Austar Coal Mine Annual Review

July 2024 – June 2025

ANNUAL REVIEW 2025

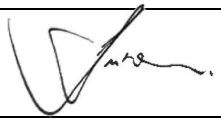
Name of operation	Austar Coal Mine
Name of operator	Yancoal Australia Ltd
Development consent / project	DA 29/95 and PA 08_0111
Name of holder of development	Austar Coal Mine Pty Limited
Mining lease #	Refer **Table 3-1**
Name of holder of mining lease	Austar Coal Mine Pty Limited
Water licence #	Refer **Table 7-1**
Name of holder of water licence	Austar Coal Mine Pty Limited
RMP start date	21 September 2023
Forward Plan start date	1 July 2025
Forward Plan end date	30 June 2028
Annual Review start date	1 July 2024
Annual Review end date	30 June 2025

I, Frank Fulham, certify that this audit report is a true and accurate record of the compliance status of Austar Coal Mine for the period 1 July 2024 to 30 June 2025 and that I am authorised to make this statement on behalf of Austar Coal Mine Pty Ltd.

Note.

a) *The Annual Review is an 'environmental audit' for the purposes of section 9.39(2) of the Environmental Planning and Assessment Act 1979. Section 9.42 provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.*

b) *The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or $22,000, or both).*

Name of authorised reporting officer	Frank Fulham
Title of authorised reporting officer	Executive General Manager, Technical Support and Projects
Signature of authorised reporting officer	
Date	29 September 2025

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1 STATEMENT OF COMPLIANCE

TABLE 1-1 STATEMENT OF COMPLIANCE

Were all the conditions of the relevant approval(s) complied with?	
Development Consent DA 29/95	Yes
Project Approval PA 08_0111	No
Environment Protection Licence EPL 416	No
CML 2	Yes
CCL 728	Yes
CCL 752	Yes
DSL 89	Yes
ML 1157	Yes
ML 1388	Yes
ML 1364	Yes
ML 1283	Yes
ML 1345	Yes
ML 1550	Yes
ML 1661	Yes
ML 1666	Yes
ML 1677	Yes
ML 1851	Yes
MPL 204	Yes
MPL 217	Yes
MPL 23	Yes
MPL 233	Yes
MPL 269	Yes
WAL 19181	Yes
WAL 41504	Yes
EL 6598	Yes

TABLE 1-2 NON-COMPLIANCES

Relevant Approval	Condition #	Condition Description (Summary)	Compliance Status	Comment	Where Addressed in this Annual Review
EPL 416 PA08_0111	L1.1 Schedule 4 Condition 8	Shall comply with s120 of the POEO Act (pollution of waters) The proponent shall not discharge any water from the site except as may be expressly provided by an EPL, or in accordance with s120 of the POEO Act 1997.	Non-compliant	27 April 2025 – Kitchener SIS Sediment Dam overflow. No environmental consequence or harm was caused. Department of Planning, Housing and Infrastructure (DPHI) and Environmental Protection Authority (EPA) were notified immediately. 19 May 2025 - Kitchener SIS Sediment Dam overflow. No environmental consequence or harm was caused. DPHI and EPA were notified immediately.	**Section 7.3.5, 7.3.6 and Section 11**

TABLE 1-3 COMPLIANCE STATUS KEY FOR TABLE 1-2

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

2 INTRODUCTION

2.1 Scope

This Annual Review covers the annual reporting period from 1 July 2024 to 30 June 2025 (the reporting period). Austar Coal Mine Pty Limited is required to prepare and submit an Annual Review that satisfies annual reporting requirements under Development Consent DA 29/95, Project Approval PA 08_0111, and management plans required under the various development consents. This Annual Review has been prepared in accordance with the NSW Government *Annual Review Guideline Post-approval requirements for State significant mining developments, October 2015*. Annual water take against water licences is also recorded in this document.

2.2 Background

Austar Coal Mine Pty Limited, a subsidiary of Yancoal Australia Ltd (Yancoal), manages the Austar Coal Mine (Austar), a closed underground coal mine located approximately 10 kilometres (km) southwest of Cessnock in the Lower Hunter Valley in NSW. Austar incorporates the former Pelton, Ellalong, Cessnock No. 1 (Kalingo) and Bellbird South Collieries and includes decommissioned facilities for coal extraction, handling, processing and rail and road transport. Pit top facilities are located on Middle Road, Paxton, and the Coal Handling and Preparation Plant (CHPP) is located at Wollombi Road, Pelton (**Figure 2-1**).

The mine was placed into closure on 26 February 2021, with Austar currently completing a Feasibility Study (FS) to address closure knowledge gaps and commence preparation of detailed decommissioning and rehabilitation execution plans.

Surface infrastructure at Austar has been divided into Closure Management Areas (CMA's) and includes:

- CMA 1 - Austar Pit Top facilities, including administration buildings, bathhouses, the main access drift (including the dolly car and drift which was sealed in October 2022), coal conveyor bin, store, workshop, and laydown facilities.
- CMA 2 - the decommissioned CHPP at Pelton, including coal handling and preparation plant, empty ROM and product coal stockpiles, train loading and railway infrastructure, coarse coal rejects and fine tailings emplacement areas, mine water management infrastructure, administration areas, Reverse Osmosis water treatment plant, overland conveyor and a number of heritage listed buildings in various states of disrepair. Demolition of non-heritage CHPP infrastructure commenced during the reporting period.
- CMA 3 - No. 1 shaft, which was the second egress man winder, and was partially sealed in October 2022.
- CMA 4 - No. 2 shaft, including administration buildings, a disused shaft and decommissioned mine dewatering pipeline which pumped to Kalingo Dam and on to Austar Dam and CHPP.
- CMA 5 – Former Cessnock No.1 (Kalingo) Colliery including Kalingo Dam and several heritage listed structures in various states of disrepair. Kalingo Infrastructure Area (KIA), which included ventilation fans which were partially sealed during October 2022 and underground services infrastructure, which was demolished during the reporting period.
- CMA 6 - Kitchener Surface Infrastructure Site (SIS), including ventilation fans and shafts (temporarily sealed in March 2022), services borehole/drop hole (fully sealed in March 2022), along with water management dams, pipelines, and powerlines.

- CMA 7 - Aberdare Extended Emplacement Area (EEA) being a coal reject emplacement area.
- CMA 8 - Bellbird Areas 12 and 13 including coal reject emplacement areas and mine dewatering boreholes.
- CMA 9 – all other land covered predominantly by Austar underground mining leases.

The location of approved operations is shown in **Figure 2-1**.

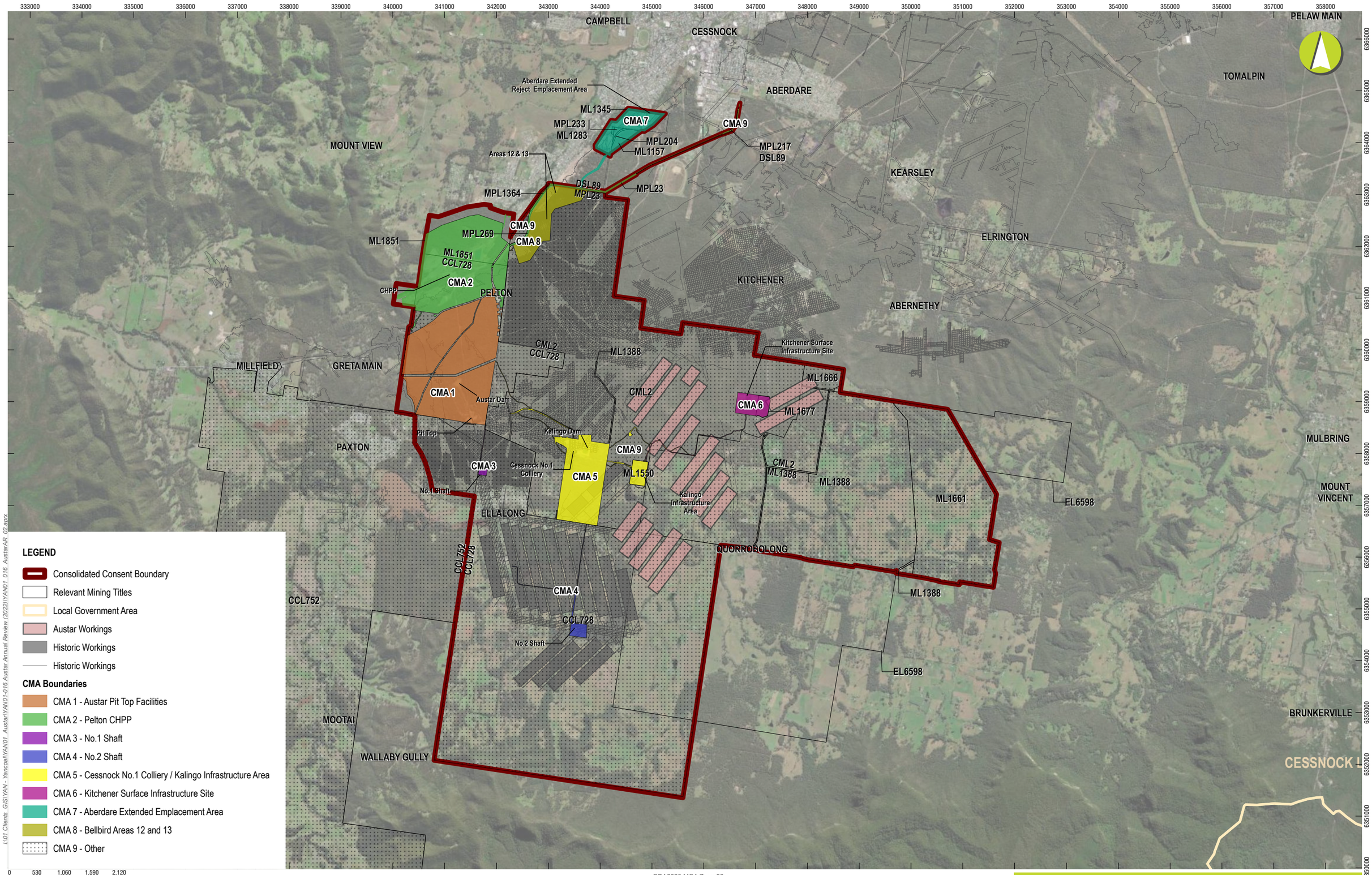
No mining was undertaken at Austar Coal Mine during the reporting period.

2.3 Mine Contacts

Table 2-1 outlines the contact details for site personnel responsible for closure, rehabilitation, environment, and community liaison at Austar.

TABLE 2-1 SITE PERSONNEL

Position	Name	Company	Contact Number
Closure Project Manager	Craig Reiss	Austar	0400 527 713
Mining Engineering Manager	William Farnworth	Austar	0409 023 031
Environment & Community Manager	Carly McCormack	Austar	0447 913 693



Austar Coal Mine Annual Review

Locality Plan and Complete Mining Operations

FIGURE 2-1

INTEGRATED ENVIRONMENTAL MANAGEMENT AUSTRALIA
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Sheet Size : A3

3 APPROVALS

Austar's operations are regulated through various leases, licences, permits and approvals as set out below.

3.1 Changes to Approvals during the Reporting Period

There were no changes to approvals during the reporting period.

3.2 Primary Approvals

3.2.1 Project Approvals and Development Consents

Austar operates under two major project approvals: Bellbird South (DA 29/95) and Stage 3 (PA 08_0111), along with numerous development consents issued by Cessnock City Council between 1974 and 2012.

Development Consent DA 29/95 was granted under Section 91 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 14 February 1996 and was most recently modified under Section 75W (repealed) of the EP&A Act on 25 August 2017. DA 29/95 relates primarily to the Bellbird South mining area and operational areas.

Approval to undertake mining operations under DA 29/95 lapsed on 14 February 2022. Under Schedule 2 Condition 5, this consent continues to apply in all other respects until rehabilitation of the site is carried out to the required standard. Austar continues to undertake rehabilitation activities and relevant monitoring in accordance with DA29/95 and all approved management plans.

Project Approval PA 08_0111 was granted under Section 75J of the EP&A Act on 6 September 2009 and was last modified under Section 75W of the EP&A Act in December 2013. PA 08_0111 relates primarily to the Stage 3 mining area. PA 08_0111 was declared State Significant Development (SSD) under Clause 6 of Schedule 2 to the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* via Government Gazette on 15 November 2018.

A summary of Austar's project approvals and development consents is outlined in Austar's Environmental Management Strategy, found on the Yancoal website.

3.2.2 Mining Authorities

Details of the relevant mining authorities are summarised in **Table 3-1**.

TABLE 3-1 MINING AUTHORISATIONS HELD BY AUSTAR

Mining Title (Act)	Date Granted	Expiry Date	Area (ha)	Surface	Depth Restriction
EL 6598 (1992)	13 Jul 2006	13 Jul 2027	3582.7	Yes	Various
Dam Site Lease 89 (1901)	04 Apr 1908	04 Apr 2030	3.961	Yes	Surface to 15.24 metres
Mineral Lease No. 1157 (1906)	8 Jul 1949	08 Jul 2028	10.24	Yes	Surface to 15.24 metres
Mineral Lease No. 1283 (1906)	13 Jul 1961	13 Jul 2042	1.973	No (sub-surface)	7.62 to 15.24 metres
Mining Purposes Lease No. 23 (1906)	17 May 1909	17 May 2030	2.421	Yes	Surface to 15.24 metres
Mining Purposes Lease No. 204 (1906)	03 Feb 1916	03 Feb 2039	1.2	Yes	Surface to 15.24 metres
Mining Purposes Lease No. 217 (1906)	12 Apr 1916	03 Feb 2039	0.6298	Yes	Surface to 15.24 metres
Mining Purposes Lease No. 233 (1906)	01 Aug 1916	01 Aug 2036	1.973	Yes	Surface to 7.62 metres
Mining Purposes Lease No. 269 (1906)	07 Dec 1917	07 Dec 2039	2.663	Yes	Surface to 6.1 metres below the level of the rails when laid
Mining Purposes Lease No. 1364 (1906)	28 Oct 1968	28 Oct 2029	0.4527	Yes	Surface to 15.24 metres
Consolidated Coal Lease No. 728 (1973)	10 Oct 1989	30 Dec 2044	3296	Various	Various
Consolidated Coal Lease No. 752 (1973)	23 May 1990	30 Dec 2044	3802	No (Sub-surface)	Various
Consolidated Mining Lease No. 2 (1992)	24 Mar 1993	24 Mar 2041	ML -3406 ha AMA - 2.528 ha	Various	Various
Mining Lease No. 1345 (1992)	23 Mar 1995	30 Dec 2044	ML - 41.9 ha AMA - 0.5659 ha	Yes	Surface to 900 metres depth
Mining Lease No. 1388 (1992)	02 Apr 1996	02 Apr 2038	15.12	No (sub-surface)	30.48 metres to unlimited depth
Mining Lease No. 1550 (1992)	24 Jun 2004	23/06/2046	14.11	Yes	Surface to 20 metres
Mining Lease No. 1661 (1992)	22 Nov 2011	22 Nov 2032	469.3	No (sub-surface)	20 to 900 metres

Mining Title (Act)	Date Granted	Expiry Date	Area (ha)	Surface	Depth Restriction
Mining Lease No. 1666 (1992)	25 Jan 2012	25 Jan 2033	34.13	No (sub-surface)	30.48 to 900 metres
Mining Lease No. 1677 (1992)	23 Aug 2012	22 Aug 2032	9.2	Yes	Surface to 30.48 metres
Mining Lease 1851 (1992)	16 May 2023	16 May 2044	115.1	Yes	Surface to 50 metres

3.2.3 Environment Protection Licence

Austar operates in accordance with Environment Protection Licence 416 (EPL 416), issued on 5 April 2000 and last updated on 18 November 2024 by the NSW Environment Protection Authority (EPA), under the authority of the *Protection of the Environment Operations Act 1997*.

3.3 Ancillary Approvals

3.3.1 Extraction Plans

A summary of Extraction Plan / Subsidence Management Plan (SMP) approvals for Bellbird South (LWB1-LWB7) and Stage 3 mining areas held by Austar is outlined in **Table 3-2**.

TABLE 3-2 SUBSIDENCE MANAGEMENT PLAN / EXTRACTION PLAN APPROVALS HELD BY AUSTAR

Description	Date	Expiry Date	Approval Authority	Approval Summary
Extraction Plan Approval	30 May 2013	31 Dec 2030	DPHI	Extraction Plan approval for Austar Longwalls A7 to A10. The Extraction plan has been modified in accordance with PA08_0111 modifications.
SMP Approval 13/1876	3 Jun 2013	31 May 2020	Division of Resources and Energy (DRE)	Subsidence Management Plan approval for Austar Longwalls A7 to A10. The SMP has been varied twice in accordance with PA08_0111 modifications and variations in start and end positions of longwalls.
Extraction Plan LWB1 to LWB3	16 May 2016	Not specified	DPHI	Extraction Plan for Bellbird South Longwalls B1 to B3 was approved by DPHI on 4 July 2016.
Extraction Plan LWB4 to LWB7	1 Feb 2019	Not specified	DPHI	Extraction Plan for Bellbird South Longwalls B4 to B7 approved by DPHI on 20 September 2017. Updated to include the shortening of LWB4 was approved by DP&E on 18 September 2018 and again on 12 February 2019. Other variations to Longwalls B5-B7 were approved by DPHI on 7 August 2019.

3.3.2 Rehabilitation Management Plan and Rehabilitation Outcomes Documents

The Rehabilitation Management Plan, Rehabilitation Objectives (ROBJs), Final Landform and Rehabilitation Plan (FLRP), Annual Rehabilitation Report and Forward Program have been prepared in accordance with the NSW *Mining Act 1992*.

The Austar ROBJs and FLRP were approved by the NSW Resources Regulator in August 2023.

3.3.3 Environmental Management Plans

In accordance with DA 29/95 and PA 08_0111, Austar has developed and implemented environmental management plans. **Table 3-3** outlines the environmental management plans required by each relevant development consent, the determining authority, and their approval status.

TABLE 3-3 ENVIRONMENTAL MANAGEMENT PLANS

Plan	DA Requirement	Approval Authority	Approval Date
Environmental Management Strategy, March 2024	DA 29/95 – Schedule 5 Condition 1 PA 08_0111 - Schedule 7 Condition 1	DPHI	12 March 2024
Landscape Management Plan – Kitchener SIS, April 2021	PA 08_0111 – Schedule 6 Condition 4	DPHI	4 April 2024
Site Water Management Plan, May 2024	DA 29/95 – Schedule 3 Condition 6-11 PA 08_0111 – Schedule 4 Condition 9	DPHI	4 June 2024
Noise and Vibration Management Plan, August 2024	DA 29/95 – Schedule 3 Condition 13-16 PA 08_0111 – Schedule 4 Condition 2-3	DPHI	23 August 2024
Air Quality and Greenhouse Gas Management Plan, March 2024	DA 29/95 – Schedule 3 Condition 17-20 PA 08_0111 – Schedule 4 Condition 6-7	DPHI	12 March 2024
Aboriginal Cultural Heritage Management Plan, January 2023	PA 08_0111 – Schedule 3 Condition 4 and Schedule 4 Condition 10	DPHI	26 April 2023
Historic Heritage Management Plan, April 2021	PA 08_0111 – Schedule 4 Condition 11	DPHI	30 Jun 2021

4 OPERATIONS SUMMARY

During the reporting period, activities at Austar have been associated with rehabilitation and closure technical studies and site investigations as well as closure early works, including decommissioning and demolition of non-heritage infrastructure, and desilting and decommissioning of the Kalingo Dam. Activities have been in accordance with the Austar Coal Mine Forward Program - Saturday 1 July 2024 to Tuesday 30 June 2027 (Forward Program) prepared in accordance with the requirements of the Mining Act.

General site maintenance activities including weed control, environmental monitoring and waste and water management are conducted as required.

A summary of the progress of closure planning and execution works is included in **Section 4.1.**

General operations are summarised in **Section 4.2.**

4.1 Closure Works

4.1.1 Mine Closure Planning Update

Since the closure of Austar in 2021, Austar has been undertaking technical studies and site investigations focused on identifying conceptual final landform(s) and rehabilitation outcomes that:

- provide a future beneficial land use,
- are safe, stable, and non-polluting, and
- achieve relevant regulatory requirements to facilitate mining lease relinquishment.

In September 2023, Austar completed the Pre-Feasibility Study (PFS) including knowledge gap assessments, risk assessments, site sampling and analysis and technical studies. PFS identified the go-forward options for:

- Preferred final land uses,
- Conceptual final landforms,
- Demolition strategy with consideration to heritage values, and
- Approvals pathways to execute closure.

In March 2024, Austar commenced a Feasibility Study (FS) to prove and refine the preferred go forward rehabilitation and closure option(s). The FS included additional site investigations to fill knowledge gaps identified in PFS technical studies and address PFS recommendations. The FS assessments and closure designs were continued during the reporting period and the FS is scheduled for completion in mid-2026.

4.1.2 Mine Closure Feasibility Study

In late 2024, Austar completed the FS detailed site investigation program based on the recommendations of the PFS. The scope of these investigations included test pitting and borehole drilling with material analysis, geotechnical logging, downhole camera and sonar inspections.

The data obtained from the site investigations will be used to complete the FS mine sealing, geotechnical, geochemical, contamination and hydrological assessments. These assessments will be finalised in early 2026. The outcomes of the FS assessments will be used to refine the rehabilitation and closure designs and strategies including landform design, contamination remediation and rejects and tailings management and capping

designs.

In parallel with the FS, Austar have commenced scoping a State Significant Development (SSD) modification to maximise opportunities to improve rehabilitation outcomes and efficient use of materials currently available on site.

4.1.3 Early Works

As mine closure planning advances, early works are being undertaken to progress the decommissioning and demolition phases of closure and prepare the site for full rehabilitation and closure execution. Key early works undertaken in the reporting period are discussed in more detail below.

4.1.4 Decommissioning and demolition activities

Decommissioning

During the reporting period, surface infrastructure decommissioning continued. Activities included disconnecting and removing CHPP equipment, removing and selling transportable assets and buildings, and dismantling above-ground conveyors and electrical services. The No. 3 Shaft Switchyard was decommissioned, with saleable items such as transformers and the control room moved to the CHPP. The Pit Top store and workshop have been cleared and prepared for demolition.

Early Works Demolition

Austar began demolishing non-heritage infrastructure at CMA 5 - Kalingo Infrastructure Area (KIA) in March 2025, completing work in this area during April. Items removed included:

- No. 3 Shaft compressor compound
- Solsenic tank and compound
- Main fan compound
- Old drop hole area
- Concrete slabs
- Electrical and pipeline services.

Demolition at CMA 2 – CHPP is ongoing. During the reporting period, most non-heritage structures had been demolished and cleared, including:

- CHPP building
- Overland conveyor
- Cobble coal bin
- Train load out bin
- Coal storage bin
- Lime plant
- Aerial conveyors
- Concrete slabs and footings.

Demolition Waste Management

Demolition waste has been managed in accordance with the Closure Waste Management Plan with materials segregated and sent to appropriate licensed facilities for disposal. Concrete and brick have been stockpiled separately and are being sampled to confirm suitability for beneficial reuse by backfilling of mine shafts. As per the Closure Waste Management Plan (WMP) and consistent with the POEO (Waste) Regulation 2014,

Austar tracks and maintains records of type and quantity of waste, how it was disposed of, tracking certificates and information, and waste classification. This is all maintained within the Austar Waste Management Register.

Contamination Management

Austar have implemented a staged contamination validation program during early works demolition. While PFS and FS Contamination Assessments identified no gross contamination there is the potential that contaminated soils will be exposed following the demolition of mechanical workshops, above-ground storage tanks, transformers, substations etc. Austar is undertaking additional sampling to validate the area once removal of the equipment, infrastructure, buildings, and structures has been completed. Austar have also implemented an Unexpected Finds Procedure to address potential contamination and hazardous materials that may be identified during demolition.

During the reporting period, the Austar bioremediation area was decommissioned and removed. Contamination sampling was undertaken to confirm appropriate disposal requirements, and the material was emplaced in the East Open Cut Reject Emplacement Area after sampling confirmed this as the appropriate disposal mechanism.

4.1.5 Kalingo Dam decommissioning and desilting work

Kalingo Dam is a declared dam and has been underutilised since the mine was sealed. A decommissioning options assessment was undertaken to clean and decommission the dam, deregister the declared dam status and achieve final landform.

During the reporting period, desilting of Kalingo Dam was completed. A total of approximately 17,740 m3 of sediment was sampled, waste classified, removed and transported to the East Open Cut Reject Emplacement Area. Following removal of the sediment, Austar completed validation contamination sampling to verify that all mine water contaminated sediments had been removed and the dam is suitable for rehabilitation.

A new clean water diversion drain has been constructed on the western side of the dam to reduce the catchment area reporting to the dam impoundment prior to dam wall removal.

4.2 Mining Operations

4.2.1 Exploration

There were no exploration activities undertaken during the reporting period. Austar is progressing through an audit of historically drilled holes and developing a rehabilitation process for any drilled holes that require rehabilitation.

An exploration report for Exploration Licence EL6598 is prepared annually covering the period 13 July – 12 July. The report describes exploration and rehabilitation activities carried out on or within EL6598 during the period and was lodged with the Resources Regulator on 11 August 2025.

4.2.2 Production Summary

During the reporting period, no coal was mined or transported at Austar or processed at the Austar CHPP.

4.2.3 Waste Management

Waste collected during the reporting period is summarised and compared to the previous reporting periods in **Table 4-1**.

Waste generation is increasing as the site has commenced decommissioning and demolition. It is likely that waste generation will remain high over the next reporting period as early works demolition continues and additional demolition waste is removed from the site.

Waste contractors undertake regular inspections of waste bins and spill kits and report any issues to Austar staff. Employees and contractors toolbox talks and inductions include waste management as required.

During demolition, Austar has implemented an Unexpected Finds Procedure. This procedure is enacted when any suspected contamination or hazardous material is identified during works. Works in the area cease, the material is sampled and classified, and is then managed according to the Closure Waste Management Plan and contamination consultant advice.

Following demolition, stockpiles planned for re-use are sampled and verified as suitable for use, or disposed of in accordance with the WMP. Areas of potential contamination have been identified. Any known contaminants will be disposed of appropriately and soil samples will be taken to demonstrate appropriate decontamination has occurred.

TABLE 4-1 WASTE MANAGEMENT DATA (TONNES)

Year	Waste Oil	Oily Water	Waste Coolant	Oily Filters	Waste Grease	Empty Drums	Contaminated Sludge	Printer Cartridges	Paper & Cardboard	Scrap Metal	Copper Cable	Oily Rags	Chemicals disposed	Medical & Sanitary	Mixed Solid Waste
2024-25	12	90	5.63	0.09	1.86	0.70	13.44	1.51	5.37	716.94	11.24	0.28	0.32	0.15	94.33
2023-24	0.85	21.9	-	-	-	-	-	-	1.29	39.35	-	0.02	-	0.17	65.96
2022-23	3.8	34	-	0.16	-	-	-	-	0.21	47.2	-	-	-	0.08	45.52
2021-22	4.6	23.19	-	0.25	-	-	-	-	4.92	173.03	-	0.69	-	0.11	71.45
2020-21	13.44	4.53	-	0.14	-	-	-	-	3.7	289.63	-	0.17	-	0.14	116.33
2019-20	24.5	73.5	-	1.05	-	-	-	0.06	6.39	217.62	-	0.24	-	0.17	274.36
2018-19	28.8	32.25	-	0.97	-	-	-	0.17	7.88	166.89	-	0.18	-	0.2	249.75

4.3 Planned Activities Next Reporting Period

Activities in the next reporting period are detailed in this section and in the *Austar Coal Mine Forward Program - Friday 1 July 2025 to Monday 30 June 2028* (Forward Program) prepared in accordance with the requirements of the Mining Act. Activities will be associated with continued technical studies to inform rehabilitation and closure planning, early works, and demolition.

4.3.1 Mine Closure Planning Technical Studies

During the next reporting period, Austar will continue the FS stage of mine closure planning. The FS is scheduled for completion in mid-2026. Following FS, Austar will develop a mine closure Execution Plan with closure execution scheduled to commence in mid – late 2027.

4.3.2 Early Works

Austar will conduct early works where permissible in accordance with existing development consents and/or as authorised under relevant State Environmental Planning Policies (e.g. Resources SEPP). Early works projects are outlined below.

4.3.3 Decommissioning

Progressive decommissioning will continue during the next reporting period and may include:

- Decommissioning and removal of redundant mining equipment from the site (non-heritage items only) for sale and beneficial re-use elsewhere;
- Progress the decommissioning, de-declaring, and rehabilitation of the Kalingo Dam (CMA 5);
- Progress decommissioning and/or removal of buried electricity and data services and potable water pipelines;
- Progress decommissioning and/or removal of above ground electricity services;
- Dismantling and removal of redundant components of the mine water management system including pumping infrastructure, mine water pipelines and boreholes.

4.3.4 Mine Sealing

All operational shafts are sealed from the atmosphere, with either a permanent plug at the base (No. 1, 3 and 4 Shafts), a temporary pressure-rated cap at the surface (No. 5 and 6 Shafts), or through water sealing (No. 2 shaft is sealed from atmosphere as it is partially filled with water). Progressive assessment and sealing of historic exploration and services boreholes will continue throughout the next reporting period.

4.3.5 Demolition

During the next reporting period, early works demolition activities will continue and are scheduled to include:

- Demolition of redundant, non-heritage significant mining infrastructure in CMA's 1, 2, 3 and 4;
- Demolition waste management and;
- Hazardous and contaminated materials clean up (as required) during the demolition project.

4.3.6 Rehabilitation Maintenance and Monitoring

Based on the Forward Program, the following actions are proposed for the 2025-26 reporting period:

- Progress the mine closure planning strategy, and continue FS technical studies;
- Disconnection, decommissioning and demolition of some items of surface equipment; and
- Maintenance of existing rehabilitated areas at Aberdare Extended Emplacement Area, Bellbird Areas 12 and 13 and Cessnock No.1/Kalingo Collieries.

4.3.7 Kalingo Dam

Kalingo Dam wall removal is scheduled for late 2025 to 2026 to allow the dam to be removed from the declared dam register. Following dam wall removal, a small sediment dam will remain, and the rest of the dam will be rehabilitated to final landform and revegetated.

5 ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

DPHI reviewed the 2023-2024 Annual Review and 'considers it to generally satisfy the reporting requirements of the consents and the Department's *Annual Review Guideline* (October 2015)'.

Actions committed to by Austar in the 2023-2024 Annual Review and the current status of each action item are provided in **Table 5-1**.

TABLE 5-1 ACTIONS REQUIRED FROM PREVIOUS REVIEW

Action Required from Previous Annual Review	Source	Status	Action taken by Austar
Progress the mine closure planning strategy as documented **Section 4.1.**	2023-2024 Annual Review.	Progressing, refer to **Section 4.1** for detail.	The Mine Closure Feasibility Study is progressing well and is scheduled to be completed approximately mid-2026.
Continue to maintain existing rehabilitated areas at Aberdare Extended Emplacement Area, Bellbird Areas 12 and 13 and Cessnock No 1/Kalingo Colliery.	2023-2024 Annual Review.	Progressing.	Weed management has continued during the reporting period as detailed in **Section 6.5**. Extensive works to limit trespassing in rehabilitated areas has been undertaken and is ongoing.
Disconnection, decommissioning and demolition of surface equipment at CMA's 1, 2, 4 and 5.	2023-2024 Annual Review.	Progressing.	During the reporting period, the disconnection and decommissioning of surface infrastructure in CMA's 1, 2 and 5 has commenced, and demolition commenced in CMA 2 and CMA 5. See **Section 4.1.3**.

6 ENVIRONMENTAL PERFORMANCE

6.1 Environmental Performance Summary

Table 6-1 outlines the key environmental performance or management aspects encountered at Austar and details how they have been addressed, as well as the implementation of any management measures from the reporting period and proposed improvements for the following years.

Where practical, environmental management of the key environmental aspects managed at Austar have been discussed in **Table 6-1**. Where tabulating the information is not practical, further detail is included in the following sections of this report.

TABLE 6-1 ENVIRONMENTAL PERFORMANCE SUMMARY

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
Air Quality (**Section 6.3**)	Refer **Section 6.3** for detail on approval criteria and background levels.	Compliant with DA 29/95 and PA 08_0111.	Austar was compliant with the relevant criteria and monitoring results were generally consistent with previous years.	Air Quality will continue to be managed in accordance with the AQGHGMP.
Biodiversity	Biodiversity monitoring required under relevant Extraction Plans has been completed. Through the Work Permit process, any closure actions that may require	Compliant with DA 29/95 and PA 08_0111. Prior to commencement of FS Site Investigations and proposed Early Works demolition inspections with	Works during the period avoided any areas of high biodiversity value.	No ongoing monitoring is currently required.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
	clearing or disturbance are assessed and properly authorised with the support of a qualified ecologist as required.	work groups and, where necessary, ecologists were undertaken to ensure works were planned and executed to minimise any potential environmental or biodiversity impact.		
Vibration and Blasting	There are no operational vibration criteria provided in DA29/95 or PA08_0111.	As Austar is in closure, no vibration or blast monitoring was required during the reporting period.	-	No actions required.
Noise (**Section 6.4**)	Refer to **Section 6.4** for detail on approval criteria.	There were no exceedances of relevant noise criteria at the CHPP, Kitchener SIS or Kalingo Infrastructure Area during the reporting period.	There has been a period of minimal noise impact since March 2020, however the commencement of demolition activities (particularly in remote infrastructure areas) may have short term impacts on nearby neighbours, who are being kept up to date with planned operations.	Noise monitoring and management will continue in accordance with the NVMP. Austar will model and measure noise impacts of specific closure execution activities on nearby neighbours and implement noise controls as required.
Aboriginal Cultural Heritage	The Aboriginal Cultural Heritage Management Plan (ACHMP) provides a consolidated framework and process for managing	During the reporting period, Austar completed Aboriginal cultural heritage due diligence surveys for the borehole rehabilitation project. Surveys were undertaken with an	Six Aboriginal artefacts were discovered during the due diligence surveys completed in early 2025. Four were located within the Werekata National Park and two were on Austar	Continue to assess and undertake operations in accordance with the ACHMP.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
	Aboriginal cultural heritage responsibilities at Austar.	Archaeologist and Registered Aboriginal Parties (RAPs) in accordance with the approved ACHMP. Fifty-one boreholes located on Austar owned land, five located on Crown land, nineteen located in the Werakata National Park and six on private land were inspected by a qualified archaeologist and RAP's during the due diligence surveys.	owned land. These artefacts were left in-situ and works will be managed in accordance with the ACHMP to prevent damage to in-situ artefacts.	
Mine Subsidence	All recorded subsidence in Stage 3 and Bellbird South is complete.	Compliant with DA 29/95 and PA 08_0111.	Subsidence has been deemed to be complete in approved mining areas. No further mitigation is required.	No further subsidence monitoring is required under the SMP or Extraction Plans. FS studies continue to assess subsidence in areas of shallow historic mine workings within Austar tenements.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
Water – Surface Water (**Section 7.3)**	Refer **Section 7.3** for detail on approval criteria and background levels.	There were no discharges from LDP1 (SW1) or LDP6 (SW6) during the reporting period. Water quality monitoring results for the reporting period were within historic ranges at upstream and downstream locations. Two unlicensed discharge events were recorded at the Kitchener SIS on 27 April 2025 and 19 May 2025. Details of the incidents are presented in **Section 7.3.5, Section 7.3.6** and **Section 11.**	Monitoring of the Investigation Drainage Line at the CHPP continued in accordance with the EPL PRP. Surface water quality trends indicate no adverse mining impacts on the water quality of Quorrobolong and Cony Creeks. There have been no community complaints made to Austar in relation to water quality during the reporting period. No TARPs under the SWMP were triggered.	Surface water monitoring and management will continue in accordance with the SWMP.
Water – Groundwater (**Section 7.4**)	Refer **Section 7.4** for detail on approval criteria and background levels.	Compliant with DA 29/95 and PA 08_0111. A level one trigger was enacted at site MB01 late in this reporting period, as described in **Section 7.4.2.2**.	The predictions in groundwater impact assessments from the DA 29/95 MOD6 EA, and the DA 29/95 MOD7 EA have, in general, been validated by measurements.	Groundwater monitoring and management will continue in accordance with the SWMP.
Erosion and Sediment Control	PA 08_0111 requires an Erosion and Sediment Control Plan as part of the SWMP.	Erosion and sediment controls were implemented effectively throughout the reporting period where ground disturbance was required for	Erosion and sediment control is undertaken according to the SWMP. A range of erosion and sediment control measures have been implemented across	Erosion and sediment controls will continue to be managed in accordance with the SWMP.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
		site investigations, decommission works and demolition.	the mining complex with the aim of preventing soil erosion and the entry of sediments into surrounding water bodies. Monthly environmental inspections are undertaken to monitor the sediment control structures for capacity, structural integrity, and effectiveness.	
Hydrocarbon management	Not applicable.	There were no reportable incidents in relation to hydrocarbon management during the reporting period. The hydrocarbon remediation area was decommissioned ahead of the demolition of CMA 2 infrastructure areas. Spill kits in all hydrocarbon storage areas are monitored regularly by the waste contractor and replenished as necessary. Bunded hydrocarbon storage areas are also monitored by the waste contractor and pump out is scheduled as required.	Hydrocarbon management systems are designed and installed generally in accordance with Australian Standards and EPA guidelines. There have been no hydrocarbon related incidents during the reporting period. During demolition of CMA 2, the unexpected finds procedure was triggered when an old thickener tank was excavated adjacent to the CHPP footprint. Immediate sampling and classification were completed by a third-party contamination consultant	Hydrocarbon management and disposal will continue to be undertaken in accordance with the Closure Waste Management Plan, internal procedures and general good management practices.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
			who classified the water to have hydrocarbons present. The water appropriately disposed of off site by a certified waste contractor.	
Weed and Feral Animal Management and Control (refer to **Section 6.5**)	Not applicable.	A Weed Action Plan is executed across Austar lands which implements weed control operations in a systematic manner. Approximately 71 hectares of weeds were treated over the reporting period. The primary targeted weeds which were controlled during the reporting period included Green Cestrum, Lantana, Mother of Millions, Tobacco Bush, Asparagus Weed, Inkweed, Nightshade species, Narrow-leaf Privet, Blackberry, Black Heliotrope, Camphor Laurel, Date Palm, Senna and Thistles. Details of weed management are discussed in **Section 6.5**.	Weed infestations are managed according to the Weed Action Plan. During the next reporting period, weeds will continue to be monitored in monthly inspections and controlled as per the Weed Action Plan recommendations. Signs of feral animal presence are monitored for during monthly inspections. Ad hoc sightings of feral animals are also reported by operational personnel. Feral animal management is undertaken on an as needs basis.	Weeds and feral animals will continue to be managed in accordance with the Weed Action Plan, and good land management practices.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
Visual Amenity and Lighting	Reject emplacement areas will be constructed to minimise visual impacts upon residents in the vicinity and from roads. Emplacement areas may include bunds and buffer zones to minimise visual impact. Screening will be used as required. Lighting will be positioned to shine into the Kitchener SIS and light shields will be used where practical.	There were no community complaints or non-compliances related to visual impacts or lighting during the reporting period. Unnecessary lighting is turned off since many parts of the site are non-operational at night. Only sufficient lighting for security purposes is operational.	Visual impacts and lighting will continue to be managed according to the EMS, guidelines, and internal procedures as appropriate. Most closure work is conducted during daytime hours only.	Visual Amenity and Lighting will continue to be managed consistent with current good practice and commitments made in relevant EIS's.
European Heritage	Austar implements a Historic Heritage Management Plan (HHMP).	Austar has several buildings, remnant structures and features located within heritage curtilages listed on the Cessnock Local Environment Plan (LEP). Prior to proposed early works demolition, Austar conducted historic heritage due diligence assessments to demonstrate that the structures proposed for demolition do not form part of the heritage item under the	Austar will continue to consult with Cessnock City Council regarding the findings of the Heritage assessments and seek appropriate heritage approvals if required.	Management of historic heritage items will comply with relevant approvals.

