pty Ltd. Both companies are wholly owned subsidiaries of Whitehaven Coal Limited (WCL).

Mining operations for coal ceased in August 2019, with coal crushing and transporting activities ceasing on the 27th of October 2019. Site activities are currently limited to rehabilitation monitoring and maintenance and water management.

2.1 Mine Contacts

The management personnel responsible for operational and environmental performance at the SCM and their relevant contact details are as follows:

- Mr Dean Scott, General Manager- Gunnedah Open Cut Operation
Contact: (02) 6741 5000.
- Mr Daryl Robinson, Manager - Environment and Mine Rehabilitation Gunnedah Open Cut Operations - retains responsibility for activities at the site.
Contact: (02) 6740 7000.

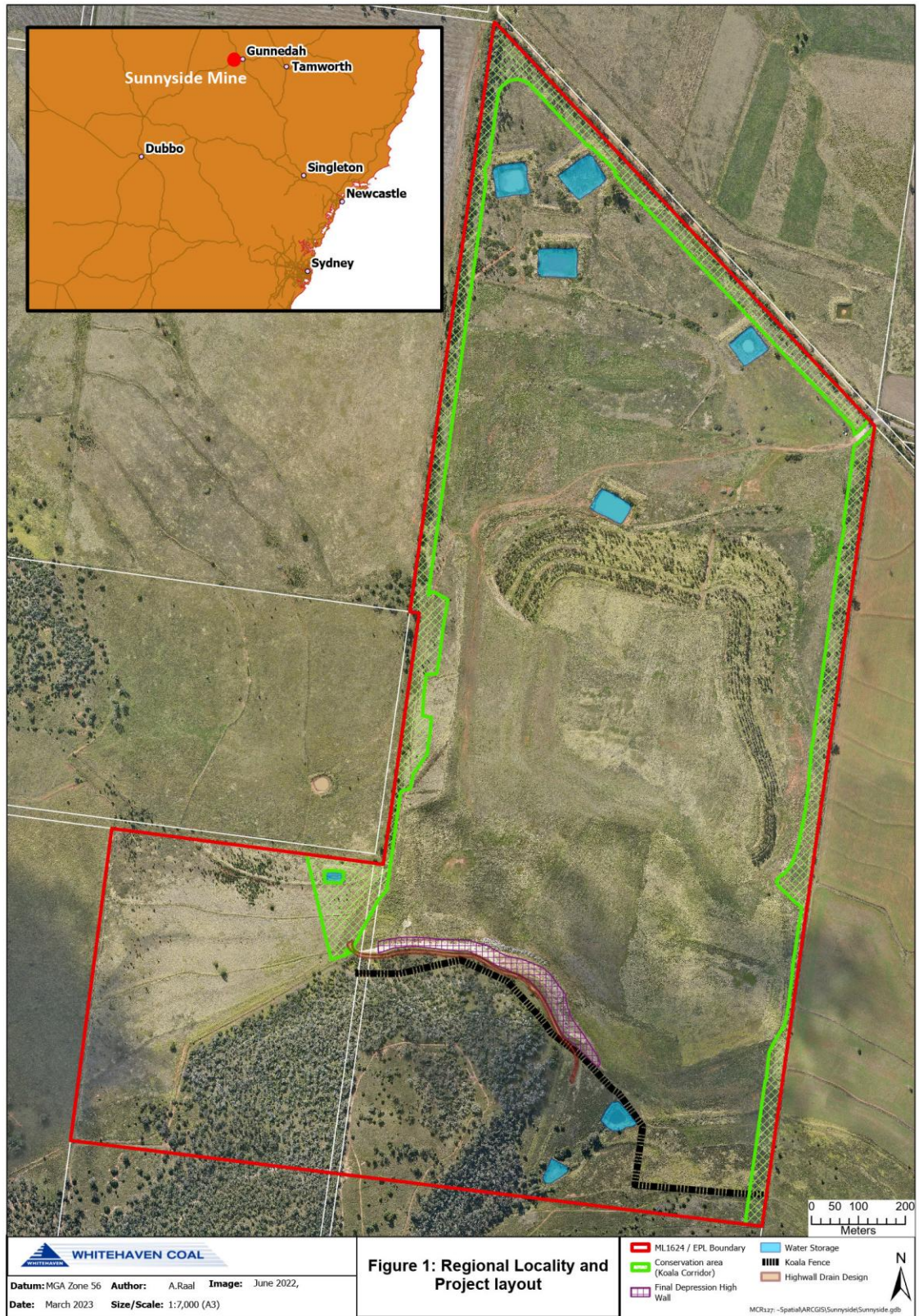


Figure 1 - Locality Plan

3 APPROVALS

3.1 Tenements, Licences, and Approvals

[Table 3.1](#) identifies the approvals in place for SCM at the end of the reporting period, the issuing / responsible Authority, dates of issue, expiry date and relevant comments.

Table 3.1 Tenements, Licences and Approvals

Issuing Responsible Authority /	Type of Lease, Licence, Approval	Date of Issue	Expiry	Comments
Department of Planning, Industry and Environment (DPIE)	Project Approval (PA) 06_0308	24th September 2008	Mining operations expired 5th November 2020, other conditions remain	PA modified December 2019 to update Annual Review period.
Environment Protection Authority (EPA)	Environment Protection Licence No. 12957	19th September 2017	N/A	Sunnyside EPA licence 12987 was surrendered on the 13th June 2023.
NSW Resource Regulator (RR)	ML 1624	5th November 2008	5th November 2029	
NSW Resource Regulator (RR)	Rehabilitation Management Plan	2 nd July 2022	N/A	Reviewed and reported against annually
Department of Primary Industry - Water	WAL 29537 (90WA822534)	27th April 2009	17th January 2025	Licence to be transferred
	90BL253767	9th Feb 2007	Perpetuity	Test
	90BL253768	9th Feb 2007	Perpetuity	Test
	90BL253769	9th Feb 2007	Perpetuity	Test
	90BL254686	26th Mar 2008	Perpetuity	Monitoring
	90BL254687	26th Mar 2008	Perpetuity	Monitoring
	90BL254688	26th Mar 2008	Perpetuity	Monitoring
	90BL254689	26th Mar 2008	Perpetuity	Monitoring
	90BL254690	26th Mar 2008	Perpetuity	Monitoring

4 OPERATIONS SUMMARY

4.1 Mining Operations

Mining operations during the reporting period included rehabilitation monitoring and maintenance of developing rehabilitation. [Table 4.1](#) presents the production summary at the end of the reporting period.

Table 4.1 Production Summary

Material	Approved Limit	Previous Reporting Period (actual)	This Reporting Period (actual)	Next Reporting Period (forecast)
Waste Rock/Overburden	4.9 M m ³	0	0	0
ROM Coal/Ore	1 Mtpa ²	0	0	0
Reject material	n/a	0	0	0
Saleable Product	n/a	0	0	0

³ Environmental Assessment

² PA 06_0308 Consolidated

4.2 Other Operations

4.2.1 Hours of Operations

Rehabilitation activities were undertaken during the reporting period within permitted operating times, i.e. 7:00am to 10:00pm Monday to Friday and 7:00am to 6:00pm on Saturdays, and not on public holidays.

4.2.2 Infrastructure Management

All fixed infrastructure has been dismantled and removed including demountable building, heavy vehicle tyres, generator water tanks, and the internal bitumen road. Remaining infrastructure includes the Koala fence, and an above ground poly water tank used for weed spraying.

4.2.3 Exploration Drilling

There was no exploration drilling undertaken during the reporting period.

4.3 Next Reporting Period

Site is currently in the Ecosystem and development phase of rehabilitation with activities focused on rehabilitation monitoring and maintenance.

5 ENVIRONMENTAL PERFORMANCE

The following sub-sections document the implementation and effectiveness of the various control strategies adopted at SCM, together with monitoring data for the reporting period. Existing monitoring sites are given in Figure 2. Life of mine monitoring data is included as Appendices in this AR, where relevant, to allow for discussion on longer-term trends.

5.1 Air Quality

5.1.1 Criteria

Air quality criteria applicable to SCM are specified in PA 06_0308 (consolidated) Schedule 3, Tables 7, 8 & 9, which are summarised below. Monitoring ceased in August 2023 following the surrender of EPA licence 12987 on 13 June 2023 and approval of updated Air Quality Management Plan on 10 August 2023.

Air Quality Type	Criteria
Acceptable Mean Annual Increase in Deposited Dust	2 g/m ² /month
Mean Annual Dust Deposition (all sources)	4 g/m ² /month
Mean Annual Total Suspended Particulate (TSP) Matter (all sources) Concentration	90 µg/m ³
Mean Annual PM ₁₀ Particulate Level	30 µg/m ³
24hr Mean PM ₁₀ Particulate Level	50 µg/m ³

