RioTinto

Environment Protection and Biodiversity Conservation Act 1999
Annual Compliance Report

EPBC Approval: 2018/8341

Project: Greater Paraburdoo Iron Ore Hub, Pilbara, WA

Report period: 1 January – 31 December 2025

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1 Description of activities

EPBC approval number:	2018/8341
Project name:	Greater Paraburdoo Iron Ore Hub, Pilbara, WA
Approval holder:	Hamersley Iron Pty. Limited
Approval holder's Australian Business Number:	49 004 558 276
Approved action:	To develop a new mine and associated infrastructure at Western Range and extend existing mining operations and associated infrastructure at Paraburdoo and Eastern Range, Pilbara region, Western Australia.
Location of the project:	Pilbara Region, Western Australia
Reporting period:	1 January 2025 to 31 December 2025
Report preparation date:	30 April 2026
Implementation phase(s) during reporting period:	Operational

2 Audit table

Details of compliance with each condition under EPBC approval 2018/8341 are presented in Table 1.

Table 1: EPBC Approval Conditions Compliance Table: 2018/8341 Greater Paraburdoo Iron Ore Hub, Pilbara, WA

Condition Number	Condition	Compliance status	Evidence/Comments
1	To avoid and mitigate impacts to **protected matters**, the approval holder must not **clear** more than 4,300 ha, and in addition not: a. **clear** outside the **development envelope** b. **clear** or **impact** within the **Mining Exclusion Zones** from proposal activities except for activities associated with the implementation of the **Environmental Management Plan**. c. **clear** within the **development envelope** more than the following **critical habitat** types: i. 7 hectares of **Riverine habitat** ii. 36 hectares of **Breakaway habitat** iii. 257 hectares of **Gorge/Gully habitat** d. **clear** more than a total combined 4,000 ha within the **development envelope** of any of the following **supporting habitat** types: i. **Rocky Hill habitat** ii. **Drainage Line habitat** iii. **Alluvial Plain habitat**	Compliant	Aerial photography was collected during the reporting period to reconcile ground disturbance and the prescribed clearing limits were not exceeded. Cumulative clearing under EPBC 2018/8341 totalled: • 1,031.47 hectares within the **development envelope:** • 5.33 hectares of **Riverine habitat:** • 9.43 hectares of **Breakaway habitat:** • 16.32 hectares of **Gorge/Gully habitat:** • 195.23 hectares of combined **Rocky Hill, Drainage Line and Alluvial Plain habitat:**
2	For the life of the approval, the approval holder must: a. Undertake the measures specified in condition 4-2(2) of the **Western Australian Approval** to minimise impacts to **protected matters** from dust emissions and fire. b. Minimise noise, vibration, and artificial lighting **impacts to protected matters** attributable to the action by only undertaking **construction, clearing** and/or **blasting** during **daylight hours** except that **construction** and **alteration** of the action in the **Construction Area (night and day)** may be conducted at any time. c. Ensure that if any **protected matter** is seen	Compliant	The Greater Paraburdoo Environmental Management Plan (EMP) (our ref: RTIO-HSE-0336947) contains the required environmental outcomes and objectives. The EMP was approved by OEPA and DoCCEEW on 20 January 2023 (OEPA ref: DWERVT11092; our ref; RTIO-0981203). • Condition 4-2(2) in MS1195 was adhered to. • Construction, clearing and blasting occurred only during daylight hours with the exception of the Construction Area (night and day). • No protected matters were sighted during clearing activities in the reporting period. • Speed restrictions complied with requirements stated in 2d. • All new barded wire installed during the reporting period was compliant with Condition 2e. • Light spill was managed in accordance with condition 2 throughout 2024. • Noise, vibration and dust emissions were minimised in Habitat Zones.

Condition Number	Condition	Compliance status	Evidence/Comments
	in the vicinity during **clearing**, the **clearing** activity that may impact the **protected matter** ceases until the **protected matter has** moved out of the way of **clearing** by its own accord or if the **protected matter** has not moved on its own accord, then a **fauna handler** has relocated the **protected matter** away from **clearing.** d. Ensure that no vehicle travels faster than 60 kilometres per hour on any unsealed road within the **development envelope**, and no more than 60 kilometres per hour at **night** (and 40 kilometres per hour at **night** when undertaking **construction activities**) on any road within **Habitat Zone**, except during an emergency incident. e. Not install any barbed wire fence within the **development envelope** unless required by other legislation for intersecting pastoral leases in which case it must have the top strand replaced with unbarbed wire and have reflectors installed to deter bat interaction. f. Complete, within 12 months from the date of this approval, the removal of all barbed wire fences from the **Mining Exclusion Zones** and **Mining Restriction Zones**, except where otherwise required under WA Legislation, in which case it must have the top strand replaced with unbarbed wire and have reflectors installed to deter bat		

Condition Number	Condition	Compliance status	Evidence/Comments
	interaction within 12-months from the date of this approval. g. Adhere to the **National Light Pollution Guidelines for Wildlife 2023** throughout the development area and avoid direct or permanent light spill attributable to the action within the **Mining Exclusion Zones** and **Mining Restriction Zones** and attributable to construction in the **Habitat Zones.** h. Avoid noise and vibration emissions attributable to the action during construction in the **Habitat Zones**. Avoid dust emissions attributable to the action during construction in the **Habitat Zones**.		
3	To avoid and mitigate impacts to **Ghost Bat** and **Pilbara Leaf-nosed Bat**, the approval holder must: a. Ensure there is no **clearing** or **impacts** on the **Ratty Springs Cave** or **retained Ghost Bat Caves** as a result of the action. b. Limit sound pressure levels attributed to the action to below 70 dB(Z) at the **Ratty Springs Cave** entrance at all times. c. Maintain the **viability** of the **retained Ghost Bat Caves** and the **viability** of the **Ratty Springs Cave.** Use the findings and outcomes of findings from condition 7-6 of the **Western Australian Approval** to inform the *Environmental Performance Report* required under condition 12 of the **Western Australian Approval** and condition 6 of this approval.		The Environmental Management Plan (EMP) (our ref: RTIO-HSE-0336947) contains the required environmental outcomes and objectives. The EMP was approved by OEPA and DoCCEEW on 20 January 2023 (our ref: RTIO-0981202). During the reporting period there was no exceedance of trigger or threshold criterion related to protected matter(s) specified in the Environmental Management Plan.
4	To minimise **impacts** to **protected matter(s) critical habitats** and **supporting habitats** within the	Compliant	The Environmental Management Plan (EMP) (our ref: RTIO-HSE-0336947) contains the required environmental outcomes and objectives. Monitoring