Aspect	Approval Criteria / EIS Prediction	Performance During the Reporting Period	Trend / Key Management Implications	Implemented / Proposed Management Actions
		LEP and demolition will not have a negative impact on heritage values. The Early Works demolition program does not include any element / structure within the curtilage of a local heritage item that has been assessed to contribute to the heritage values.		
Spontaneous Combustion	Monitoring and response procedures will be used to minimise spontaneous combustion issues.	There were no spontaneous combustion events during the reporting period.	Spontaneous combustion is managed through the reject haulage and emplacement area procedure and routine inspections. Reject emplacement areas continue to be monitored and managed during closure. The ROM and clean coal stockpiles have been cleared and remain empty.	Monitoring for spontaneous combustion events will continue and will be responded to as required.
Bushfire	Maintain Asset Protection Zones (APZs) and Strategic Fire Advantage Zones (SFAZs) in accordance with Bushfire Management Plan.	Austar continued to monitor and maintain access tracks, APZs and SFAZs around its key operations. Slashing of APZs is undertaken on a routine basis.	Austar continues to maintain the area around its operations, including pit top facilities, CHPP, remote infrastructure areas and emplacement areas.	Austar will continue to implement the actions identified in the Bushfire Management Plan.

6.2 Meteorological Data

In accordance with DA 29/95, PA 08_0111 and EPL 416, Austar operates and maintains a meteorological station located at the CHPP.

Table 6-2 summarises the meteorological data for the 2024-2025 reporting period.

TABLE 6-2 WEATHER SUMMARY, 2024-2025

Month	Rainfall (mm)	Rain days (>0.2mm)	Maximum temperature (°C)	Minimum Temperature (°C)	Mean wind speed (km/hr)	Max wind speed (km/hr)	Dominant wind direction
Jul	35.8	13	27.8	2.1	1.2	9.3	SSW
Aug	42.6	13	29.4	2.6	1.5	9.9	SSW
Sep	49	8	30.5	6.4	1.3	7.1	S
Oct	45.2	14	37	11.9	1.3	6.8	SE
Nov	52.2	15	39.9	11.8	1.5	9.5	SSE
Dec	41.8	9	41	13.5	1.7	8.3	ESE
Jan	105.2	18	37.2	11.5	1.4	6.8	SW
Feb	17.2	8	35.8	15	1.4	10.8	SW
Mar	152.2	19	29.5	9.6	1.4	6.8	SW
Apr	131	11	24.6	7.9	1.3	6.4	SW
May	218.8	19	20.6	1.3	1.4	9.3	SW
Jun	39.4	9	12.6	9.6	4.2	12	SW
Total	**930.4**	**156**	-	-	-	-	**-**

The total monthly rainfall, number of rain days and cumulative rainfall during the reporting period is shown in **Table 6-2** and **Figure 6-1**. An annual wind rose is provided in **Figure 6-2.**

A total rainfall of 930.4 mm was recorded during the 2024-2025 reporting period. This represents an increase of 73.6 mm from the previous reporting period and is approximately 24% greater than the annual average rainfall for the Cessnock area (752.2mm) (Bureau of Meteorology Cessnock Airport AWS 1968 - 2024). Five months reported rainfall above their long-term average (August, January, March, April and May). May recorded the highest rainfall of any month in the reporting period with 219mm, or 487% of the long-term monthly average.

Predominant winds were on average from the southwest for the reporting period.

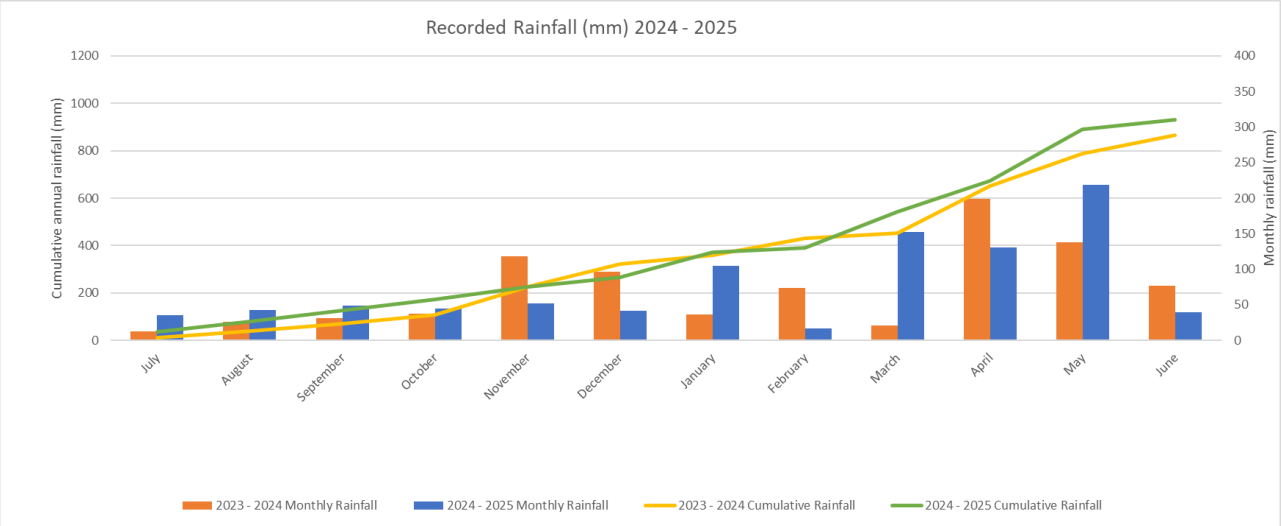

FIGURE 6-1 RECORDED RAINFALL (MM) AT AUSTAR CHPP METEOROLOGICAL STATION 2024-2025

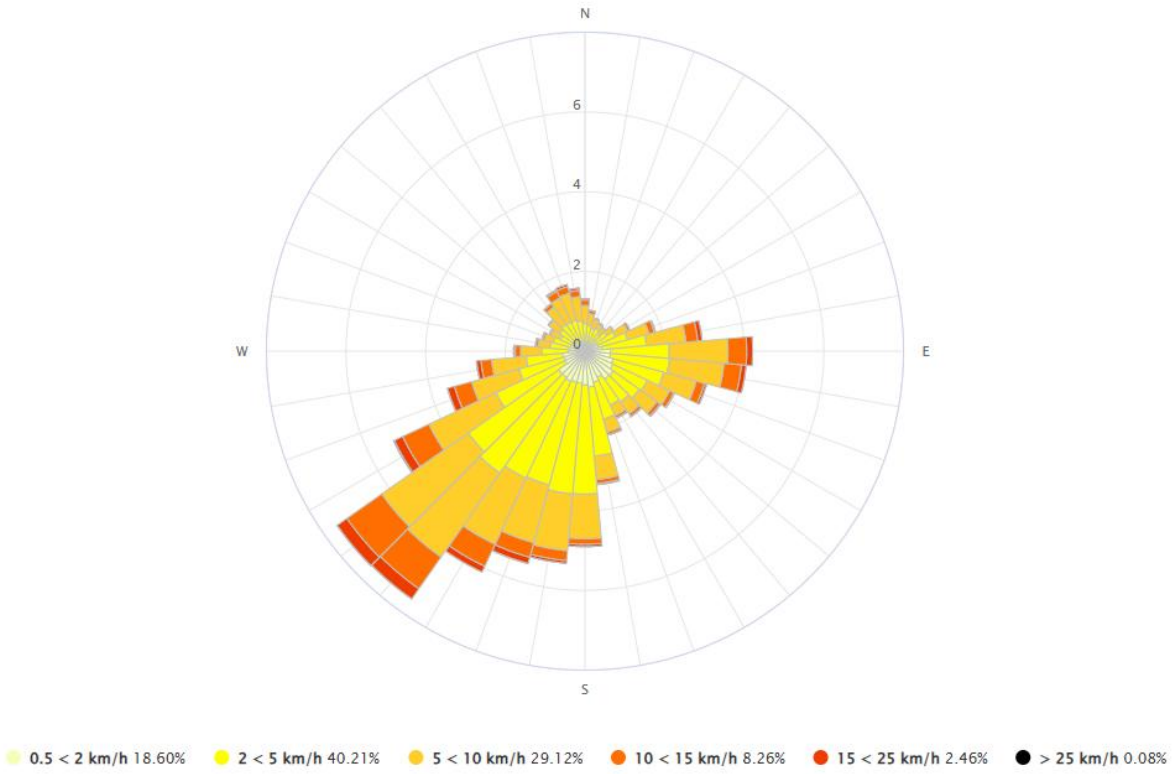

FIGURE 6-2 ANNUAL AVERAGE WIND ROSE 2024-2025

6.3 Air Quality

6.3.1 Environmental Management

Austar implements an Air Quality and Greenhouse Gas Management Plan (AQGHGMP) to meet the requirements of PA 08_0111, DA 29/95 and EPL 416. The AQGHGMP was approved by DPHI on 12 March 2024.

Dust generated from traffic around the CHPP, Pit Top, workshop areas, access roads and reject emplacement areas is generally controlled by water cart where required, with civil and demolition contractors each providing water carts to mitigate potential air quality risks.

The ROM and clean coal stockpile areas have been cleared and the surface compacted to prevent wind and water erosion. Water carts and water sprays will continue to be utilised during closure activities to minimise dust on roads and stockpile areas where required. It has been observed that the stockpile areas seem to have a crust, and visible dust generation is rare.

The AQGHGMP monitoring program utilises eight depositional dust gauges (DDG), three high volume air samplers (HVAS) and one Tapered Element Oscillating Microbalance (TEOM) continuous dust monitor. The HVAS and TEOM measure for particulate matter less than 10 micrometres (10µm), more commonly referred to as PM_{10}. Total Suspended Particulates (TSP) are not directly measured and are calculated per the methodology outlined in the AQGHGMP.

The location of Austar's air quality monitoring equipment is listed in **Table 6-3** and shown in **Figure 6-3.**

TABLE 6-3 LOCATION OF AIR QUALITY MONITORING POINTS

ID	Location	Monitoring Equipment
D1	Pyne Way, Mount View	DDG, HVAS
D2	Ellalong Road, Pelton Village	DDG, HVAS
D3	Bimbadeen Road, Mount View	DDG
D4	Ellalong Village	DDG
D5	South of No. 3 upcast ventilation shaft	DDG
D6	Bimbadeen Road, Mount View	TEOM
D7	Pelton Fire Trail, Quorrobolong	DDG
D8	Coney Creek Lane, Quorrobolong	DDG, HVAS
D9	Kitchener Public School	DDG
Met Station	CHPP site, Pelton	Meteorological Station

338000 339000 340000 341000 342000 343000 344000 345000 346000 347000 348000 349000

6363000 6362000 6361000 6360000 6359000 6358000 6357000 6356000

KENDALL STREET
BIMBADEEN ROAD
D6
SW4
MPL1364
D3
NM C3
MLA521
BELLBIRD CREEK
SW1
MPL269
D1
NM C1
SW2
MLA521
SW6
CHPP
SW5
NM C2
CCL728
WOLLOMBI ROAD
D2
MAIN
MIDDLE ROAD
BELLBIRD ROAD
Austar Dam
Pit Top
Kalingo Dam
Cessnock No.1 Colliery
No.1 Shaft
MAIN ROAD
SANCTUARY ROAD
L752
RUGBY STREET
D4
HELENA STREET
QUORROBOLONG CREEK
CHURCH STREET
SW Q3
SW Q2
QUORROBOLONG CREEK
MB04
LWB6
NER 1010
ML1550
D5
AQD1073A
Kalingo Infrastructure Area
WBH1
WBH3
WBH2
EL6598
SW C1
SANDY CREEK ROAD
LWB5
LWB4
LWB3
LWB2
MB03A
SW Q1
MPL223
WERAKATA NATIONAL PARK
BLACK CREEK
CESSNOCK STREET
D9
ABERNETHY STREET
NM K3
WERAKATA STATE CONSERVATION AREA
CML2
Kitchener Surface Infrastructure Site
ML1666
ML1667
QUORROBOLONG ROAD
LW A7
LW A8
NM K2
LW A9
NM K1
D7
D8
LW A10
ML1388
MB01
LW A11
MB02
LW A12
LW A13
LW A14
LW A15
LW A16
LW A17
LW A18
LW A19
CONY CREEK
SANDY CREEK
NM K4

LEGEND

- Colliery Holding Boundary
- Mining Lease Application Boundary
- Relevant Mining Titles
- Mine Plan
- Railway
- Creek Lines
- Water Pipeline - Potable
- Bellbird Pipeline 1 and 2
- Water Pipeline
- Austar Coal Mine - Austar Owned Land

Monitoring Locations

- Attended Noise Monitoring
- Dust Gauge
- Dust Gauge and HVAS
- Continuous Dust Monitor (TEOM)
- Creek Monitoring
- Ground Water Monitor
- Surface Water Monitoring
- Meteorological Station

CMA Boundaries

- CMA 1 - Austar Pit Top Facilities
- CMA 2 - Pelton CHPP
- CMA 3 - No.1 Shaft
- CMA 4 - No.2 Shaft
- CMA 5 - Cessnock No.1 Colliery / Kalingo Infrastructure Area
- CMA 6 - Kitchener Surface Infrastructure Site
- CMA 8 - Bellbird Areas 12 and 13
- CMA 9 - Other

0 240 480 720 960 m
Scale: 1:30,000

GDA2020 MGA Zone 56
27/01/2023

I:\01 Clients_GIS\YAN - Yancoal\YAN01-015 Austar E and C Operational Supp\(YAN01_015_Fig2_NetworkMonitoring_01.mxd_04

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Austar Coal Mine

Environmental Monitoring Network

FIGURE 6-3

6.3.2 Environmental Performance

During the reporting period, all dust samples were collected by trained technicians and analysed by NATA-certified laboratories. Sampling is carried out in accordance with statutory requirements and relevant standards. Monitoring equipment is maintained in accordance with the manufacturer's specifications by qualified specialists. Dust deposition results and PM_{10} monitoring data for the reporting period is provided below.

6.3.2.1 Dust Deposition

Table 6-4 provides a summary of Austar's deposited dust gauge annual average results for insoluble solids during this reporting period, previous reporting periods and against assessment criteria and environmental assessment predictions.

TABLE 6-4 DUST GAUGES ANNUAL AVERAGE COMPARED TO PREDICTIONS AND RESULTS OF PREVIOUS YEARS

ID	Location	EA Prediction Background Levels – Annual Average (g/m^2/ month)	Assessment Criteria	Annual Average Total Insoluble Solids (g/m^2/month)					Change in Deposited Dust 2023-2024 to 2024-2025 Period (g/m^2/ month)
				2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	
D1	Mount View	0.2 – 2.7*	4 g/m^2 /month (maximum total deposited dust)	0.9	0.6	0.7	0.6	0.5	-0.1
D2	Pelton	0.2 – 2.7*		0.9	1.1	2.8	1.7	1.0	-0.7
D3	Mount View	0.2 – 2.7*		0.6	0.5	0.7	0.6	0.4	-0.2
D4	Ellalong	n/a		1.8	2.0	2.3	1.3	2.4	1.1
D5	Kalingo Infrastructure Area	n/a	2 g/m^2 /month (maximum annual increase in deposited dust)	1.2	1.0	0.9	0.9	1.0	0.1
D7	Quorrobolong	1.5 – 1.65^		0.8	0.6	0.4	0.4	0.9	0.5
D8	Quorrobolong	1.5 – 1.63^		0.6	0.9	0.6	0.7	0.6	-0.1
D9	Kitchener Public School	n/a		0.8	0.9	0.5	0.5	0.7	0.2

Note: *Deposited Dust is assessed as insoluble solids as defined by Standards Australia, 2003 AS3580.10.1 -2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.*

** Bellbird South EIS (1995)*

^ Proposed Stage 3 Extension Environmental Assessment (Appendix 17) (Umwelt, October 2008)

Depositional dust results during the reporting period were all below the annual average criteria of 4 g/m^2/month for insoluble solids.

There were four instances (one at D3, one at D4 and two at D5) where the monthly dust deposition gauges were contaminated with bird droppings, insects or vegetative matter, and these results were excluded from the annual average calculation.

The dust results for the reporting period are consistent with 1995 Environmental Impact Statement (EIS) predictions. Section 4.7.2 of the 1995 EIS states that historical dust depositional data since 1991 ranges between 0.2 to 2.7 g/m^2/month.

6.3.2.2 Total Suspended Particulates

The annual average total suspended particulates (TSP) results for the reporting period are provided in **Table 6-5.**

The calculated TSP for the reporting period at all monitoring locations is below the annual average criterion of 90µg/m^3. The TSP is calculated by multiplying the PM_{10} result by 2.5 in accordance with the method outlined in the AQGHGMP.

6.3.2.3 Particulate Matter - PM_{10} Results

The HVAS units operated on a six-day cycle during the reporting period with the exception of:

- HVAS1 ran short on 17 February 2025 due to possible moisture resulting in unit failure. A make-up run was completed on 20 February 2025.
- HVAS2 ran short on 12 January 2025 due to possible moisture resulting in unit failure. A make-up run was completed on 21 January 2025.
- HVAS 3 ran short on 31 December 2024 due to due to possible moisture resulting in unit failure. A make-up run was completed on 7 January 2025.

During the end of December 2025 through to the beginning of March 2025, the HVAS units across Austar experienced machine failures due to moisture. This was investigated by the contractor who coordinates the HVAS monitoring. It was determined that due to the humidity and above average rainfall, the HVAS units were experiencing difficulty with managing moisture. This was mitigated through the use of hire units. From March 2025 onwards, the issue of moisture decreased as the humidity levelled out.

The annual average PM_{10} and TSP results, as well as 24-hour maximum PM_{10}, for the reporting period are shown in **Table 6-5.**

A TEOM monitor which measures PM_{10} on a real-time continuous basis is located at monitoring site D6 to the northeast of the CHPP. 24 hour maximum results since 1 July 2019 and graphical representation of the 24 hour and annual rolling average PM_{10} results are provided in **Table 6-5** and **Figure 6-4**.

The annual average PM_{10} result for the 2024-2025 reporting period as recorded by the TEOM was 12.8 µg/m^3, well below the PM_{10} Annual Average Criterion of 30 µg/m^3 and comparable to data over the last five years (with the evident spike in 2019/2020 due to bushfire pollution, not Austar operations).

TSP and PM_{10} results for the HVAS units were also below the annual average criteria at all monitoring locations. There was one exceedance of the 24-hour short term impact assessment criteria recorded during the reporting period. As a result of a hazard reduction burn conducted by the RFS on Austar land, HVAS2 recorded a value of 243µg/m^3 on 23 February 2025. The HVAS unit was located within close proximity to where the hazard reduction burn was completed.

Annual average PM_{10} results are lower than the previous reporting period for monitoring locations HVAS1 and HVAS3, as shown in **Table 6-5.** This may be attributable to rainfall above the long-term average during the second half of the reporting period. Due to the elevated result recorded during February, the HVAS2 annual average PM_{10} result is higher than the previous reporting period, as show in **Table 6-5**. All results remain below the PM_{10} annual average criterion of 30 µg/m^3.

TABLE 6-5 AIR QUALITY CRITERIA AND ANNUAL AVERAGES FOR PARTICULATE MATTER (PM_{10} AND TSP)

Description	Pollutant	Averaging Period	Monitor	Criterion (µg/m³)	Result 2019-2020 (µg/m3)	Result 2020-2021 (µg/m3)	Result 2021-2022 (µg/m³)	Result 2022-2023 (µg/m³)	Result 2023–2024 (µg/m³)	Result 2024-2025 (µg/m³)
Long Term Impact Assessment Criteria for Particulate Matter	Total Suspended Particulate (TSP) matter	Annual Average	TEOM	90	56	30.8	28.2	27.6	35.62	33.3
			HVAS1		62.8	27.0	22.6	20.5	27.6	26.4
			HVAS2		62.0	25	22.9	21.0	29.9	37.9
			HVAS3		53.8	23	19.3	19.0	26.1	23.9
	Particulate Matter <10µm (PM_{10})	Annual Average	TEOM	30	22.4	12.3	11.3	11.1	13.7	12.8
			HVAS1		25.1	10.8	9.0	8.2	11.0	10.6
			HVAS2		24.8	10.0	9.2	8.4	12.0	15.2
			HVAS3		21.5	9.2	7.7	7.6	10.4	9.6
Short Term Impact Assessment Criterion for Particulate Matter	Particulate Matter <10µm (PM_{10})	24-hour Maximum	TEOM	50	193.5	39.5	29.9	25.7	40.0	38.1
			HVAS1		235	32.0	40.5	24.2	34.6	30.0
			HVAS2		237	28.0	24.7	20.1	46.0	243.0*
			HVAS3		217	30.0	21.3	23.6	35.0	30.0

Note: *Methods for sampling and analysis of ambient air as defined by Standards Australia, AS 3580.9.6 -2003: Determination of suspended particulate matter—PM_{10} high volume sampler with size selective inlet—Gravimetric method.*

** Elevated result due to scheduled hazard reduction burn undertaken on the HVAS run day immediately adjacent to the monitoring site.*

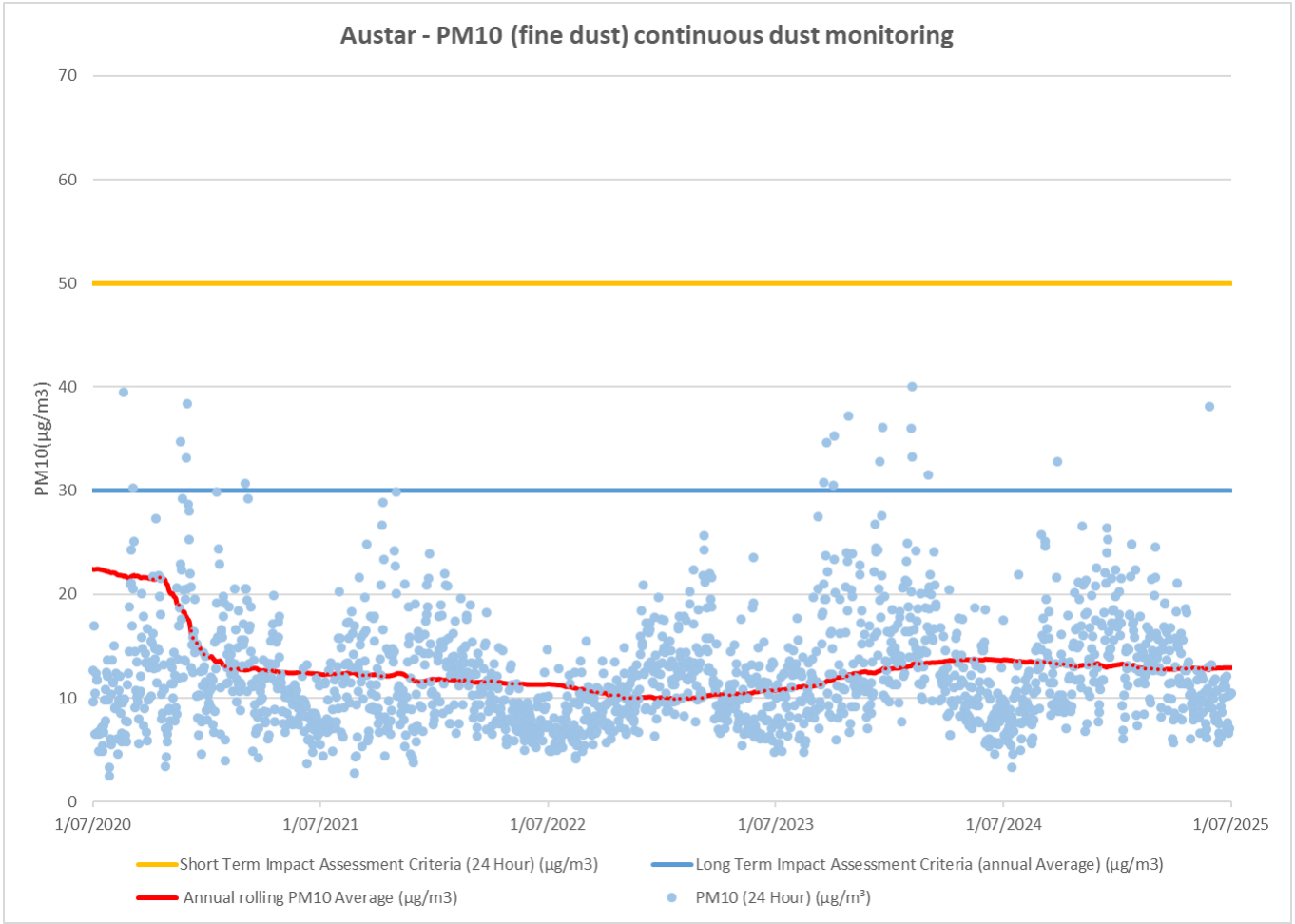


FIGURE 6-4 AUSTAR TEOM PM10 CONTINUOUS DUST MONITORING 2020 - 2025

6.4 Noise

6.4.1 Environmental Management

Austar implements a NVMP prepared in accordance with PA 08_0111, DA 29/95 and EPL 416. The current plan was approved on 23 August 2024.

Austar has not conducted night-time activities (apart from inspections and security patrols) during this reporting period. Following approval of the NVMP, Austar switched from night-time attended noise monitoring to daytime monitoring in order to accurately capture potential noise impacts from early works, decommissioning and demolition works being carried out by Austar.

Periodic attended noise monitoring is conducted monthly and reported quarterly in accordance with the NVMP by an independent noise consultant. There are fifteen key monitoring locations representative of surrounding receivers. Seven of these monitoring locations are monitored on a monthly basis, whilst the remaining eight are monitored only when noise generating closure work is being carried out within that specific CMA. Monitoring points have been selected as reference locations and form the basis for assessing and evaluating noise emissions from the operation. The locations are listed in **Table 6-6** and presented in **Figure 6-3.** Noise impact assessment criteria for each location are also presented in **Table 6-6**.

TABLE 6-6 NOISE IMPACT ASSESSMENT CRITERIA

Receiver	Location	Receiver Description	Criteria
Nearest Potentially Affected Receivers to Pit Top (No approved instrument)			
NM-1-1*	Truro Street, Ellalong	East of Pit Top	L_{Aeq} 45/75 dB
NM-1-2*	Dunlop Drive, Paxton	Southwest of Pit Top	L_{Aeq} 45/75 dB
Nearest Potentially Affected Receivers to CHPP (EPL 416)			
C1	South of Bimbadeen Road, Mt View	West of CHPP	L_{A90} 40 dB
C2	Pelton Village	Southeast of CHPP	L_{A90} 43 dB
C3	Bimbadeen Road, Mt View	North-west of CHPP	L_{A90} 37 dB
Nearest Potentially Affected Receivers to One Shaft (No approved instrument)			
NM-3-1*	Hunter Street, Ellalong	Southeast of One Shaft	L_{Aeq} 45/75 dB
NM-3-2*	Ellalong Road, Ellalong	Southeast of One Shaft	L_{Aeq} 45/75 dB
Nearest Potentially Affected Receivers to Two Shaft (No approved instrument)			
NM-4-1*	Dry Creek Road, Ellalong	North of Two Shaft	L_{Aeq} 45/75 dB
Nearest Potentially Affected Receivers to Kitchener Surface Infrastructure Site (PA 08_0111)			
K1	Pelton Road, Quorrobolong	South of SIS	L_{Aeq} 35 dB / L_{A1} 45 dB
K2	Coney Creek Lane, Quorrobolong	East of SIS	L_{Aeq} 35 dB / L_{A1} 45 dB
K3	Richmond Street, Kitchener	North of SIS	L_{Aeq} 35 dB / L_{A1} 45 dB
Nearest Potentially Affected Receivers to Kalingo Infrastructure Area (DA 29/95)			
K4	Nash Lane, Quorrobolong	East of Kalingo Infrastructure Area	L_{Aeq} 35 dB

Receiver	Location	Receiver Description	Criteria
Nearest Potentially Affected Receivers to Aberdare (No approved instrument)			
NM-7-1*	Francis Street, West Cessnock	Northeast of Aberdare Emplacement Area	L_{Aeq} 45/75 dB
NM-7-2*	Pillar Street, Bellbird	West of Aberdare Emplacement Area	L_{Aeq} 45/75 dB
Nearest Potentially Affected Receivers to Bellbird Areas 12 & 13 (No approved instrument)			
NM-8-1*	Off Wollombi Road, Bellbird (near pillars)	North of Areas 12 & 13	L_{Aeq} 45/75 dB

*Monitoring is only completed when there is scheduled works within the associated CMA

6.4.2 Environmental Performance

A summary of results from attended noise monitoring undertaken during the 2024-2025 reporting period is provided in **Table 6-7, Table 6-8**, **Table 6-9** and **Table 6-10**. Results from the last five years are presented in **Appendix A**. All monitoring results were below the approved impact assessment criteria during this reporting period.

The Austar Noise and Vibration Management Plan requires a combination of continuous and supplementary attended monitoring measures.

Noise sources have reduced since mining ceased with the mine coal conveyor system including coal bins and conveyors decommissioned. The CHPP raw and clean coal systems, trains and loading infrastructure, stockpile dozers and reject trucks are also not operational. No works were undertaken on afternoon or night shift during the reporting period, and the site is not operational during evenings and night times. Results indicate very low levels of noise during the reporting period. Data presented in **Table App A-1** clearly identifies the transition from CHPP operation to care and maintenance in Q1 2020.

The mine ventilation fan at Kitchener SIS ceased operation in March 2022. The ventilation fan at Kalingo Infrastructure Area (KIA), and the Austar pit top Drift ceased operation on 10 October 2022 and sealing commenced on 11 October 2022. Data presented in **Table 6-8** and **Table 6-9** is consistent with longer term data presented in **Appendix A** at Kitchener SIS and KIA, with low noise monitoring results during operational and closure periods.

Prior to commencement of demolition of CMA 1, CMA 2 and CMA 5, noise modelling was completed by a third-party noise consultant to assess predicted noise impacts to potential affected receivers. Modelling indicated that predicted noise impacts would be under criteria for CMA 1 and CMA 2, however with the proximity of receivers to CMA 5 and the use of equipment such as rock hammers, modelling indicated there would potentially be impacts to receivers surrounding CMA 5. Negotiated noise agreements were entered into between Austar and landholders adjacent to CMA 5 in accordance with DA 29/95 (Mod 2) consent conditions specific to Kalingo Infrastructure Area. Additional noise monitoring was completed on a weekly basis for three weeks during demolition works. Monitoring recorded no impacts over predicted levels.

Additional monitoring has been completed during the reporting year at CMA 1 for demolition, CMA 2 for site investigation drilling activities and demolition, CMA 5 for demolition and CMA 8 for grouting and site investigation drilling activities. No impacts were recorded during additional monitoring events, and all monitoring results were lower than or consistent with noise modelling predictions. A summary of results are presented in **Table 6-10**.

Austar continues to undertake due diligence noise impact assessments to predict potential noise impacts of early work closure activities and to inform appropriate noise monitoring, mitigation and management measures during closure execution. Austar also continues to engage with near neighbours about activities and potential impacts.

TABLE 6-7 NOISE GENERATED BY THE AUSTAR CHPP AGAINST PROJECT CRITERIA

Quarter	Period	Austar CHPP Only $L_{A90\ (15min)}$ (dB)		
		C1	C2	C3
	Noise Criteria	40	43	37
Q3 2024	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q4 2024	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q1 2025	Day	IA	IA	IA
		IA	IA	IA
		<15	IA	IA
Q2 2025	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA

NM – Not measurable
IA – Inaudible
These are results for Austar CHPP in the absence of all other noise sources.

TABLE 6-8 NOISE GENERATED BY KITCHENER SIS AGAINST SPECIFIC PROJECT CRITERIA

Quarter	Period	Kitchener SIS Only $L_{Aeq,\ 15\ min}$ (dB)			Kitchener SIS Only, $L_{A1\ (1min)}$		
		K1	K2	K3	K1	K2	K3
	Noise Criteria	35	35	35	45	45	45
Q3 2024	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2024	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA

Quarter	Period	Kitchener SIS Only $L_{Aeq, 15\ min}$ (dB)			Kitchener SIS Only, $L_{A1\ (1min)}$		
		K1	K2	K3	K1	K2	K3
	Noise Criteria	35	35	35	45	45	45
Q1 2025	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q2 2025	Day	<20	<20	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		<25	IA	IA	IA	IA	IA

NM – Not measurable
IA – Inaudible *These are results for Austar Kitchener SIS in the absence of all other noise sources.*

TABLE 6-9 NOISE GENERATED BY KIA AREA AGAINST SPECIFIC PROJECT CRITERIA, SITE K4

Quarter	Period	Austar KIA Only $L_{Aeq, 15\ min}$ (dB)
		Noise Criteria 35
Q3 2024	Day	IA
		IA
		IA
Q4 2024	Day	IA
		IA
		IA
Q1 2025	Day	IA
		IA
		IA
Q2 2025	Day	31
		IA
		IA

NM – Not measurable
IA – Inaudible
These are results for Austar Kalingo Infrastructure Area (KIA) in the absence of all other noise sources.

TABLE 6-10 NOISE MONITORING COMPLETED DURING EARLY WORKS ACTIVITIES, ALL CMA'S

Location	Date	Result, LAeq (dB), then Noise Limit in ()	Comments
C1	**28/11/2024**	IA (40 dB(A)L90)	Drilling activities occurring at CMA 2
C2	**28/11/2024**	IA(43 dB(A)L90)	Drilling activities occurring at CMA 2
C3	**28/11/2024**	IA(47 dB(A)L90)	Drilling activities occurring at CMA 2
NM-8-1	**28/11/2024**	IA(45 LAeq (dB),)	Grouting of voids in CMA 8
NM-8-1	**05/12/2024**	IA(45 LAeq (dB))	Site investigations drilling activities occurring in CMA 8
NM-8-1	**24/01/2025**	IA(45 LAeq (dB))	Site investigations drilling activities occurring in CMA 8
K4	**26/03/2024**	IA(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
R08	**26/03/2025**	IA(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
R18	**26/03/2025**	IA(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
R08	**03/04/2025**	33(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
R17	**03/04/2025**	<30(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
R18	**03/04/2025**	<25(35 LAeq (dB))	Monitoring of predicted noise on receivers as per noise modelling for demolition of CMA 5.
Pelton Village South	**05/05/2025**	IA(43 dB(A)L90)	Demolition activities occurring along CMA 1 and CMA 2 conveyor.
Pelton Village South	**02/06/2025**	IA(43 dB(A)L90)	Demolition activities occurring along CMA 1 and CMA 2 conveyor.