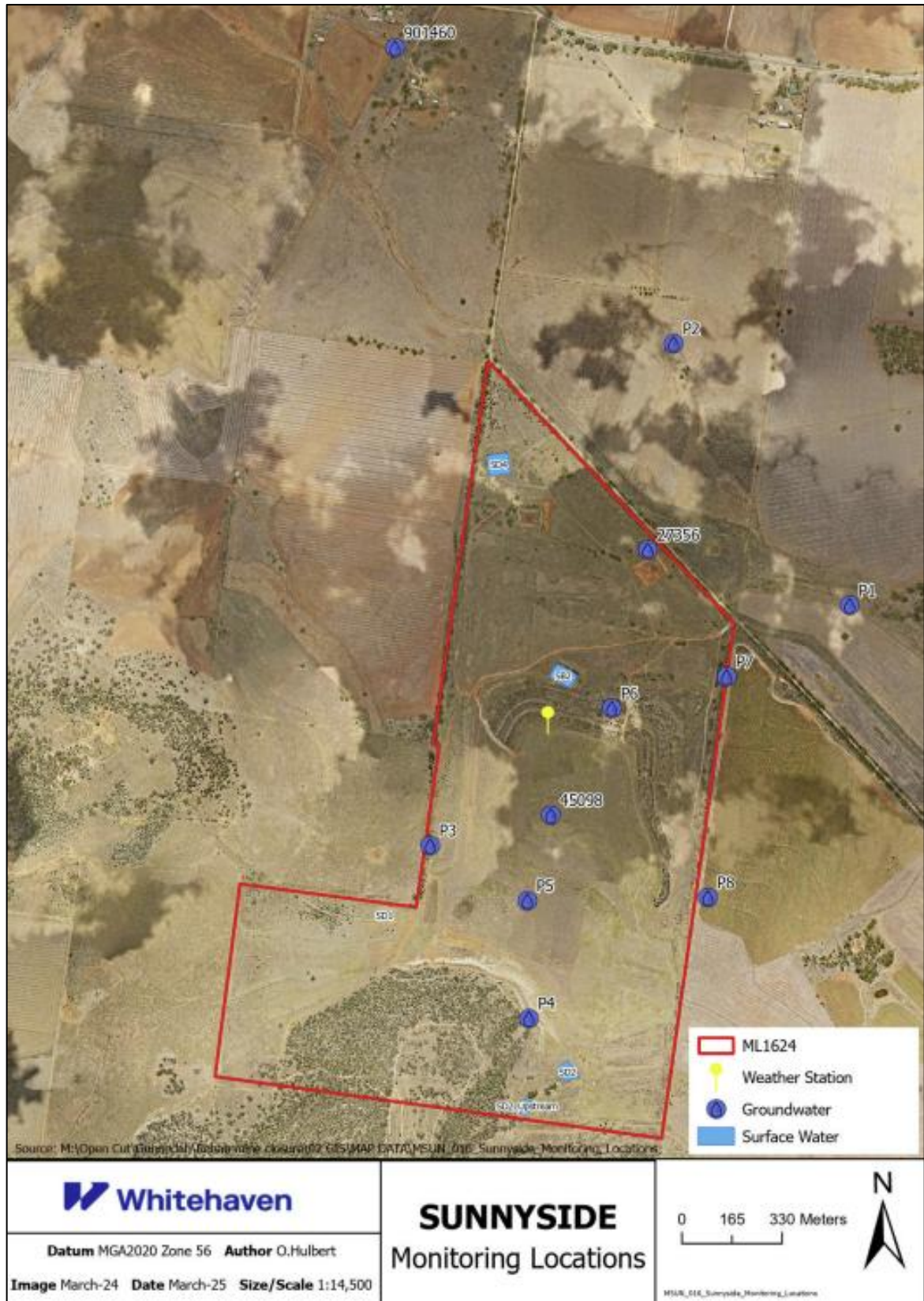


Figure 2 - Monitoring Sites

5.1.2 Environmental Management Measures

Sunnyside rehabilitation has been completed for all disturbed areas and has good vegetation cover. No permanent mobile equipment is on site.

5.1.3 Dust Monitoring

Deposited Dust

The last samples were taken on the 15th of August 2023 following the surrender of EPA licence 12987 on the 13th of June 2023. Approval of the updated Air Quality Management Plan was accepted on the 10th of August 2023.

HVAS/PM10 Dust

The last samples were taken on the 15th of August 2023 following the surrender of EPA licence 12987 on 13th of June 2023. Approval of the updated Air Quality Management Plan was accepted on the 10th of August 2023.

5.1.4 Key Environmental Performance/Management Issues

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

5.1.5 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period, as activities will be limited to aftercare and maintenance.

5.2 Biodiversity

5.2.1 Threatened Flora

Investigations into the occurrence of threatened flora within the Project Approval Area were undertaken as part of the Environmental Assessment by Geoff Cunningham Natural Resource Consultants Pty Ltd in 2007, following field surveys in October and December 2006. The investigation identified no significant impact on threatened flora species, endangered ecological communities, endangered flora populations or critical habitat as a consequence of the development, either because they do not exist in the area or avoidance is possible due to project design.

Investigations identified a remnant of the White Box Yellow Box Blakely's Red Gum Woodland endangered ecological community within the study area but concluded that it would not be affected in any significant manner by the mine.

A remnant of the Native Vegetation on Cracking Clay Soils of the Liverpool Plains endangered ecological community was also identified within the study area. It was noted that a small section of this community would be temporarily affected by the Coochoonah Lane re-alignment, but the community would be rehabilitated and enhanced following rehabilitation after mining ceases. It was assessed that this action, due to its temporary impact and final

environmental enhancement, would not require approval under the Commonwealth EPBC Act.

Much of the area has been cleared in the past and most of this cleared area has been cultivated. The vegetation on the cleared areas has been invaded by introduced species. The establishment of the mine site did not involve clearing of native vegetation and as such no biodiversity offsets were required.

5.2.2 Threatened Fauna

Investigations into the occurrence of threatened fauna within the Project Approval Area were undertaken by Kevin Mills and Associates as part of the Environmental Assessment, following surveys conducted in September 2006. These investigations identified that the proposed development was unlikely to significantly affect any of the threatened species, fauna populations or communities listed under the Threatened Species Conservation Act 1995, or their habitats.

It was also concluded that development of the mine was not likely to have a significant impact on any matter of national environmental significance listed under the *Environment Protection and Biodiversity Conservation Act 1999*. Referral to the Commonwealth Minister for the Environment for assessment and approval was therefore not warranted.

The area surrounding the mine site supports a viable koala population. NMPL has undertaken a number of measures to minimise the impacts on this population, including:

- Relocating the southern section of Coccooboonah Lane to avoid disturbing remnant koala habitat;
- Erecting a koala-proof fence around the active mine area;
- Minimising clearing and utilising local tree species for revegetation with an emphasis on koala feed trees. This has continued since the last reporting period with koala feed trees planted in koala corridor.

5.2.3 Ecological Monitoring

Introduction

Monitoring in the Woodland Domain comprised:

- eight repeat monitoring woodland rehabilitation sites
- one repeat monitoring analogue woodland site and
- twelve categorical rehabilitation point assessments at notable locations within the Woodland rehabilitation.

Monitoring in the Pasture Domain comprised:

- ten repeat monitoring pasture rehabilitation sites

- one categorical rehabilitation point assessment at a notable location within the Pasture rehabilitation.

Monitoring in the Conservation Domain comprised:

- one categorical rehabilitation point assessments within locations mapped as tree seedling planting areas.

Woodland Domain – Surface cover

Surface cover represents the summed groundcover components of vegetation, litter, and mulch. This serves as an indicator of the rehabilitation objective for soil profile development in the RMP. To achieve the completion criterion target for this indicator, surface cover is to be greater than 85% during the Ecosystem Development Phase.

On average, the rehabilitation has increased in surface cover by 7.8% since the previous monitoring campaign. In 2025, the rehabilitation areas established in 2019 and 2021 achieved the benchmark goal, with both areas demonstrating consistent performance above the target during recent years, indicating they are likely to maintain benchmark achievement. (figure 4)

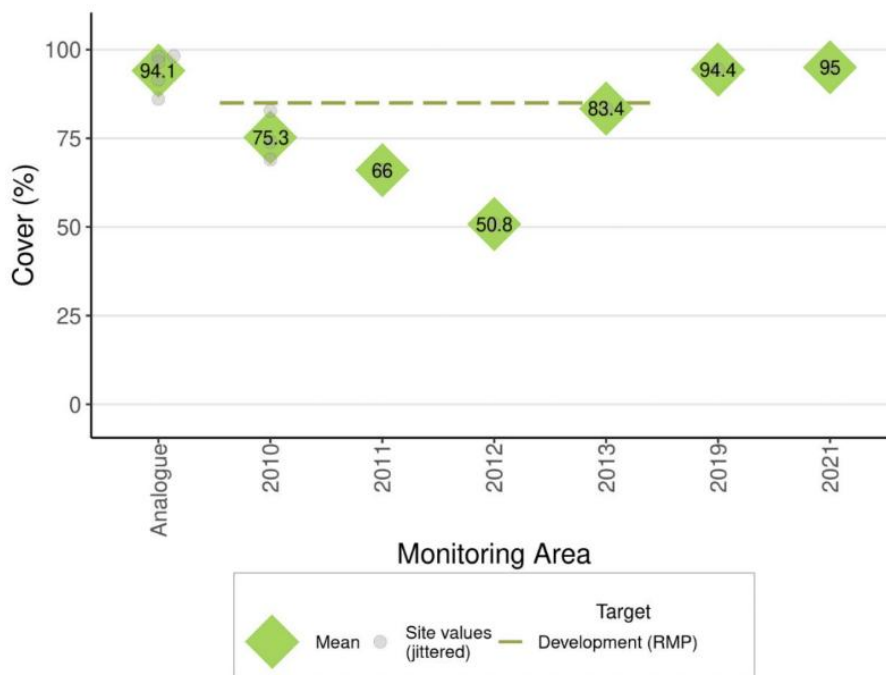


Figure 3 - Woodland surface cover at Sunnyside Coal Mine and Analogue sites.

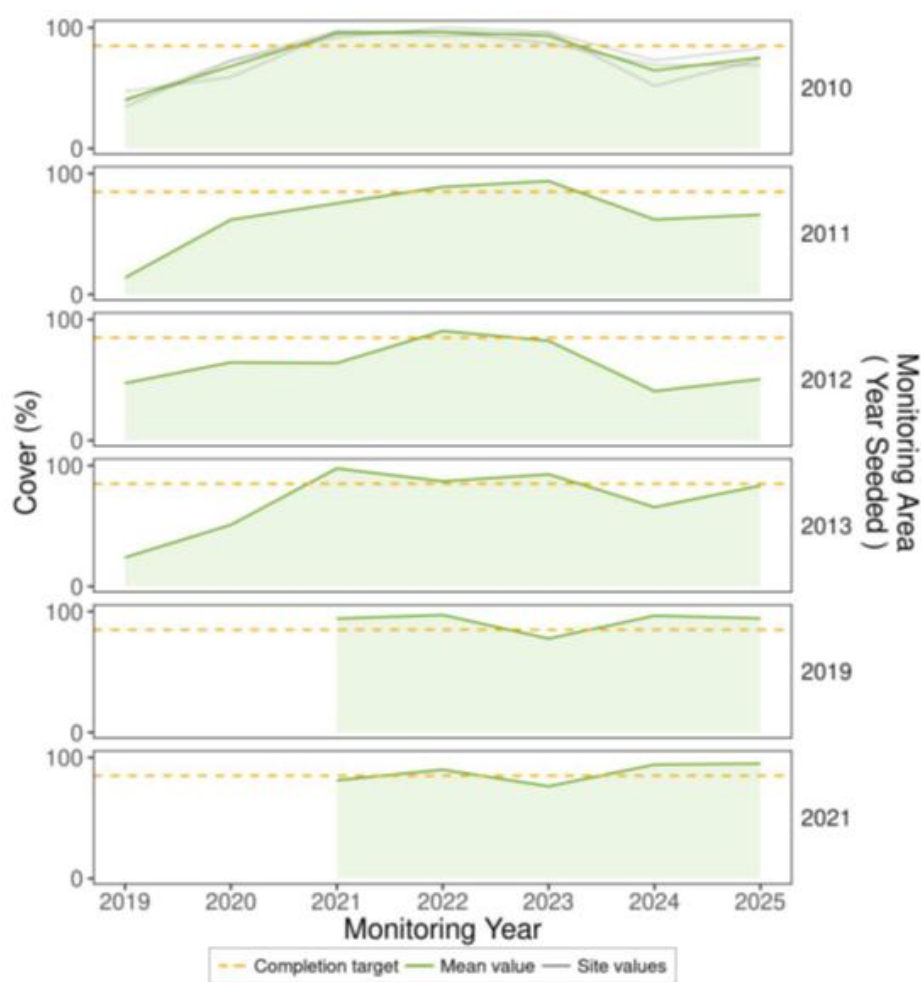


Figure 4 -Woodland surface cover trends at Sunnyside Coal Mine.