Condition Number	Condition	Compliance status	Evidence/Comments
	development envelope from the dewatering program, the approval holder must not impact **protected matter** habitats within the **Mining Exclusion Zones** and **Mining Restriction Zones** due to changes to surface and groundwater.		bores at Gardagali (Ratty Springs) showed a declining trend, however this was not attributable to the proposal. Monitoring bores in Seven Mile Creek showed a declining trend, however no triggers were exceeded during the reporting period. Further details can be found in section 1.2.2 of this report.
5	To mitigate impacts to **protected matters**, the approval holder must develop an **Environmental Management Plan** in accordance with condition 7 of the **Western Australian Approval** and Conditions 2, 3 and 4 of this approval. The **Environmental Management Plan** must be endorsed by the **Minister**. The approval holder must seek **Minister** endorsement of any subsequent revisions of the **Environmental Management Plan** where changes have been made relevant to **protected matters** prior to any approval by the DWER. The approval holder must implement the endorsed **Environmental Management Plan** and any subsequently DWER approved **Environmental Management Plan** for the **life of the approval**. The **Environmental Management Plan** must also include: a. Specification of a monitoring program that is suitable to enable **impacts** from changes to hydrology on **protected matter(s)** and their habitats to be mitigated. b. Commitments that, if the monitoring and predictive modelling shows that **impacts** to **protected matters** and their habitats will, or are likely to, be greater than predicted modelling presented in the **Greater Paraburdoo Iron Ore Hub Proposal Environmental Review Document**, or that any outcome relevant to **protected matter(s)** required under condition 7 of the **Western Australian Approval** may not be achieved, the approval holder will implement condition S(c) of this approval. c. Commitments that, in the event of any exceedance of a threshold criterion related to	Compliant	The Environmental Management Plan (EMP) (our ref: RTIO-HSE-0336947) contains the required environmental outcomes and objectives. The EMP was approved by OEPA and DoCCEEW on 20 January 2023 (our ref: RTIO-0981202). During the reporting period there was no exceedance of trigger or threshold criterion related to protected matter(s) specified in the Environmental Management Plan, attributable to the proposal.

Condition Number	Condition	Compliance status	Evidence/Comments
	protected matter(s) specified in the **Environmental Management Plan**, the approval holder must: i. Notify the **Department** of the exceedance in the same timeframes as required by condition 7-8 (for exceedance of any threshold criterion) and/or condition 7-9 (for exceedance of any management target) of the **Western Australian Approval** and include in the report advice of any **impact(s)** to **protected matters** arising from the exceedance event. ii. Within 6 months of detecting any exceedance of a threshold criterion related to **protected matters**, caused by implementation of the action, submit to the **Department** for the **Minister's** approval, a **Remediation Plan**. If approved, the **Remediation Plan** must be implemented. iii. Within 6 months of detecting any exceedance of a threshold criterion related to **protected matters**, have an **independent suitably qualified person** review the **Environmental Management Plan** to advise how to prevent the exceedance reoccurring as detailed in the report required by conditions 7-8(5) and 7-9(3) of the **Western Australian Approval**. iv. Within 10 months of detecting any exceedance of a threshold criterion related to **protected matters**, submit to the **Department** the advice of the **independent suitably qualified person** and a version of the **Environmental Management Plan** revised to address		

Condition Number	Condition	Compliance status	Evidence/Comments
	the advice of the **independent suitably qualified person**. v. If a revised **Environmental Management Plan** has not been endorsed by the **Minister** within 13 months of detecting any exceedance of a threshold criterion, and the **Minister** notifies the approval holder that the **Environmental Management Plan** is not suitable for endorsement, the **Minister** may, at least two months after so notifying the approval holder, endorse a version of the **Environmental Management Plan** revised by the **Department**. The approval holder must implement the endorsed **Environmental Management Plan** until it is subsequently approved by the **DWER**. vi. If the **Minister** informs the approval holder in writing that it is not possible to adequately remediate the **impact(s)** on **protected matter(s)** of one or more exceedance (as referred to in condition 5(c)(ii) of this approval), then the approval holder must, within 3 months of receiving such advice from the **Minister**, submit to the **Department**, an **Exceedance Offset Management Plan (EOMP)** addressing the exceedance(s) as specified by the **Minister** in writing for the **Minister's** approval. The **EOMP** must meet the requirements specified in Attachment G. If the **EOMP** has not been approved by the **Minister** within 6 months of the **Minister** informing the approval holder in writing as described in condition 5(c)(vi) of this approval, and the **Minister** notifies the approval holder that the **EOMP** is not suitable for approval, the **Minister** may, at least two months after so notifying the approval		

Condition Number	Condition	Compliance status	Evidence/Comments
	holder, approve a version of the **EOMP** revised by the **Department**. The approval holder must implement the approved **EOMP** for the remainder of the **life of this approval** or a revised version of the **EOMP** is endorsed.		
6	The approval holder must provide *the Environmental Performance Report* as required by condition 12 of the **Western Australian Approval** to the Department every five (5) years, with the first *Environmental Performance Report* due by the 30 April after the expiry of the five-year period commencing from the first date of the **Western Australian Approval**. Should the *Environmental Performance Report* required by conditions 12-3 to 12-5 of the **Western Australian Approval** identify any significant change to the state of any **protected matter(s)** attributed to the action, the approval holder must implement conditions 5(c) of this approval. The approval holder must make each of the *Environmental Performance Reports* publicly available for the **life of the approval**.	Not applicable	No Environmental Performance Report was required within the reporting period. The first Environmental Performance Report will be submitted on 30 April 2028.
7	To compensate for the **residual significant impacts** of **clearing** habitat for the **Northern Quoll**, **Ghost Bat**, **Pilbara Leaf-nosed Bat** and **Pilbara Olive Python**, the approval holder must make financial contributions to the **Pilbara Environmental Offsets Fund**.	Not applicable	No payments were required during the reporting period
8	In contributing to the **Pilbara Environmental Offsets Fund** the approval holder must: a. Contribute funds toward an offset activity or activities that: i. reduces the rate of decline of the **Northern Quoll**, **Ghost Bat**, **Pilbara Leaf-nosed Bat** and **Pilbara Olive Python**. ii. ensures a viable population of **Northern Quoll**, **Ghost Bat**, **Pilbara Leaf-nosed Bat** and **Pilbara Olive Python** remain in the Pilbara region.	Compliant	Endorsement of the Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure (our ref: RTIO-HSE-0345123) was provided by the Minister on 10 November 2022 (our ref: RTIO-0980742). The action was not commenced until after approval of the Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure from DWER on 15 November 2022 (our ref: RTIO-0981240). Prior to the commencement of the action, a payment of 10 per cent of the total contribution was paid into the Pilbara Environmental Offsets Fund on 13 December 2022 (our ref: RTIO-0983725). Evidence of payment into the Pilbara Environmental Offsets Fund was provided to the Department on 16 December 2022 (our ref: RTIO-0983725). No payments were required during the reporting period.