NM – Not measurable
IA – Inaudible

6.5 Weed Management

6.5.1 Environmental Management

Austar's Weed Action Plan identifies environmental weeds known to occur on site, and outlines locations, area covered, a summary of the weed characteristics, recommended actions, and optimum season for treatment.

The Weed Action Plan identifies focus locations with exotic weed infestations as the primary target areas for control and management. These locations typically consist of areas previously disturbed by historic clearing, site works, rehabilitation areas, or are adjacent to roadsides or in riparian zones. It was noted during the inspections that large, relatively undisturbed areas outside of remnant bushland areas were generally clear of exotic weed infestations and in healthy condition.

6.5.2 Environmental Performance

During the reporting period, approximately 71 hectares of weeds were treated primarily in locations along Bellbird Creek and Quorrobolong Creek as shown in **Figure 6-5**, **Figure 6-6, Figure 6-7, Figure 6-8 and Figure 6-9.** Species and approximate areas treated included:

- Green Cestrum (*Cestrum parquai*) (6 ha)
- Lantana (*Lantana sp.*) (24 ha)
- Mother of Millions (*Bryophyllum sp.*) (21 ha)
- Tobacco Bush (*Solanum Mauritianum*) (5 ha)
- Asparagus Weed (*Asparagus species)* (<1 ha)
- Inkweed (*Phytolacca octandra)* (1 ha)
- Nightshade species (*solanum nigrum)* (1 ha)
- Narrow-leaf Privet (*Ligustrum sinense)* (1.3 ha)
- Blackberry (*rubus ulmifolius)* (<1 ha)
- Black Heliotrope (*heliotropium amplexicaule)* (2.2 ha)
- Camphor Laurel *(Cinnamomum camphora)* (>1 ha)
- Date Palm (*phoenix dactylifera)* (isolated)
- Senna (*Senna pendula var. glabrata)* (Isolated)
- Thistle (Cersium) (<2 ha)

Weed treatment was prioritised to address areas where weeds may spread offsite including boundary fences and waterways, and rehabilitation areas where weed presence could compromise rehabilitation outcomes.

The Weed Action Plan is reported against annually to ensure that potential new weed outbreaks are identified, and to review progress of ongoing control activities. Weed management will continue to be implemented across the site, with progress to be reported in future Annual Reviews.

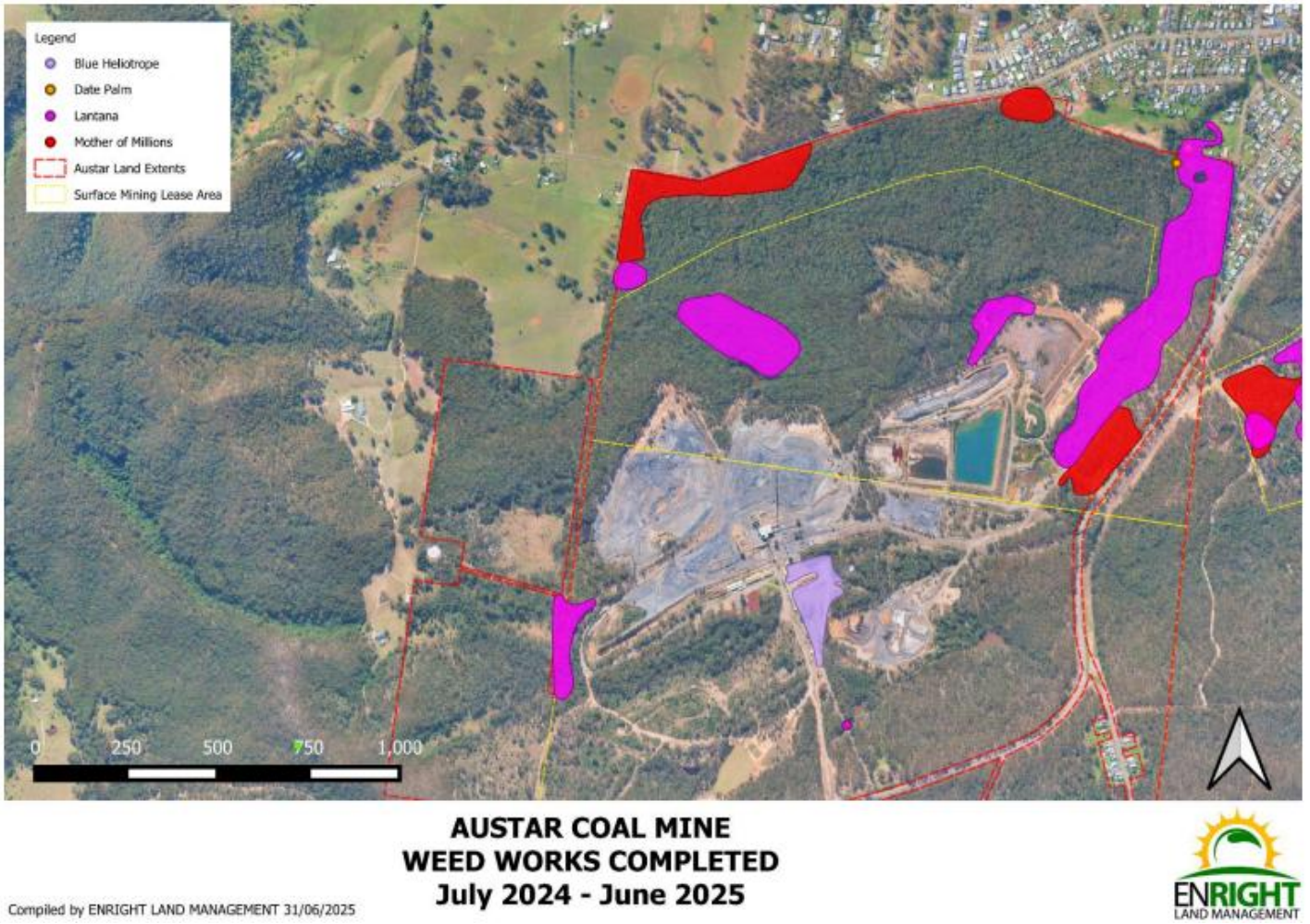


FIGURE 6-5 CHPP (SOURCE: AUSTAR WEED WORKS COMPLETED JULY 2024 TO JUNE 2025)

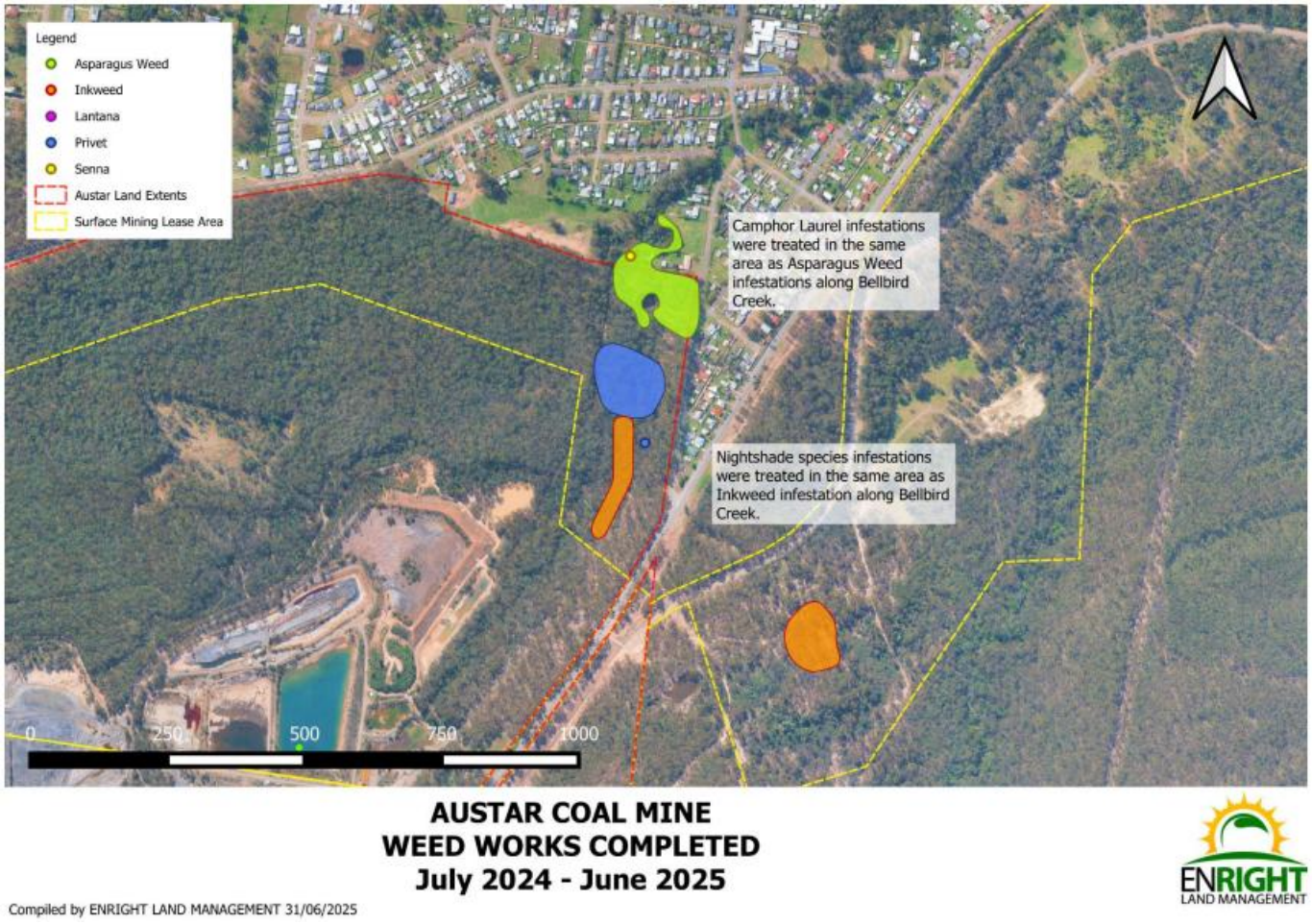


FIGURE 6-6 CHPP AND BELLBIRD AREAS 12 & 13 WEED TREATMENT (SOURCE: AUSTAR WEED WORKS COMPLETED JULY 2024 TO JUNE 2025)

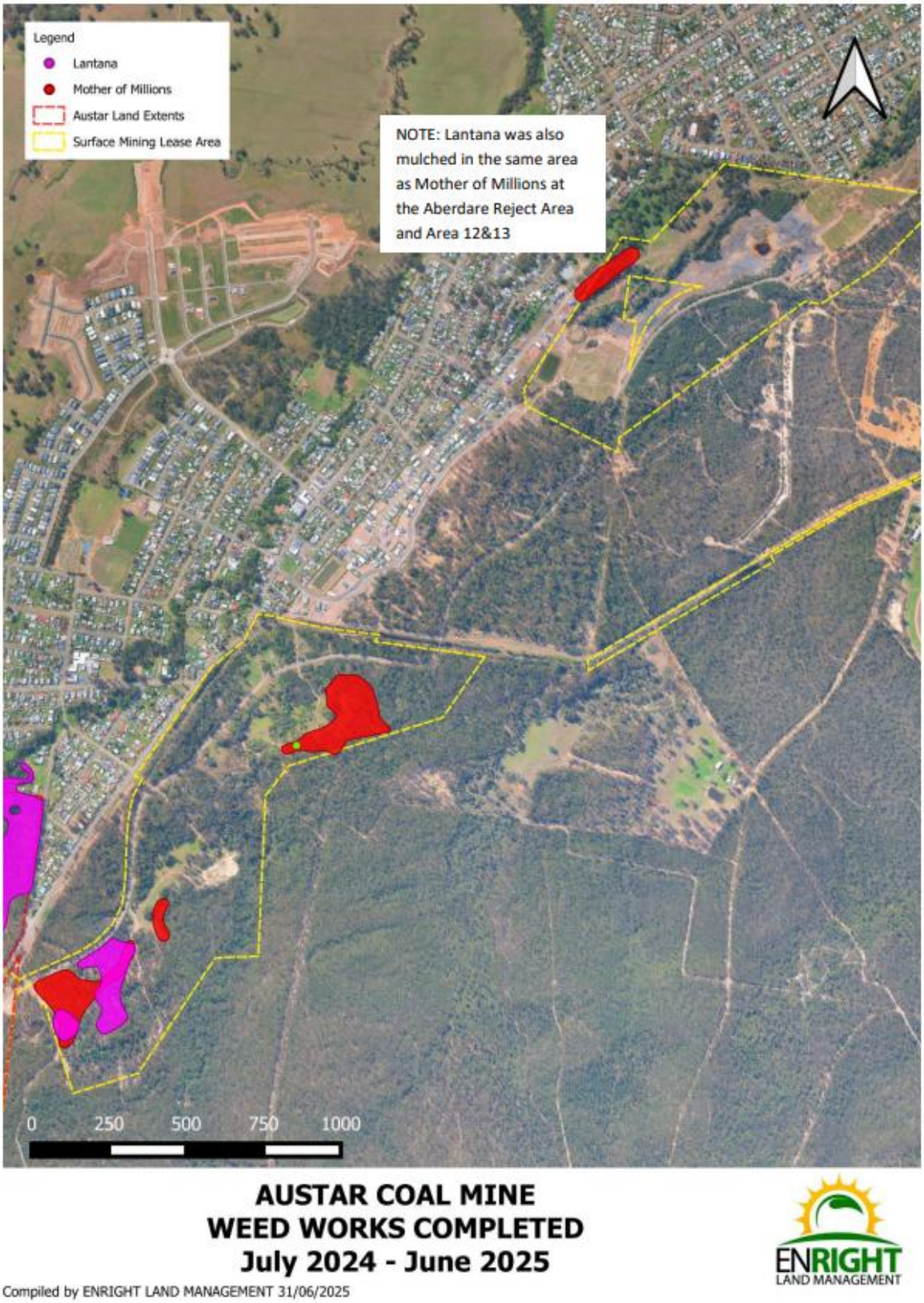


FIGURE 6-7 BELLBIRD AREAS 12 & 13 WEED TREATMENT (SOURCE: AUSTAR WEED WORKS COMPLETED JULY 2024 TO JUNE 2025)

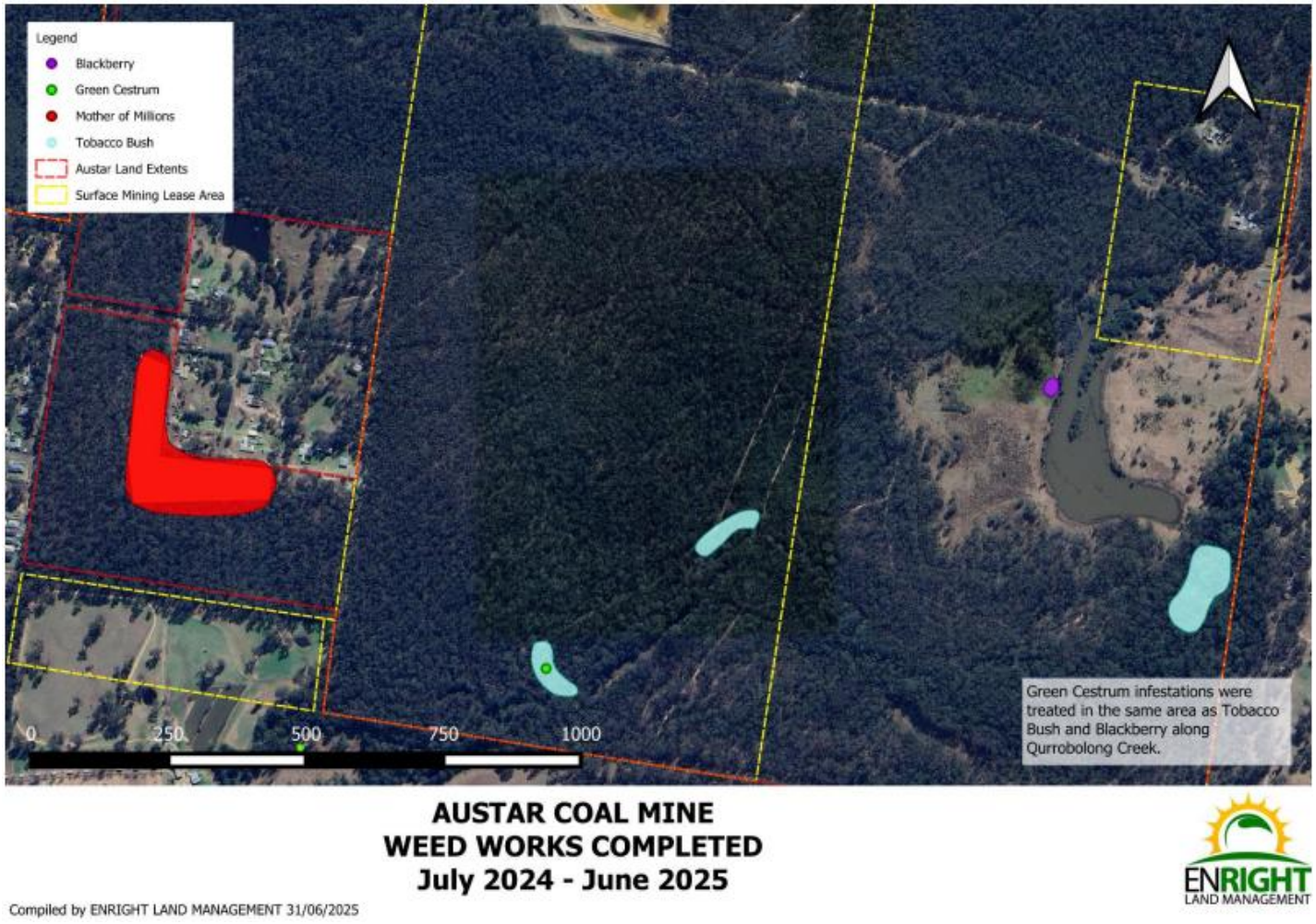


FIGURE 6-8 KALINGO AND 3 SHAFT WEED TREATMENT (SOURCE: AUSTAR WEED WORKS COMPLETED JULY 2024 TO JUNE 2025)

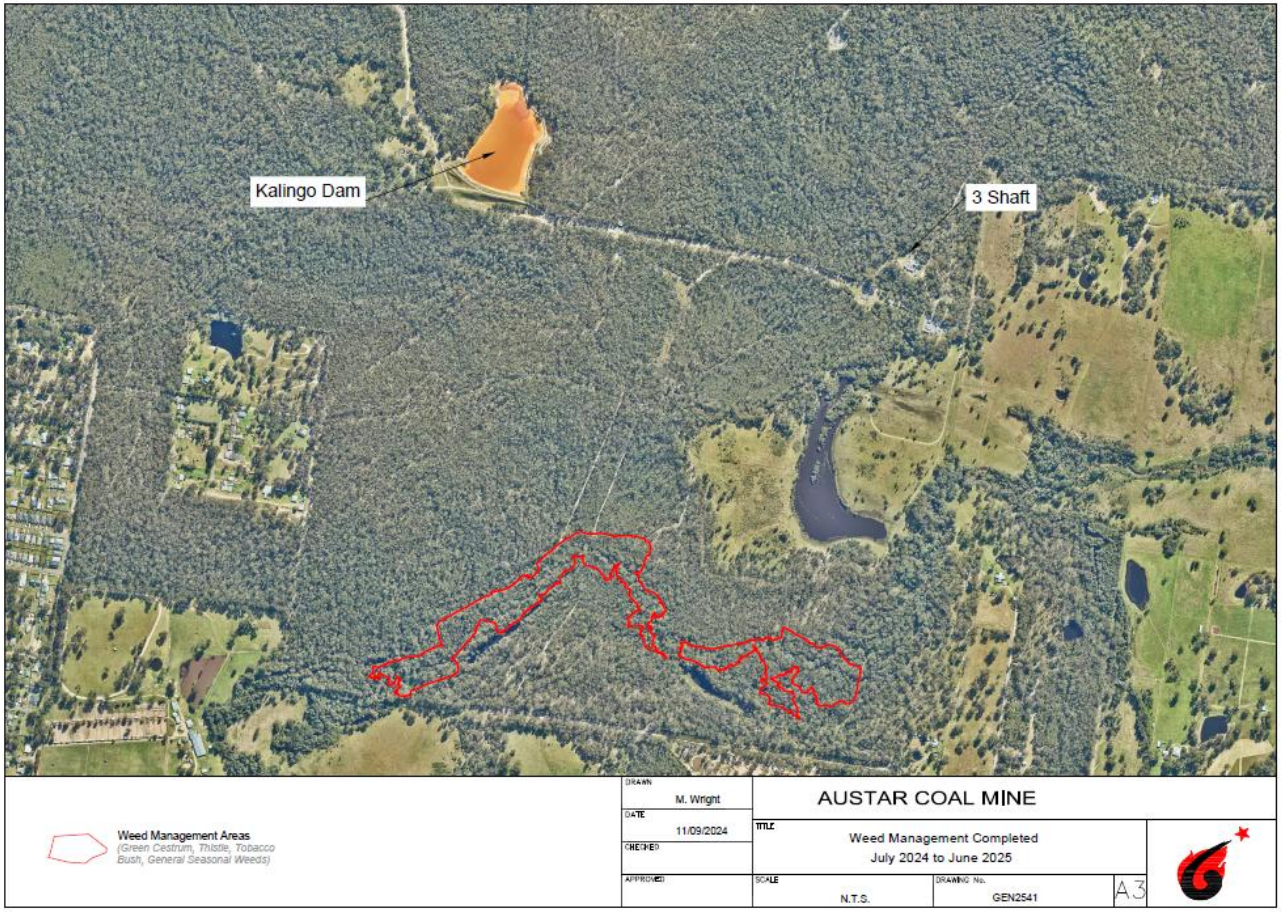


FIGURE 6-9 QUORROBOLONG CREEK WEED TREATMENT

7 WATER MANAGEMENT

The three main components of the water management system are the:

- Underground mine water management system;
- Pelton CHPP site water management system; and
- Surface water storage and management system.

The Pelton CHPP site water management system historically managed water for use in the CHPP and underground. A Reverse Osmosis (RO) water treatment plant was used to treat water supply for the operations, as well as discharging offsite through a licenced discharge point. The main function of the CHPP site water management system is to manage stormwater runoff and to contain and manage water from prior operational and disturbed areas. The RO Plant has not operated during the reporting period.

As outlined in the SWMP, water is also pumped and stored underground. During the reporting period there was no dewatering of the underground. This allows progressive flooding of the underground during mine closure.

The SWMP was revised and approved by DPHI on 4 June 2024. The SWMP revision reflects closure progress, including the sealing of the underground, the removal of underground mine water monitoring points, and inclusion of early works plans, including the decommissioning of dams and pumping systems as available.

7.1 Water Licences

The water licences and works approvals held by Austar are provided in **Table 7-1.**

TABLE 7-1 WATER LICENCES HELD BY AUSTAR

Licence Held	Licence Number	Validity of Licence	Purpose of Licence
Bore Licence Certificate	20BL171361	17 May 2007 - Perpetuity	Monitoring Bore (AQD1077)
Bore Licence Certificate	20BL172524	20 Jul 2010 - Perpetuity	Monitoring Bore (NER1010)
Bore Licence Certificate	20BL172852	7 Jun 2011 - Perpetuity	Monitoring Bore (WBH1, WBH2, WBH3)
Bore Licence Certificate	20BL173843	1 Oct 2014 - Perpetuity	Monitoring Bore (BB1, BB2, BB3)
Bore Licence Certificate	20BL173878	8 Dec 2014 - Perpetuity	Monitoring Bore (MB01)
Bore Licence Certificate	20BL173891	19 Mar 2015 - Perpetuity	Monitoring Bore (MB02)
Water Access Licence	WAL19181	In perpetuity	Unregulated Surface Water Licence
Water Access Licence	WAL41504	In perpetuity	Fractured and Porous Rock Aquifer Licence

7.2 Water Take

Water take for the 2024-2025 reporting period is summarised in **Table 7-2**. Due to no pumping to dewater the underground, the water take was recorded as zero.

TABLE 7-2 WATER TAKE 2024-2025

Water Licence #	Water sharing plan, source and management zone (as applicable)	Entitlement[1]	Passive take / inflows (ML)	Active pumping (ML)	TOTAL (ML)
WAL19181	Hunter Unregulated and Alluvial Water Sources - Upper Wollombi Water Source - Congewai Creek Management Zone.	10 units	0	0	0
WAL41504	Sydney Basin – North Coast Groundwater Source. North Coast Fractured and Porous Rock Groundwater Sources 2016.	770ML units	0[2]	0	0

1 1 Unit = 1 ML unless restricted through an allocation order.

2 Pumping ceased from water intakes in May 2021, therefore the site water balance is 0.

7.3 Surface Water

7.3.1 Environmental Management

The Austar SWMP has been prepared in accordance with the requirements of DA 29/95, PA 08_0111 and EPL 416, and includes a surface water monitoring program.

EPL 416 authorises two licenced discharge points (LDPs). SW1 is an emergency wet weather discharge point, and SW6 is permitted to discharge 5,000 kilolitres (KL) per day (as an annual average) of treated water from the RO plant (permeate). There were no discharges from licenced discharge points during the reporting period.

Austar has engaged an environmental monitoring specialist to undertake routine surface water sampling and analysis in accordance with the SWMP. Austar's surface water monitoring program includes:

- Five EPL monitoring sites (three creek sites and two discharge points); and
- Four creek monitoring sites (three sites in Quorrobolong Creek and one site in Cony Creek).

The surface water monitoring locations are presented in **Table 7-3** and shown in **Figure 6-3.**

TABLE 7-3 SURFACE WATER MONITORING LOCATIONS AND ANALYTES (SWMP, 2024)

Monitoring Location	Monitoring Frequency and analytes
SW1 (LDP 1 – Emergency Dam Spillway) SW2 (Bellbird Creek Pinch Bridge) SW4 (Bellbird Creek, Downstream Boundary) SW5 (Unnamed Creek, Upstream Boundary) SW6 (LDP6 – 1ML tank discharge to Bellbird Ck)	**Monthly while discharging from SW6** (unless there is no water at the sites): ▪ Quality – SW2, SW4, SW5, SW6 (pH, EC, TSS, Fe) ▪ Volume – SW6 (kL/day) ▪ Qualitative flow estimate – SW2, SW4, SW5 **Twice per year** (unless there is no water at the sites): ▪ Quality – SW2, SW4, SW5, SW6 (EC, pH, TSS, Total Dissolved Solids, redox potential, Major ions and charge balance error, Total Metals)
SW Q1 (Quorrobolong Ck, Sandy Ck Rd) SW Q2 (Quorrobolong Ck Upstream) SW Q3 (Quorrobolong Ck Downstream) SW C1 (Cony Ck)	**Quarterly** (unless there is no water at the sites): ▪ Quality (pH, EC, TSS, Fe) **Twice per year** (unless there is no water at the sites): ▪ Quality (EC, pH, TSS, Total Dissolved Solids, redox potential, Major ions and charge balance error, Total Metals) **Annual** ▪ Visual monitoring of stream health and channel stability (SW Q1, SW Q2 & SW C1 only)

7.3.2 Environmental Performance

Only LDPs SW1 and SW6 have water quality limits. Other locations are monitored for baseline data, or to observe any changes in water quality in the Bellbird South and Stage 3 mining areas.

There were no discharge events from SW1 or SW6 during the reporting period. A maintenance regime has been implemented on the RO plant and continued through the reporting period to maintain the quality of the equipment, however the RO plant was not operated.

As there was no discharge from SW1 and SW6 during the reporting period no water quality samples were collected from these locations. Water quality samples, although not required under the approved SWMP, were collected up and downstream of the LDP's.

Monitoring results at the up-, mid- and downstream CHPP creek monitoring points (SW5, SW2 and SW4, respectively) are summarised as follows:

- pH measured at individual sites remained relatively constant during the reporting period ranging between pH 4.4 (SW2) to pH 7.3 (SW5). The pH of 4.4, recorded in July 2024, is the lowest pH recorded at SW2 over the last five years, with the previous low of 5.21 in October 2021. Upper ranges remain consistent with the five year data range (**Appendix B**);

- EC ranged between 374 µS/cm (SW2) and 9660 µS/cm (SW5). EC values during the reporting period were generally similar to those of the 2023-2024 reporting period with water quality remaining relatively consistent at SW2 and variable at SW4 and SW5, with periods of high EC and no results where there was little or no rainfall.

- TSS ranged between 1 mg/L (SW5) to 53 mg/L (SW4) for the reporting period. This is a lower variation and maximum than the 2023 – 2024 range of TSS 2 mg/L (SW5) to TSS 166 mg/L (SW5) and consistent with the five year data set.

- Fe (Iron) ranged between 0.1 mg/L (SW2) and 5.4 mg/L (SW4) which is lower than the 2023-2024 range of 0.05 mg/L (SW5) to 20.1 mg/L (SW5) and comparable with historical data.

Samples were collected from SW2 during five sampling events, SW4 during four sampling events and SW5 during nine out of twelve possible sampling events (July 2024 to June 2025). Sample sites were visited each month, and were not able to be collected during months when the creek was dry. The SW5 sampling point is taken from a pool in the stream, and as the other sites dry out, EC increases at this site, likely due to evaporation from the pool.

Natural fluctuations in water quality in Quorrobolong and Cony Creeks were observed, with sampling results generally within historical ranges. Subsidence in this area was deemed substantially complete in March 2021 and no mining impacts have been recorded or are expected in the future.

For the Quorrobolong and Cony Creek monitoring points (SWQ1, SWQ2, and SWQ3 & SWC1):

- Quorrobolong Creek was generally wet throughout this reporting period. Four samples were collected from SWQ1 and SWQ2. Three samples were collected from SWQ3. Sampling is undertaken on a quarterly basis in this creek system.

- The sampling location on Cony Creek is in a deep pool, four samples were collected from SWC1 during the reporting period.

- pH ranged between pH 6.40 (SWQ2) and pH 7.56 (SWC1) which is comparable to the 2023-2024 range of pH 6.38 (SWQ2) to pH 7.72 (SWC1). This generally aligns with results reported in the previous periods;

- EC results ranged between 181 µS/cm (SWQ2) and 3680 µS/cm (SWC1). This is a greater range when compared with the 2023-2024 results (of 1120 µS/cm (SWC1) and 3320 µS/cm (SWC1)) and contains the highest EC (in February 2025 after lower than average rainfall) and lowest EC (in May 2025 after 499.8mm over the corresponding three months) results over the past five years at SWC1. SWC1 samples are collected from a permanent pool in Coney Creek, where EC results are highly variable depending on creek flow.

- TSS ranged from <5 mg/L (all sites), to 107 mg/L (SWC1) which is higher than the range reported in 2023-2024 (<5 mg/L to 38 mg/L). The Quorrobolong and Cony Creek TSS graph in Appendix B shows that results from the reporting period are consistent with the last five years of data, with spikes evident from time to time at most sites that may be attributed to non-mining related activities or heavy rainfall during the period. The maximum of 107mg/L experienced at SWC1 is the highest result in this area over the five years and may be attributed to agricultural activities and heavy rainfall in late May and early June 2025.

- Iron results ranged from 1.14 mg/L (SWC1) to 16.6 mg/L (SWQ2) during the reporting period. This is a broader range than the results reported in 2023-2024 ranging from 0.41 mg/L to 5.65 mg/L, but generally consistent with historical results.

All water quality data (with the exception of EC results, explained above) from 2024-2025 in Quorrobolong and Cony Creeks is within the range of longer-term monitoring shown in the 5-year graphs in **Appendix B**. In any case, no mining impacts on this creek system have been recorded or are expected in the future.

7.3.3 CHPP Investigation Drainage Line

During routine inspections of clean water drainage lines in 2017, orange staining/residue was observed in a drainage line at the CHPP (referred to as the Investigation Drainage Line (IDL)). This was reported as an incident to the EPA and a Pollution Reduction Program added to EPL 416. The IDL has been regularly inspected and monitored since in accordance with EPL conditions U3, E1 and E2.

Condition U3.3 requires the submission of an updated monthly report containing the monitoring results required by Condition U3.2. Condition U3.2 requirements include:

- sampling of surface water in the IDL;
- sampling of Groundwater Bore 1 adjacent to the IDL; and
- photos taken at specific locations along the Investigation Drainage Line.

Reports have been submitted each month to the EPA during the reporting period.

Condition E2 requires that the orange staining / residue within the IDL must be fully contained within the premises at all times. Any discharges to waters of this residue must comply with Condition L1.1 of the EPL which states that the licensee must comply with Section 120 of the *Protection of the Environment Operations Act 1997*. A bunded containment area has been installed upstream of a clean water tributary entering the Investigation Drainage Line to assist in the isolation of orange-stained water. Water captured is pumped from this containment area into the CHPP mine water system. Additionally, water below the IDL can be captured within Doyle Street Dam and pumped back to the mine water system as required.

During the reporting period orange staining was observed in the IDL during all monthly inspections.

Monitoring of the IDL will continue in the next reporting period. Austar is currently undertaking detailed mine closure planning. The ongoing findings of the IDL sampling and inspection program informs the detailed mine closure technical studies for the CHPP as the source of the orange staining in the IDL is investigated further and plans to remediate the CHPP are developed.

7.3.4 Stream Health and Channel Stability Monitoring

Stream health and Channel Stability monitoring was completed during December 2024 and June 2025. The monitoring program was commissioned to assess whether any potential changes to flow regimes during mine closure will impact on channel stability and condition. The monitoring program incorporates biannual site inspections of creek systems immediately downslope of mine closure works, with a report produced following each inspection to characterise the ongoing condition of applicable watercourses.

The inspections cover the following watercourses:

- Bellbird Creek;
- Black Creek;
- Congewai Creek; and
- Quorrobolong Creek.

Results for the reporting period indicate riparian conditions remaining generally steady along each of the creeks, with the exception of the recent repairs made to an area of Bellbird Creek, where some active erosion is evident. In accordance with Table 13 of the SWMP, this area will continue to be monitored and, if required, corrective or preventative actions will be implemented.

The effects of weed management conducted by Austar during the reporting period around the riparian zone of Bellbird Creek were apparent. Native vegetation regrowth was observed in the areas where weed management had previously been completed. Channel stability remained widely consistent at designated monitoring locations across all creeks where observations were possible.

7.3.5 Kitchener Sediment Dam Discharges Overflow Event 27 April 2025

The Kitchener SIS contains infrastructure that is largely in the process of decommissioning, including upcast and downcast ventilation fans (temporarily sealed), services borehole/drop hole (fully sealed), pipelines, powerlines, an electrical substation, as well as vegetated stockpiles that may be used for the rehabilitation of the site. There are three sediment dams on the site designed to catch sediment laden runoff from disturbed areas. Disturbed areas have been partially revegetated to stabilise the site until final rehabilitation is complete.

As outlined in the SWMP, the sediment dams are designed to catch runoff for up to the 90th percentile 5-day rainfall events. Any rainfall event of greater intensity may cause the dams to overflow, with runoff reporting to the headwaters of Black Creek.

Over a 24-hour period on 27 April 2025 the Austar CHPP meteorological station recorded a total of 88.8mm of rainfall; Austar's Kitchener SIS meteorological station recorded a total of 109.6mm over the same period. This event was greater than the design size for the sediment dams at the Kitchener SIS. Real time monitoring indicates that the Eastern Sediment Dam was at (or over) 100% capacity at approximately 4:52pm on 27 April 2025. Pumping from the Eastern Sediment Dam had commenced prior to the dam overtopping and was continuous throughout and after the rain event. Real time monitoring indicated that the Eastern Sediment Basin was at 100% (i.e. full but no longer overflowing) on 28 April 2025 at 02:05am.

Prior to the commencement of the rainfall event, all sediment dams at the Kitchener SIS were maintained at their lowest levels, with adequate storage for design rainfall events.

Austar enacted the Pollution Incident Response Management Plan (PIRMP) and reported the event to the relevant authorities on 27 April 2025. Water samples were collected for analysis on 28 April 2025 from the East Sediment Dam, Lower Sediment Dam, Black Creek Upstream SIS, and Black Creek Downstream SIS. Pumping of water from the Eastern Sediment Dam to the Upper Sediment Dam and then to Kalingo Dam occurred during and after the rainfall event ceased. Sampling indicated that given the minor difference in upstream and

downstream water quality, there was no environmental consequence or harm to the environment as a result of the overtopping event.

Written incident reports were sent to the EPA and DPHI on 2 May 2025 with no further actions required to date.

7.3.6 Kitchener Sediment Dam Discharges Overflow Event 19 May 2025

Over an approximately five-day period between 18 May 2025 and 22 May 2025 the Austar CHPP meteorological station recorded a total of 123.4mm of rainfall and Austar's Kitchener SIS meteorological station recorded a total of 200.6mm. Federal and State governments declared Cessnock Local Government Area a Disaster Area on 21 May 2025 due to the flooding and adverse weather conditions experienced. This event was greater than the design size for the sediment dams at the Kitchener SIS. Real time monitoring indicates that the Eastern Sediment Dam was at (or over) 100% capacity at approximately 10:53am on 19 May 2025. The inspection confirmed no overtopping of the Lower Sediment Dam at this time and supported the SCADA data that confirmed that the Lower Sediment Dam did not overtop on the 18 May. Pumping from the Eastern Sediment Basin had commenced prior to the dam overtopping and was continuous throughout and after the rain event.
Further to this, the SCADA system indicated that the Lower Sediment Dam overtopped at 10:35pm on 21 May 2025. At this point, the Eastern Sediment Basin pump was automatically turned off. Pumps automatically restart when there is capacity in the Upper Sediment Dam.