Woodland Domain – Native Species Richness

Native species richness serves as an indicator of the rehabilitation objective for woodland re-establishment. To achieve the completion criteria targets for this indicator, the rehabilitation must fall within the 10th and 90th percentile range of analogue site values. In the 2025 monitoring year, the analogue sites' 10th–90th percentile range for native species richness was 30–59 species.

In the 2025 monitoring year, the rehabilitation is yet to achieve any of the phase-specific completion criterion targets for the indicator of native species richness. All rehabilitation areas in the Ecosystem Development Phase (2010–2013) and Ecosystem Establishment Phase (2019 and 2021) recorded native species richness values below the 10th–90th percentile range of analogue sites, with values ranging from 3 to 11.7 species compared to the required range of 30–59 species.

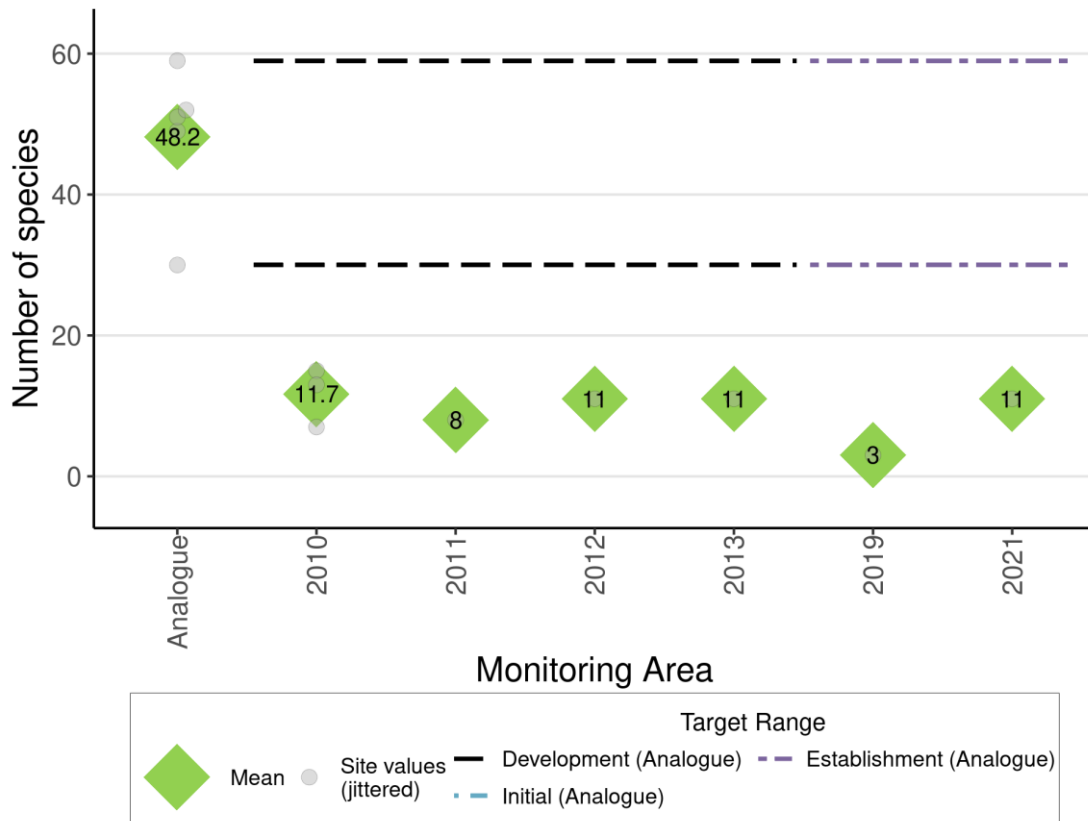


Figure 5 - Woodland native grass cover at Sunnyside Coal Mine and Analogue sites.

Woodland Domain – Native Mid-storey Cover

Native mid-storey cover serves as an Ecosystem and Land use Development Phase indicator of the rehabilitation objective for woodland re-establishment. To achieve the completion criteria targets for this indicator, the rehabilitation must fall within the 10th and 90th percentile range of analogue site values. In the 2025 monitoring year, the analogue sites’ 10th–90th percentile range for native mid-storey cover was 1.6%–9.6%.

None of the rehabilitation areas achieved the phase-specific completion criterion targets for the indicator of native mid-storey cover.

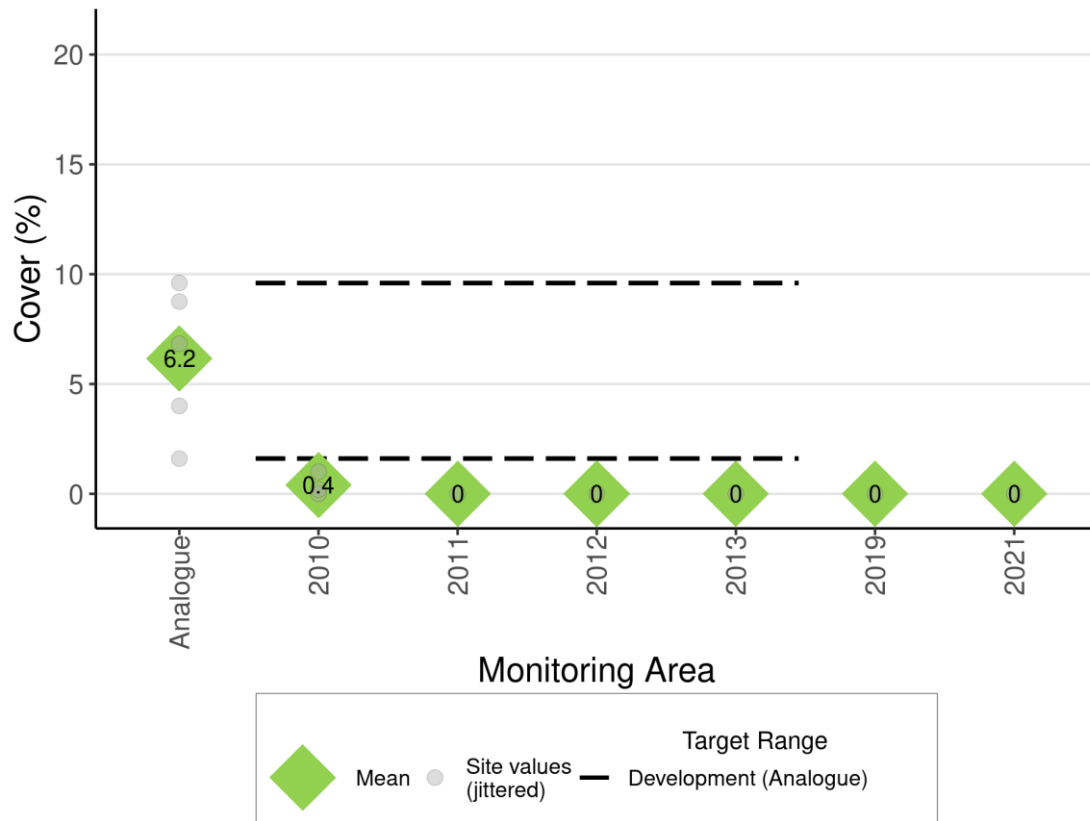


Figure 6 - Woodland native mid-storey cover at Sunnyside Coal Mine and Analogue sites.

Woodland Domain – Native Overstorey Cover

Native overstorey cover serves as an Ecosystem and Land use Development Phase indicator of the rehabilitation objective for woodland re-establishment. To achieve the completion criteria targets for this indicator, the rehabilitation must fall within the 10th and 90th percentile range of analogue site values. In the 2025 monitoring year, the analogue sites’ 10th–90th percentile range for native overstorey cover was 5%–16.7%.

The rehabilitation established in 2011, 2012 and 2013 achieved or exceeded the phase-specific completion criterion target for this indicator and 2010 is approaching the phase-specific target. Phase-specific targets currently do not apply to the rehabilitation areas seeded in 2019 and 2021.

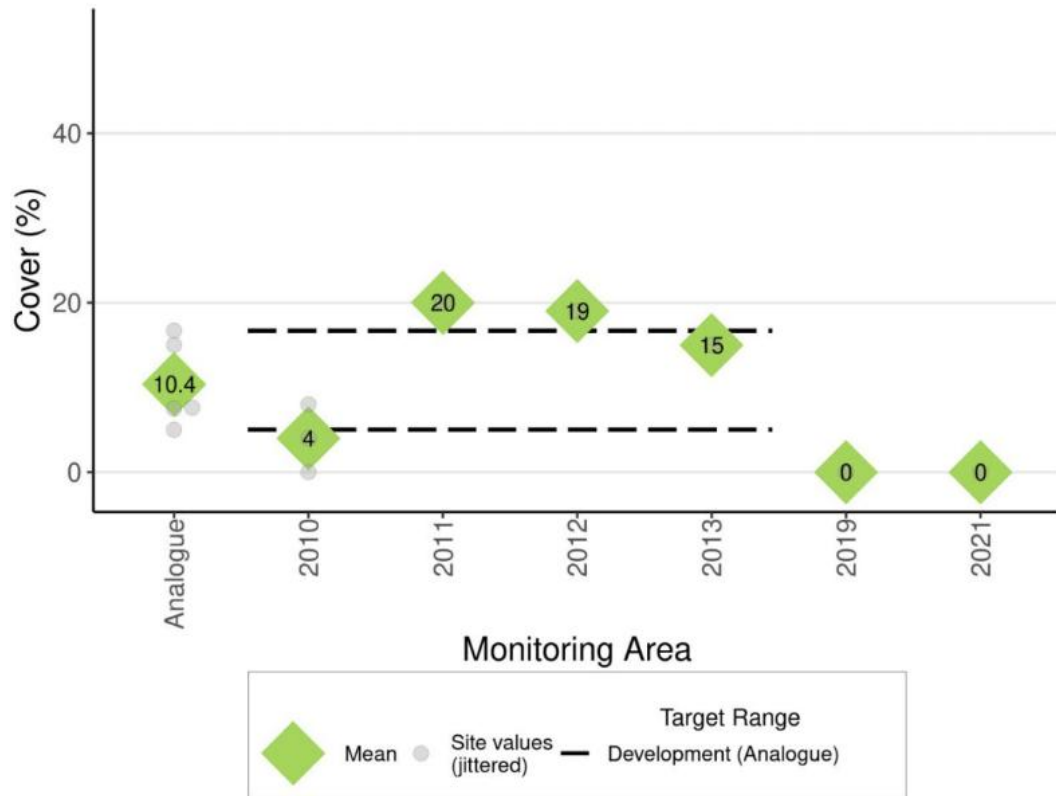


Figure 7 - Woodland native overstorey cover at Sunnyside Coal Mine and Analogue sites.