Condition Number	Condition	Compliance status	Evidence/Comments
	iii. has specified outcomes and performance indicators. iv. timeframes and milestones for their achievement. v. includes sufficient monitoring to detect achievement of performance indicators, milestones, and the outcomes; and vi. requires regular reporting to the approval holder of the outcomes of the offset activity or activities their funding has contributed towards. b. Prior to approval of the **Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure** by **DWER** in accordance with condition 11-5 of the **Western Australian Approval**, the approval holder must seek written endorsement of the **Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure** from the **Minister**. The approval holder must not commence the action until they have been notified by the **DWER** that the **Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure** has been approved. c. The **Greater Paraburdoo Iron Ore Hub Proposal Impact Reconciliation Procedure** must include the information required by 11-5 of the **Western Australian Approval** and the financial contributions that will be paid into the **Pilbara Environmental Offsets Fund** per hectare of **protected matter** habitat, as per the value described in Condition 8(e) of this approval for each **protected matter** and the schedule of contributions to be made over the **life of the approval**. d. Following receipt of the **DWER** notification of approval of the **Greater Paraburdoo Iron Ore**		

Condition Number	Condition	Compliance status	Evidence/Comments
	Hub Proposal Impact Reconciliation Procedure and prior to **commencement of the action**, the approval holder must make a payment of 10 per cent of the total contribution that may be paid into the **Pilbara Environmental Offsets Fund**, which will contribute towards achieving the requirements of condition 8(a) of this approval. e. Make biennial payments to the **Pilbara Environmental Offsets Fund** based on **evidence** of the **actual clearing footprint** in accordance with the timing specified in condition 11-2 of the **Western Australian Approval**. Biennial payments must be equivalent to or greater than the value of the following amounts, by adjustment in accordance with the **CPI** from the date of this approval decision until the end of the year during which clearing was undertaken, of: i. A minimum of $3,306 AUD (excluding GST) per hectare of **critical habitat**. ii. A minimum of $1,653 AUD (excluding GST) per hectare of **supporting habitat**. f. Submit **evidence** of each payment made to the **Department** within 10 **business days** of the date of making the payment. Include details of progress towards, or achievement of, the outcomes specified under Condition 8(a) of this approval for the **Northern Quoll**, **Ghost Bat**, **Pilbara Leaf-nosed Bat** and **Pilbara Olive Python** in each **compliance report** submitted to the **Department**.		
9	Write to the **Minister**, within 10 **business days** of being aware or having concerns, that the offset outcomes specified for the **Pilbara Environmental Offsets Fund** project(s) may not be achieved for the **Northern Quoll**, **Ghost Bat**, **Pilbara Leaf-nosed Bat** and **Pilbara Olive Python**.	Not applicable	The approval holder has no concerns regarding the offset outcomes specified for the Pilbara Environmental Offsets Fund during the reporting period.

Condition Number	Condition	Compliance status	Evidence/Comments
10A	The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of any previous version of the action management plan.	Compliant	No variations to an action management plan were submitted during the reporting period.
11	The approval holder must notify the **Department** electronically of the date of **commencement of the action**, within 10 **business days** of **commencement of the action**.	Not applicable	The Department was notified of the commencement of the action on 16 December 2022 (our ref: RTIO-0983725) within 10 business days of commencement of the action (14 December 2022). No further action required during the reporting period.
12	If the **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.	Not applicable	Action was commenced on 14 December 2022, within 5 years from the date of approval (our ref: RTIO-0983725). No further action required during the reporting period.
13	The approval holder must maintain accurate and complete **compliance records**.	Compliant	Records associated with or relevant to the conditions of this approval are maintained within the Rio Tinto Iron Ore Document Management System.
14	If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.	Not applicable	No requests received during the reporting period.
15	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and meta data required under the conditions of this approval are prepared in accordance with the Department's Guidelines for biological survey and mapped data (2018), or any subsequent official version or as otherwise specified by the Minister in writing.	Compliant	Data provided is prepared in accordance with the Departments' guidelines
16	The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the **Department's** *Guide to providing*	Compliant	Data provided is prepared in accordance with the Departments' guidelines

Condition Number	Condition	Compliance status	Evidence/Comments
	maps and boundary data for EPBC Act projects (2021), or any subsequent official version or as otherwise specified by the **Minister** in writing.		
17	The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **Department** in accordance with the requirements of the **Environmental Management Plan**.	Compliant	Data required by the EMP was submitted.
18	The approval holder must prepare a **compliance report** by 30 April 2023 addressing the period from the date of issue of this approval until 31 December 2022 and annually thereafter by each 30 April in respect of the preceding calendar year date, or as otherwise agreed to in writing by the **Minister**.	Compliant	The 2024 Annual Compliance Report (our ref: RTIO-1100119) was submitted on 30 April 2025.
19	Each **compliance report** must be consistent with the **Department's** *Annual Compliance Report Guidelines* (2014), or any subsequent official version.	Compliant	The 2024 Annual Compliance Report (our ref: RTIO-1100119) submitted on 30 April 2025 met the requirements of the Department's *Annual Compliance Report Guidelines* (2014).
20	Each **compliance report** must include: - Accurate and complete details of compliance and any non-compliance with the conditions and the **plans**, and any **incidents**. - One or more **shapefile** showing all **clearing** of any **protected matters**, and/or their habitat, undertaken within the 12-month period at the end of which that **compliance report** is prepared. A schedule of all **plans** in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.		The 2024 Annual Compliance Report (our ref: RTIO-1100119) was submitted on 30 April 2025.
21	The approval holder must: a. Publish each **compliance report** on the **website** by 30 April of each year immediately		The 2024 Annual Compliance Report for EPBC 2018/8341 – Greater Paraburdoo Iron Ore Hub (was made publicly available on the Rio Tinto website (https://www.riotinto.com/en/operations/australia/pilbara) on 30 April

Condition Number	Condition	Compliance status	Evidence/Comments
	following the 12-month period for which that **compliance report** is required. b. Notify the **Department** electronically, within 7 **business days** of the date of publication that a **compliance report** has been published on the **website**. c. Provide the weblink for the **compliance report** in the notification to the **Department**. d. Keep all published **compliance reports** required by these conditions on the **website** until the expiry date of this approval. e. Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website** or otherwise provided to a member of the public. If **sensitive ecological data** is excluded or redacted from the published version, submit the full **compliance report** to the **Department** within 5 **business days** of its publication on the **website** and notify the **Department** in writing what exclusions and redactions have been made in the version published on the website.		2025. The department was notified of this and provided with the above weblink on the same day (our ref: RTIO-1113131).
22	The approval holder must notify the **Department** electronically, within 7 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**.	Not applicable	No potential non-compliances were identified during the reporting period
23	The approval holder must specify in the notification: a. Any condition or commitment made in a **plan** which has been or may have been breached. b. A short description of the **incident** and/or potential non-compliance and/or actual non-compliance. The location (including co-ordinates), date, and time of the **incident** and/or potential non-compliance and/or actual non-compliance.	Not applicable	No potential non-compliances were identified during the reporting period

Condition Number	Condition	Compliance status	Evidence/Comments
24	The approval holder must provide to the **Department** in writing, within 21 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance, the details of that **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**. The approval holder must specify: a. Any corrective action or investigation which the approval holder has already taken. b. The potential impacts of the **incident** and/or non-compliance. The method and timing of any corrective action that will be undertaken by the approval holder.	Not applicable	No potential non-compliances were identified during the reporting period
25	The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every five-year period following the **commencement of the Action** until this approval expires, unless otherwise specified in writing by the **Minister**.	Not applicable	There were no audits required during the reporting period.
26	For each **independent audit**, the approval holder must: a. Provide the name and qualifications of the nominated **independent** auditor, the draft audit criteria, and proposed timeframe for submitting the **audit report** to the **Department** prior to commencing the **independent audit**. b. Only commence the **independent audit** once the nominated **independent** auditor, audit criteria and timeframe for submitting the **audit report** have been approved in writing by the **Department**. c. Submit the **audit report** to the **Department** for approval within the timeframe specified and approved in writing by the **Department**. d. Publish each **audit report** on the **website** within 15 **business days** of the date of the **Department's** approval of the **audit report**.	Not applicable	There were no audits required during the reporting period.