Prior to the commencement of the rainfall event, all sediment dams at the Kitchener SIS were maintained at their lowest levels, with adequate storage for design rainfall events.

Austar enacted the Pollution Incident Response Management Plan (PIRMP) and reported the event to the relevant authorities on 19 May 2025. Water samples were collected for analysis on 19 May 2025 from the East Sediment Dam, Lower Sediment Dam, Black Creek Upstream SIS, and Black Creek Downstream SIS. Pumping of water from the Eastern Sediment Dam to the Upper Sediment Dam occurred during and after the rainfall event ceased. Pumping of water from the Upper Sediment Dam to Kalingo Dam occurred during and after the rainfall event. Sampling indicated that given the minor difference in upstream and downstream water quality, there was no environmental consequence or harm to the environment as a result of the overtopping event.

Written incident reports were sent to the EPA and DPHI on 23 May 2025 with no further actions required to date.

7.4 Ground Water

7.4.1 Environmental Management

The SWMP has been prepared in accordance with the requirements of development consent DA29/95 and Project Approval PA08_0111 and includes a groundwater monitoring program. The revised SWMP was approved by the DPHI on 4 June 2024.

Quarterly groundwater monitoring and analysis is undertaken in accordance with the SWMP, utilising nine piezometers (MB01, MB02, MB03A, MB04, AQD1073a, NER1010, WBH1, WBH2 and WBH3) to assess groundwater levels in the Bellbird South, Stage 2 and Stage 3 mining areas. The locations of these monitoring sites are presented in **Figure 6-3.**

Groundwater resources in the vicinity of Austar are detailed in the SWMP.

7.4.2 Environmental Performance

Appendix C illustrates the groundwater monitoring results at Austar during the reporting period and the last five years for comparison. The graphs contained in **Appendix C** illustrate groundwater elevation, rainfall, pH, and conductivity. Trends from the monitoring program are summarised below:

7.4.2.1 Groundwater Level

- Groundwater elevation in Bellbird South sandstone bore NER1010 increased between July 2024 and June 2025, coincident with increased regional rainfall and increasing cumulative rainfall departure (CRD). Groundwater elevation in NER1010 responds rapidly to significant (i.e., more than 20 mm) rain events. Rapid increases in groundwater elevation were recorded following heavy rainfall throughout the year. Although the total depth of the bore is 102 m, the screened interval spans 82 m in length (20 metres below ground level (mbgl) - 102 mbgl). It is likely that the shallow depth of the upper part of the screen is allowing rainfall recharge to infiltrate and mix with deeper groundwater (see **Figure App C-1**).
- AQD1073a, MB04 and WBH3 were inaccessible due to flooding and wet ground during Q2 2025.
- Groundwater elevations in Stage 2 and Bellbird South alluvial bores slightly increased during the year correlating strongly with the CRD (July 2024 – June 2025) (see **Figure App C-2**). Pressure Transducer (PT) data indicate groundwater elevations increased rapidly following rainfall, decreasing shortly thereafter.
- Groundwater elevation in Stage 3 monitoring bore MB01 increased slightly during the reporting period (see **Figure App C-3**). The latest measurement recorded on 12 June 2025 (8.20 metres Australian Height Datum [mAHD]) exceeded the upper prescribed groundwater elevation trigger of 8.28 mAHD (first exceedance). This site will be monitored next quarter and the TARP enacted if required.
- Groundwater elevation in Stage 3 monitoring bore MB02 decreased overall during the recent monitoring period (see **Figure App C-4**).

7.4.2.2 Groundwater Quality

- Groundwater pH in Stage 2 and Bellbird South alluvial bores (see **Figure App C-7**) were generally stable during the 2024-2025 monitoring period. AQD1073a exceeded the lower prescribed Stage 1 pH trigger (first exceedance) during Q1 2025 (pH 5.54 [lower trigger 5.60] on 17 March 2025).
- Stage 3 monitoring bores MB01 and MB02 recorded generally stable groundwater pH throughout the year (see **Figure App C-8**).
- Groundwater EC in Stage 2 and Bellbird south alluvium was variable. There were no exceedances of the EC trigger criteria during the water year. NER1010 groundwater quality is not likely representative of

the screened formation (Branxton Formation) but instead is comprised of a mixture of surface and deeper groundwater resulting from the extended screen interval on this bore (see **Figure App C-9**).

- Groundwater EC in Stage 3 monitoring bores MB01 and MB02 were variable. EC values in MB01 exceeded the EC 80th percentile value of 7707 µS/cm during Q2 2025 (7740 µS/cm 12 June 2025 (see Figure app C-10). This is the second consecutive exceedance of the trigger threshold criteria and constitutes a Stage 1 trigger under the Surface and Groundwater Response Plan – Triggers, Actions and Responsibilities (SWMP, 2024).
- In accordance with the SWMP, Austar's groundwater consultants were engaged to investigate the two elevated results. The investigation concluded that water levels in bore MB01 have shown an increasing trend since mining ceased in 2021, and a muted inverse correlation between CRD and EC is evident. EC values in MB01 have shown minor fluctuation over the period of record, ranging between 6,474 and 8,177 µS/cm. There is very little variation in solute concentrations in MB01 over time and it is unlikely that the slight increase in EC in MB01 is mining related. Due to the consistent proportions of major ions, and lack of variation in solute concentrations, it is unlikely that there is any contamination from another, new, water source. The two results over the 80th percentile in MB01 could be considered as minimal and unlikely to result in environmental harm. The investigation determined that the trigger is unlikely to be caused by mining activities and there is no Stage 2 trigger investigation required. The historical EC trend is stable with minimal range, and statistical analysis shows that the EC upper trigger could be too stringent to detect a change to groundwater quality.
- No water quality data is available for AQD1073A, WBH3 and MB04 during Q2 2025, as wet conditions restricted access to these bores.

Monitoring indicates that mining impacts are generally within EA predictions, there is no evidence of impacts outside of established predictions due to mining.

Trends for five-year monitoring period are summarised below:

- Groundwater elevations have generally reflected the CRD over the last five years (**Figure App C-11**, **Figure App C-12**).
- Groundwater elevations at MB01 and MB02 increased significantly between 2020 and 2022. Groundwater elevation at these bores has been relatively stable since 2022 (see **Figure App C-13**, **Figure App C-14**).
- Stage 2 and Bellbird South alluvial pH values have generally remained stable during the five-year period to June 2025 (see **Figure App C-17, Figure App C-18**).
- EC monitoring results between July 2020 and June 2025 are generally consistent with predicted impacts (**Figure App C-19**, **Figure App C-20**).

8 REHABILITATION

Rehabilitation and land management activities were undertaken in accordance with the Austar Rehabilitation Management Plan (September 2023) (RMP) and the Austar Coal Mine Forward Program (1 July 2024 to 30 June 2027) (FP).

Consistent with the Forward Program, rehabilitation activities during the reporting period focused on the maintenance of existing rehabilitation areas and the ongoing preparation of specialist studies to address rehabilitation and closure knowledge gaps and to inform closure execution.

Rehabilitation maintenance activities undertaken included ongoing weed management of the Aberdare Extended Emplacement Area (EEA), Bellbird Areas 12 and 13, the Cessnock No. 1 Colliery/Kalingo Infrastructure Area, and Kitchener SIS. Endemic seed collection was carried out during the reporting period to continue the establishment of a seed storage bank for future rehabilitation activities. The focus of the endemic seed collection program has been species that constitute the main vegetation communities of the local area. All seed collection, cleaning and storage is carried out in accordance with Flora bank Guidelines and Model Code of Practice.

Activities were also undertaken to restrict unauthorised access into the Aberdare EEA and Bellbird Areas 12 and 13, through the installation of additional concrete barricades to prevent vehicle access. Annual rehabilitation monitoring was undertaken by consulting ecologists (refer **Section 8.3**) and routine inspections by Austar environmental personnel.

Consistent with the rehabilitation schedule in the Forward Program, no new areas of rehabilitation were commenced and there were no areas of rehabilitation relinquished or signed off by the Resources Regulator during the reporting period.

8.1 Rehabilitation Maintenance and Management

During the reporting period rehabilitation maintenance and management activities were undertaken based on the recommendations of the 2024 Rehabilitation Monitoring Program as follows:

- Ongoing weed management of the rehabilitation areas at Kalingo East, Kalingo West, Aberdare Extended EEA, Bellbird Areas 12 and 13; and
- Installation of concrete blocks and signage within Bellbird and Aberdare EEA rehabilitation areas where unauthorised access has been made by vehicles and bikes.

Additionally, grassland areas have been slashed and dumped rubbish removed from the vicinity of Bellbird Areas 12 and 13, and the Aberdare Extended EEA.

Recommendations to remediate rehabilitation damage caused by motorbike tracks was not undertaken during the period, due to the constant difficulty in excluding motorbikes from the area. Options such as additional fencing and providing some designated vehicle tracks through the rehabilitation area are being considered as ways to minimise ongoing damage.
In addition to the annual monitoring program, routine site inspections are conducted monthly by Austar personnel. If issues are identified during inspections, corrective actions are implemented as required.

8.2 Exploration and Tailings Borehole Rehabilitation

There were no surface exploration activities undertaken during this reporting period. All previous exploration boreholes drilled by Austar in EL6598 have been rehabilitated. There is one historic borehole in the area, drilled in 1991 that requires partial sealing and rehabilitation as part of the historic borehole rehabilitation project.

Austar continued due diligence works on historic exploration and tailings disposal boreholes drilled in Austar mining leases during the reporting period. Field surveys were completed with consulting Ecologists, Archaeologists, RAP's and geotechnical drilling specialists.

Austar has identified a total of 373 exploration boreholes drilled in Austar Mining Leases, with around 230 boreholes that have been rehabilitated, approximately 115 needing rehabilitation and 17 boreholes need inspection and further detail to inform required treatment.

During the next reporting period, Austar will progress Land Access Agreements and approvals pathways, and commence the rehabilitation of boreholes.

8.3 Rehabilitation Monitoring

Rehabilitated areas are monitored annually at Austar in accordance with the RMP. Ecological monitoring was undertaken across all Austar rehabilitation areas and associated reference sites during the end of April and beginning of May 2025.

The main factors identified during monitoring as key to progression of all monitoring locations towards completion criteria is a reduction in weed cover and a reduction in unauthorised access into the area, with activities such as rubbish dumping and motorbike riding being commonplace. Recommendations have also been made with respect to the probability of needing to undertake supplementary planting, but this will depend on final land use determinations that will be made during detailed mine closure planning.

Recommendations arising from the 2025 Annual Rehabilitation Monitoring Report are discussed below, along with proposed actions to address the recommendations:

- **Weed management** – The Rehabilitation Monitoring Report identified weed infestation as the foremost issue hindering achievement of target land-use goals for all rehabilitation monitoring sites. Austar has a site wide Annual Weed Action Plan in place incorporating the rehabilitation areas. Weed management works are undertaken by a specialist contractor on a regular basis throughout the year. Weed management in the rehabilitation areas is ongoing, with weed works focusing on recommended actions and areas, including rehabilitation areas and creek lines across site during the reporting period.
- **Supplementary plantings** – should, in general, be undertaken in any areas where weed management is undertaken, and areas are subsequently left unvegetated. Specifically, there is one area in Area 13 identified during the rehabilitation monitoring where supplementary planting should be considered.
- **Alteration of Seed Mixes** – Umwelt recommends that Rhodes grass *(Chloris gayana)* and kikuyu (*Cenchrus clandestinus*) be removed from any subsequent seeding mixes. The current seed mix has been reviewed and these species have been removed.
- **Remediation of dirt bike paths** - Dirt-bike paths are quite deep in the Aberdare REA and Bellbird Area 12, and remediation of these tracks is recommended so that the subsurface is not exposed.

Supplementary planting of these areas may be required following remediation, however given the narrow width, it is likely that ground cover would naturally re-establish along these paths over time. Ongoing measures have been made to restrict access during the reporting period, and these measures will continue to be implemented across the Aberdare REA.

- **Prevention of unauthorised access** – Evidence of unauthorised access (such as 4WD tracks, motorbike riders and push bike riders) were identified in the Bellbird Areas 12 & Area 13 and Aberdare REA. Given proximity of these areas to urban areas, such aspects are difficult to control. Measures are in place to strengthen site security and exclude trespassers through the installation of concrete barriers, maintenance of fencing and ongoing security patrols.
- **Rubbish removal** – In Kalingo East, various heritage buildings and structures, and loose surface debris are present throughout. Austar regularly removes dumped rubbish from rehabilitation areas when encountered. Further clean-up efforts will be undertaken after heritage assessments have been completed during the closure planning process.

Performance criteria, monitoring requirements and final land use vegetation types for the site are being reviewed and refined as part of the detailed mine closure planning work currently being undertaken.

TABLE 8-2 COMPARISON OF MONITORING RESULTS TO TRIGGER, ACTION, RESPONSE PLAN

Trigger (RMP Extract)	Comment	Remediation Action
Hazardous Materials (asbestos) inappropriately removed during demolition of heritage structures, leading to soil contamination and/or health impact.	No hazardous materials identified.	Not required
Landform not in accordance with Resources Regulator requirements (i.e., not within criteria identified including capping material depth).	Landform is generally in accordance with final landform.	Not required
Erosion / poor water quality from rehabilitation areas (in excess of target criteria identified).	No erosion identified. However, remediation of degradation caused by dirt bike tracks in Aberdare REA required before depth reaches capping. Water quality not assessed as part of this program of work.	Remediation of dirt bike tracks in Aberdare REA
Lack of vegetation establishment or dieback of rehabilitated areas resulting in inability to meet vegetation criteria targets specified.	No substantial dieback identified. However, severe disturbance of Area 13 due to subsidence remediation works has resulted in decreased vegetation.	Remediation of subsidence disturbance in Area 13
Weed infestation threatening rehabilitation success (weeds in excess of identified criteria level).	Weed infestation threatens each of the REAs and Kalingo.	Continue to implement weed management actions as required. Re-seed following weed management utilising appropriate species as per target final land use where necessary.
Significant damage to rehabilitation areas by feral animals, resulting in inability to meet vegetation criteria targets specified.	No significant damage by feral animals identified.	Not required
Acid leachate identified from rehabilitated reject emplacement areas, potentially resulting in offsite water impact and/or dieback of revegetation, resulting in inability to meet vegetation criteria targets specified.	No evidence of acid leachate identified.	Not required
Spontaneous combustion of rehabilitation area.	No evidence of spontaneous combustion observed.	Not required

8.4 Rehabilitation Trials and Research

Austar is currently in the Feasibility Study (FS) stage of mine closure, undertaking numerous technical studies and site investigations to address closure knowledge gaps**.** Due to a projected deficit of topsoil material available for rehabilitation closure activities, three trial plots (plots 1, 2 and 3) were constructed during the previous reporting period (November 2023) at the Austar CHPP West Pit Stockpile Area to assess the suitability of compost material for use as a primary growth medium in lieu of topsoil. Each trial plot had varying compost application, with no compost applied to Plot 1, 50mm applied to Plot 2 and 100mm of compost applied to Plot 3. The rehabilitation trial is designed to examine the following factors:

- The compatibility of the compost with key species of the main target vegetation community;
- The potential weed load of the compost material;
- The minimum thickness of the compost material required to obtain native species germination and sustain early growth and development.

A rehabilitation specialist is engaged by Austar to undertake quarterly rehabilitation monitoring and reporting to track the progress of the three trial plots. The monitoring frequency will be reduced to annually during the next reporting period.

Observations suggest that overall germination and growth of representative flora species of the target vegetation community has been successful. Native tree, shrub and groundcover species germination is observed to be twice as high in terms of species diversity, and substantially higher in individual plant numbers in plot 1 compared with the other two plots. Groundcover, particularly couch, despite the low application rate is extensive in trial plots 2 and 3.

In all monitoring events, species numbers and counts continue to increase in plot 1, with 18 native species. This is compared to plot 2 and 3 which have stabilised at between 7 to 9 species each. The above average rainfall conditions have assisted with the persistence and dominance of the ground cover species.

8.5 Rehabilitation Summary

During the reporting period rehabilitation was managed generally in accordance with the RMP. Mining and rehabilitation status is presented in **Table 8-3** and is consistent with the Forward Program (FP) and Annual Rehabilitation Report (ARR)**.** In accordance with the Austar RMP and FWP there were no areas of land where active disturbance or rehabilitation preparation occurred during the reporting period. Areas documented for the next reporting period are based on the areas detailed in the RMP and FP.

The current rehabilitation and disturbance footprint at Austar is presented in **Plan 1A** as reproduced from the ARR.

TABLE 8-3 REHABILITATION SUMMARY

Mine Area Type	Previous Reporting Period (ha)	This Reporting Period (ha)	Next Reporting Period (ha)
	2023-24	**2024-25**	**2025-26**
Total disturbance footprint	211.1	214.9	214.9
Total active disturbance	149.8	153.8	150.9
Land being prepared for rehabilitation	23.6	23.3	26.2
Land under active rehabilitation	37.8	37.8	40.7
Completed rehabilitation	0	0	0

Total mine footprint *includes all areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities. The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion. Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.*
Total active disturbance *includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).*
Land being prepared for rehabilitation *– Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).*
Land under active rehabilitation *- Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development.*
Completed rehabilitation *– The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate application by the lease holder.* [Exert from RMP]

8.6 Rehabilitation Actions for the Next Reporting Period

Rehabilitation activities in the next reporting period are as detailed in the *Austar Coal Mine Forward Program - Friday 1 July 2025 to Monday 30 June 2028.*

Based on the Forward Program, the following actions are proposed for the 2025-26 reporting period:

- Continue demolition of all redundant (non-heritage) mining infrastructure;
- Continue removal of redundant overhead powerlines, including at No.1 and No.2 Shaft;
- Commence rehabilitation of tailings boreholes and exploration boreholes;
- Commence mine shaft filling and sealing of No.1 Shaft;
- Commence the removal and de-declaring of Kalingo Dam;
- Seed demolition areas at the Kalingo Infrastructure Area (KIA, No.3 Shaft).

9 COMMUNITY RELATIONS

Austar is committed to minimising the impacts of its activities and is an active participant and contributor to community projects that benefit local people.

9.1 Community Support Program

During the reporting period, Austar supported Paxton Tidy Towns through the donation and transportation of old railway sleepers to Paxton Reserve for the purposes of defining native vegetation islands and ensuring mulch and animal habitats are protected within the nature reserve. The sleepers will also allow for the creation of walkways within the reserve which is popular with the public and local wildlife.

While no longer operating, Austar is still a part of the Cessnock community and will continue to deliver its annual Community Support Program.

9.2 Community Sponsorship

In addition to the Community Support Program, Austar sponsors local community initiatives. In the 2024-2025 reporting year, the long-term sponsorship of the Cessnock Rugby League Football Club and the Cessnock City Council Mayoral scholarship program continued.

9.3 Community Liaison

Austar continues to maintain close relationships with neighbouring properties and nearby communities as part of normal business. This is mainly done through individual contacts with neighbours, and the Community Consultative Committee (CCC), as described below.

9.3.1 Community Consultative Committee

The CCC continued to operate during the reporting period. The CCC is conducted generally in accordance with the DPHI's Community Consultative Committee Guideline (January 2019). CCC meetings are currently held every twelve months. Current members of the CCC are listed in **Table 9-1**. During the reporting period Austar held one CCC meeting, which occurred on the 27 November 2024.

Austar coordinates these meetings and provides information on mine closure planning progress, community programs and environmental performance. The annual review of the CCC and meeting minutes are located on the Austar coal website: https://www.yancoal.com.au/our-sites/austar/.

The major discussion points from the Austar meeting in 2024-2025 were:

- Closure planning, exploration borehole rehabilitation, mine sealing plans, management of sink holes and trespassers during closure.
- Environmental monitoring, results, and incidents;
- Community Support Program.

TABLE 9-1 AUSTAR COMMUNITY CONSULTATIVE COMMITTEE (CCC) DURING THE REPORTING PERIOD

Organisation/Representative	Name
Independent Chairperson	Ms Margaret MacDonald-Hill
Cessnock Council Representative	Councillor Quintin King Councillor Jay Suvaal
Community Representatives	Mr Alan Smith Ms Ashlee Baker (Ms Baker resigned in June 2025) Mr John Rayner Mr Peter Sturrock Chief Inspector Justin Cornes
Company Representatives	Mr William Farnworth Mr Craig Reiss Ms Carly McCormack Ms Julie McNaughton Ms Maddison Stojcevski

9.3.2 Resident Consultation

During the reporting period, Austar consulted with individual residents who live in areas potentially affected by Austar's operations as required. This consultation was often conducted informally, in a manner that allowed the residents to openly discuss issues of importance to them. During early 2025 notifications were delivered via letter to residents surrounding Austar's CMA 1, CMA 2 and CMA 5 regarding closure and demolition, along with a closure update newsletter, also available on the Yancoal website.

During the next reporting period, there will be further communication with the community regarding closure activities and the potential impacts to persons and/or property as required, including the further notification of residents via letter regarding demolition.

9.4 Community Complaints

Austar's Environmental Management Strategy (EMS) includes a procedure for receiving, investigating, responding, and reporting complaints received from the community. Austar maintains a 24-hour-a-day, 7 days a week, free call number 1800 701 986 to receive environmental complaints and other enquiries.

No community complaints were received during the reporting period.

10 INDEPENDENT ENVIRONMENTAL AUDIT

The most recent Independent Environmental Audit was conducted by RPS in October and November 2023.

There were four actions agreed upon by auditors and Austar personnel, all of which were completed and described in previous Annual Reviews. The 2023 Independent Environmental Audit Report can be found on the Austar website. The next Independent Environmental Audit is scheduled to be undertaken during Q4 2026.

11 INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period, there were two incidents reported to the EPA and DPHI which are described in **Table 11-1**.

TABLE 11-1 INCIDENT REPORTS 2024-2025

Incident No.	Date	Incident summary	Description
1	27 April 2025	Kitchener SIS Unlicenced Discharge	The Eastern Sediment Dam overflowed following very heavy rainfall over a 24-hour period on 27 April 2025. The PIRMP process was triggered, and the incident reported to relevant regulators. Water monitoring was undertaken on the 28 April 2025, with results showing very little difference in up and down stream quality indicating no environmental consequences or harm to the environment. Actions resulting from this event include water sampling from dams, as well as up- and down-stream, and pumping dams back to as low as practical as soon as possible after the rain event.
2	19 May 2025	Kitchener SIS Unlicenced Discharge	The Eastern Sediment Dam and Lower Sediment Dam overflowed following very heavy rainfall during 18 May to 22 May 2025. The PIRMP process was triggered, and the incident reported to relevant regulators. Water monitoring was undertaken on the 19 May 2025, with results showing very little difference in up and down stream quality indicating no environmental consequences or harm to the environment. Actions resulting from this event include water sampling from dams, as well as up- and down- stream, and pumping dams back to as low as practical as soon as possible after the rain event.

12 ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

During the reporting period, the focus at Austar has been the continued development of the FS and commencing demolition at CMA 5 and CMA 2, as outlined in the Forward Program three-year forecast.

The focus in the next reporting period will be to progress the FS and planned early works including demolition, continuing at closure management area CMA2, then CMA1 and CMA4.

Austar plans to carry out the activities in **Table 12-1** during the 2025 - 2026 reporting period.

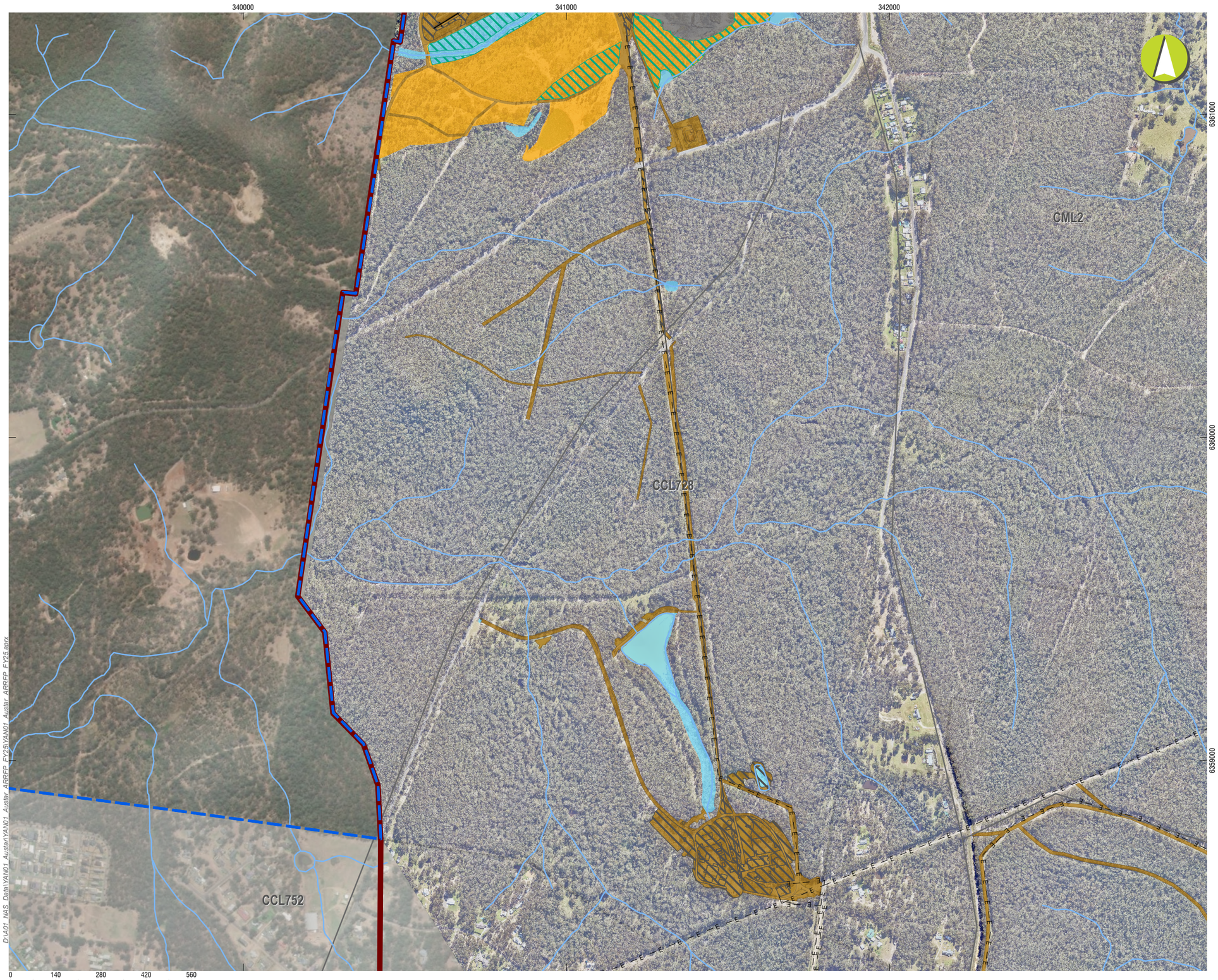
TABLE 12-1 PROPOSED ACTIVITIES FOR 2025-2026 REPORTING PERIOD

	Activities Proposed in the 2025-26 Reporting Period
1	Progress the mine closure technical studies as documented in **Section 4.1**
2	Continue demolition of all redundant (non-heritage) mining infrastructure
3	Continue removal of redundant overhead powerlines, including at No.1 and No.2 Shaft
4	Commence rehabilitation of tailings boreholes and exploration boreholes

	Activities Proposed in the 2025-26 Reporting Period
5	Commence mine shaft filling and sealing of No.1 Shaft
6	Commence the removal and de-declaring of Kalingo Dam
7	Complete the seeding of demolition areas at the Kalingo Infrastructure Area (KIA, No.3 Shaft)

Plans

Plan 1A Current Status of Mining Operations



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

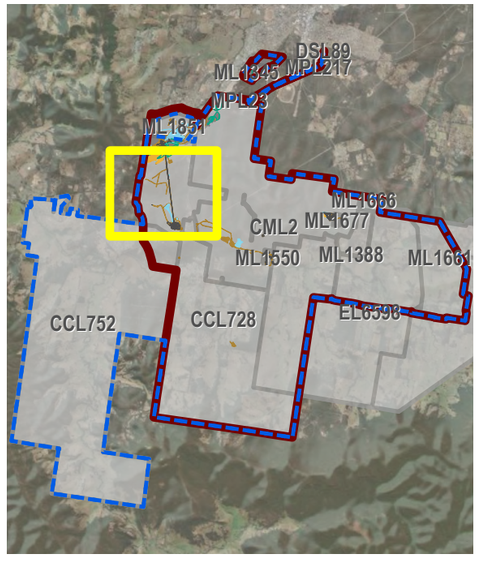
- Coal - Current Titles

Rehabilitation Phase

- Decommissioning
- Ecosystem and Land Use Establishment

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 2: Tailings Storage Facility
- Domain 3: Water Management Area
- Domain 4: Overburden Emplacement Area



Austar Coal ARRFP

CMA 1 - Austar Pit Top Facilities

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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Sheet Size : A3

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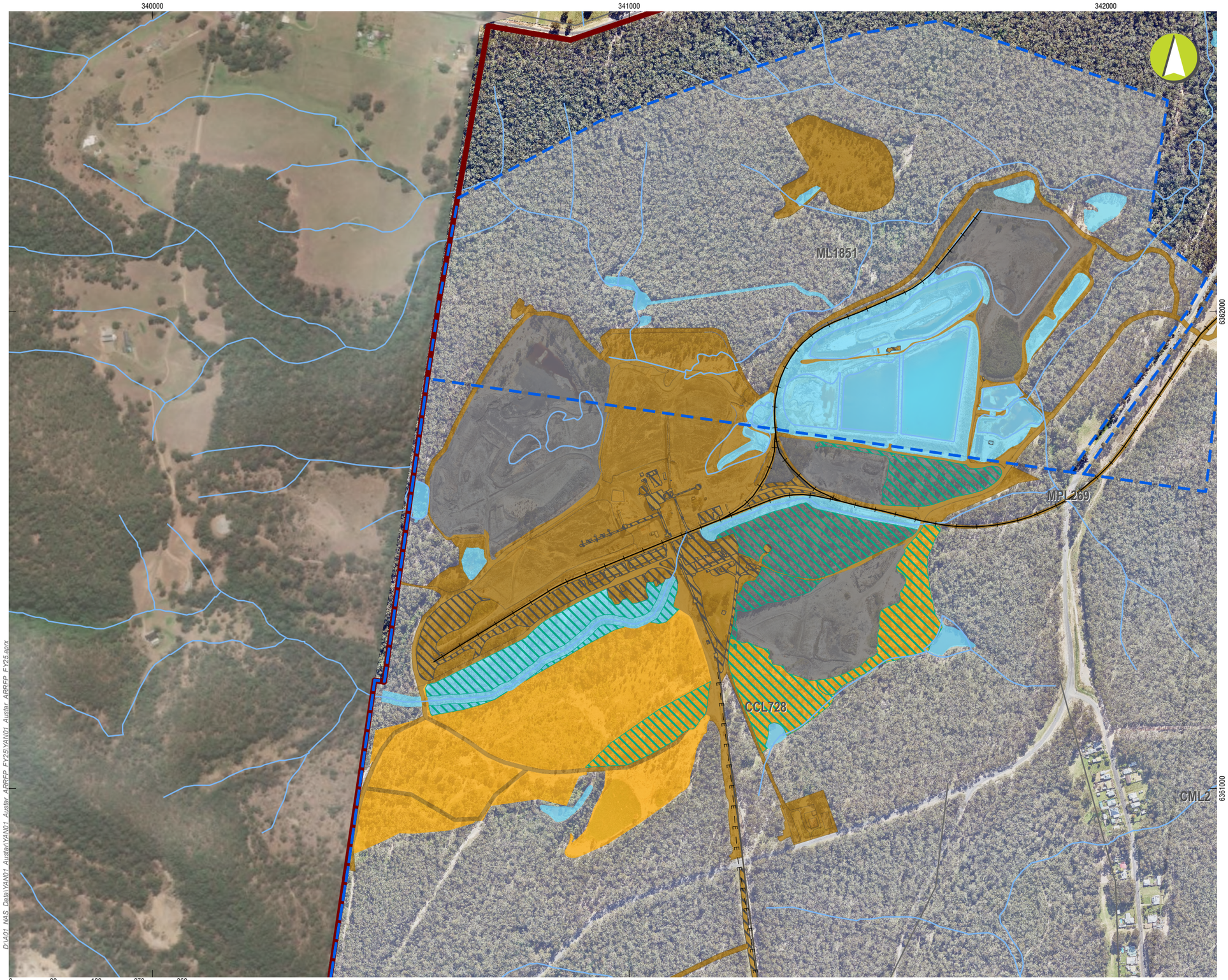

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LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

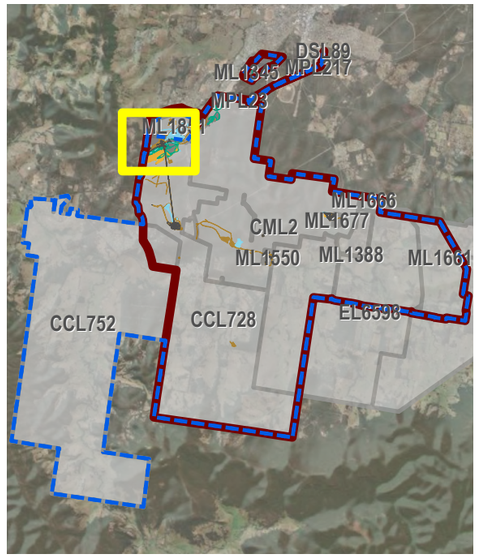
- Coal - Current Titles

Rehabilitation Phase

- Decommissioning
- Ecosystem and Land Use Establishment

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 2: Tailings Storage Facility
- Domain 3: Water Management Area
- Domain 4: Overburden Emplacement Area



Austar Coal ARRFP

CMA 2 - Pelton CHPP - Inset 1

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

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Sheet Size : A3

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

LEGEND

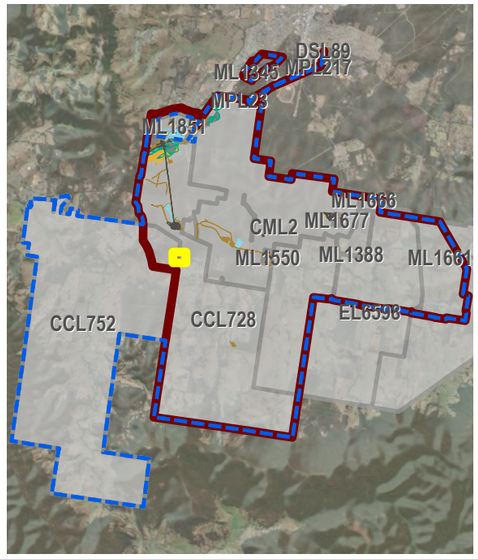
- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