Pasture Domain – Surface Cover

Surface cover represents the summed groundcover components of vegetation, litter, and mulch. This serves as an indicator of the rehabilitation objective for soil profile development in the RMP. To achieve the completion criterion target for this indicator, surface cover is to be greater than 85%. Additionally, no bare surfaces greater than 20 m x 20 m in area or greater than 10 m in length down slope are to be present at year 5 following establishment.

In the 2025 monitoring year, all pasture rehabilitation areas met the phase-specific completion criterion for ecosystem development. No large bare surfaces were observed in monitoring sites located in rehabilitation areas established prior to 2019.

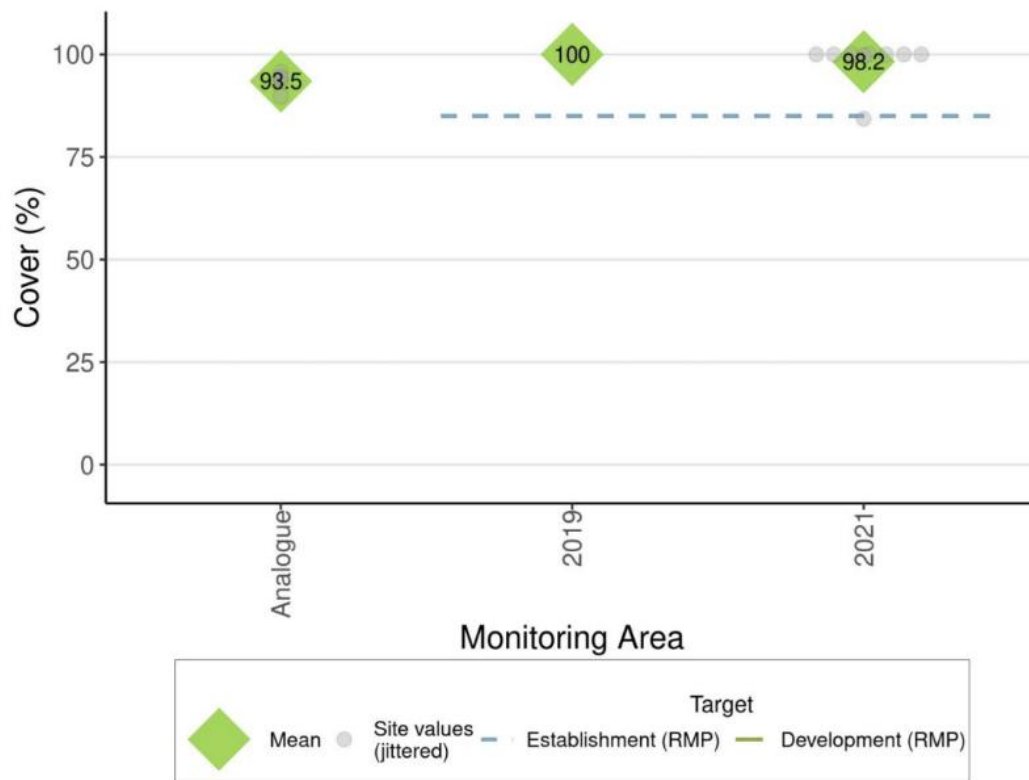


Figure 8 - Pasture surface cover at Sunnyside Coal Mine and Analogue sites.

Recommendations

It is recommended that:

- follow up weed spraying be carried out in the older rehabilitation (especially rehabilitation areas from 2010–2012); and
- follow-up re-seeding of native understory and mid-storey species be undertaken in Woodland rehabilitation.

5.2.4 Weeds

Contractors undertook weed inspections and treatment at Sunnyside Mine in the reporting period across all woodland rehabilitation. The main weeds treated on site were Broadleaf weeds, other weed species that were treated include Prickly lettuce, Buffel grass, Fleabane, Saffron thistle, Noogoora Burr and Johnson grass. Weed treatment was carried out using a spot spraying method and slashing where suitable.

5.2.5 Feral Animal Control

Feral animal control was undertaken within the mining lease utilising 1080 fox baits and Hoggone.

5.2.6 Koala Management

During the reporting period no koalas were spotted onsite. The Koala corridor is regularly inspected and is managed and maintained as required. There was no maintenance activity required during the reporting period.

5.2.7 Performance/Management Issues

No major issues.

5.2.8 Proposed Improvements to Environmental Management

In response to the recommendations outlined in section 5.2.3, Whitehaven Coal commit to the following;

- Continue field surveys to confirm areas of rehabilitation where infill planting is required. A re-planting plan will be developed and executed as required.
- In addition to annual ecological monitoring, rehabilitation will continue to be monitored monthly and reported on within the monthly inspection checklist, to identify potential issues early and rectify in the maintenance. Weed control will be undertaken as required and informed by inspections and agronomist reports.

5.3 Blasting

There is no further blasting to occur on site. All blasting at the mine site has ceased. Blast monitors have been decommissioned and removed.

5.3.1 Proposed Improvements to Environmental Management

No improvements are proposed for the next reporting period.

5.4 Operational Noise

5.4.1 Criteria

Operational noise criteria for SCM are specified in PA 06_0308 and EPL 12957, as follows:

Table 5.4.1 Operational Noise Criteria

Location	Day	Evening
	L _{Aeq} (15 min)	L _{Aeq} (15 min)
All privately-owned land	35	35

5.4.2 Environmental Management Measures

Control of noise generation and propagation at the mine is by a combination of general source and propagation path methods including:

- There is no longer any bulk haulage or movement of material on site. Only activities are rehabilitation monitoring and maintenance
- No afterhours work carried out
- No general maintenance of equipment on site

5.4.3 Noise Monitoring Results

Approval to no longer carry out attended noise monitoring was received from the EPA and the Noise management plan was amended accordingly and was approved by DPIE in September 2020. There was no noise complaints registered for the reporting period and no attended noise monitoring was required.

5.4.4 Key Environmental Performance/Management Issues

There is no permanent equipment stationed on site. Any maintenance activities will be during day hours.

5.4.5 Proposed Improvements to Environmental Management

No improvements are proposed for the next reporting period.

5.5 Waste Management

During the reporting period there were no activities onsite requiring additional material brought to site and no additional waste produced. There is no equipment onsite requiring maintenance monitoring. Due to no waste being generated by the site during the reporting period, there is no activity to base a comment on the effectiveness of the waste management process as defined in the Sunnyside Coal Mine Waste Management Plan.

All remaining waste was removed from site in 2022 and subsequently reported on in the 2022 AR.

5.6 Aboriginal Heritage Management

5.6.1 Environmental Management Measures

An assessment of the cultural heritage of the mine site was conducted by Archaeological Surveys and Reports Pty Ltd (ASR). Prior to the investigation, ASR contacted the Red Chief Local Aboriginal Land Council (LALC) and Bigundi Biame Gunnedarr Traditional People to arrange for site officers to assist in the survey. A representative from each group was present for the site survey conducted on the 12th September 2006 and the coal transport route survey on the 7th December 2006. The ASR assessment was used in the preparation of the

Environmental Assessment for the mine, undertaken by R.W. Corkery & Co. Pty Ltd on behalf of Namoi Mining Pty.

Four sites were recorded during the investigation, as detailed in 7.5.2. Only one site (AGG1) was recorded within the mine site while the three isolated artefact sites were identified to the south of the mine site.

All Aboriginal Heritage sites are managed in accordance with the Sunnyside Coal Mine Aboriginal Cultural Heritage Management Plan, prepared in accordance with Schedule 3 Condition 32 of PA 06_0308 Consolidated.

5.6.2 Consultation

No soil stripping of previously undisturbed areas took place during the reporting period. No additional Aboriginal cultural heritage items were discovered during the reporting period and no consultation with Aboriginal stakeholders was conducted. Known heritage sites are listed in [Table 5.6.2](#).

Table 5.6.2 Aboriginal Artefacts

Site Name	Site Type	Site Description/Comments
Sunnyside AGG1	Axe Grinding Groove	Axe grinding groove at the rim of a cliff-like scarp (beside a small water-filled natural depression in the rock). Dimensions: 28cm (L) x 6cm (W) x 2cm (D). Located approximately 150m from the southern side of the open cut area.
Sunnyside ISO1	Isolated Artefact	Flake with possible retouch to one margin located on the bank beside the upper reaches of a dry creek (on a vehicle track). Dimensions: 21 x 12 x 3mm
Sunnyside ISO2	Isolated Artefact	Proximal fragment of a flake located on the bank beside the upper reaches of a dry creek. Dimensions: 22 x 22 x 5mm.
Sunnyside OS1	Artefact Scatter	Artefact scatter of at least ten artefacts in a lozenge-shaped area of 30 x 8m, on the upper slopes down slope of a contour bank down slope of a saddle. Artefact types: flakes and flaked pieces, including a backed blade.
Source: Modified after ASR (2007) – EA SCSC Part 7		

5.6.3 Key Environmental Performance/Management Issues

The preservation conveyor belt strip was removed from the axe grinding groove that is located south of the mine pit, as blasting is no longer taking place. Inspections found no impact on the heritage site.

5.6.4 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

5.7 Natural Heritage

There are no features of natural heritage within the Project Approval area and hence, no specific management procedures are required.

5.8 Spontaneous Combustion

5.8.1 Environmental Management Measures

All carbonaceous material is buried +5m below the final landform.

5.8.2 Key Environmental Performance/Management Issues

No incidence of spontaneous combustion occurred.

5.8.3 Proposed Improvements to Environmental Management

As final rehabilitation has been completed and confirmation that there is no material with a potential for spontaneous combustion within 5m of the final landform, no further management activities are required.