Condition Number	Condition	Compliance status	Evidence/Comments
	Keep every **audit report** published on the **website** until this approval expires.		
27	Each **audit report** must report for the five-year period preceding that **audit report**.	Not applicable	There were no audits required during the reporting period.
28	Each **audit report** must be completed to the satisfaction of the **Minister** and be consistent with the **Department's** *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019), or any subsequent official version.	Not applicable	There were no audits required during the reporting period.
29	The approval holder must notify the **Department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.	Not applicable	Approval not due to expire within 60 days.
30	Within 30 **business days** after the **completion of the Action**, and, in any event, before this approval expires, the approval holder must notify the **Department** electronically of the date of **completion of the Action** and provide **completion data**.	Not applicable	Action in operations phase entire reporting period

3 Management Plan/Program

3.1 Threatened Fauna

3.1.1 Environmental Criteria

The below table summarises the environmental criteria associated with threatened fauna required by Ministerial Statement 1195.

Table 2: Environmental criteria associated with threatened fauna

Key environmental factor: Threatened fauna	
Environmental outcomes, trigger and threshold criteria and management targets as per MS1195	**Reporting period 1 January 2025 – 31 December 2025**
Trigger criterion:	**Status report:**
1. Vibration levels exceeds 50 mm/s peak particle velocity (PPV) at retained Ghost Bat caves located within 300 m of mine pit (caves 6, 16, 17 and 18).	Criteria not exceeded
2. Decline in visual structural integrity of any retained Ghost Bat caves (caves 2, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17 and 18), supported by a significant step change in microclimate (temperature and humidity) data, attributable to the Proposal.	Criteria not exceeded
3. Disturbance within the 250 m Mining Exclusion Zone surrounding the Pilbara Leaf-nosed Bat permanent maternal roost (Gardagarli [Ratty Springs]), attributable to the Proposal.	Criteria not exceeded
4. Vibration levels exceed 10mm/s peak particle velocity (PPV) at the Pilbara Leaf-nosed Bat permanent maternal roost (Gardagarli [Ratty Springs]), attributable to the Proposal.	Criteria not exceeded
5. Decline in visual structural integrity of the Pilbara Leaf-nosed Bat permanent maternal roost (Gardagarli [Ratty Springs]), attributable to the Proposal.	Criteria not exceeded
6. LZ10>70 dB(Z) over a one (1) hour period, at the Pilbara Leaf-nosed Bat maternity roost, attributable to the Proposal. AND 7. Reducing call counts at, or below Lower Call Limit5 for five (5) or more consecutive nights at the Pilbara Leaf-nosed Bat maternity roost, attributable to the Proposal	Criteria not exceeded
Threshold criterion:	**Status report:**
8. Pit crest intersects a Ghost Bat Mining Restriction Zone (100 m around caves 6, 16, 17 and 18)	Criteria not exceeded
9. Significant damage to any retained Ghost Bat caves (caves 2, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17 and 18), supported by a significant step change in microclimate (temperature and humidity) data, attributable to the Proposal.	Criteria not exceeded

10. Disturbance within 250 m Mining Exclusion Zone surrounding the Pilbara Leaf-nosed Bat permanent maternal roost (Gardagarli [Ratty Springs]) which causes significant damage to the cave, attributable to the Proposal	Criteria not exceeded
11. LZ10>70 dB(Z) over a one (1) hour period, at the Pilbara Leaf-nosed Bat maternity roost, attributable to the Proposal. AND	Criteria not exceeded
12. Reducing call count trend identified by the initial trigger criteria 2 remains below Lower Call Limit5 for 15 consecutive nights at the Pilbara Leaf-nosed Bat maternity roost, attributable to the Proposal	

3.1.2 Results, analysis and interpretation

In line with advice from bat ecologist Robert Bullen, and to protect the EPBC listed bat species during maternity periods, the collection of data for Q4 takes place in Q1. Therefore, the reporting year for bat roost data (structural integrity, microclimate and echolocation) is offset to an October to September annual reporting period. This ensures that a full calendar year of data can be collected, analysed and reported in the annual compliance assessment report (ACAR). For this regulatory reporting period, criteria for Threatened Fauna aspect (only) covers the October 2024 to September 2025 period.

3.1.2.1 Ghost Bats

Thirteen ghost bat roosts are monitored in the development envelope. Of these, four roosts (caves 6, 16, 17 and 18) are within 300m of proposed pits and are considered potential impact roosts. The remainder (caves 2, 7, 8, 9, 10, 11, 12, 14 and 15) are considered reference roosts.

During the reporting period, operations (including land clearing, drilling and blasting) took place within 350m of all four of the potential impact roosts. This occurred namely through operations at 36W pit. No disturbance attributable to the proposal occurred within Ghost bat Mining Restriction Zones during the reporting period.

Rio Tinto conducts blast vibration monitoring for all blasts within 350m of retained ghost bat roosts (above the 300m requirement of the EMP). Blasting took place within 350m of four roosts (Cave 6, 16, 17 & 18) during the reporting period. No vibration levels were exceeded through blast vibration monitoring. In addition, no decline in visual structural integrity of any retained ghost bat cave was observed. Some fluctuations in cave microclimate were recorded, however this natural for the roosts and is discussed further below. Acoustic monitoring confirmed continued presence of Ghost Bats in the development envelope.

Cave 6 – Category 2

Cave Structure Assessment

Twenty-nine blasts took place within 350m of Cave 6 during the reporting period. No blasts exceeded the 50mm/s vibration limit. The highest observed vibration was 9.9mm/s on 28 September 2025.

Table 3: Cave 6 PPV data

Date	Modelled PPV at Cave 6 (mm/s)	Max Actual PPV at Cave 6 (mm/s)
17/10/2024	12.5	6.8
5/11/2024	10.6	2.7
20/12/2024	7.4	3.6
3/01/2025	2.7	0.9
12/01/2025	2.2	1.6
25/01/2025	7.3	1.8
8/02/2025	17.2	6.2
20/02/2025	18.8	6.1
25/02/2025	9.9	4.9
27/02/2025	16.4	4.9
2/03/2025	17.3	6.0
9/03/2025	24.9	7.0
23/03/2025	5.0	1.8
29/03/2025	6.4	3.2
7/04/2025	32.4	5.7
16/04/2025	24.5	6.5
22/04/2025	29.1	5.7
24/04/2025	12.0	6.5
13/05/2025	14.5	4.8
17/05/2025	11.6	2.9
26/05/2025	40.3	7.2
4/06/2025	35.2	6.6
15/06/2025	16.7	3.8
23/06/2025	15.3	5.5
20/07/2025	14.3	8.4
29/07/2025	24.3	6.0
8/08/2025	39.6	7.9
26/09/2025	10.3	5.5
28/09/2025	15.0	9.9

Cave structure was assessed quarterly at Cave 6. No evidence of structural change was observed. See Appendix 2 for cave structure assessment images and assessment. In addition, a camera on telemetry captures daily cave structure imagery of Cave 6 (above quarterly requirement).