- Coal - Current Titles

Mining Domain Type

- Domain 1: Infrastructure Area



Austar Coal ARRFP

CMA 3 - No.1 Shaft - Inset

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

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Sheet Size : A3

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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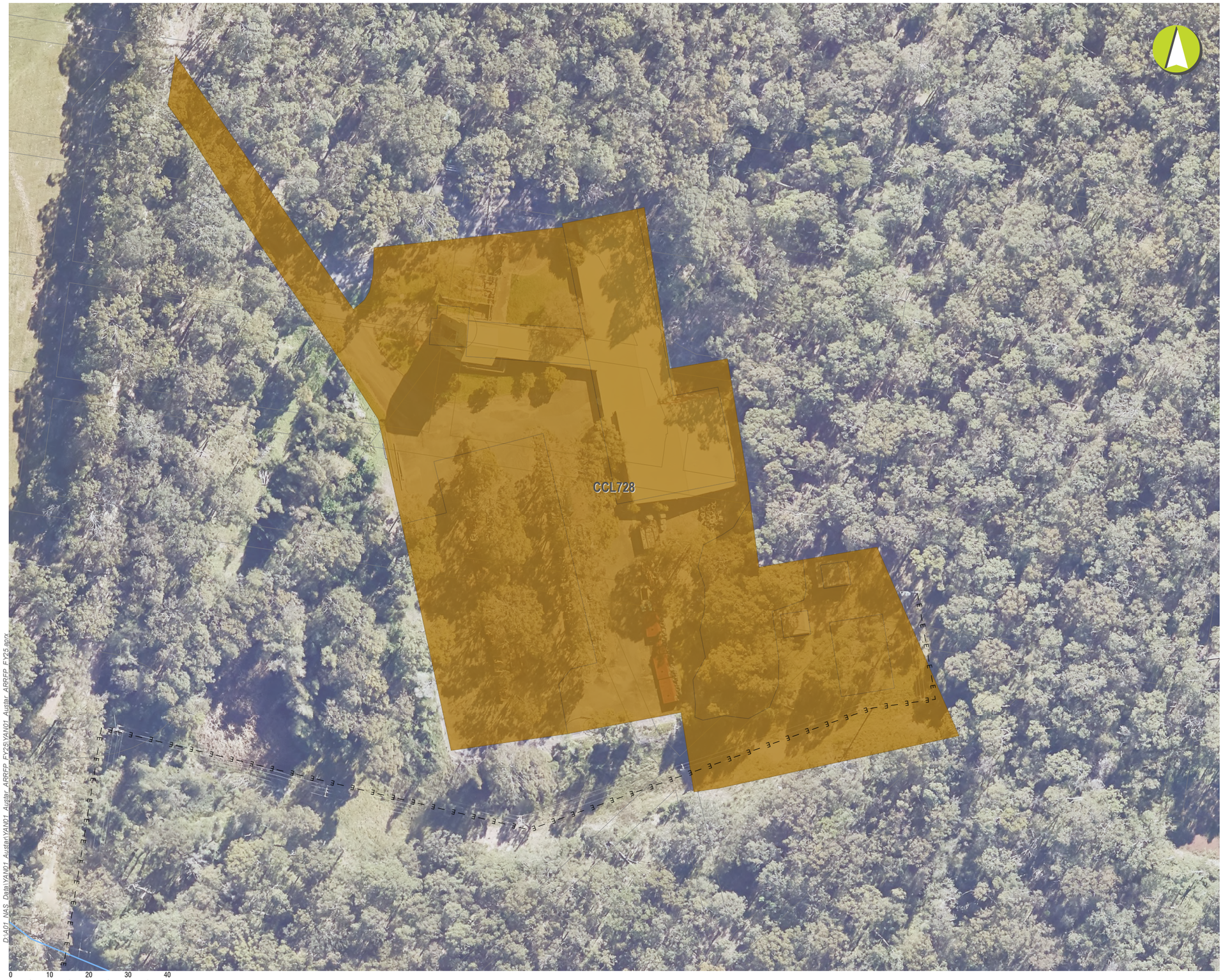


LEGEND

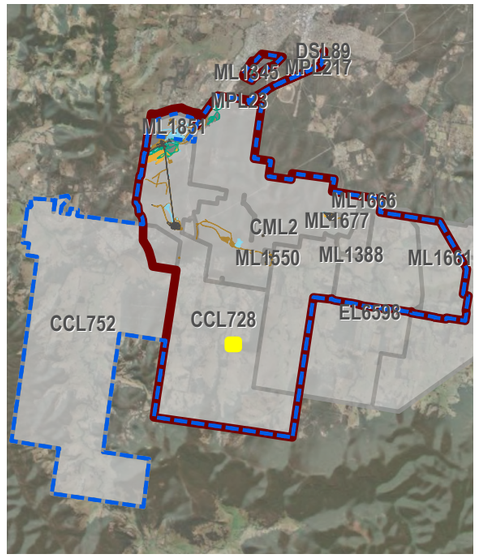
- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

- Coal - Current Titles

Mining Domain Type

- Domain 1: Infrastructure Area



Austar Coal ARRFP

CMA 4 - No.2 Shaft - Inset

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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343000
344000
345000
6359000
6358000
6357000
ML1388
CML2
ML1550
CCL728
EL6398
0
130
260
390
520
m
Scale: 1:11,000

LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Completed workings

Current Authorisations

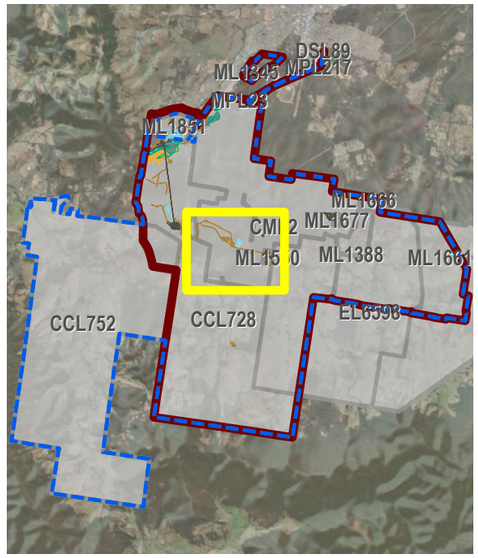
- Coal - Current Titles

Rehabilitation Phase

- Decommissioning

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 3: Water Management Area



Austar Coal ARRFP

CMA 5 - Cessnock No.1 Colliery / Kalingo Infrastructure Area

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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347000

6359000

CML2

ML1677

0 25 50 75 100 m

Scale: 1:2,400

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LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Completed workings

Current Authorisations

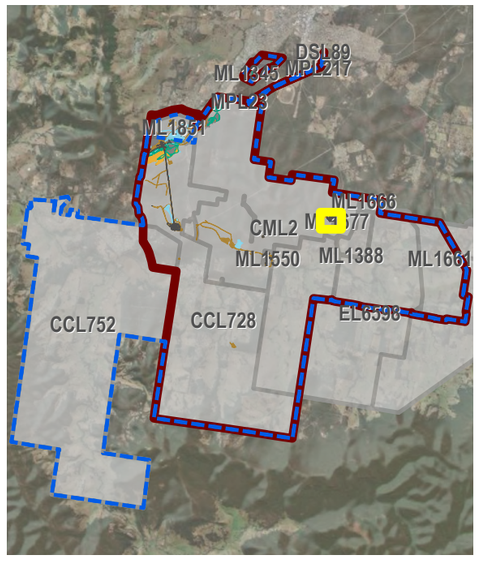
- Coal - Current Titles

Rehabilitation Phase

- Decommissioning

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 3: Water Management Area
- Domain 4: Overburden Emplacement Area



Austar Coal ARRFP

CMA 6 - Kitchener Surface Infrastructure Site

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Sheet Size : A3

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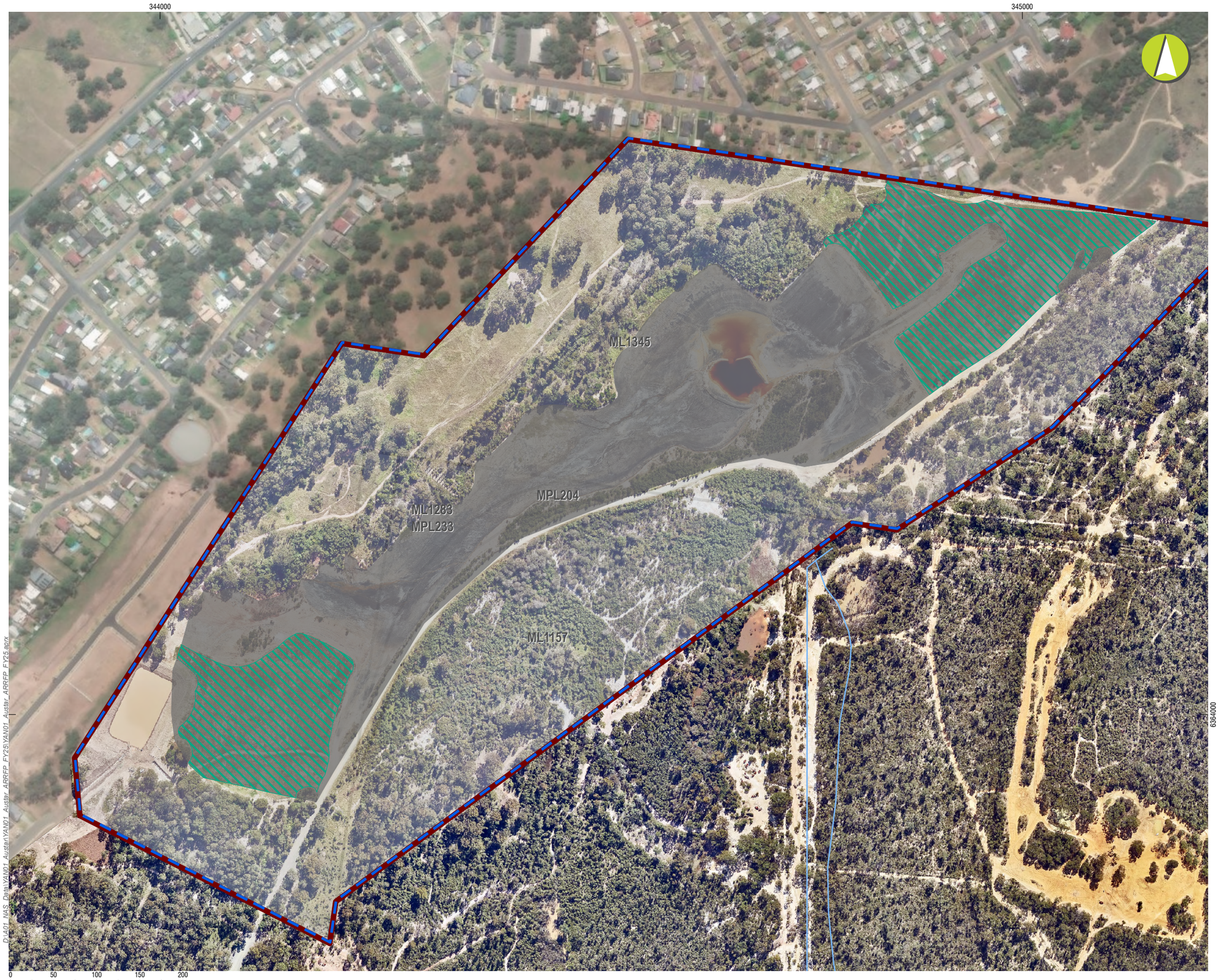
Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

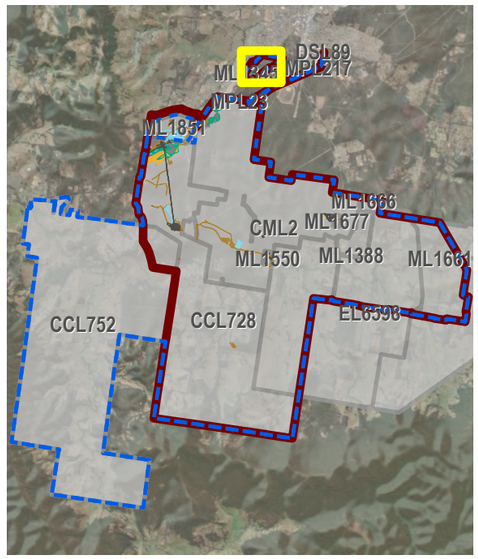
- Coal - Current Titles

Rehabilitation Phase

- Ecosystem and Land Use Establishment

Mining Domain Type

- Domain 2: Tailings Storage Facility



Austar Coal ARRFP

CMA 7 - Aberdare Extended Emplacement Area

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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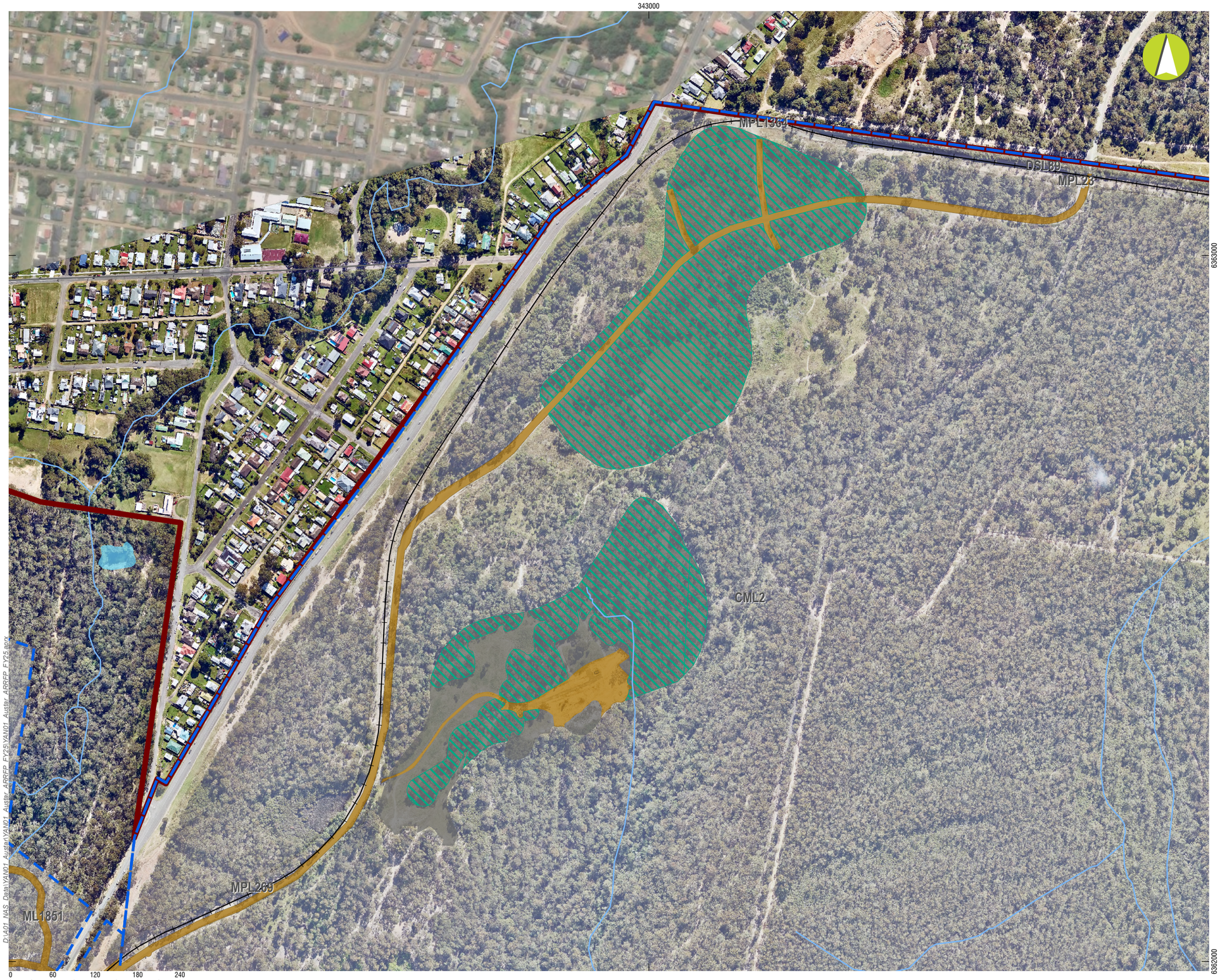


LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

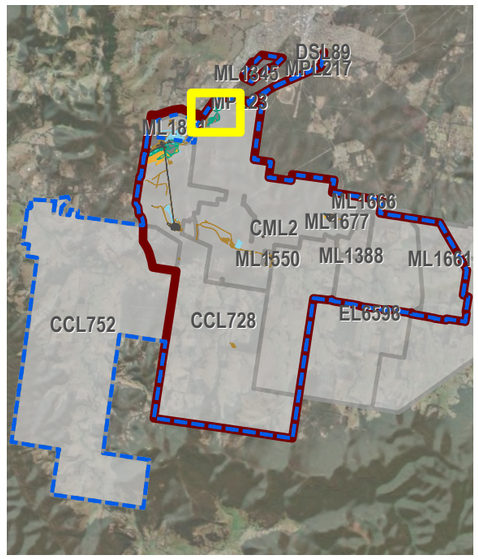
- Coal - Current Titles

Rehabilitation Phase

- Ecosystem and Land Use Establishment

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 2: Tailings Storage Facility
- Domain 3: Water Management Area



Austar Coal ARRFP

CMA 8 - Bellbird Areas 12 and 13 - Inset

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx | xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

Source: PA Boundaries, Mining Leases (Yancoal, 2024).
Rehabilitation and Disturbance (Yancoal, 2025).
LPI Data (NSW Spatial, 2024)

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Appendices

Appendix A. Long Term Noise Monitoring Data

TABLE APP A-1 CHPP NOISE DATA, 2019 - 2025

Quarter	Period	Austar CHPP Only $L_{A90\ (15min)}$ (dB)		
		C1	C2	C3
	Noise Criteria	40	43	37
Q2 2025	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q1 2025	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q4 2024	Day	IA	IA	IA
		IA	IA	IA
		<15	IA	IA
Q3 2024	Day	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q2 2024	Night	IA	IA	IA
		IA	IA	IA
		NM	IA	IA
Q1 2024	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q4 2023	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q3 2023	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q2 2023	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q1 2023	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q4 2022	Night	IA	<25	IA
		IA	IA	IA
		IA	IA	IA
Q3 2022	Night	IA	IA	IA
		IA	IA	IA
		IA	<25	IA
Q2 2022	Night	IA	<20	IA
		IA	<25	IA

Quarter	Period	Austar CHPP Only $L_{A90\ (15min)}$ (dB)		
		C1	C2	C3
	Noise Criteria	40	43	37
		IA	<25	IA
Q1 2022	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	IA
Q4 2021	Night	<20	<20	IA
		NM	NM	NM
		IA	IA	IA
Q3 2021	Night	IA	26	IA
		IA	IA	IA
		IA	<25	IA
Q2 2021	Night	<25	<25	NM
		NM	29	IA
		IA	IA	IA
Q1 2021	Night	<25	<25	IA
		<25	NM	IA
		IA	IA	IA
Q4 2020	Night	<25	21	IA
		IA	26	NM
		IA	IA	IA
Q3 2020	Night	IA	<25	IA
		NM	29	<25
		<25	NM	NM
Q2 2020	Night	IA	IA	IA
		IA	IA	IA
		IA	IA	NM
Q1 2020	Night	37	38	29
		25	<25	<20
		<20	<28	<20
Q4 2019	Night	38	36	30
		26	26	NM
		37	37	31
Q3 2019	Night	38	43	31
		NM	<35	IA
		33	IA	<30

NM – Not measurable
IA – Inaudible
These are results for Austar CHPP in the absence of all other noise sources.

TABLE APP A-2 NOISE GENERATED AT KITCHENER SIS 2019 - 2025

Quarter	Period	Kitchener SIS Only $L_{Aeq, 15\ min}$ (dB)			Kitchener SIS Only, $L_{A1\ (1min)}$		
		K1	K2	K3	K1	K2	K3
	Noise Criteria	35	35	35	45	45	45
Q2 2025	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q1 2025	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2024	Day	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q3 2024	Day	<20	<20	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		<25	IA	IA	IA	IA	IA
Q2 2024	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q1 2024	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2023	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q3 2023	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q2 2023	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q1 2023	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2022	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q3 2022	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA

Quarter	Period	Kitchener SIS Only $L_{Aeq, 15\ min}$ (dB)			Kitchener SIS Only, $L_{A1\ (1min)}$		
		K1	K2	K3	K1	K2	K3
	Noise Criteria	35	35	35	45	45	45
		<20	<20	IA	23	<20	IA
Q2 2022	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q1 2022	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2021	Night	IA	<20	IA	IA	<20	IA
		IA	IA	IA	IA	<20	IA
		IA	IA	IA	IA	IA	IA
Q3 2021	Night	<25	IA	IA	<25	IA	IA
		<25	IA	IA	<25	IA	IA
		IA	<20	IA	IA	<20	IA
Q2 2021	Night	IA	IA	IA	IA	IA	IA
		<25	<25	IA	<25	<25	IA
		27	<25	IA	33	<25	IA
Q1 2021	Night	IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
		IA	IA	IA	IA	IA	IA
Q4 2020	Night	<20	IA	IA	<20	IA	IA
		IA	<20	<25	IA	<20	<25
		IA	IA	IA	IA	IA	IA
Q3 2020	Night	IA	<20	<25	IA	<20	<25
		27	<25	<20	32	<25	<20
		27	<25	<25	31	<25	<25
Q2 2020	Night	<30	<25	NM	<30	<25	NM
		IA	IA	<05	IA	IA	<20
		30	IA	<25	32	IA	<25
Q1 2020	Night	IA	IA	IA	IA	IA	IA
		<20	IA	IA	<20	IA	IA
		<20	IA	IA	<20	IA	IA
Q4 2019	Night	IA	IA	IA	IA	IA	IA
		<25	IA	IA	30	IA	IA
		IA	IA	IA	IA	IA	IA
Q3 2019	Night	33	<30	IA	42	<30	IA
		IA	NM	NM	IA	NM	NM
		<25	IA	IA	<25	IA	IA

NM – Not measurable
IA – Inaudible

These are results for Austar Kitchener SIS in the absence of all other noise sources.

TABLE APP A-3 NOISE GENERATED BY KIA 2019 - 2025

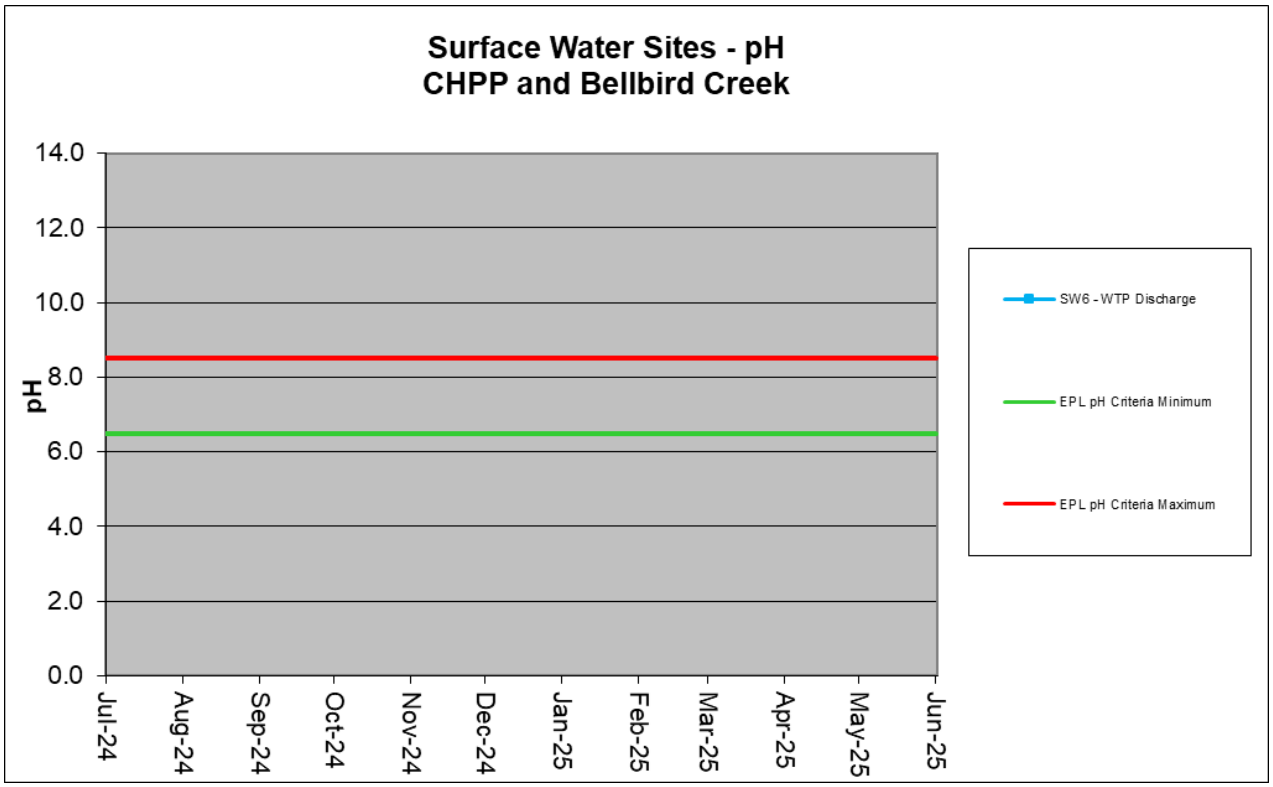
Quarter	Period	Austar KIA Only $L_{Aeq, 15\ min}$ (dB)
		Noise Criteria 35
Q2 2025	Day	IA
		IA
		IA
Q1 2025	Day	IA
		IA
		IA
Q4 2024	Day	IA
		IA
		IA
Q3 2024	Day	IA
		IA
		IA
Q2 2024	Night	IA
		IA
		IA
Q1 2024	Night	IA
		IA
		IA
Q4 2023	Night	IA
		IA
		IA
Q3 2023	Night	IA
		IA
		NM
Q2 2023	Night	IA
		IA
		IA
Q1 2023	Night	IA
		IA
		IA
Q4 2022	Night	<25
		IA
		IA
Q3 2022	Night	IA
		IA
		<20
Q2 2022	Night	<20
		<25
		26
Q1 2022	Night	IA
		<25
		<25
Q4 2021	Night	<20
		<25
		<20
Q3 2021	Night	IA
		31
		IA
Q2 2021	Night	IA
		<25
		29
Q1 2021	Night	<25
		IA
		<20
Q4 2020	Night	22
		25
		<20
Q3 2020	Night	<25
		28
		28
Q2 2020	Night	<30
		<25
		<25
Q1 2020	Night	NM
		<20
		29
Q4 2019	Night	NM
		<20
		NM
Q3 2019	Night	34
		NM

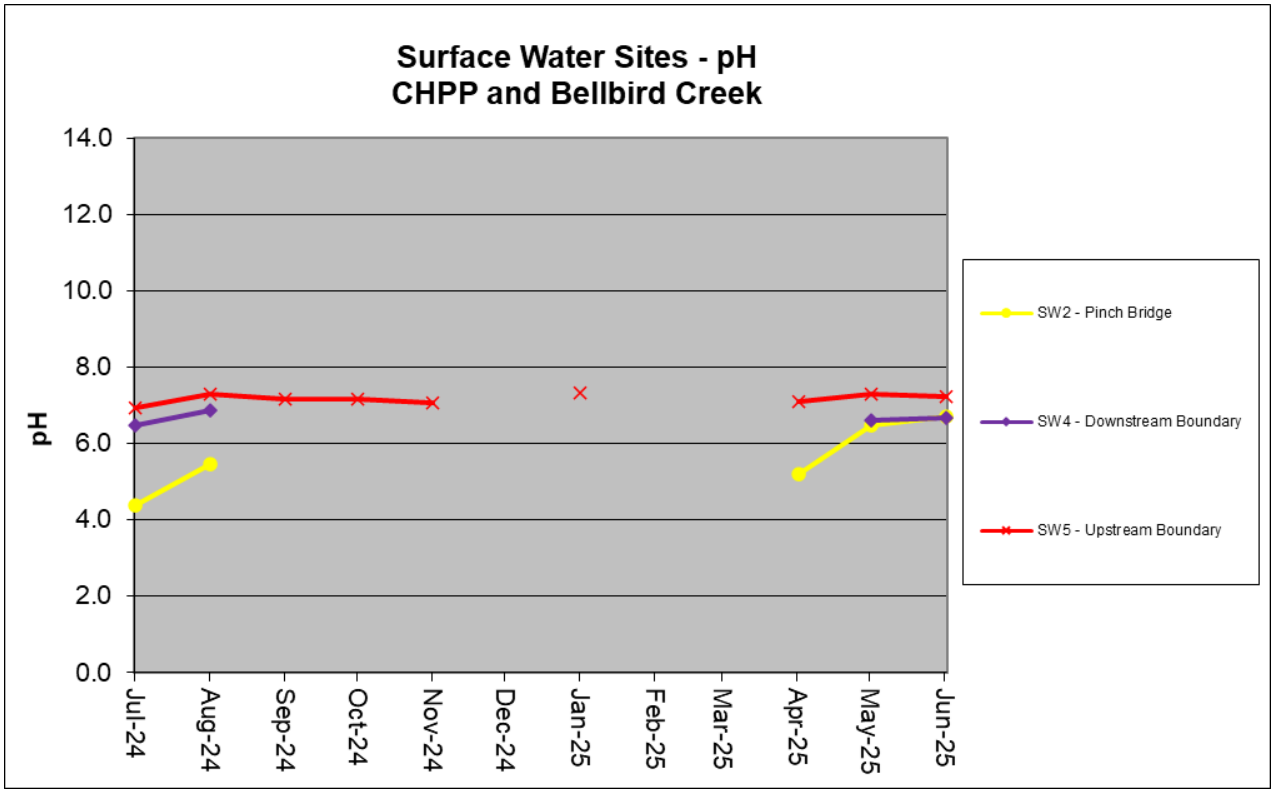
Quarter	Period	Austar KIA Only $L_{Aeq, 15\ min}$ (dB)
		Noise Criteria 35
		25

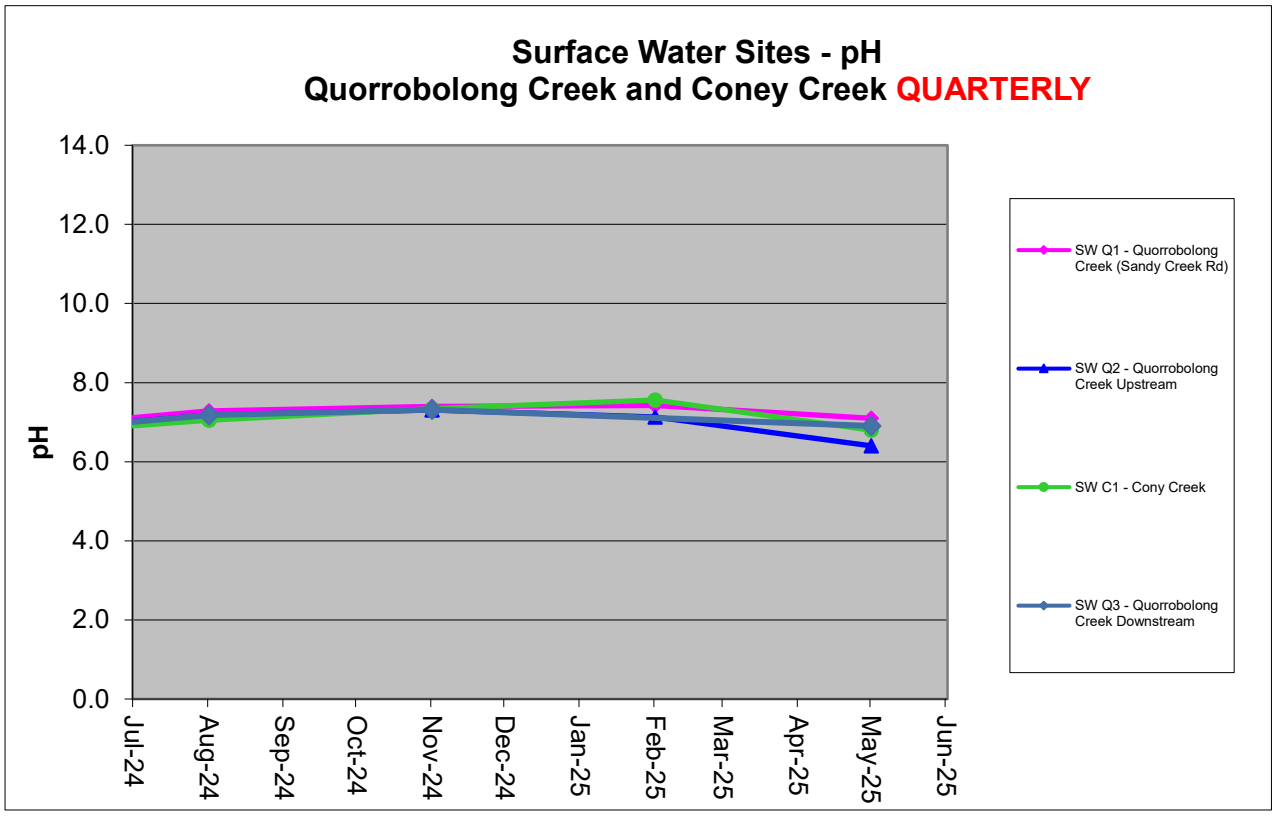
NM – Not measurable
IA – Inaudible
These are results for Austar Kalingo Infrastructure Area in the absence of all other noise sources.