5.9 Bushfire Management

5.9.1 Environmental Management Measures

SCM is located within an area of cleared agricultural land.

Measures to deal with bushfires include the following;

- Hot work permit system to manage activities that could potentially cause fire.
- Whitehaven Coal have engaged a firefighting contract company LRM Fire and Rescue on a retainer bases to assist in case of any fire breakout.

5.9.2 Key Environmental Performance/Management Issues

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

5.9.3 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

5.10 Environmental Performance Summary

An environmental performance summary for SCM is presented in [Table 5.10](#).

Table 5.10 Environmental Performance

Aspect	Approval Criteria / EIS Prediction	Performance during the reporting period	Trend / Key Management Implications	Implemented / proposed management actions
Air Quality	Refer Section 6.1.1	Air quality monitoring ceased 2023. After surrendering EPA licence 12987 on 13 June 2023.	Nil. No ongoing monitored required after surrendering EPA licence 12987 on 13 June 2023.	Air quality monitoring ceased 2023. After surrendering EPA licence 12987 on 13 June 2023.
Biodiversity	EIS prediction of no impact on known koala population.	No recorded impact on koala population. No koala deaths recorded onsite.	Nil	Infill planting in woodland areas.
Heritage	EIS prediction of potential blast impact on a recorded site.	No recorded impact on site.	Nil	Blasting has ceased on site.
Spontaneous Combustion	EIS prediction of no material spontaneous combustion	No in-pit spontaneous combustion found during the year.	Nil	Nil.
Noise	35dB	No exceedances	Nil	Site activities limited to aftercare and maintenance.
Blasting	<115dB overpressure	No exceedances	Nil- all blasting has ceased.	Nil

6 WATER MANAGEMENT

The SCM lies within the catchment of the Namoi River. Most of the surface water runoff flows northwards across the mine site. It then flows into Coocooboonah Creek which flows north-west within a constructed waterway paralleling Coocooboonah Lane. From there, it flows into Rock Well Creek then into Native Cat Creek which continues to flow north-west for 6km. Runoff then flows northwards within Collygra Creek where it flows across a floodplain area before flowing into the Namoi River some 25km north of the Mine Site. The remainder of the mine's surface water flows south into Coocooboonah Creek ultimately flowing into the Namoi River to the north.

The design of sediment dams is to prevent off site runoff of water with TSS values above guideline levels. There are no longer any exposed surface areas on site generating high sediment runoff.

Two wet weather discharge points are nominated in the current EPL 12957. These are Storage Dam 3 (EPL ID No. 9) and Storage Dam 4 (EPL ID No. 10). Two additional monitoring points are nominated on the EPL for water quality monitoring during discharge events. These are Coochooboonah Creek Upstream (CCUS – EPL ID No. 11) and Coochooboonah Creek Downstream (CCDS – EPL ID No. 12).

6.1.1 Surface Water Management

All sediment basins, storage dams and associated banks and drains have been designed and constructed in accordance with the *Managing Urban Stormwater: Soils and Construction Vol 2E Mines and Quarries* (DECC, 2008) in conjunction with the references to Volume 1 (Landcom, 2004). 3 dams were decommissioned during 2024.

6.1.2 Surface Water Monitoring Results

SCM has a requirement to undertake surface water monitoring on a quarterly basis in addition to the monitoring of any wet weather discharge event.

Summary of water quality results are given in [Table 6.1.2](#), and complete surface water quality monitoring results are provided in Appendix 1. All surface water dams were dry when Q1, Q2 and Q4 sampling was conducted during the reporting period. [Table 6.1.2](#) only details results from Q3 sampling of SD4 and SB2, other surface water dams remained dry during this period. Production Bore dam and the Void was backfilled (Nov 2020) above groundwater level.

There were no discharges during the reporting period. Surface water analysis at on site dams (note that there is no water in the pit void) indicates that surface water performance is aligned with EIS predictions ([Table 6.1.2](#)).

Table 6.1.2 Summary Surface Water Monitoring Results (EIS prediction in brackets)

Storage	No. Samples	Annual Average Oil and Grease	Annual Average Conductivity	Annual Average pH	Annual Average TSS (mg/L)	EIS comparison
		mg/L	µS/cm			
SD4	1	<5 (<10)	195 (NA)	9.49 (6.5-8.5)	<5 (<20)	pH higher than EIS prediction for discharges however this sample is from a dam that did not discharge. No surface water predictions in the EIS for Conductivity. TSS is within discharge criteria in the sediment dam sample.
Production Bore Dam	Dam removed					-
Void	Dam removed; void is free draining					-
SB4	Dam decommissioned Q4 2024.					-
SD3	Dam decommissioned Q4 2024.					
SB2	1	<5 (<10)	276(NA)	8.25 (6.5-8.5)	<5 (<20)	pH aligned with EIS prediction for discharges however this sample is from a dam that did not discharge. No surface water predictions in the EIS for Conductivity. TSS is within discharge criteria in the sediment dam sample.
SD2	Dam removed					-
SD1	Dry during sampling					-
SB5	Dam decommissioned Q4 2024.					-

6.1.3 Key Environmental Performance/Management Issues

No non-conformances or changes were made to surface water management program during the reporting period.

6.1.4 Proposed Improvements to Environmental Management

No improvements are proposed within the next reporting period.

6.1.5 Water Take

SCM groundwater licence (WAL 29537) is for 120 units from the Gunnedah - Oxley Basin. Licence is in the process of being transferred. There was no water take during the reporting period.

Water storage on site at end of reporting year was 0 ML as all dams were dry.

6.2 Groundwater Management

6.2.1 Environmental Performance/Management

The mine's performance with respect to groundwater performance/management, the prevention of pollution, and the assessment of impacts on groundwater availability to other surrounding users, has been assessed through groundwater level and chemistry monitoring undertaken at a series of piezometers and bores within the Project Area and adjacent properties.

6.2.2 Groundwater Monitoring

The details of groundwater monitoring throughout the reporting period are listed in [Table 6.2.2](#). Complete monitoring datasets are provided in Appendix 2.

Groundwater sampling and analysis was undertaken by Acirl Pty Ltd (ALS) during the reporting period. Below are some points to note regarding monitoring locations and frequencies:

- Bore 27356 has not been monitored since June 2012. The windmill located over the bore has been dismantled and removed from site.
- Standing Water Level (SWL) data is unavailable for bores 27356, 44884, 3709.
- Werona bore pump was last used in 2019. Since then, the bore pump and generator have been removed. As of March 2021, water levels were at 19.66 mbgl.

Table 6.2.2 Groundwater Monitoring Points

Site ID (see Figure 2)	Registered Bore No. & Licence No	Property/ Location	Frequency		Purpose
			SWL* ² , EC* ³ and pH	Representative Metals and Ions	
P1* ¹	GW968386 90BL253767	"Plainview"	Quarterly * ⁵	Six monthly * ⁵	To determine existing status and any impacts

P2*1	GW968387 90BL253768	"Ferndale"	Quarterly	Six monthly	To determine existing status and any impacts
P3	GW968388 90BL253769	"Sunnyside"	Quarterly	Six monthly	
P7	GW968392 90BL254689	"Sunnyside"	Quarterly	Six monthly	
P8	GW968393 90BL254690	"Sunnyside"	Quarterly	Six monthly	
3709*1	N/A	"Ivanhoe"	Quarterly *5	Six monthly *5	
22497*1	N/A	"Coochooboonah"	Quarterly	Six monthly	
44677*1	N/A	"Werona"	Quarterly *5	Six monthly *5	
44884*1	N/A	"Lilydale"	Quarterly	Six monthly	
6249*1	N/A	"Lilydale"	Quarterly *5	Six monthly *5	
901460	GW901460 90BL249138	"Illili"	Quarterly *5	Six monthly *5	
27356	GW027356 90BL020042	"Sunnyside"	Quarterly*5	Six monthly*5	
45061	N/A	"Coochooboonah"	Quarterly *5	Six monthly *5	
Werona Production	90BL255246	"Werona"	Quarterly *5	Six monthly*5	
*1 Non-Company owned bore *2 SWL – Standing Water Level *3 EC = Electrical Conductivity *4 Company production bore *5 – Not available this reporting period due to no access					

6.2.3 Groundwater Levels

Groundwater levels have remained stable and reflect reduced rainfall and dryer climatic conditions. Mine void was closed and made free draining in December 2020.