A datasheet on Cave 6 roost structure can be found in Appendix 4.

Microclimate (Temperature & Humidity)

Cave 6 temperatures were largely unchanged from the 2023/24 trends and continued to remain steady during 2024/25 (Figure 1).

Humidity levels showed noticeable fluctuation between October 2024 and April 2025, then settled into a stable pattern from May to September 2025. These changes reflect the same seasonal influences seen in 2023/24, driven by warmer-month temperature cycles and rainfall variability. (Figure 2).

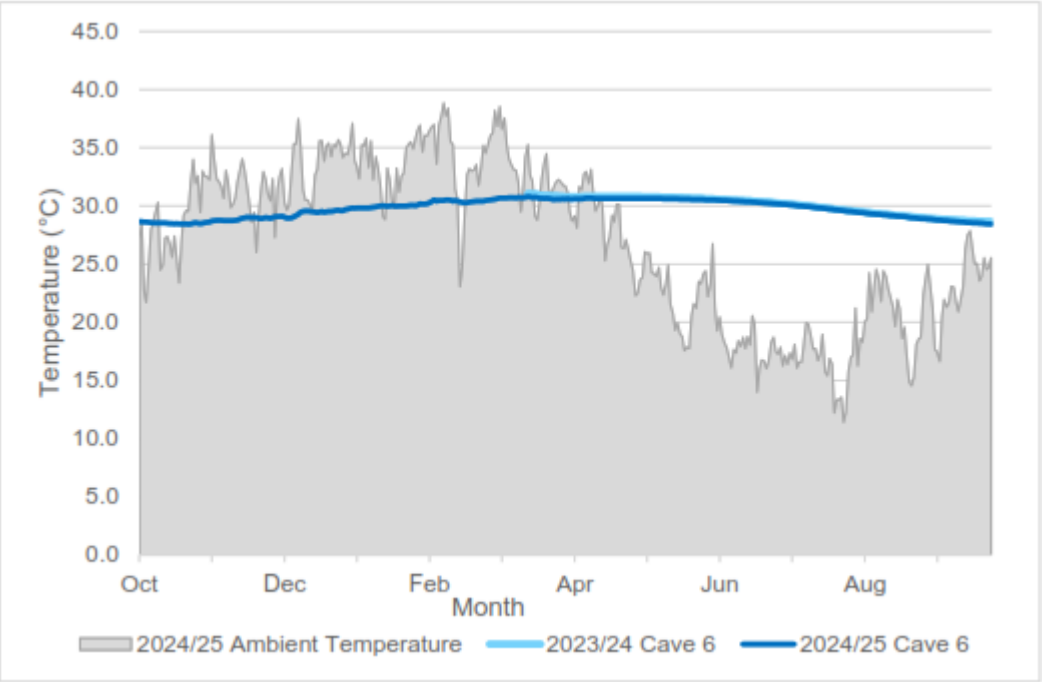


Figure 1: Cave 6 Average daily temperature vs ambient temperatures

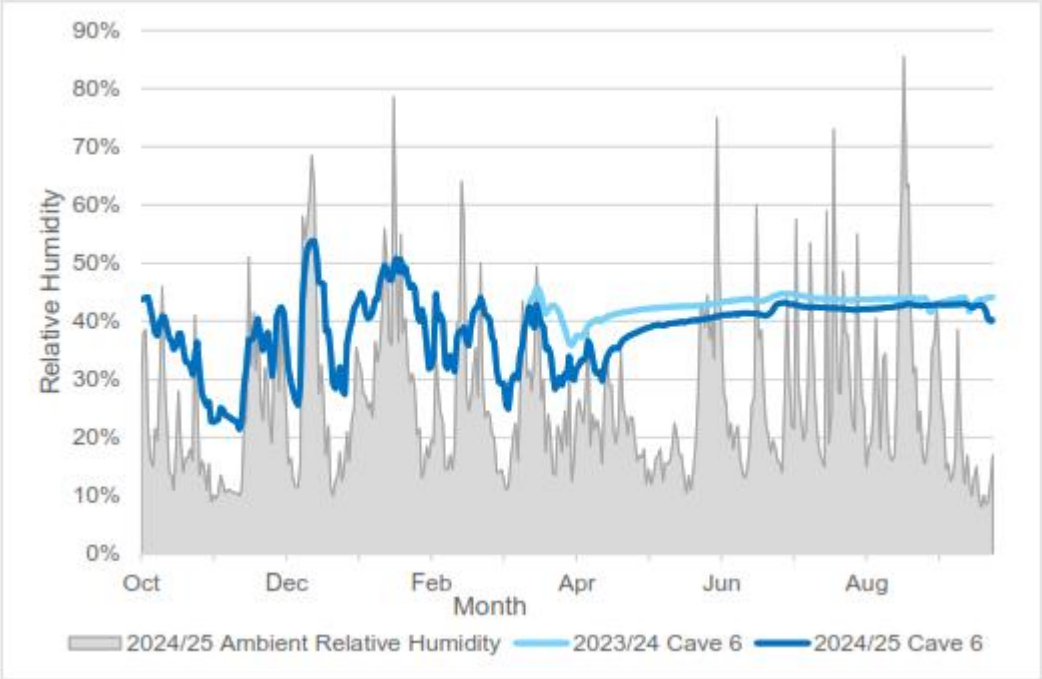


Figure 2: Cave 6 Average daily relative humidity vs ambient relative humidity

Acoustic Monitoring

Cave 6 is a category 2 roost. Acoustic monitoring showed roosting activity has remained low and largely unchanged since May 2025, following the same pattern seen during the 2023/24 season (Figure 3). Although Ghost Bat calls were detected between October 2024 and February 2025, no roosting was observed during this period, suggesting a decline from the regular roosting activity. A microphone fault meant calls were not recorded between 8 October 2024 and 21 February. The faulty equipment has now been repaired. The reduced use of Cave 6 suggests bats may now be preferentially utilising other nearby roosts, including Caves 16 and 17.