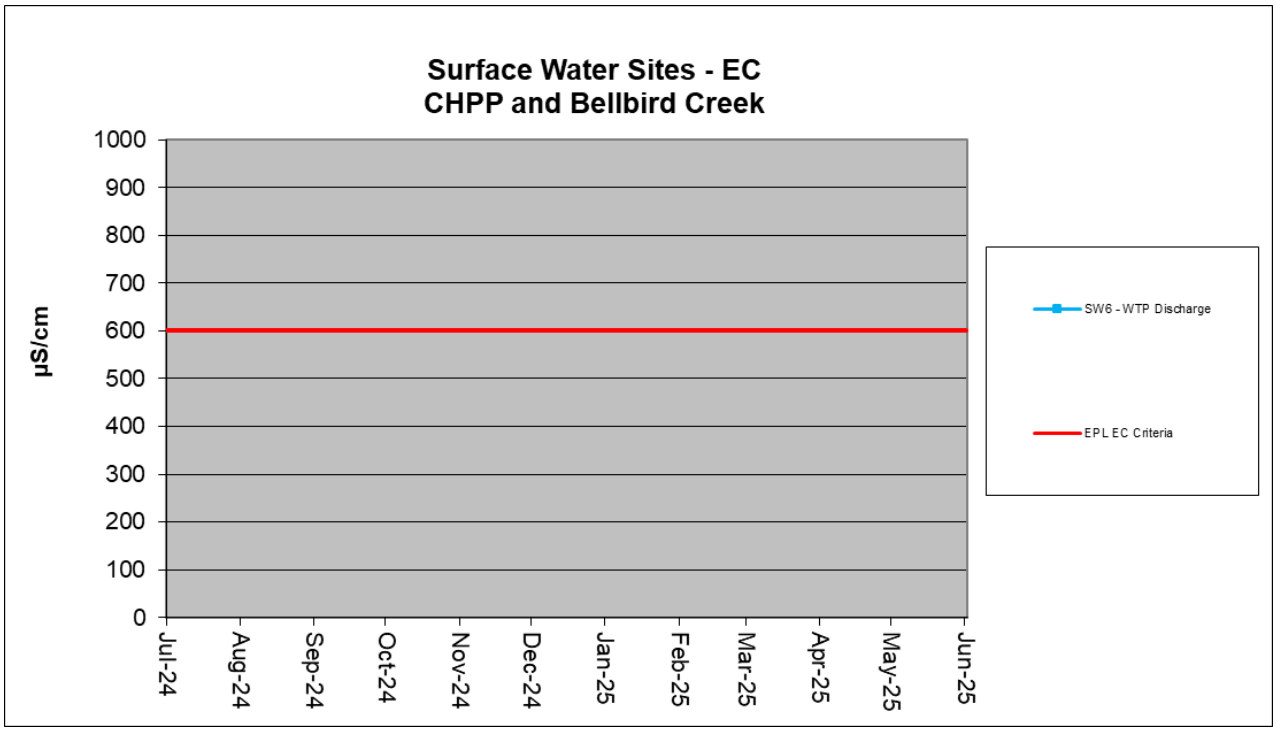
Appendix B. Surface Water Quality Graphs

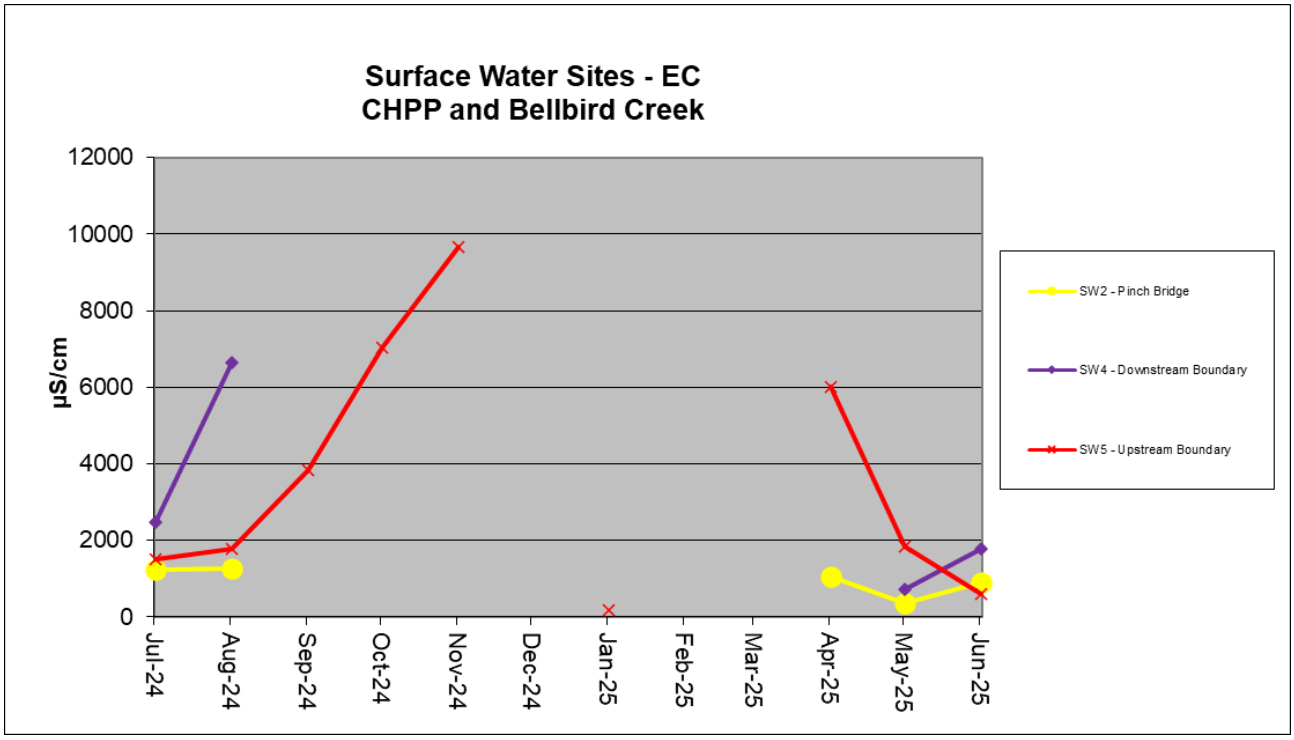
Surface Water Graphs, 2024 – 2025

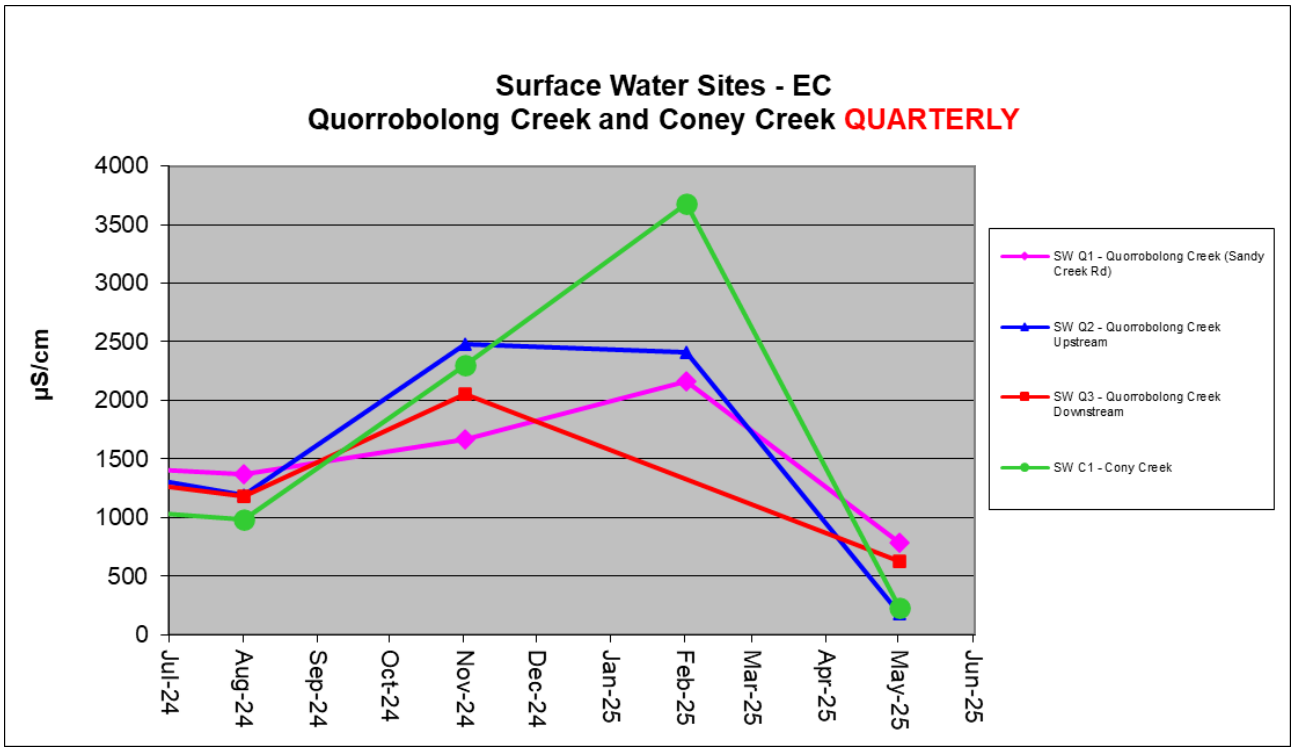


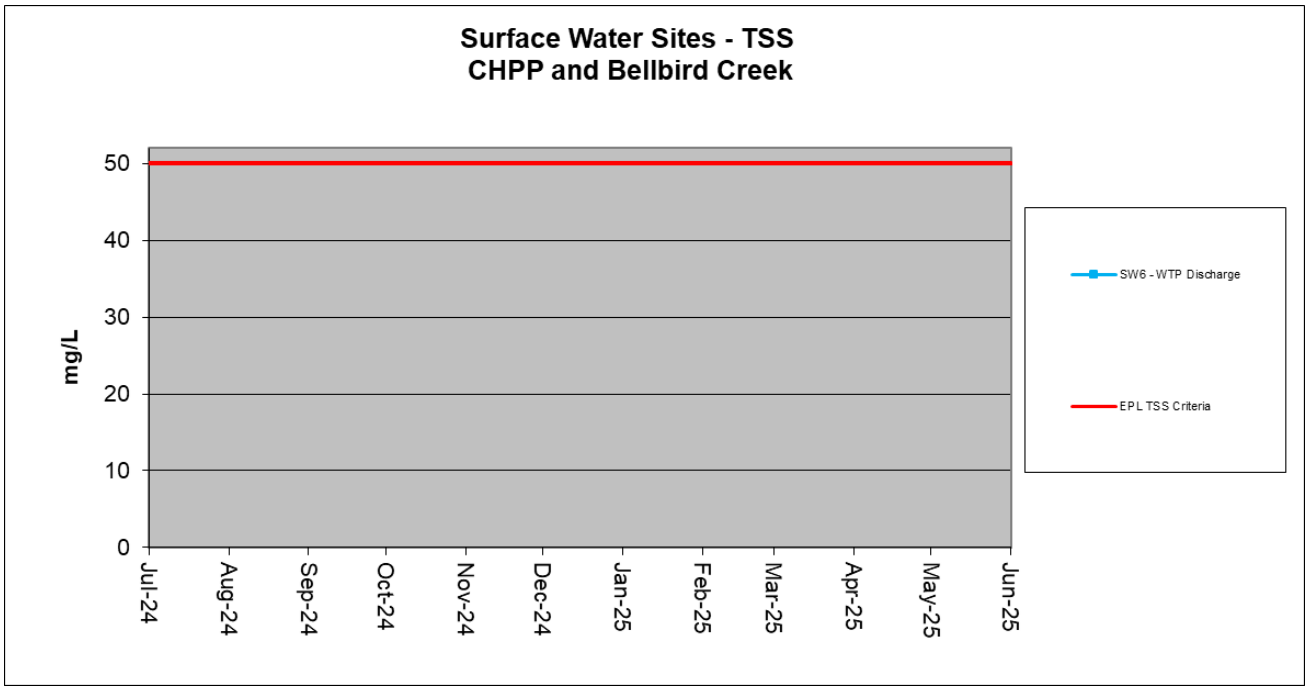


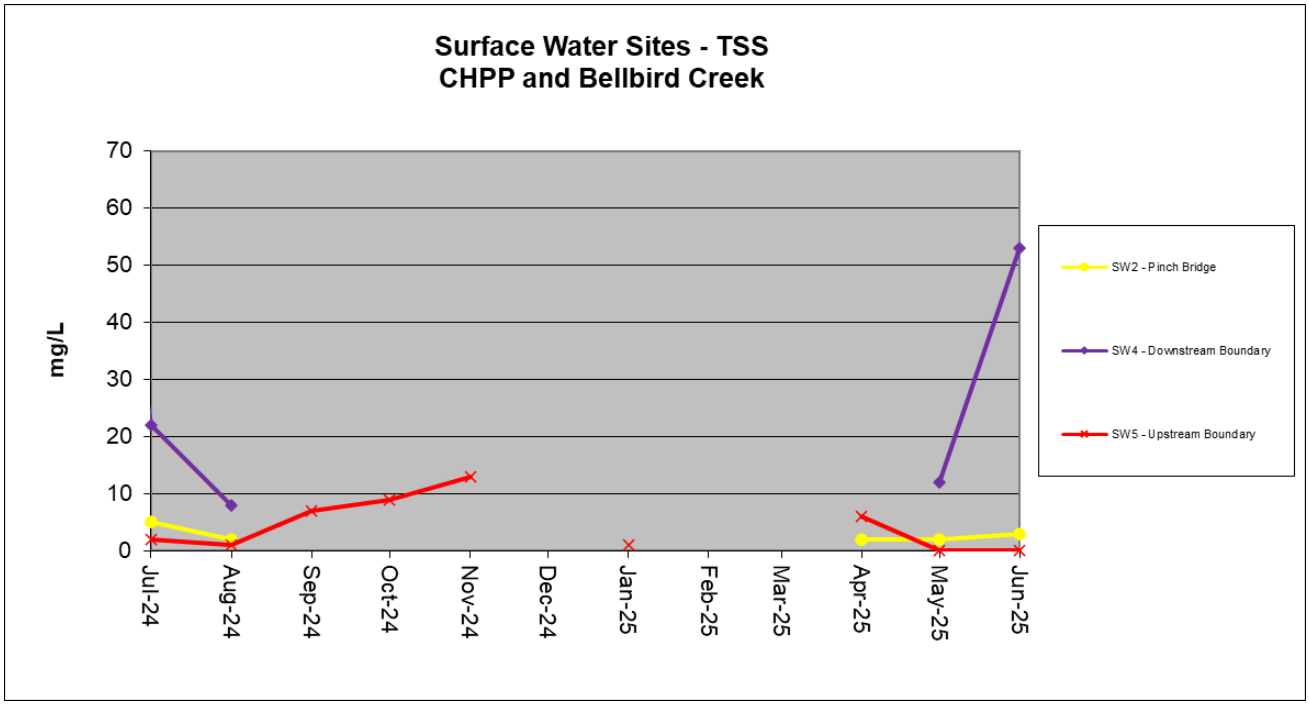

Surface Water Sites - pH
Quorrobolong Creek and Coney Creek QUARTERLY
pH
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW C1 - Cony Creek
SW Q3 - Quorrobolong Creek Downstream

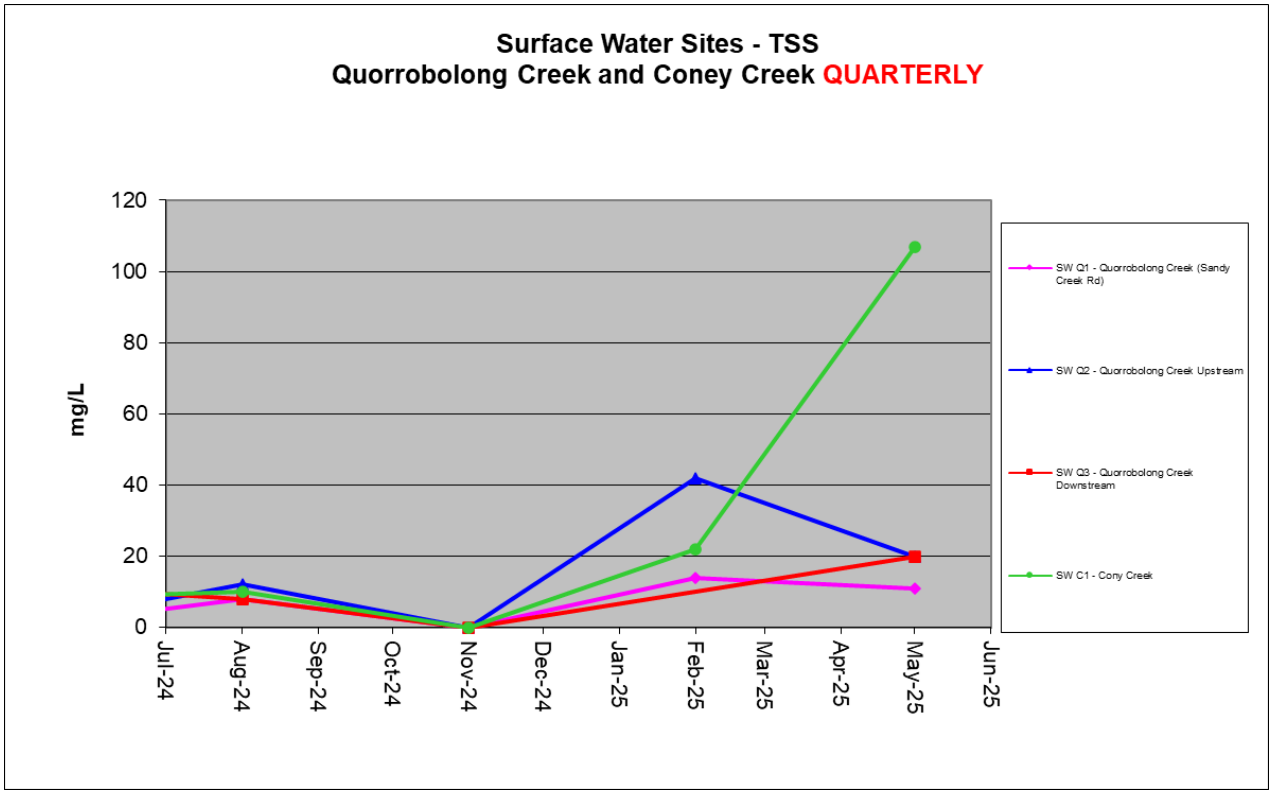

Surface Water Sites - EC
CHPP and Bellbird Creek
µS/cm
1000
900
800
700
600
500
400
300
200
100
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW6 - WTP Discharge
EPL EC Criteria

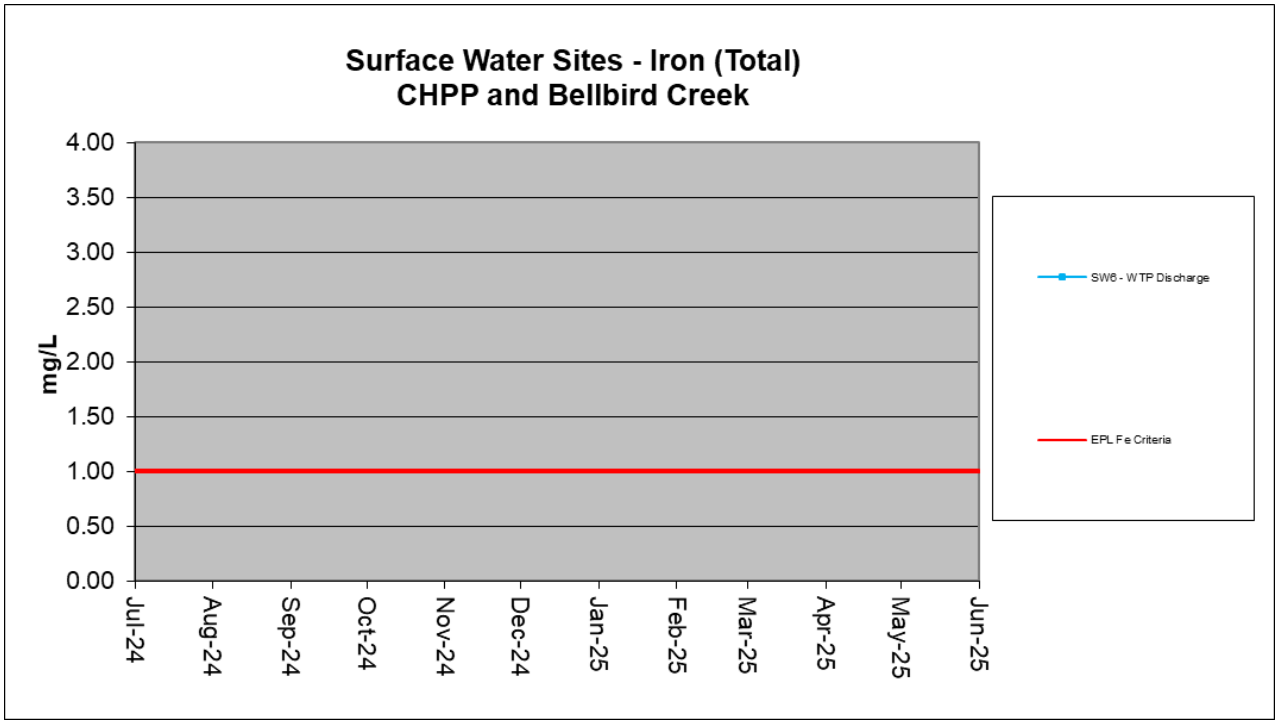

Surface Water Sites - EC
CHPP and Bellbird Creek
µS/cm
12000
10000
8000
6000
4000
2000
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary

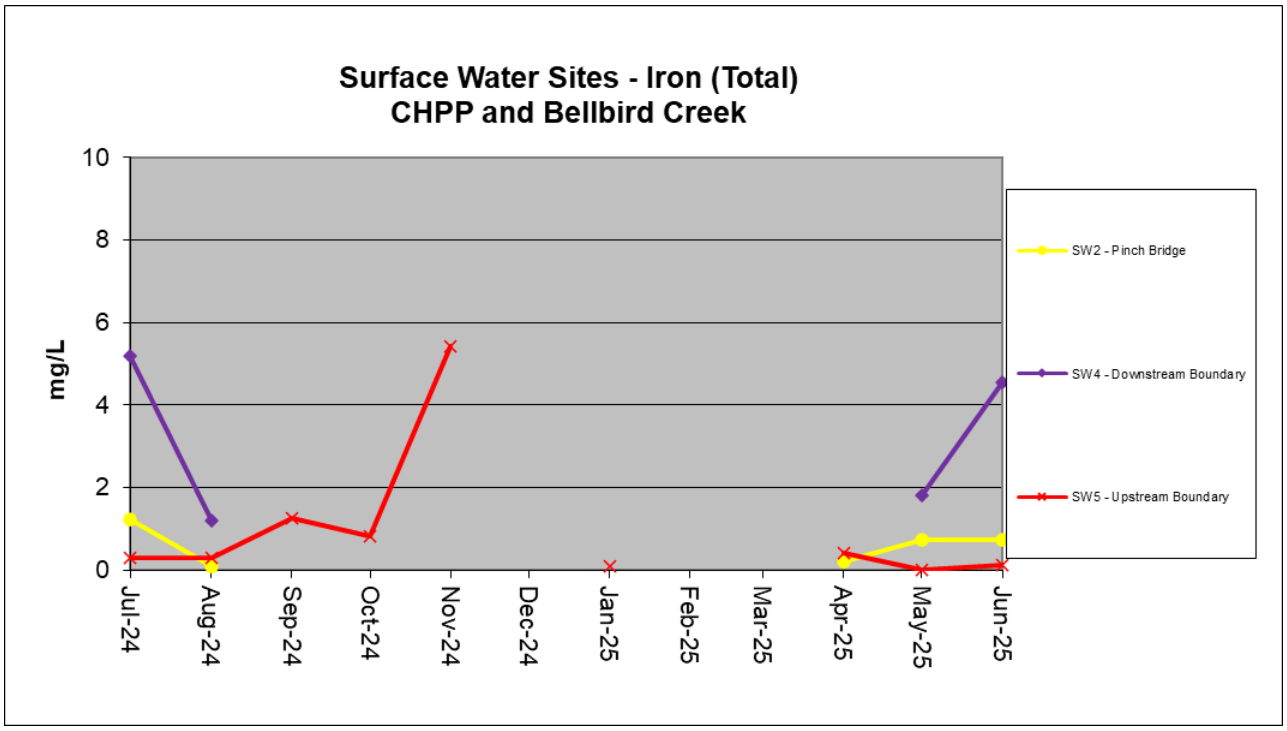

Surface Water Sites - EC
Quorrobolong Creek and Coney Creek QUARTERLY
µS/cm
4000
3500
3000
2500
2000
1500
1000
500
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek

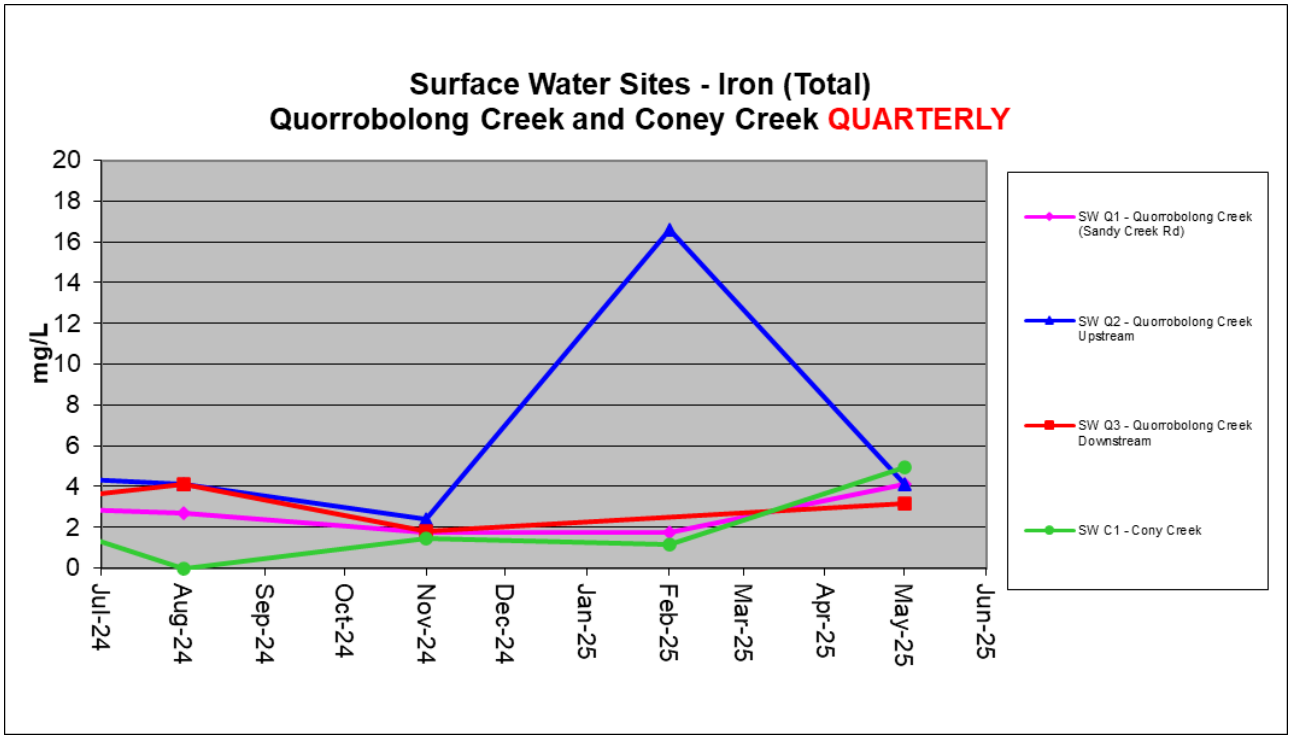

Surface Water Sites - TSS
CHPP and Bellbird Creek
mg/L
50
40
30
20
10
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW6 - WTP Discharge
EPL TSS Criteria


Surface Water Sites - TSS
CHPP and Bellbird Creek
mg/L
70
60
50
40
30
20
10
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary

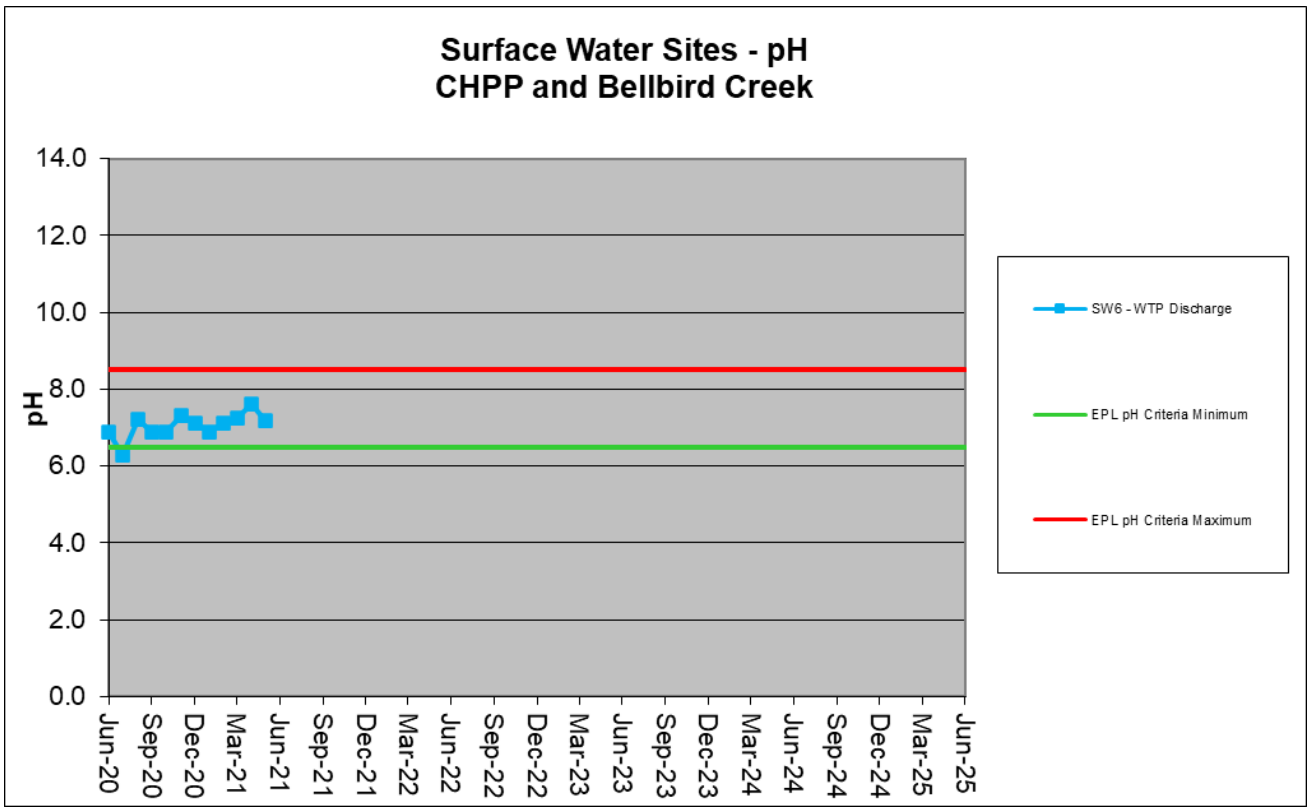

Surface Water Sites - TSS
Quorrobolong Creek and Coney Creek QUARTERLY
mg/L
120
100
80
60
40
20
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek

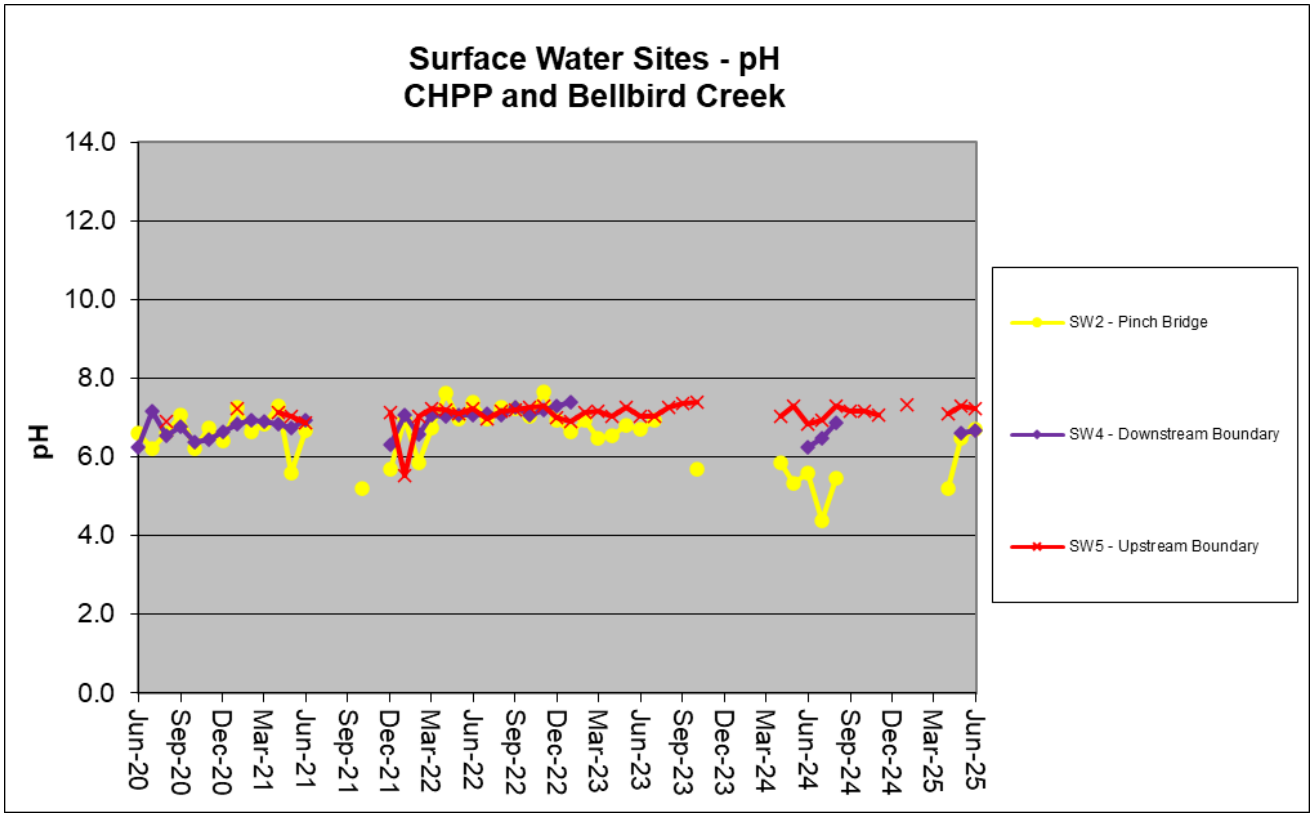

Surface Water Sites - Iron (Total)
CHPP and Bellbird Creek
mg/L
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW6 - WTP Discharge
EPL Fe Criteria

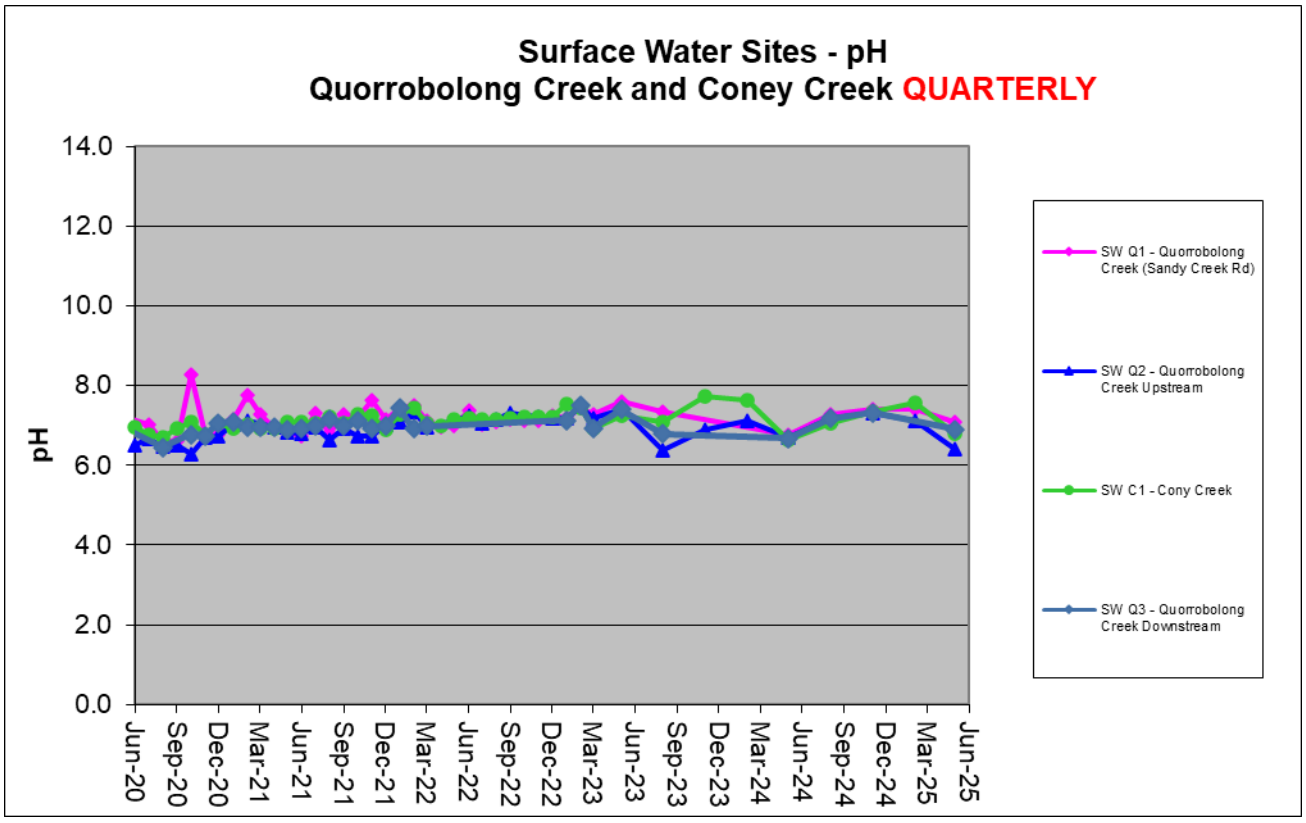

Surface Water Sites - Iron (Total)
CHPP and Bellbird Creek
mg/L
10
8
6
4
2
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary

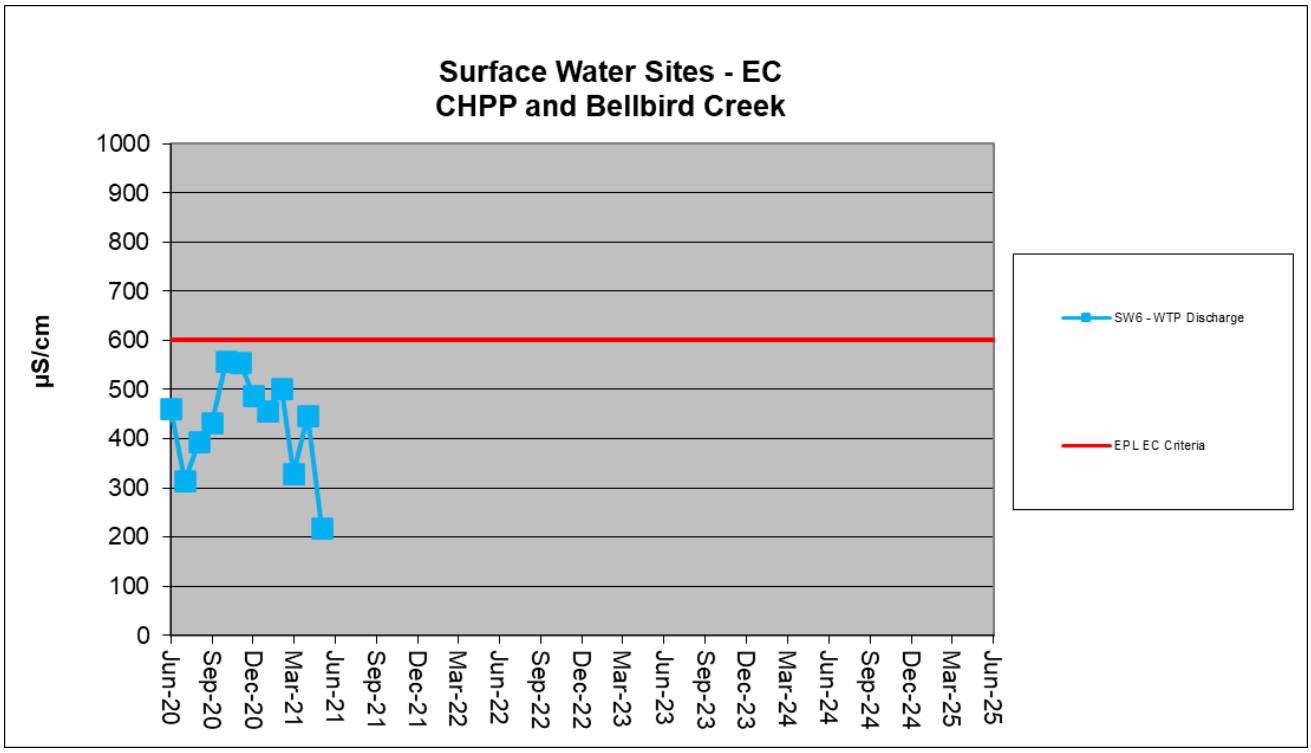

Surface Water Sites - Iron (Total)
Quorrobolong Creek and Coney Creek QUARTERLY
mg/L
20
18
16
14
12
10
8
6
4
2
0
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek