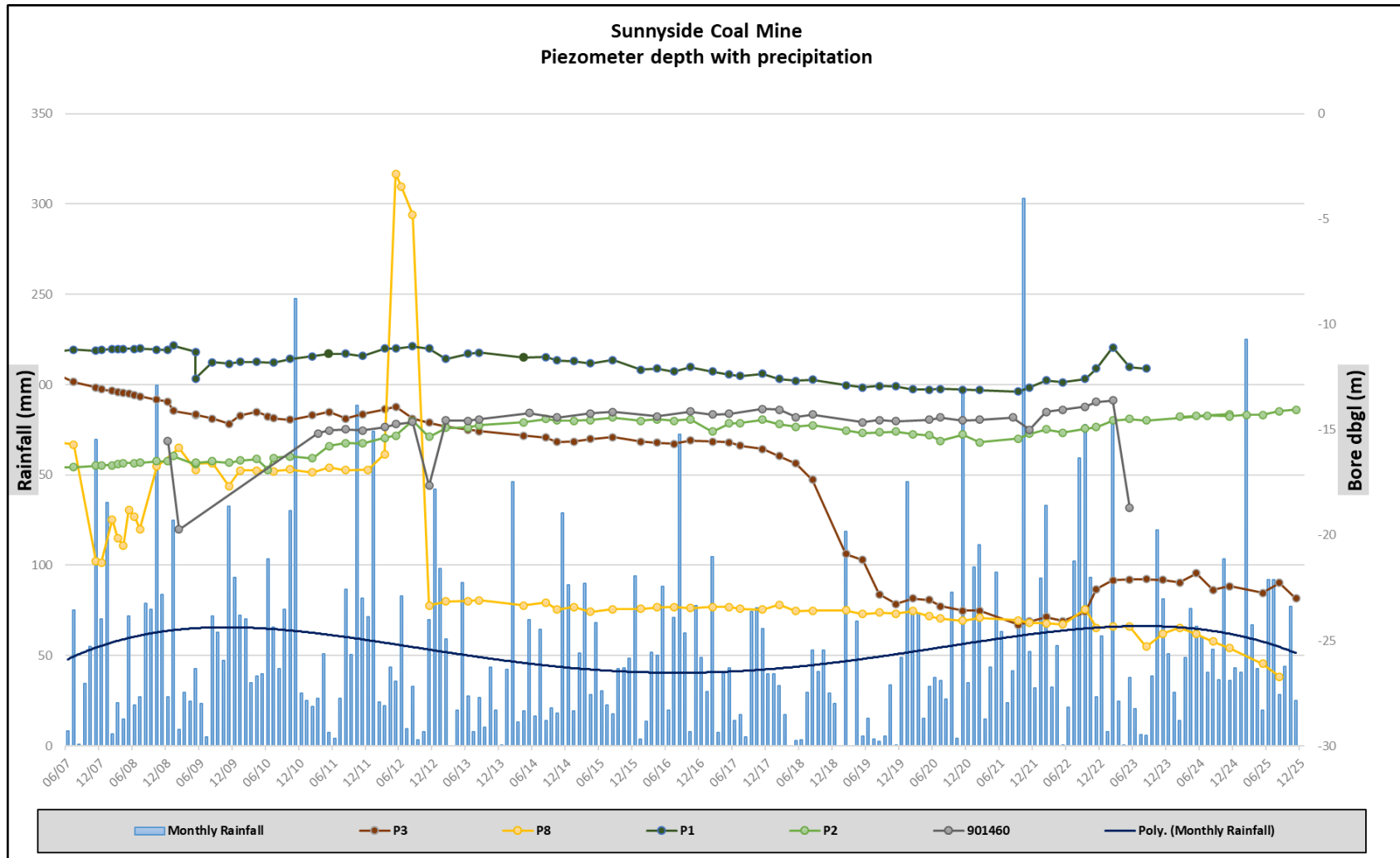


Figure 9 - Monitoring piezometer water depth

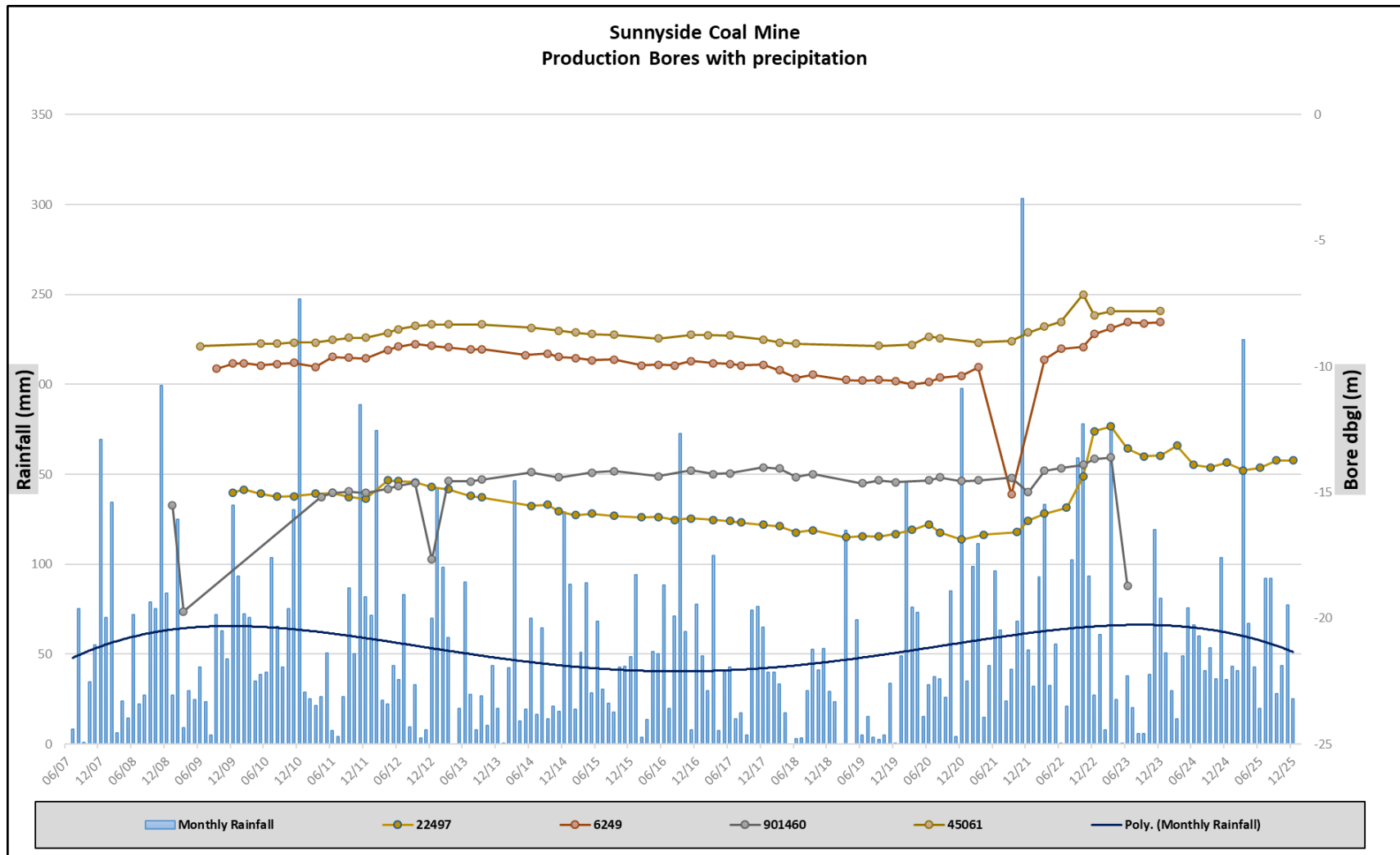


Figure 10 - Production bore water depth

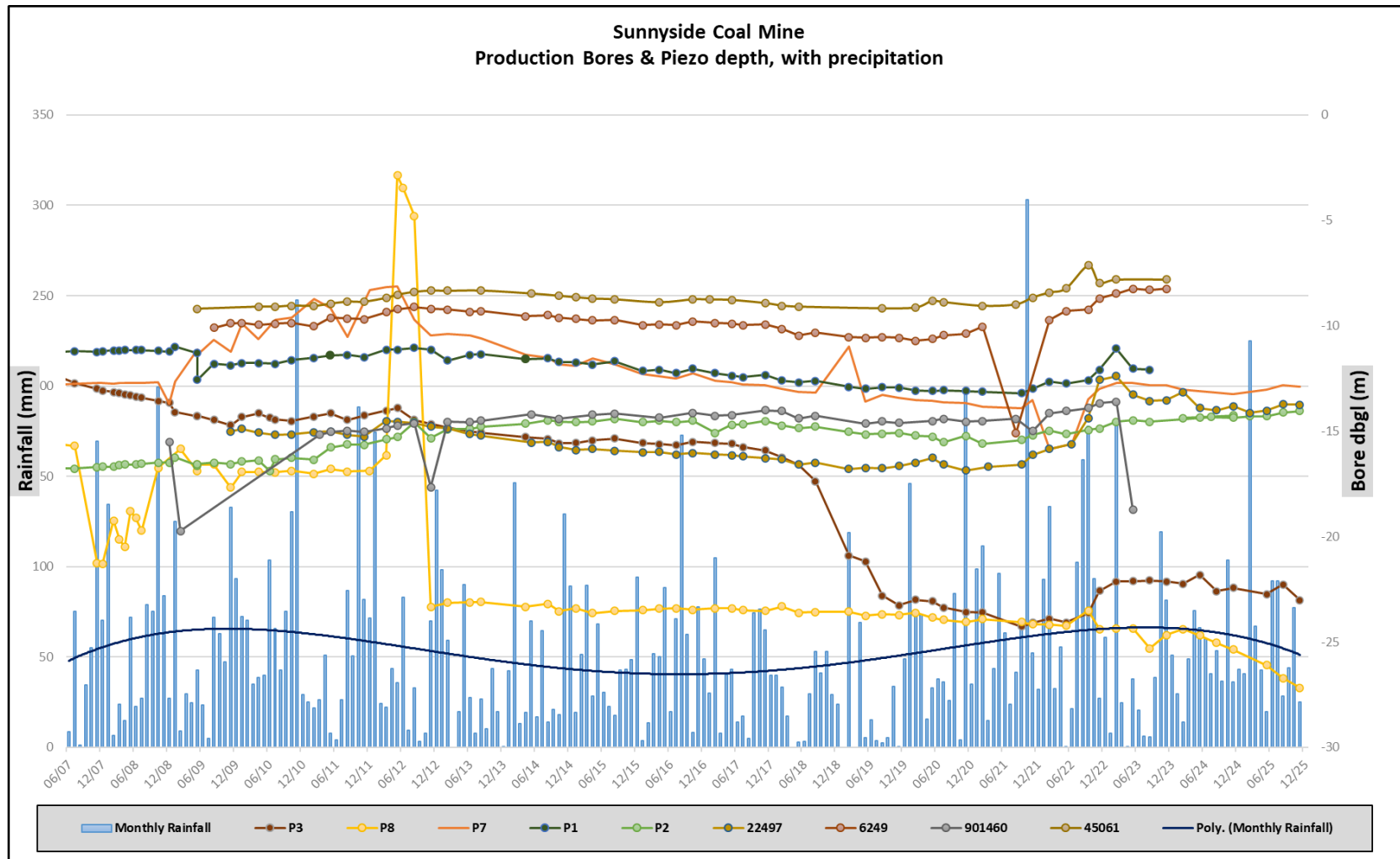


Figure 11 - Production bore water depth, piezometer water depth with monthly rainfall.

6.2.4 Groundwater quality

Analysis of samples taken during the reporting period has shown that groundwater quality has remained generally in line with historical data at most locations monitored. Groundwater levels reflect reduced rainfall and dryer climatic conditions.

Groundwater quality impact assessment criteria are sourced from the Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC, 2000) for Primary Industries (Irrigation Water). Comparison against these criteria is displayed in the below Table 6.2.3. Groundwater has remained consistent across the monitoring region except for sodium and associated conductivity which varies depending on local geology and groundwater source. Sodium levels fluctuate from 156mg/l (Piezometer P8) to 725mg/l (Piezometer P7).

Groundwater water quality has also been compared to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) (ANZECC) guidelines for stock watering (cattle), and monitoring data reflect groundwater quality that is suitable for watering cattle which is the intended post mining land use.