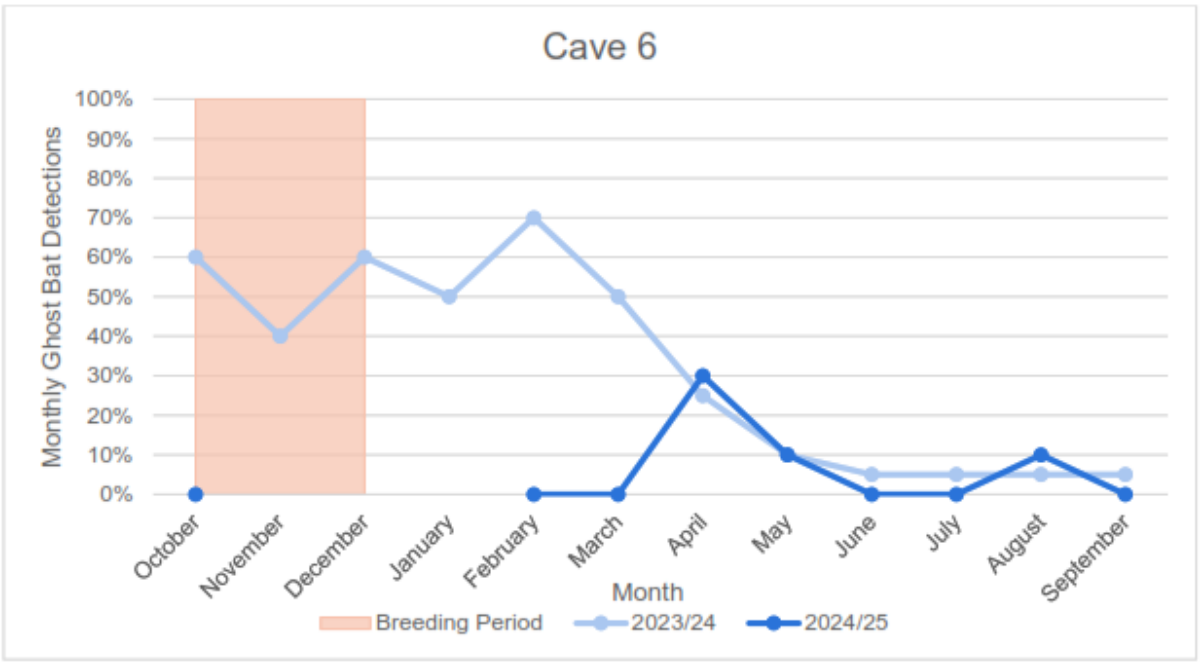


Figure 3: Cave 6 monthly ghost bat detections

Cave 16 – Category 3

Cave Structure Assessment

Cave 16 is located 220 meters further from in-pit blasting activities than Cave 17. As a result, Cave 6 is used as a proxy for vibration at Cave 17. There were no blasts which exceeded the 50mm/s at Cave 6 during the reporting period, so it is inferred that vibration would not have exceeded 50mm/s at Cave 17.

Cave structure was assessed quarterly at Cave 16. No evidence of structural change was observed. See Appendix 3 for cave structure assessment images and assessment. In addition, a camera on telemetry captures daily cave structure imagery of Cave 16 (above quarterly requirement).

A datasheet on Cave 16 roost structure can be found in Appendix 4.

Microclimate (Temperature & Humidity)

Temperature at Cave 16 followed a pattern similar to the 2023/24 dataset, showing a gentle rise around March before easing off between June and September 2025 (Figure 4).

Relative humidity shifted more noticeably, varying between October 2024 and April 2025, then settling into a stable period from May through August. By September 2025, humidity levels dropped and aligned with broader ambient conditions. These changes mirror the behaviour seen in 2023/24 and reflect the typical seasonal influences of warmer-month temperature cycles and rainfall patterns. (Figure 5).

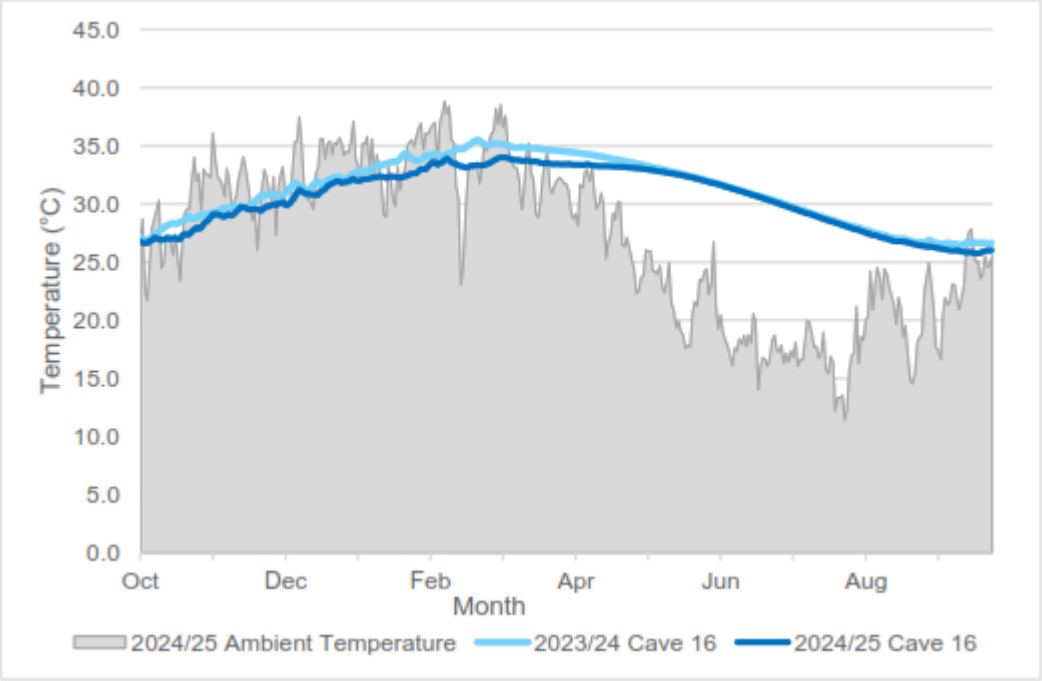


Figure 4: Cave 16 Average daily temperature vs ambient temperatures

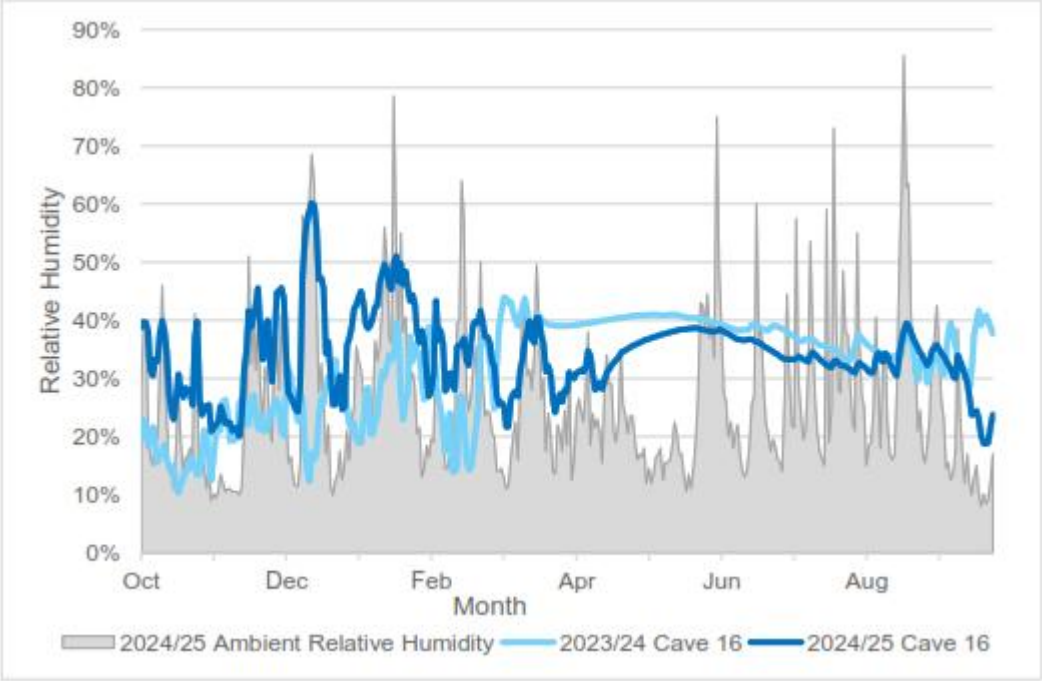


Figure 5: Cave 16 Average daily relative humidity vs ambient relative humidity

Acoustic Monitoring

Cave 16 is a category 3 roost. Acoustic monitoring showed that roosting activity at Cave 16 was more frequent between December 2024 and February 2025 compared with the 2023/24 monitoring period (Figure 6). Cave usage remained higher at Cave 16 than at Cave 6, particularly in the warmer months. These elevated activity levels continue a broader pattern observed across the region, suggesting that seasonal factors - such as temperature shifts surrounding the breeding season - may be influencing bat presence at this site.