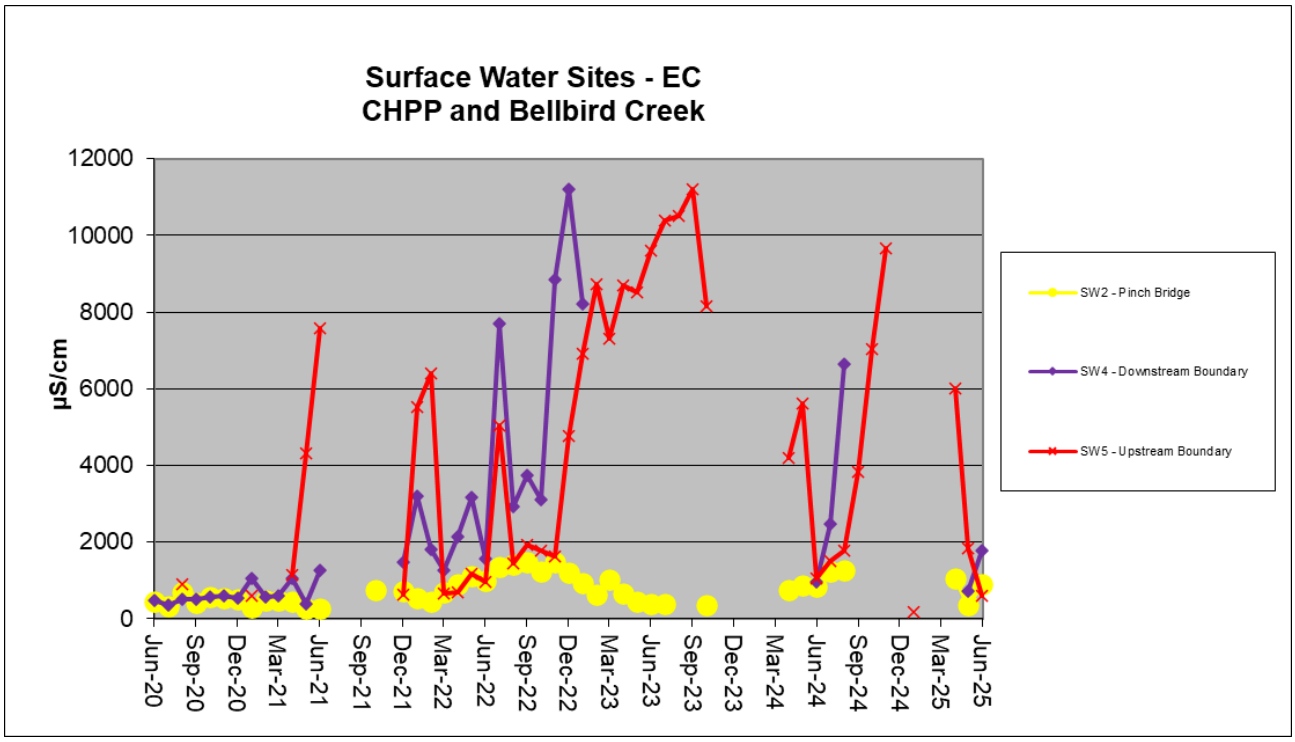
Long Term Surface Water Graphs 2020-2025

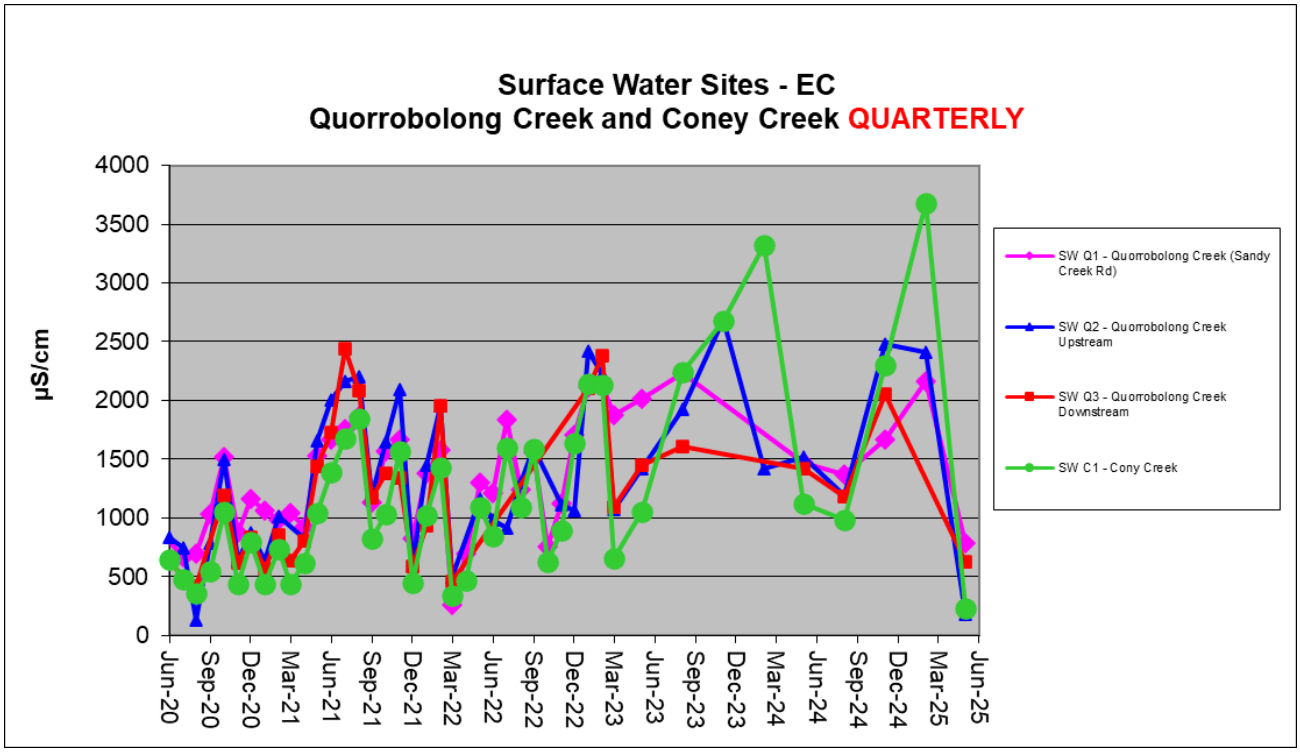


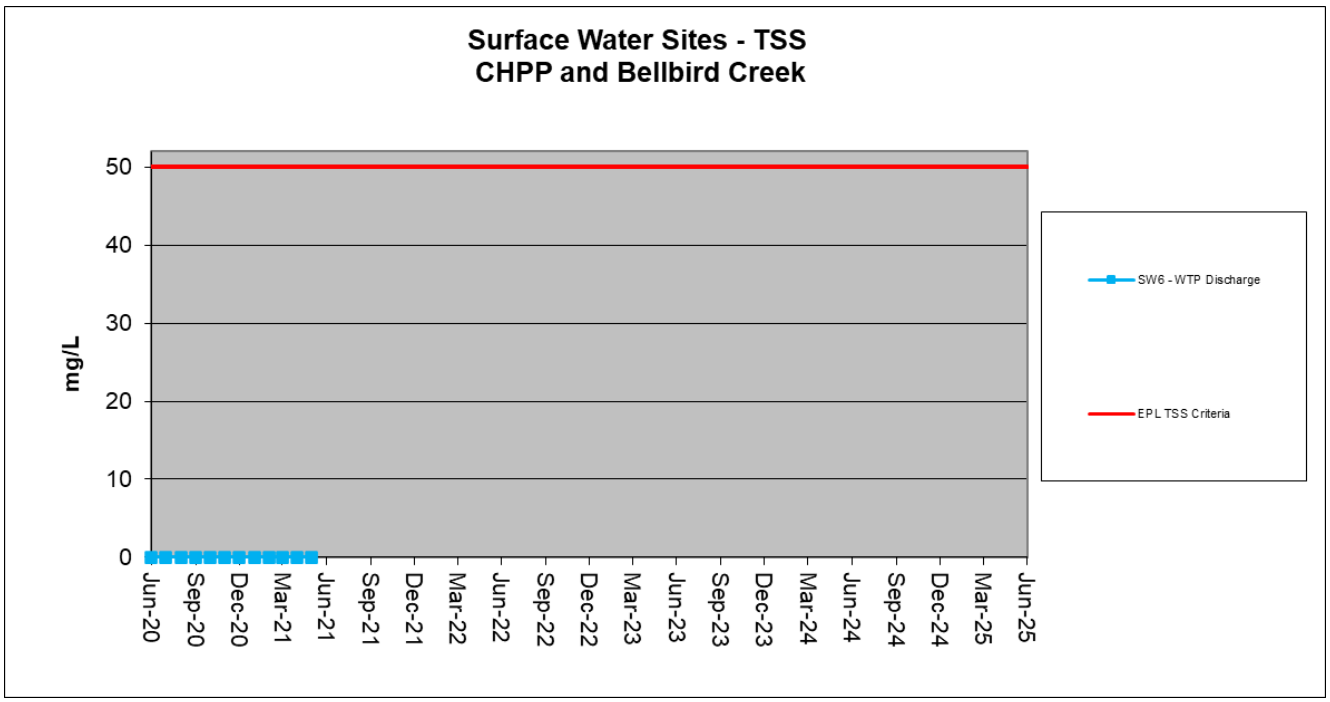

Surface Water Sites - pH
CHPP and Bellbird Creek
pH
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary

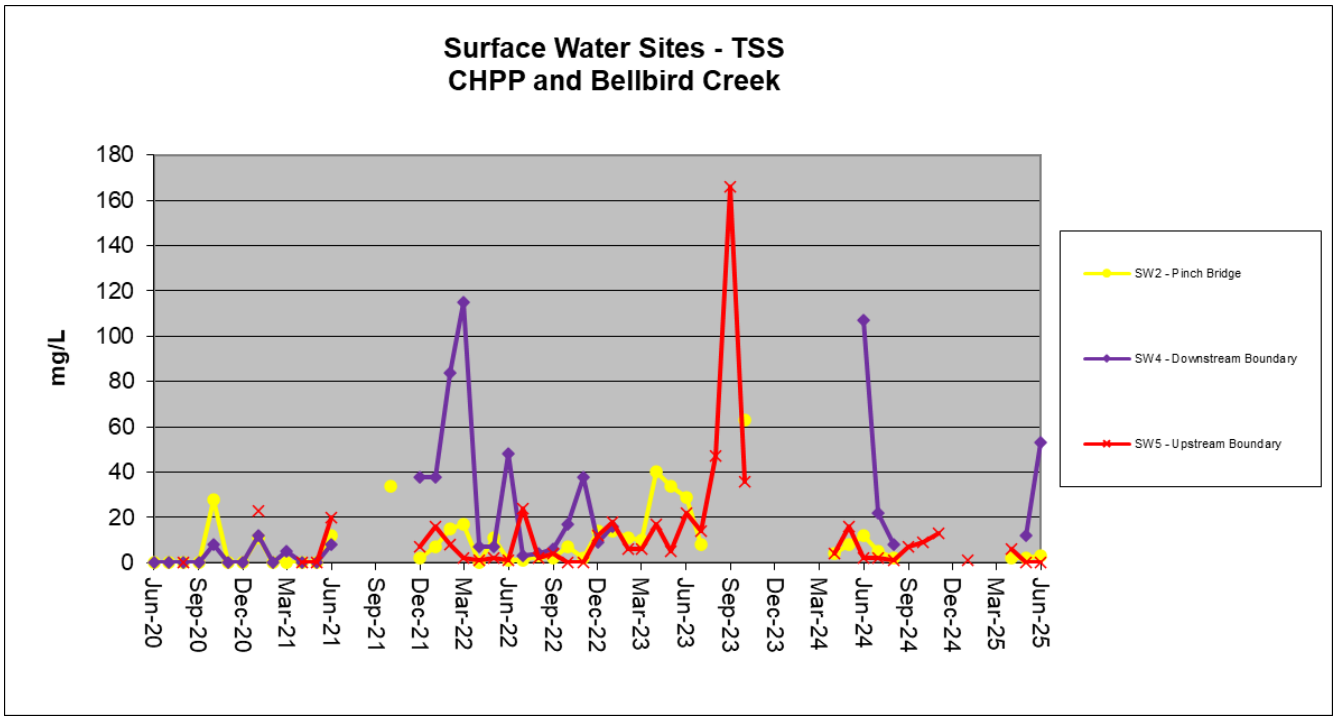

Surface Water Sites - pH
Quorrobolong Creek and Coney Creek QUARTERLY
pH
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW C1 - Cony Creek
SW Q3 - Quorrobolong Creek Downstream

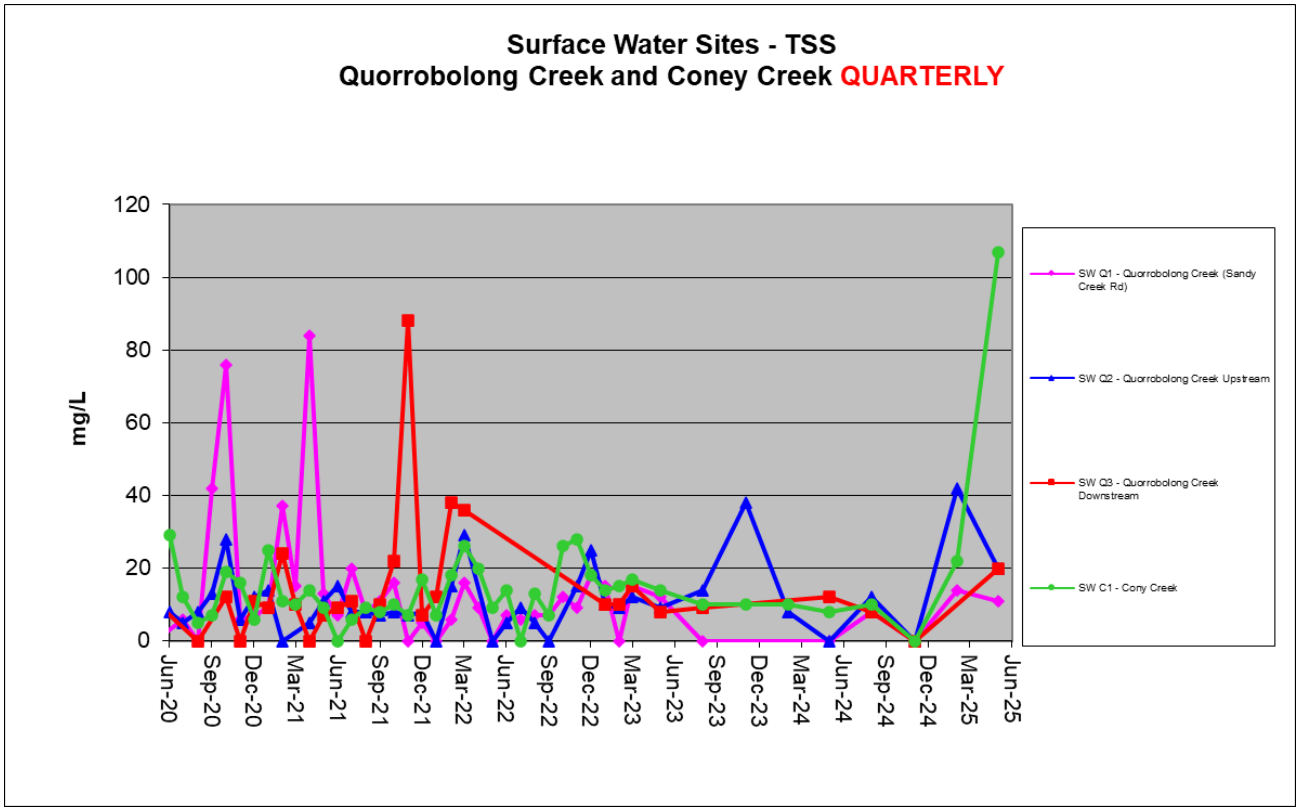

Surface Water Sites - EC
CHPP and Bellbird Creek
µS/cm
1000
900
800
700
600
500
400
300
200
100
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW6 - WTP Discharge
EPL EC Criteria

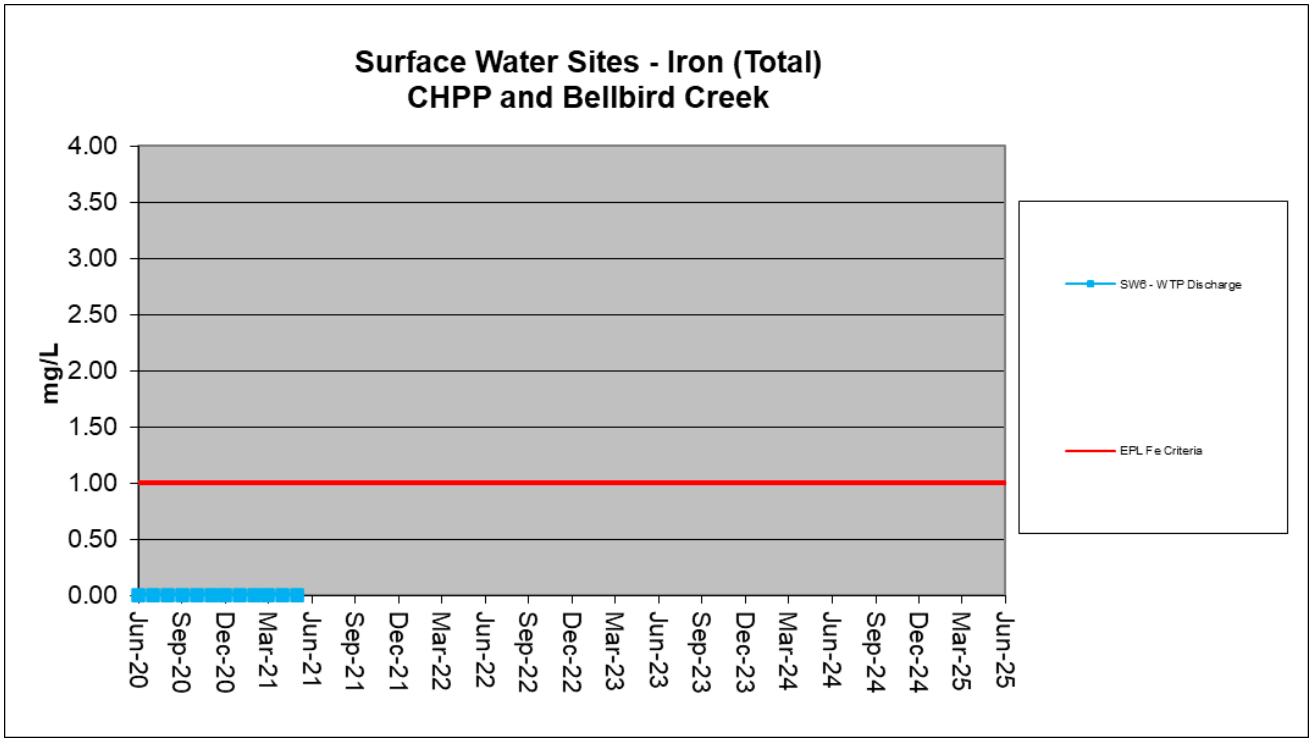

Surface Water Sites - EC
CHPP and Bellbird Creek
µS/cm
12000
10000
8000
6000
4000
2000
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary

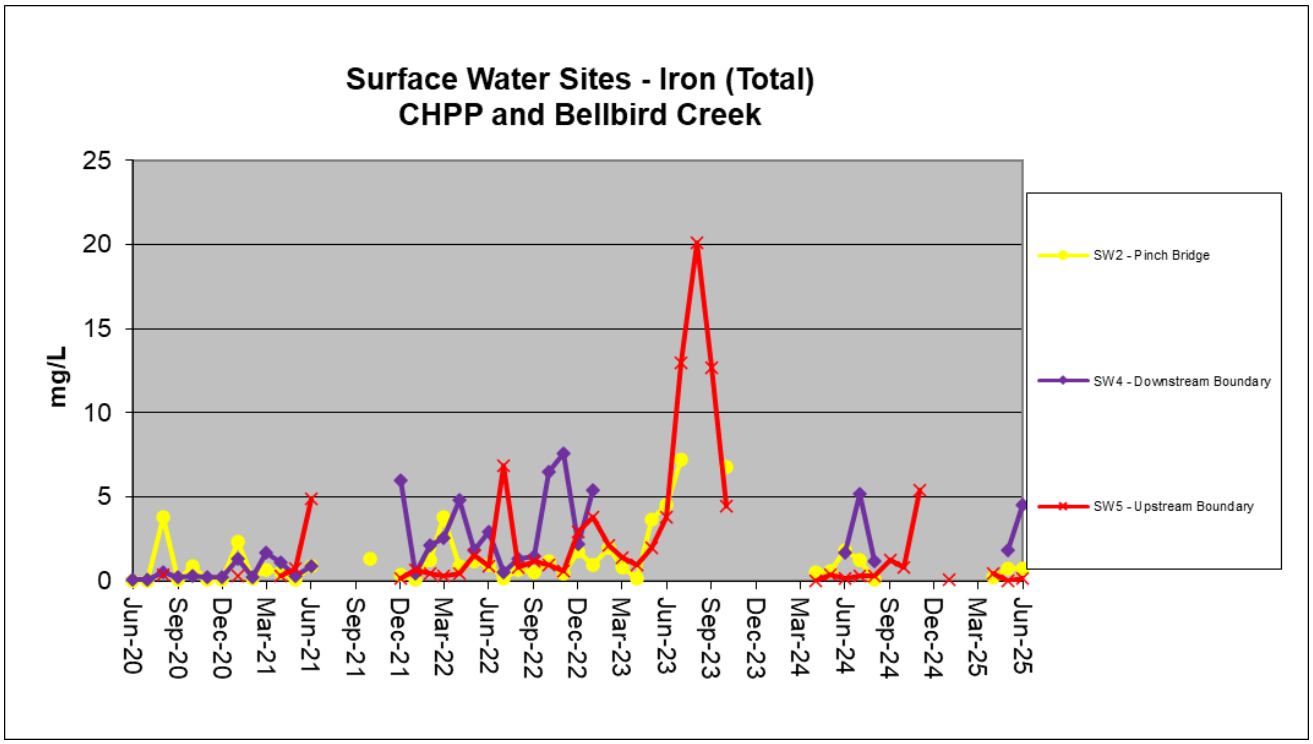

Surface Water Sites - EC
Quorrobolong Creek and Coney Creek QUARTERLY
µS/cm
4000
3500
3000
2500
2000
1500
1000
500
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek

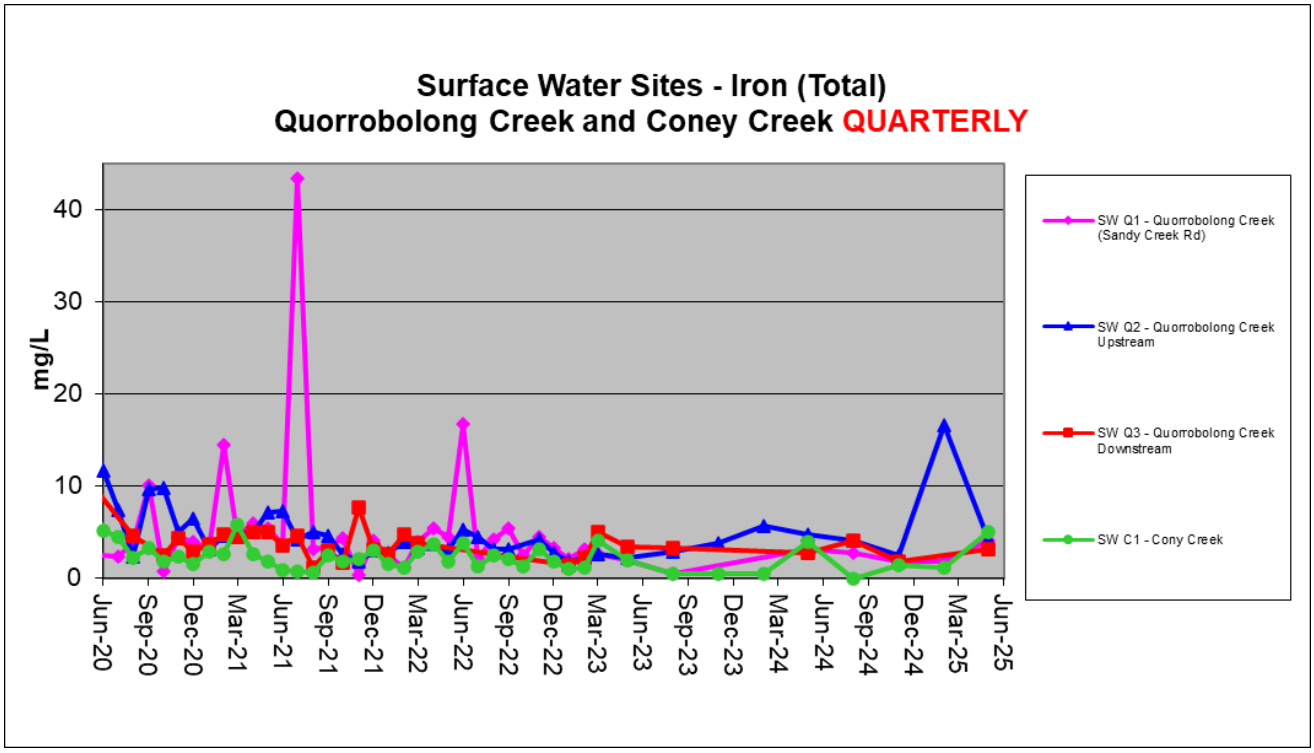

Surface Water Sites - TSS
CHPP and Bellbird Creek
mg/L
50
40
30
20
10
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW6 - WTP Discharge
EPL TSS Criteria


Surface Water Sites - TSS
CHPP and Bellbird Creek
mg/L
180
160
140
120
100
80
60
40
20
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary


Surface Water Sites - TSS
Quorrobolong Creek and Coney Creek QUARTERLY
mg/L
120
100
80
60
40
20
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek


Surface Water Sites - Iron (Total)
CHPP and Bellbird Creek
mg/L
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW6 - WTP Discharge
EPL Fe Criteria


Surface Water Sites - Iron (Total)
CHPP and Bellbird Creek
mg/L
25
20
15
10
5
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW2 - Pinch Bridge
SW4 - Downstream Boundary
SW5 - Upstream Boundary


Surface Water Sites - Iron (Total)
Quorrobolong Creek and Coney Creek QUARTERLY
mg/L
40
30
20
10
0
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
SW Q1 - Quorrobolong Creek (Sandy Creek Rd)
SW Q2 - Quorrobolong Creek Upstream
SW Q3 - Quorrobolong Creek Downstream
SW C1 - Cony Creek