Table 6.2.3 Groundwater Quality Compared Against Impact Assessment Criteria

Indicator	Irrigation Criteria	Comment
PH	<6.5 or >8.5 or >10% variation over 3 months compared to previous 12 months data	All monitoring results within criteria
Conductivity	>10% variation over 3 months compared to previous 12 months data	<10% variation compared to previous data
TDS	>13,000mg/L or >10% variation compared to previous 12 months data	All monitoring results within criteria
Na	>460mg/L or >10% variation compared to previous 12 months data	Sodium levels vary depending on local geology and groundwater source 156mg/l to 725mg/l. This fluctuation is consistent with previous reporting years.
K	>10% variation compared to previous 12 months data	<10% variation compared to previous data
Ca	>1000mg/L or >10% variation compared to previous 12 months data	All monitoring results within criteria
Mg	>10% variation compared to previous 12 months data	<10% variation compared to previous data
Cl	>700mg/L or >10% variation compared to previous 12 months data	<10% variation compared to previous data

HCO ₃	>10% variation compared to previous 12 months data	<10% variation compared to previous data
NO ₃	>400mg/L or >10% variation compared to previous 12 months data	All monitoring results within criteria
Hardness	>350mg/L as CaCO ₃ or >10% variation compared to previous 12 months data	<10% variation compared to previous data

6.2.5 Groundwater Management

There is no groundwater extraction, and the void has been backfilled and is free draining. Groundwater from surrounding bores, as well as the mine piezometers will continue to be monitored to assess any changes in groundwater quality or level.

6.2.6 Key Environmental Performance/Management Issues

No groundwater performance issues to note during the reporting period. Ongoing monitoring to monitor for any changes.

6.2.7 Proposed Improvements to Environmental Management

Ongoing monitoring to monitor for any changes with the improvement of including all analytes in ANZECC guidelines for Irrigation to enable a full comparison in 2026.

7 REHABILITATION

7.1 Rehabilitation Performance during the Reporting Period

7.1.1 Status of Mining and Rehabilitation

The status of mining and rehabilitation at the completion of the reporting period is presented in Figure 12.

Outstanding rehabilitation works include:

- Two remaining exploration drill holes require sealing
- Aftercare and maintenance of rehabilitated areas and infill planting where required.

Table 7.1.1 Rehabilitation Status

Mine Area Type ¹	Previous Reporting Period	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	2024	2025	2026
A. Total Mine Footprint	107.82	112.06	112.06
B. Total Active Disturbance	1.95	2.03	2.03
C. Land Being Prepared for Rehabilitation	0	0	0
D. Land Under Active Rehabilitation (sum of Establishment and Development)	97.02	110.03	110.03
E. Completed Rehabilitation	0	0	0

17.6ha conservation area (Koala Corridors)

7.1.2 Post Rehabilitation Land Uses

The overall closure goal for the Sunnyside Coal Mine is to establish a stable and safe landform that is commensurate with the surrounding topography, and which maximises the return to an appropriate agricultural land use comparable to the pre-mining land use, but is considerate of the fact that the landform is a backfilled mining area.

The post-mining landform will include approximately 17.6 hectares (ha) of land rehabilitated with woodland species on dump and highwall slopes to enhance biodiversity values of the area, with additional, ±17.2 ha of trees planted on areas undisturbed by mining activities along the eastern, northern and western boundaries of the property to enhance the wildlife corridors (Conservation).



Figure 12: Status of Mining and Rehabilitation

Rehabilitation to final landform and seeding was completed in 2020. Rehabilitation undertaken during the 2025 reporting period included aftercare and maintenance of rehabilitated areas and infill planting on void slopes, top and base of the highwall, main

woodland area, and woodland area west of the void joining western conservation corridor and existing remnant woodland on Sunnyside Hill. Planting consisted of Narrow-leaved Iron Bark, White-box, Yellow-box, Barbwire Grass, Beyeria, Kurrajong, and Native Olive.

7.1.3 Rehabilitation Monitoring

Monitoring consists of;

- Monthly site inspection by site environmental officer for weeds, feral animals, visual condition of planted tube stock and for signs of erosion.
- Annual detailed ecological assessment of rehabilitated areas and analogue sites by consultant ecologists.

7.1.4 Weed Management

Weed management is discussed in section 5.2.4.

7.1.5 Renovation or Removal of Buildings

All fixed buildings, concrete pads and bitumen road base were removed. Concrete and bitumen were taken to Gunnedah Shire Council tip. No infrastructure remaining onsite.

7.1.6 Other Rehabilitation Undertaken

No further rehabilitation was undertaken.

7.1.7 Departmental Sign-off of Rehabilitated Areas

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

7.1.8 Variations in Activities against RMP

Highwall drain works were completed in 2023.

7.1.9 Trials, Research Projects and Initiatives

No new trials undertaken during the reporting period.

7.1.10 Key Issues to Achieving Successful Rehabilitation

Three key issues to achieving successful rehabilitation are:

- Establishment of vegetation species to meet Plant Community Types (PCT)
- Management of weeds and feral animals
- Ongoing monitoring and maintenance of drainage lines and drop structures

8 COMMUNITY

SCM maintains a designated complaints line and, in the event of a complaint, details pertaining to the complainant, complaint and action taken are recorded.

No complaints were received during the reporting period.

Last five years of complaints are listed in [Table 8](#). Due to the low number of complaints graphing the data is not practical.

Table 8 Community Complaints

Community complaints			
Year	Number of complaints	Aspect	Comment
2025	None		
2024	None		
2023	None		
2022	None		
2021	None		
2020	None		
2019	None		
2018	1	Water	Metallic taste in rainwater tank
2017	None		
2016	1	Air quality	Odor and fumes from mine

Any complaints that are made are reported to the Community Consultative Committee and documented in the AR and the annual EPA Return. A complaints register is also maintained on Whitehaven's website.

Whitehaven supports a range of community, not-for-profit and charitable organisations. In 2025, support for the community in NSW totalled more than \$1M. Organisations included:

2025 Tamworth Science & Engineering Challenge
 Australian Bushman's Campdraft and Rodeo Association
 Baan Baa Tennis Club
 Barraba Central School
 Barraba Junior touch Football Association Inc
 Barraba Public School
 Bellata Common Trust
 Black n Blue Boxing Gunnedah
 Boggabri & District Rugby League Football Club Inc
 Boggabri Anglican Church
 Boggabri Business Chamber
 Drovers Campfire
 Boggabri Gunnedah Gun Club
 Boggabri Joeys Playgroup
 Boggabri Junior Rugby League Club

Boggabri Men's Shed
Boggabri Pony Club
Boggabri Public School
Boggabri Showground and Public Recreation Land Manager
Boomerangs Sports Club
Business NSW
CanAssist
Carinya Christian School
Challenge Community Services
Childrens Medical Research Institute
Clontarf Academy
Connecting with Bricks
Cougars Baseball Club
Country Education Foundation of the Namoi
Cure Brain Cancer Foundation
Curlewis Public School
Deadly Dance Academy
Awesome Opportunities Basketball
Dorothea Mackellar Poetry Society
Dymocks Children's Charities
Eulah Creek Recreation Reserve Land Manager
Fairfax Public School Parents & Citizens Association
Foundation boxing
G.S Kidd Memorial Public School
Gomerai Roos
Group 4 Rugby League
Gunnedah & District Chamber of Commerce
Gunnedah & District Soccer Association
Gunnedah and District Australian Football Club
Gunnedah Athletics Centre
Gunnedah Baptist Community Preschool
Gunnedah Bulldogs Rugby League Football Club
Gunnedah Cricket Club
Gunnedah Family Support
Gunnedah Gymnastics
Gunnedah High School
Gunnedah Kennel Club
Gunnedah Meals on Wheels
Gunnedah Ministers Fraternal
Gunnedah Mountain Bikers
Gunnedah MS Incorporated
Gunnedah Show Society
Gunnedah South Public School P & C Association
Gunnedah Triathlon Club

Huskies Baseball Club Inc
Inverell Bear Eaters Elders Group
Kamilaroi Lightning
Kootingal Moonbi Rugby League Football Club
Lake Keepit Family Fishing Club
Little Wings
Manilla Show Society
Maules Creek Campdraft
Movember Foundation
Mullaley Cricket Club
Namoi Valley Christian School
Narrabri & District Junior Rugby League
Narrabri & District Pony Club
Narrabri Arts Eisteddfod
Narrabri Clay Target Club
Narrabri Dirt Bike Club
Narrabri Dolphins Water Polo Club
Narrabri High School
Narrabri Hospital
Narrabri Jockey Club
Narrabri Junior Rugby Club
Narrabri Local Aboriginal Land Council
Narrabri Polocrosse Club
Narrabri Racecourse Land Manager
Narrabri RSL sub Branch
Narrabri Rugby League Football Club
Narrabri Show Society
National Breast Cancer Foundation
New England Quarter Horse Association
Nexus Health and Wellbeing
Ngaarr Thawun Rural Ag and Environmental Sustainability Indigenous Corporation
Northern Inland Academy of Sport
Nosh Narrabri
NSW Aboriginal Golf Incorporated
Nungaroo Local Aboriginal Land Council
Parkinsons Support Group of Narrabri
PCYC Gunnedah
Pink Shenanigan's Crew
Premer Public School
Quirindi Branch of the Country Women's Association
Quirindi Grasshoppers Rugby League Football Club
Quirindi RSL Sub Branch
Red Chief LALC
Rotary Club of Gunnedah West

Rotary Club of Narrabri
Rotary Club of Tamworth West
Royal Far West
Sacred Heart School
Spring Ridge Public School P & C Association
Square and Round Dance Association of NSW
St Francis Xaviers Narrabri
St Mary's College Gunnedah
Summit Community Services Inc
Swimming Gunnedah Inc
Tambar Springs Progress Association
Tamworth and District Campdraft Club
Tamworth Business Chamber
Tamworth Crows
The Tiny Foxes Pty Ltd
VRL Memorial women's rugby league team
Wean Jockey Club
Wee Waa Aboriginal Local Land Council
Wee Waa High School
Wee Waa Lions Club
Wee Waa Show Society Inc
Weeks of Speed Gunnedah
Werris Creek Golf Club Anglers Club
Werris Creek Public School
Werris Creek Rugby League Club
Werris Creek Swimming Club
Westpac Rescue Helicopter Service
White Elephant Ball
Yallambee Homes for the Aged

9 INDEPENDENT AUDIT

The most recent Independent Environmental Audit (IEA) occurred in September 2025, with submission of the final report and response to Audit Recommendations submitted to the Department in October 2025. There were no non-compliances resulting from the 2025 IEA. There are no previous outstanding audit actions.

Next Independent Audit is scheduled for 2028.

10 INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD**10.1 Reportable Incidents**

None for the reporting period

10.2 Non-compliances

No non-compliances during the reporting period.