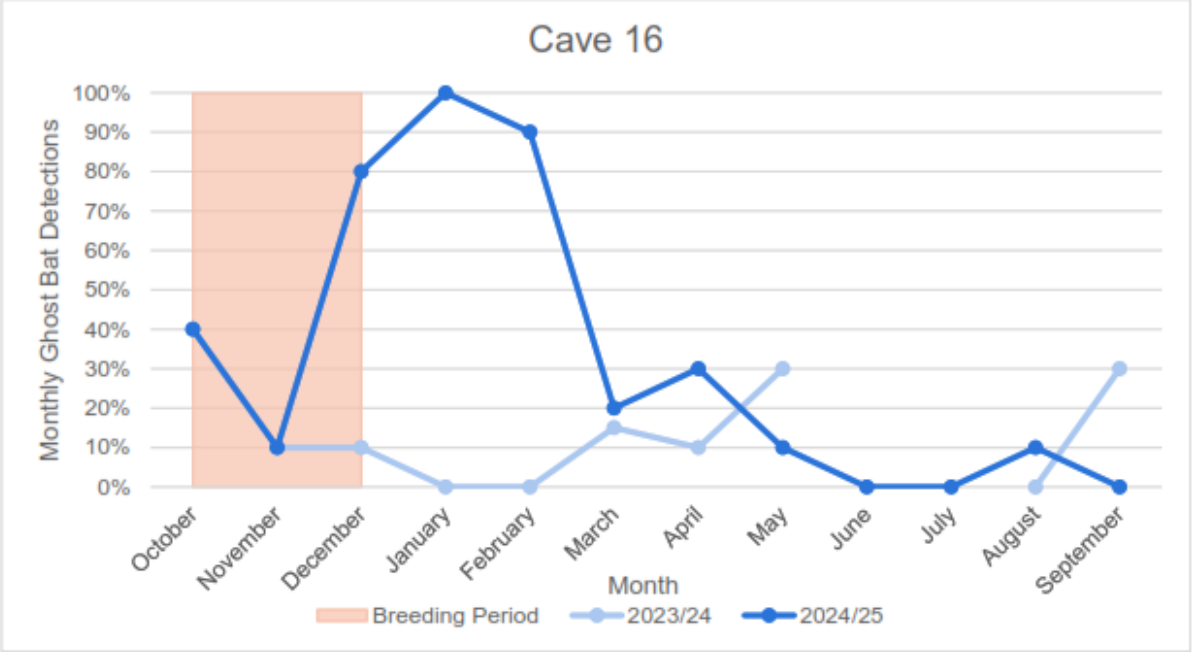


Figure 6: Cave 16 monthly ghost bat detections

Cave 17 – Category 3

Cave Structure Assessment

Cave 17 is located 225 meters further from in-pit blasting activities than Cave 17. As a result, Cave 6 is used as a proxy for vibration at Cave 17. There were no blasts which exceeded the 50mm/s at Cave 6 during the reporting period, so it is inferred that vibration would not have exceeded 50mm/s at Cave 17.

Cave structure was assessed quarterly at cave 17. No evidence of structural change was observed. See appendix 3 for cave structure assessment images and assessment. In addition, a camera on telemetry captures daily cave structure imagery of Cave 17 (above quarterly requirement).

A datasheet on Cave 17 roost structure can be found in Appendix 4.

Microclimate (Temperature & Humidity)

Temperature at Cave 17 showed only minor variation compared with the 2023/24 dataset and remained steady throughout the 2024/25 period (Figure 7)

Relative humidity shifted more noticeably, fluctuating between October 2024 and April 2025 before settling into a stable pattern from May through July. From August to September 2025, humidity levels began to track more closely with ambient conditions. This pattern aligns with the trends observed in 2023/24 and reflects the influence of seasonal temperature cycles and rainfall typical of the warmer month (Figure 8).