Appendix C. Groundwater Level and Quality Graphs

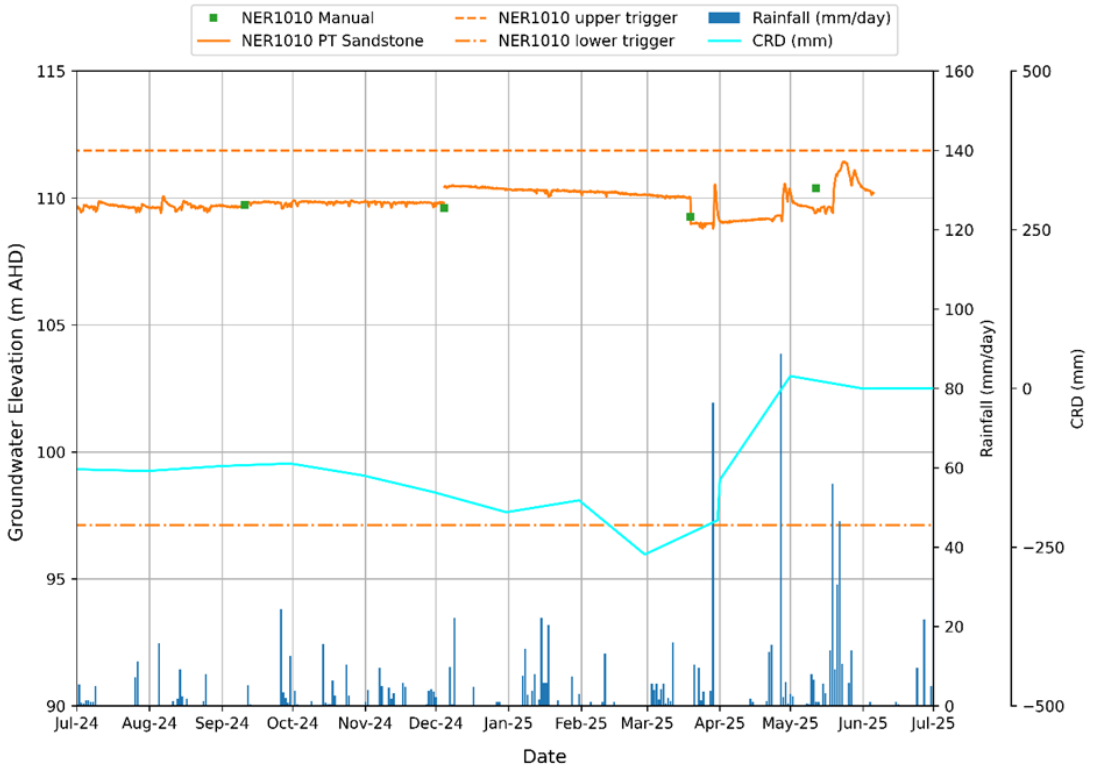


FIGURE APP C-1 NER1010 GROUNDWATER LEVEL HYDROGRAPHS

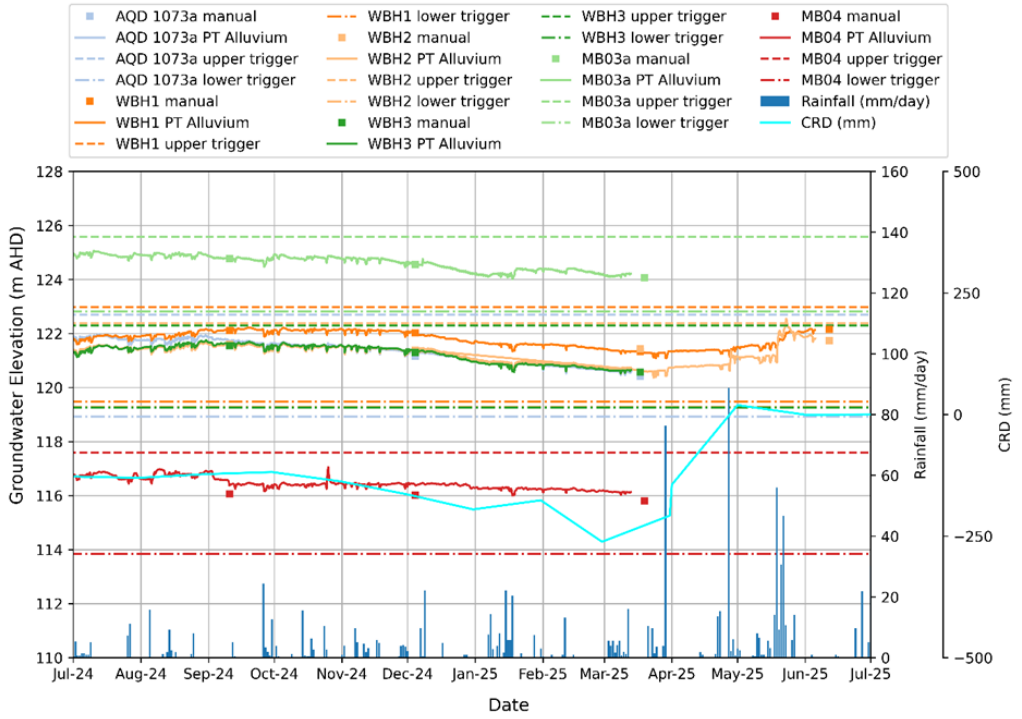


FIGURE APP C-2 STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND WATERNSW GROUNDWATER LEVEL HYDROGRAPHS

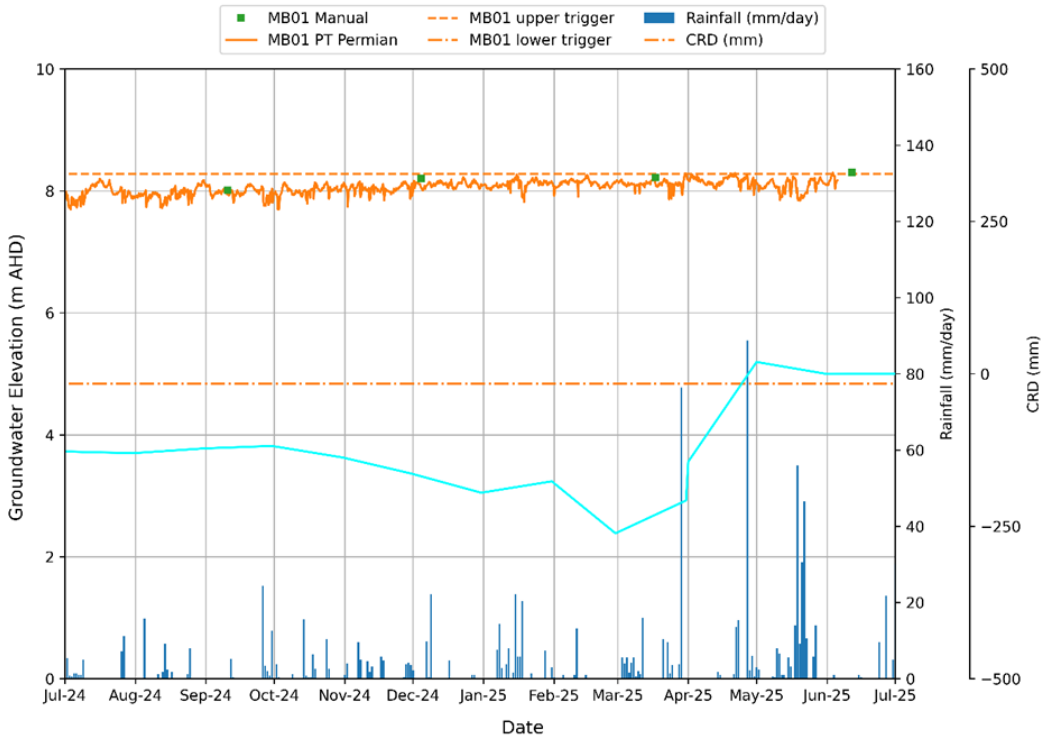


FIGURE APP C-3 STAGE 3 MB01 SANDSTONE AQUIFER GROUNDWATER LEVEL HYDROGRAPH

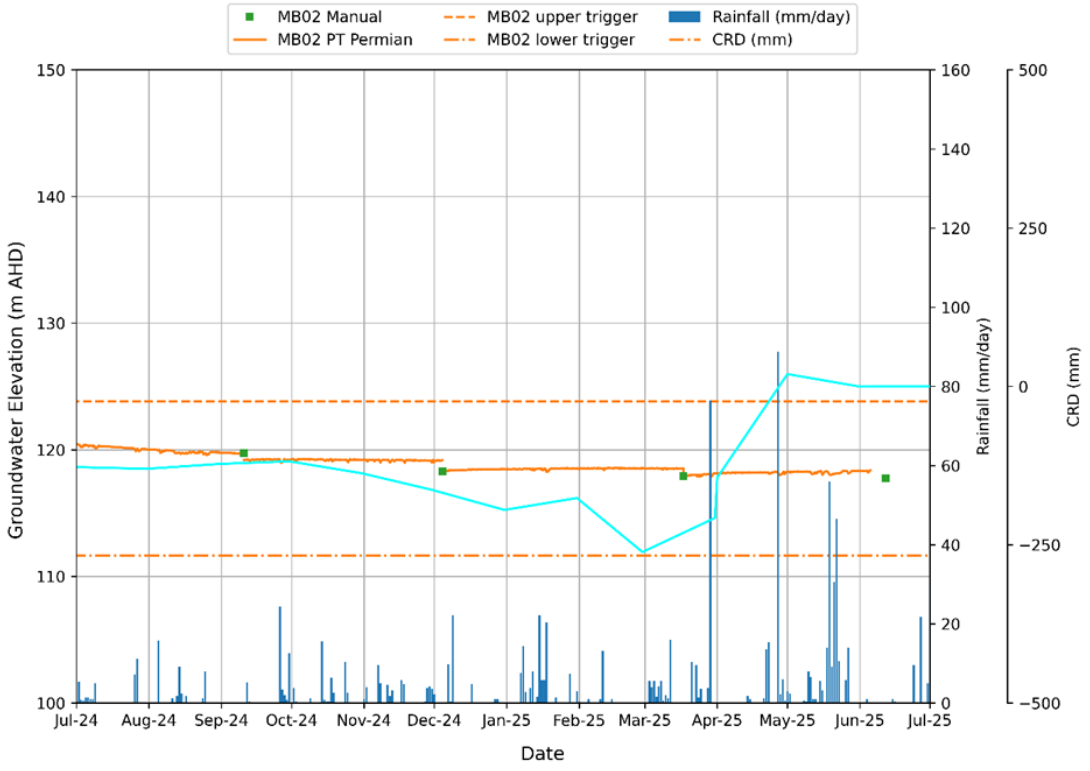


FIGURE APP C-4 STAGE 3 MB02 SANDSTONE AQUIFER GROUNDWATER LEVEL HYDROGRAPH

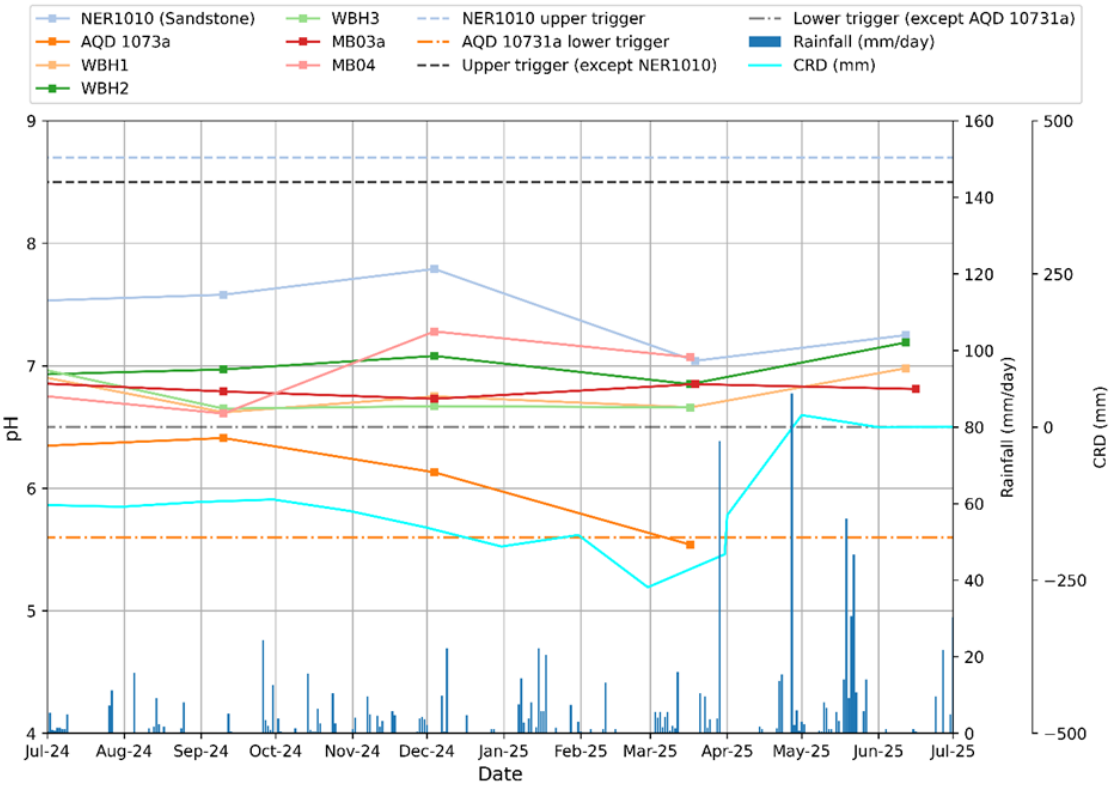


FIGURE APP C-7 STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND SANDSTONE AQUIFER PH TRENDS

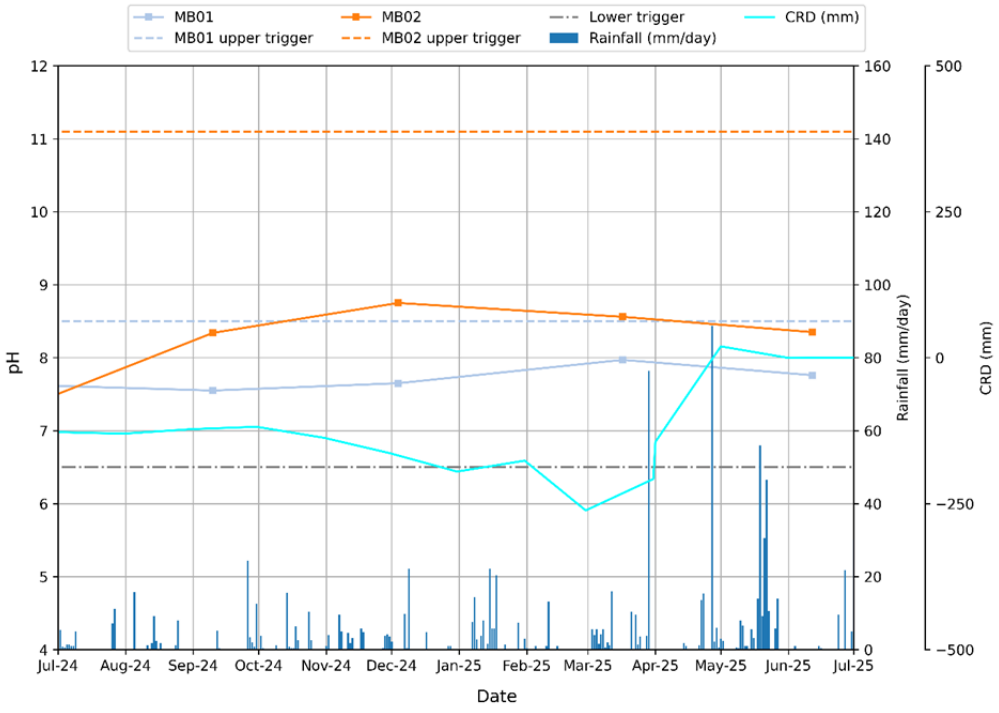


FIGURE APP C-8 STAGE 3 SANDSTONE AQUIFER PH TRENDS

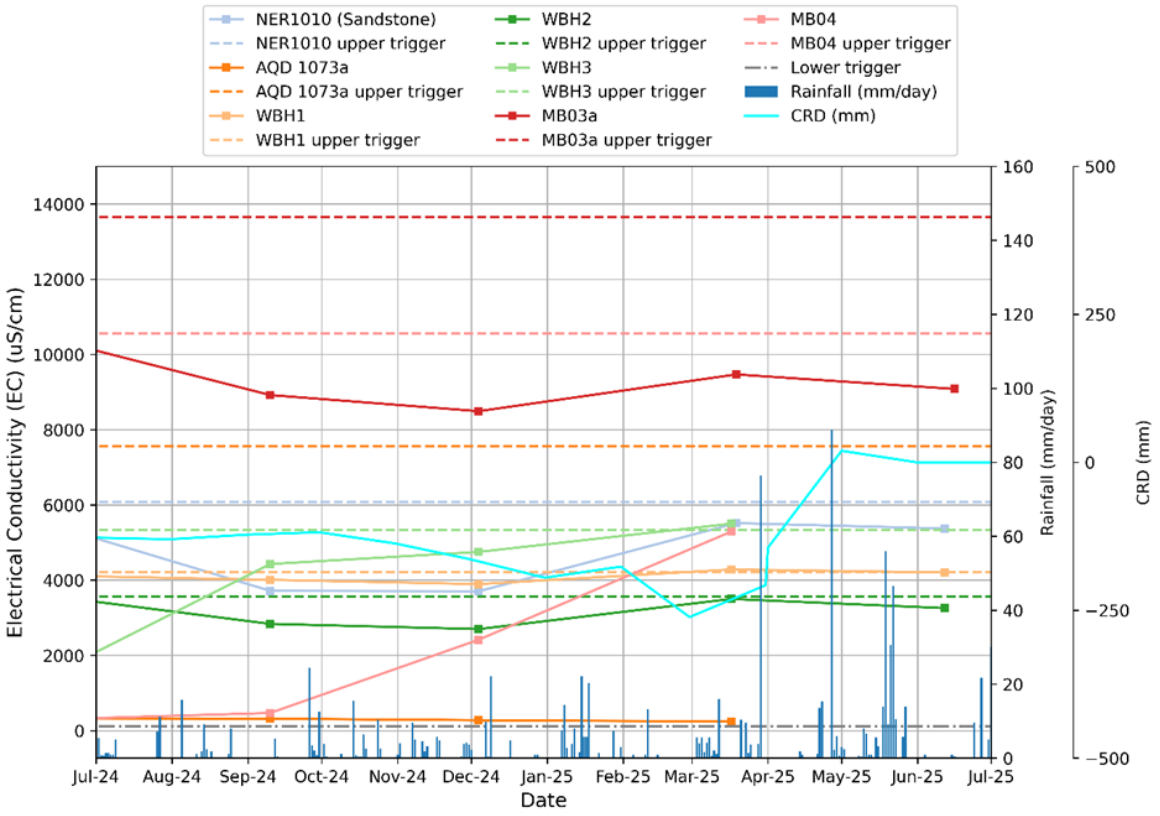


FIGURE APP C-9 STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND SANDSTONE AQUIFER EC TRENDS

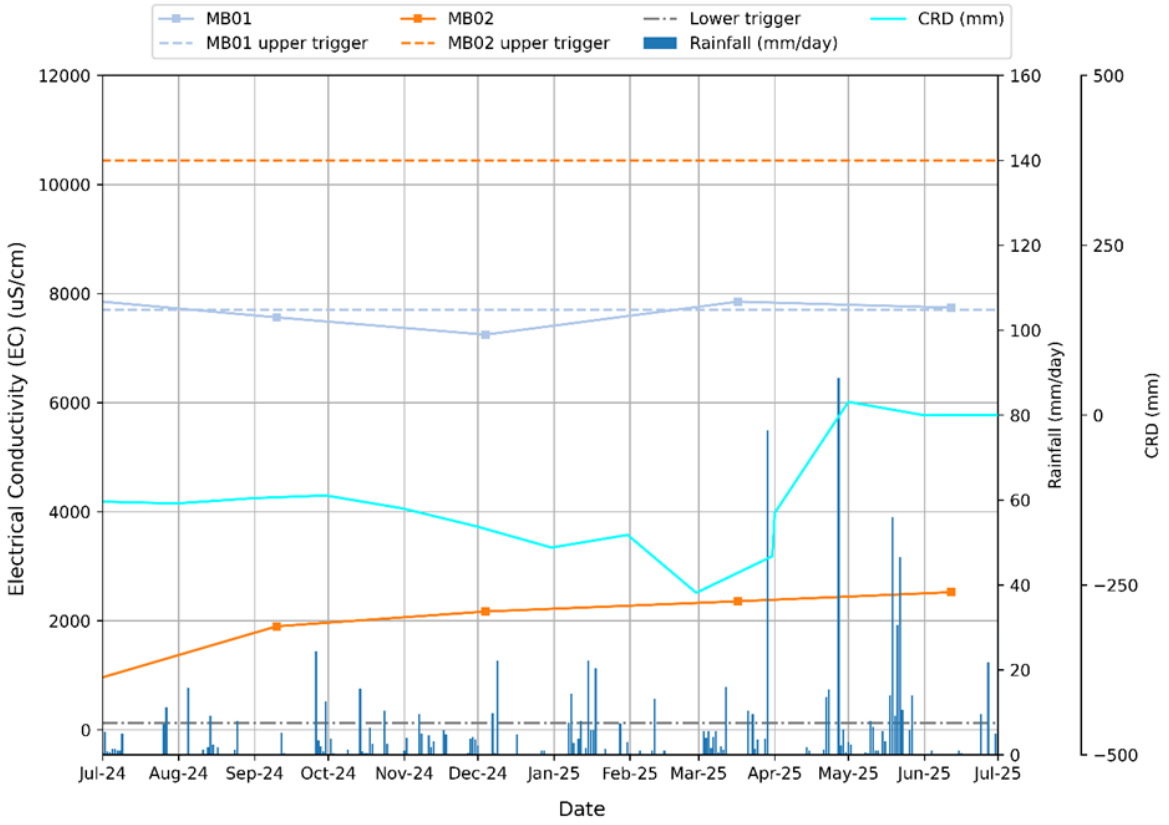


FIGURE APP C-10 STAGE 3 SANDSTONE AQUIFER EC TRENDS

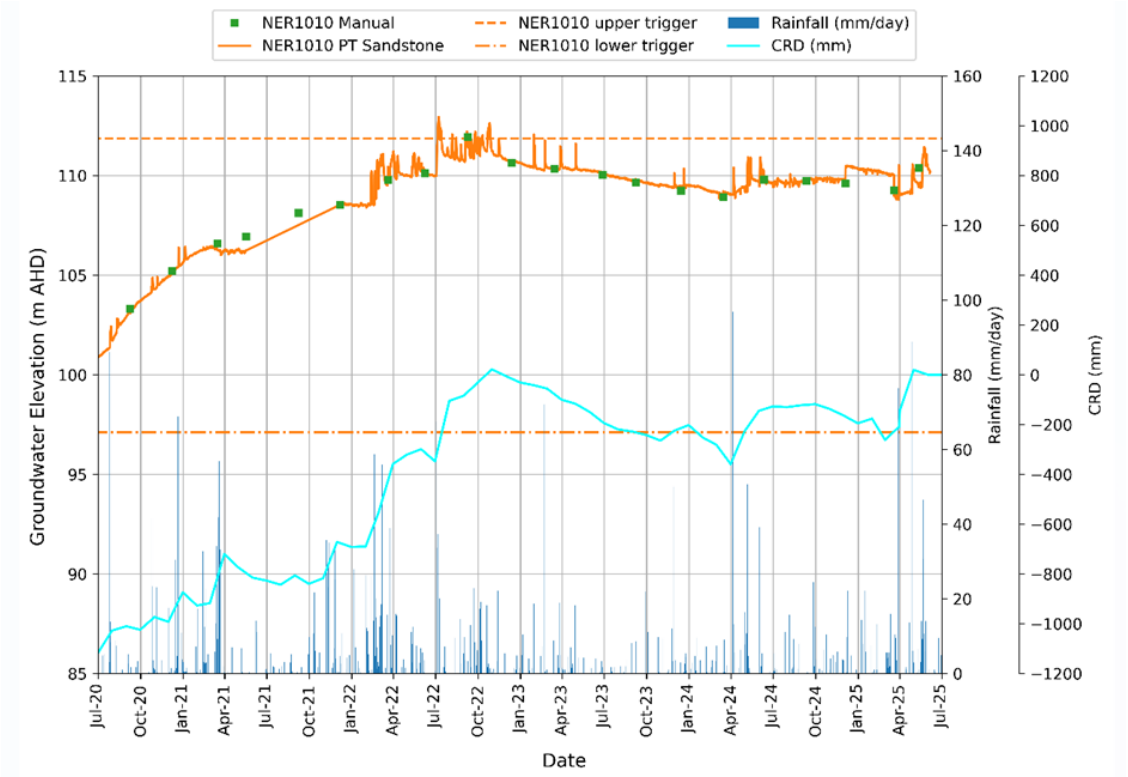


FIGURE APP C-11 5-YEAR NER1010 GROUNDWATER LEVEL HYDROGRAPH

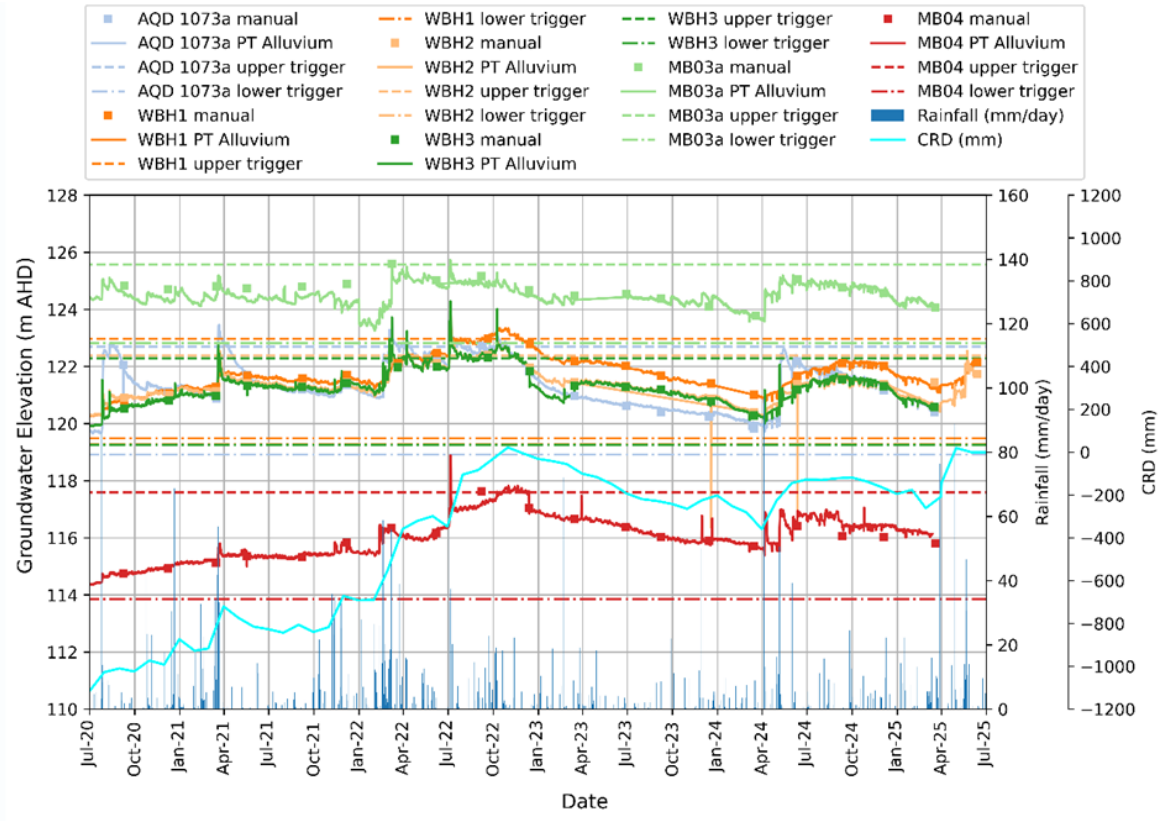


FIGURE APP C-12 5-YEAR STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND WATERNSW GROUNDWATER LEVEL HYDROGRAPHS

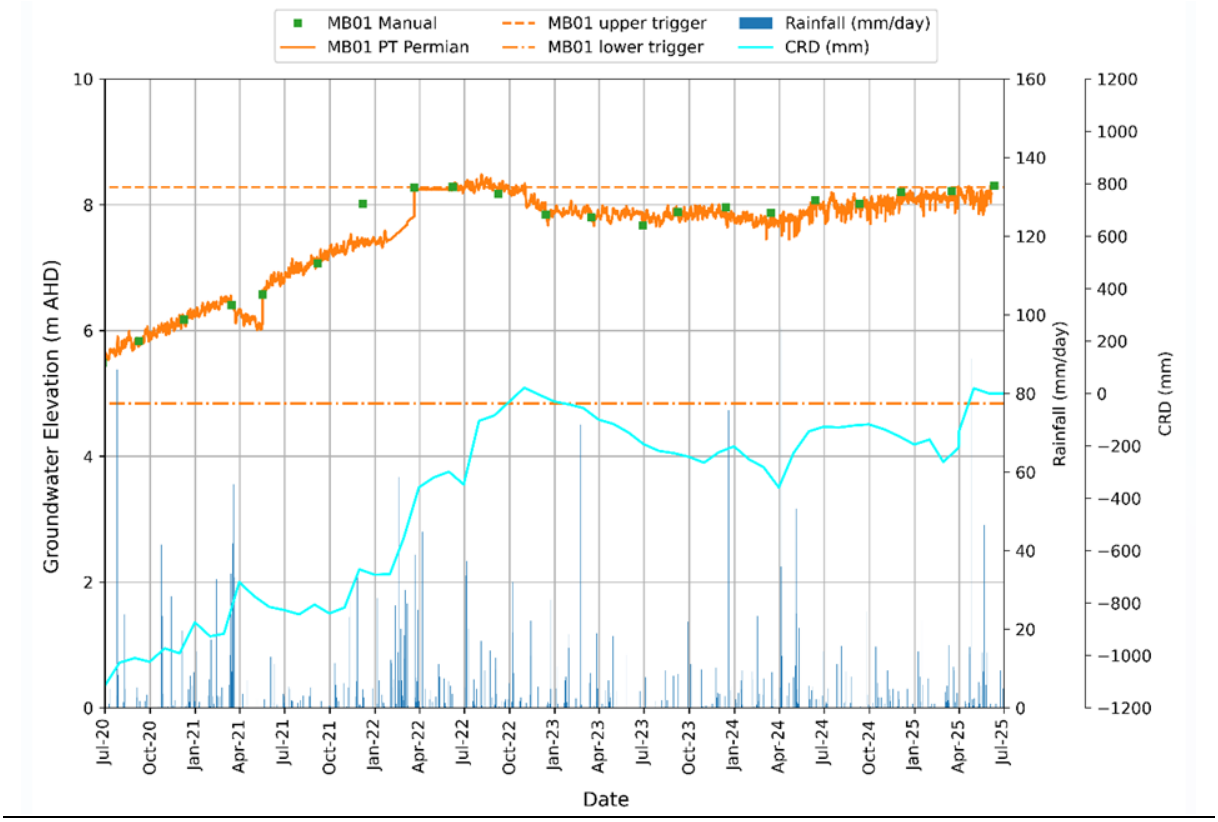


FIGURE APP C-13 5-YEAR STAGE 3 MB01 SANDSTONE AQUIFER GROUNDWATER LEVEL HYDROGRAPH

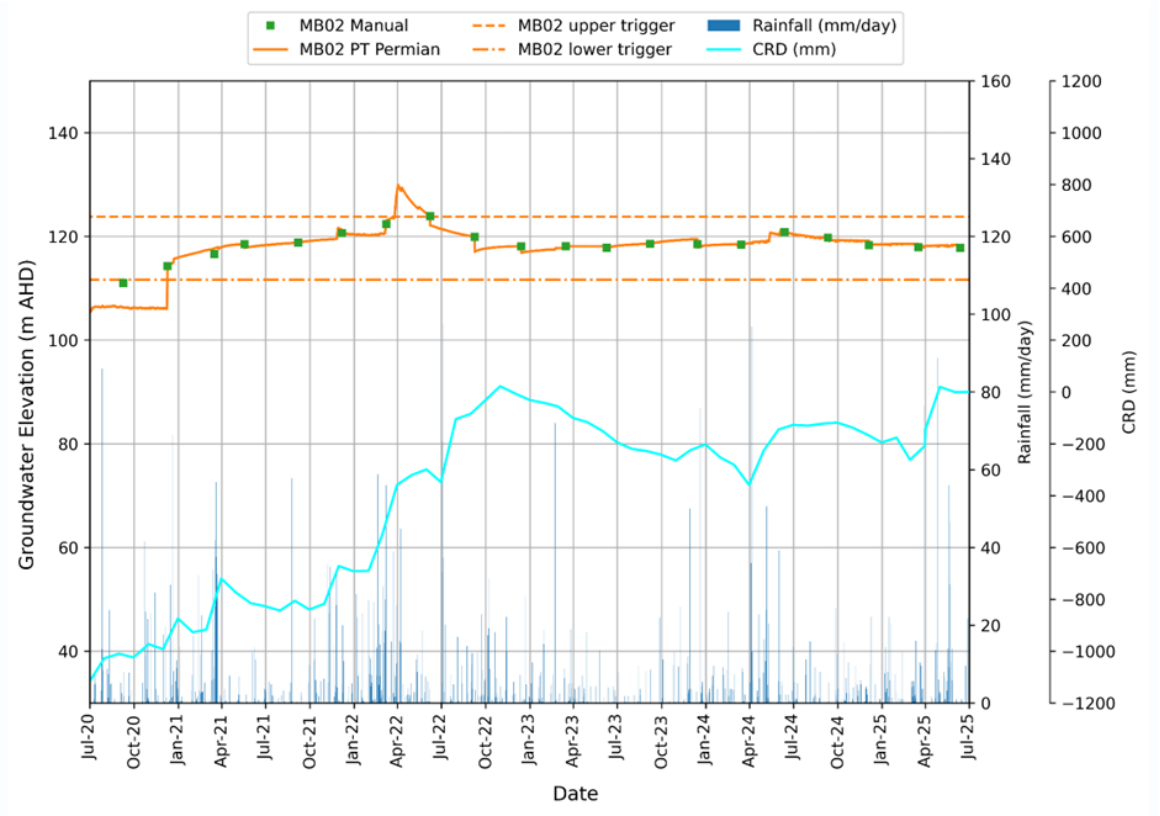


FIGURE APP C-14 5-YEAR STAGE 3 MB02 SANDSTONE AQUIFER GROUNDWATER LEVEL HYDROGRAPH

RS

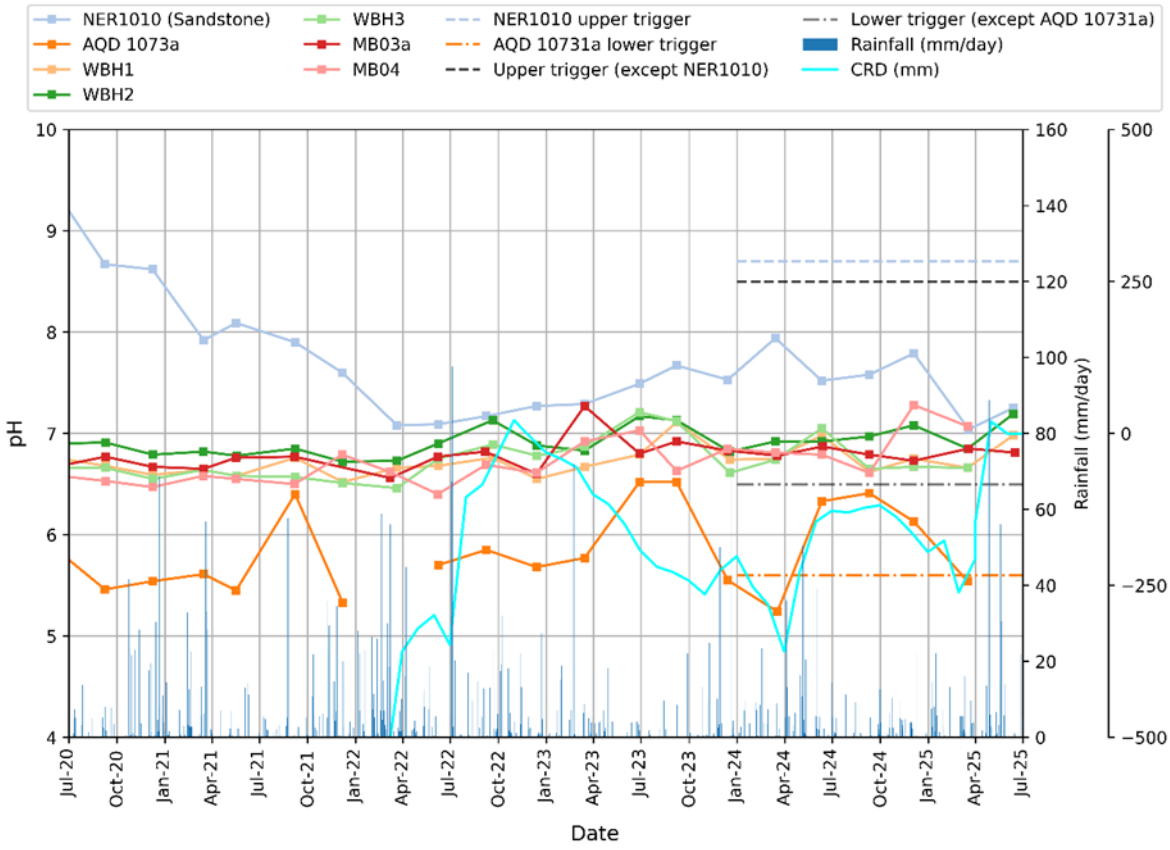


FIGURE APP C-17 **5-YEAR STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND SANDSTONE AQUIFER PH TRENDS**

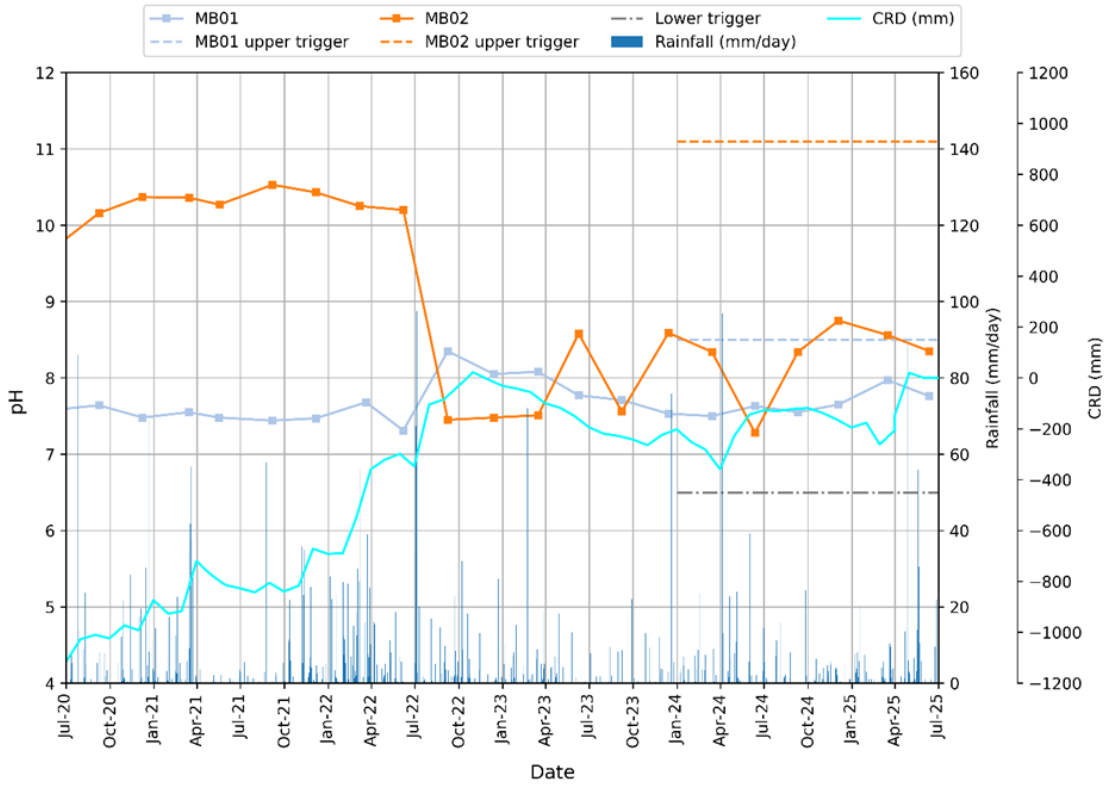


FIGURE APP C-18 **5-YEAR STAGE 3 SANDSTONE AQUIFER PH TRENDS**

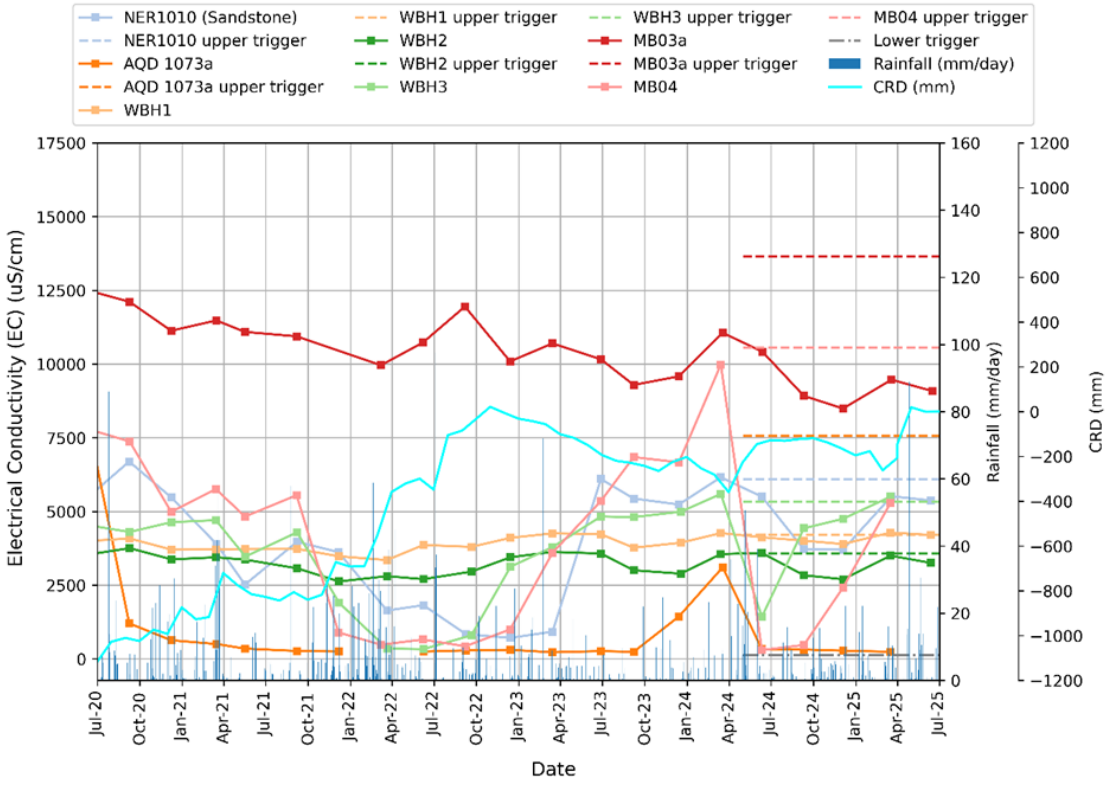


FIGURE APP C-19 **5-YEAR STAGE 2 AND BELLBIRD SOUTH ALLUVIUM AND SANDSTONE AQUIFER EC TRENDS**

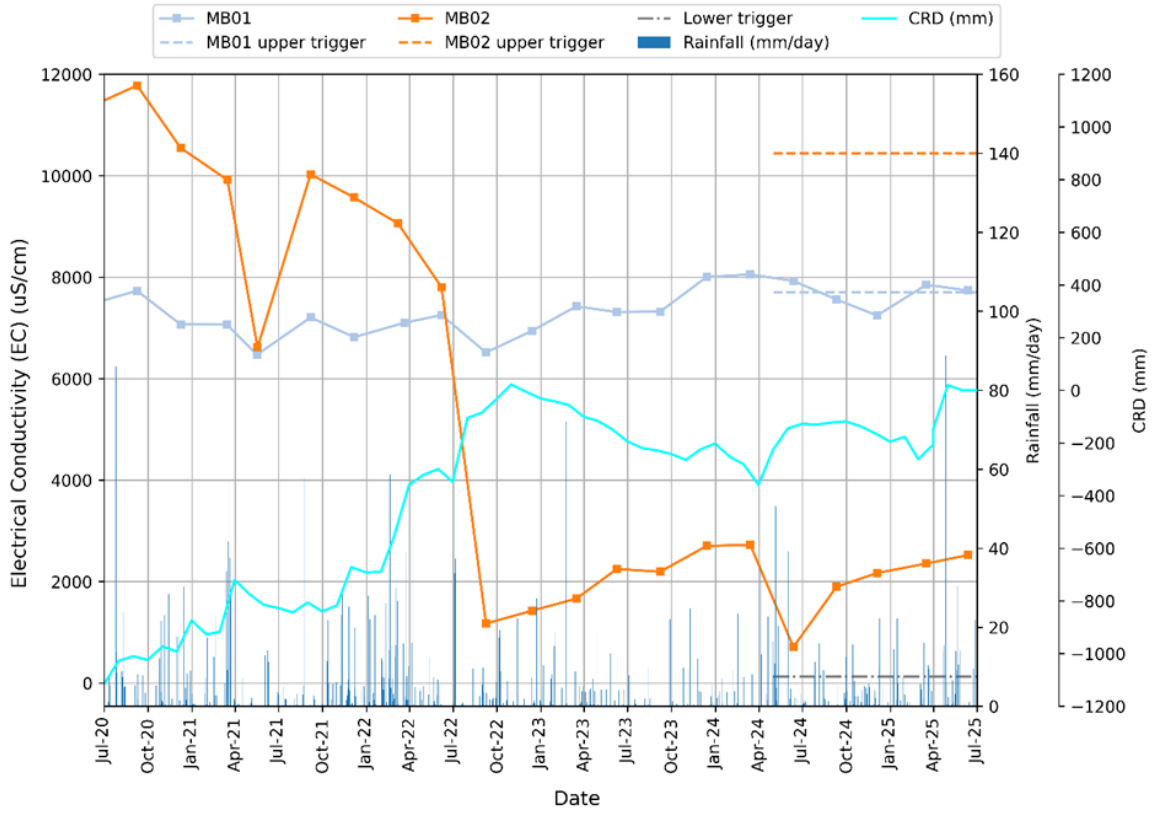


FIGURE APP C-20 **5-YEAR STAGE 3 SANDSTONE AQUIFER EC TRENDS**

Department of Planning, Housing and Infrastructure

NSW Planning ref: MP08_0111-PA-73
Julie McNaughton
Environment & Community Senior Advisor
Austar Coal Mine Pty Limited
Darling Park - Tower 2 Level 18, 201 Sussex Street
SYDNEY NSW 2000
22/12/2025

Sent via the Major Projects Portal only

Subject: Austar Coal (MP 08_0111) - Annual Review 2025

Dear Ms McNaughton

I refer to your Annual Review for the period 1 July 2024 to 30 June 2025, submitted as required by Schedule 7, Condition 3 of MP08_0111 as modified (the approval) to the NSW Department of Planning, Housing and Infrastructure (NSW Planning) on 29 September 2025.

NSW Planning has reviewed the 2025 Annual Review and considers it to generally satisfy the reporting requirements of the approval and the NSW Planning Annual Review Guideline (October 2015). As required by Schedule 7, Condition 9 of the approval please make publicly available a copy of the 2025 Annual Review on the company's website within 30 days.

Please note that NSW Planning's acceptance of this Annual Review is not an endorsement of the compliance status of the project.

Should you wish to discuss the matter further, please contact Toba Olaoye, Senior Compliance Officer on 02 4040 8515 or email compliance@planning.nsw.gov.au

Yours sincerely

Ann Hagerthy
A/Team Leader - Hunter
Compliance

As nominee of the Planning Secretary