10.3 Regulatory Actions

No regulatory actions were issued to Sunnyside in 2025.

11 ACTIONS TO BE COMPLETED IN THE NEXT REPORTING PERIOD

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

- The continuation of environmental monitoring and management, as per the relevant approvals and environmental management plans;
- Review and revision of various Environmental Management Plans; and continued community liaison and engagement with local stakeholders.
- Rehabilitation maintenance of Woodland areas will be undertaken as required to aid development. This includes weed control, pasture grass control, and soil test and infill planting/seeding as required.
- Inclusion of further analytes (ANZECC Irrigation) in groundwater monitoring for 2026.

APPENDIX 1: SURFACE WATER MONITORING DATA

		Field			Lab								
		EC	pH	Temperature	Antimony (total)	Arsenic (total)	EC at 25°C	Molybdenum (total)	Oil & Grease	pH	Selenium (total)	Total Organic Carbon	TSS
		µS/cm	pH	°C	µg/L	mg/L	µS/cm	µg/L	mg/L	pH	µg/L	mg/L	mg/L
POINTS	SAMPLE TIME												
SUNNYSIDE_SD4	2025-08-25 09:50	286	9.49	14.5	< 1	0.001	195	2	< 5	8.7	< 10	10	< 5
SUNNYSIDE_SB2	2025-08-25 09:30	288	8.23	15	< 1	0.001	276	3	< 5	8.02	< 10	7	< 5

APPENDIX 2: GROUNDWATER MONITORING DATA

		Field pH	SWL (bTOC)	SWL (GL)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO ₃	Alkalinity (total)	Aluminium (total)	Ammonia (N)	Arsenic (total)	Barium (total)	Beryllium (total)	Bicarbonate Alkalinity as CaCO ₃
		pH	m	m	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L
POINTS	SAMPLE TIME												
SUNNYSI DE_22497	2025-09-25 10:45	8.04	13.93	13.73	< 1	< 1	550	0.06	0.24	< 0.001	76	< 0.001	550
SUNNYSI DE_22497	2025-03-18 09:35	7.63	14.33	14.13	< 1	< 1	596	0.04	1.04	< 0.001	84	< 0.001	596
SUNNYSI DE_P2	2025-09-25 09:55	7.1	14.93	14.11	< 1	< 1	785	0.43	2.99	< 0.001	67	< 0.001	785
SUNNYSI DE_P2	2025-03-18 10:30	6.93	15.18	14.36	< 1	< 1	747	0.05	4.73	< 0.001	67	< 0.001	747
SUNNYSI DE_44884	2025-09-23 10:40	7.94	-	-	< 1	< 1	937	< 0.01	0.32	0.001	310	< 0.001	937
SUNNYSI DE_44884	2025-03-18 10:10	7.84	-	-	< 1	< 1	932	< 0.01	0.39	0.002	524	< 0.001	932
SUNNYSI DE_P3	2025-09-23 10:25	7.12	22.71	22.27	< 1	< 1	663	0.12	0.26	0.003	94	< 0.001	663

SUNNYSI DE_P3	2025- 03-24 10:10	6.7 7	22.84	22.4	< 1	< 1	654	0.44	0.62	0.003	89	< 0.001	654
SUNNYSI DE_P8	2025- 09-23 10:05	6.9 3	27.47	26.7 2	< 1	< 1	350	0.1	6.36	0.002	156	< 0.001	350
SUNNYSI DE_P8	2025- 03-24 09:30	6.8 8	26.26	25.5 1	< 1	< 1	342	0.11	7.03	< 0.001	159	< 0.001	342
SUNNYSI DE_P7	2025- 09-23 09:50	7.1 1	13.27	–	< 1	< 1	814	0.06	0.02	< 0.001	74	< 0.001	814
SUNNYSI DE_P7	2025- 03-24 09:15	7.0 5	13.81	–	< 1	< 1	789	0.28	0.04	< 0.001	85	< 0.001	789
SUNNYSI DE_4506 1 Coocoob oonah	2025- 03-18 09:20	7.5 3	–	–	< 1	< 1	865	0.24	0.07	< 0.001	145	< 0.001	865

		Boron (total)	Cadmium (total)	Calcium (dissolved)	Chloride	Chromium (total)	Cobalt (total)	Copper (total)	EC at 25°C	Ionic Balance	Iron (total)	Lead (total)	Magnesium (dissolved)
		µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	%	mg/L	mg/L	mg/L
POINTS	SAMPLE TIME												
SUNNYSID E_22497	2025-09- 25 10:45	60	< 0.0001	58	865	0.002	< 0.001	0.02	3580	1.47	13.7	0.001	187
SUNNYSID E_22497	2025-03- 18 09:35	100	< 0.0001	71	842	< 0.001	< 0.001	0.012	3820	1.53	6.29	< 0.001	195
SUNNYSID E_P2	2025-09- 25 09:55	130	< 0.0001	124	793	0.001	< 0.001	0.006	3960	5.95	0.7	0.003	226
SUNNYSID E_P2	2025-03- 18 10:30	150	< 0.0001	136	766	< 0.001	< 0.001	0.002	3950	0.58	0.14	< 0.001	238
SUNNYSID E_44884	2025-09- 23 10:40	70	< 0.0001	16	247	< 0.001	< 0.001	0.004	2150	5.96	< 0.05	< 0.001	30
SUNNYSID E_44884	2025-03- 18 10:10	130	0.0002	20	309	< 0.001	< 0.001	0.032	2500	1.92	2.03	0.003	45

SUNNYSID E_P3	2025-09- 23 10:25	200	< 0.0001	251	216 0	< 0.001	0.028	0.016	6770	2.97	1.82	0.008	424
SUNNYSID E_P3	2025-03- 24 10:10	200	0.0002	244	176 0	0.003	0.035	0.023	6600	2.05	2.48	0.007	393
SUNNYSID E_P8	2025-09- 23 10:05	< 50	0.0007	89	407	< 0.001	0.002	0.01	1900	8.74	0.92	0.003	75
SUNNYSID E_P8	2025-03- 24 09:30	< 50	< 0.0001	101	346	< 0.001	< 0.001	0.007	1830	2.58	0.2	0.001	77
SUNNYSID E_P7	2025-09- 23 09:50	180	< 0.0001	148	154 0	< 0.001	< 0.001	0.002	5600	4.46	0.17	< 0.001	273
SUNNYSID E_P7	2025-03- 24 09:15	180	< 0.0001	169	156 0	< 0.001	< 0.001	0.007	6250	0.42	0.41	< 0.001	307
SUNNYSID E_45061 Coocoobo onah	2025-03- 18 09:20	100	< 0.0001	53	788	0.002	< 0.001	0.003	4280	0.17	0.3	0.001	154

		Manganese (total)	Mercury (total)	Nickel (total)	Nitrate (as N)	Nitrate & Nitrite	Nitrite (as N)	Potassium (dissolved)	Selenium (total)	Sodium (dissolved)	TDS	TDS (dried at 180°C)
		µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L	mg/L	mg/L	mg/L
POINTS	SAMPLE TIME											
SUNNYSID E_22497	2025-09-25 10:45	170	< 0.1	< 1	0.01	0.02	0.01	6000	< 10	427	–	1960
SUNNYSID E_22497	2025-03-18 09:35	170	< 0.1	< 1	< 0.01	< 0.01	< 0.01	10000	< 10	426	25 30	–
SUNNYSID E_P2	2025-09-25 09:55	75	< 0.1	2	0.29	0.32	0.03	8000	< 10	338	–	2310
SUNNYSID E_P2	2025-03-18 10:30	63	< 0.1	< 1	< 0.01	< 0.01	< 0.01	13000	< 10	332	25 50	–
SUNNYSID E_44884	2025-09-23 10:40	55	< 0.1	< 1	< 0.01	< 0.01	< 0.01	3000	< 10	449	–	1400
SUNNYSID E_44884	2025-03-18 10:10	64	< 0.1	< 1	< 0.01	< 0.01	< 0.01	6000	< 10	495	17 70	–

SUNNYSID E_P3	2025-09-23 10:25	1260	< 0.1	5	1.07	1.19	0.12	26000	< 10	622	–	4410
SUNNYSID E_P3	2025-03-24 10:10	2160	< 0.1	8	0.81	1.02	0.21	25000	< 10	591	40 90	–
SUNNYSID E_P8	2025-09-23 10:05	1790	< 0.1	4	0.23	0.24	0.01	10000	< 10	156	–	1090
SUNNYSID E_P8	2025-03-24 09:30	1700	< 0.1	3	0.09	0.09	< 0.01	12000	< 10	150	10 40	–
SUNNYSID E_P7	2025-09-23 09:50	10	< 0.1	1	8.25	8.25	< 0.01	18000	< 10	657	–	3770
SUNNYSID E_P7	2025-03-24 09:15	16	< 0.1	3	7.74	7.76	0.02	21000	< 10	725	37 80	–
SUNNYSID E_45061 Coocooboonah	2025-03-18 09:20	31	< 0.1	2	1.43	1.44	0.01	7000	10	643	27 30	–

		Total Anion	Total Cation	Vanadium (total)	Zinc (total)	pH
		meq/L	meq/L	µg/L	µg/L	pH

POINTS	SAMPLE TIME					
SUNNYSIDE_22497	2025-09-25 10:45	38.1	37	< 10	334	8.1
SUNNYSIDE_22497	2025-03-18 09:35	37.2	38.4	< 10	220	8
SUNNYSIDE_P2	2025-09-25 09:55	44.7	39.7	< 10	62	7.62
SUNNYSIDE_P2	2025-03-18 10:30	40.7	41.1	< 10	19	7.34
SUNNYSIDE_44884	2025-09-23 10:40	25.8	22.9	< 10	165	8.24
SUNNYSIDE_44884	2025-03-18 10:10	27.4	26.4	< 10	60	8.12
SUNNYSIDE_P3	2025-09-23 10:25	79.7	75.1	< 10	168	7.44
SUNNYSIDE_P3	2025-03-24 10:10	68	70.9	< 10	204	7.22
SUNNYSIDE_P8	2025-09-23 10:05	21	17.6	< 10	214	7.45
SUNNYSIDE_P8	2025-03-24 09:30	19.2	18.2	< 10	47	7.19
SUNNYSIDE_P7	2025-09-23 09:50	64.4	58.9	< 10	22	7.64
SUNNYSIDE_P7	2025-03-24 09:15	65.2	65.8	< 10	60	7.49
SUNNYSIDE_45061 Coocooboonah	2025-03-18 09:20	43.6	43.5	< 10	44	7.97