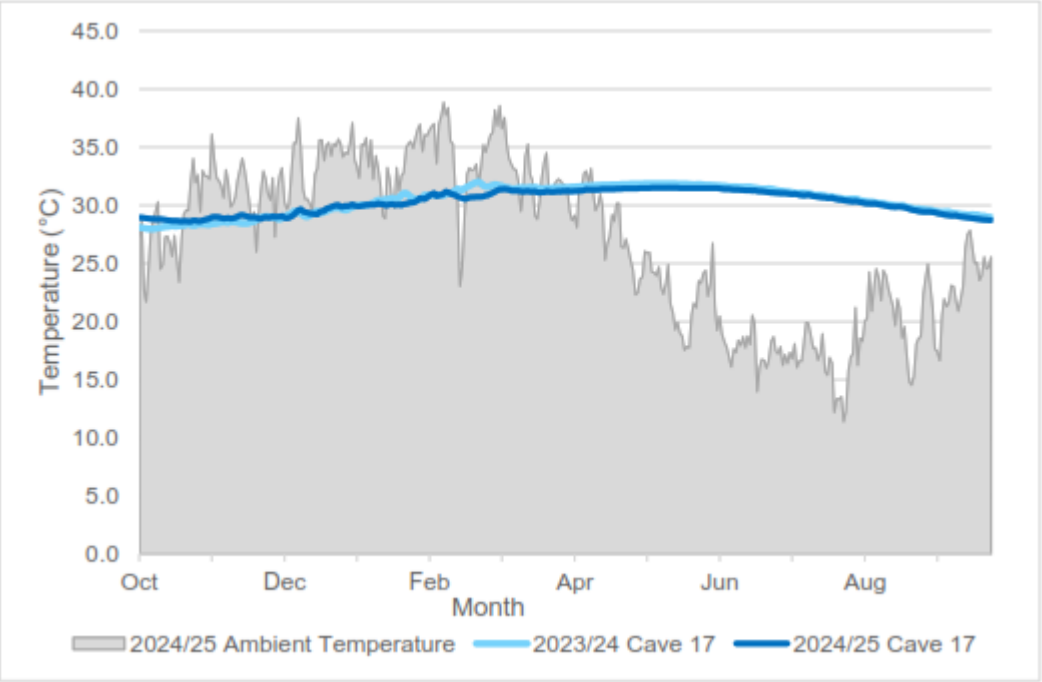


Figure 7: Cave 17 Average daily temperature vs ambient temperatures

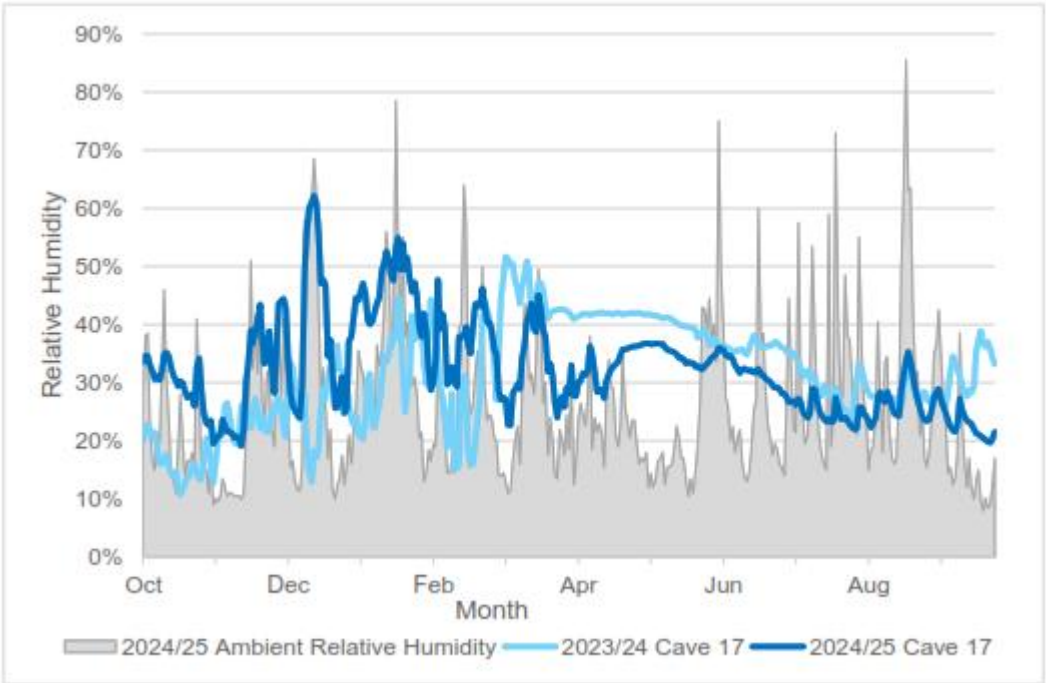


Figure 8: Cave 17 Average daily relative humidity vs ambient relative humidity

Acoustic Monitoring

Cave 17 is a category 3 roost. Acoustic monitoring showed roost activity followed a similar pattern to Cave 16, with higher levels of usage between December 2024 and February 2025 than those recorded in the 2023/24 period (Figure 9). The increased call detections at Cave 17 during these months suggest the site is functioning as one of the more frequently used roosts in the area. Like Cave 16, seasonal influences linked to warmer temperatures and the breeding period appear to be shaping the bats' presence at this roost.

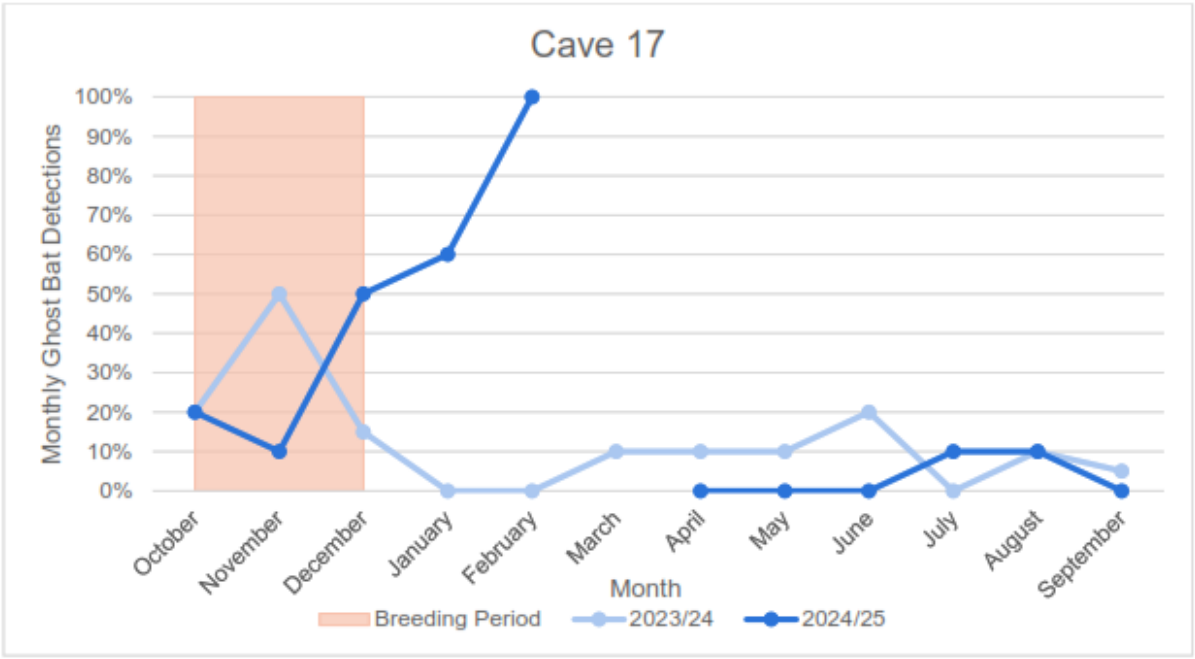


Figure 9: Cave 17 monthly ghost bat detections

Cave 18 – Category 2

Cave Structure Assessment

Twenty-eight blasts took place within 350m of Cave 18 during the reporting period. No blasts exceeded the 50mm/s vibration limit, although due to device failure, actual PPV was not recorded for one blast (on 8 March 2025). With actual PPV measurments consistently below the modelled PPV for the other 27 blasts, it can be said with confidence that the blast on 8 March, with a modelled PPV of 21.4mm/s would not have exceeded the 50mm/s limit. The highest observed vibration was 11.6mm/s on 22 November 2024.

Table 4: Cave 18 PPV data

Date	Modelled PPV at Cave 18 (mm/s)	Max Actual PPV at Cave 18 (mm/s)
22/10/2024	8.1	3.5
22/10/2024	4.2	3.5
9/11/2024	5.2	2.1
22/11/2024	24.7	11.6
9/12/2024	8.5	3.6
9/12/2024	5.5	2.4
3/01/2025	2.5	1.3
12/01/2025	6.9	2.5
19/01/2025	12.6	3.3
22/01/2025	6.0	1.6
1/02/2025	10.1	4.7
16/02/2025	14.6	3.6
8/03/2025	21.4	Device Failure
15/03/2025	11.6	4.1
5/04/2025	13.7	4.6
11/04/2025	16.8	2.8
20/04/2025	4.1	2.0
27/04/2025	13.8	4.8

6/06/2025	13.5	6.0
12/06/2025	25.6	9.0
28/06/2025	7.0	3.3
28/06/2025	10.1	2.1
3/07/2025	4.1	2.2
27/07/2025	15.7	5.2
29/08/2025	26.0	7.5
7/09/2025	25.0	3.9
17/09/2025	12.6	3.2
25/09/2025	18.3	4.5

Cave structure was assessed quarterly at Cave 18. No evidence of structural change was observed. See appendix 3 for cave structure assessment images and assessment. In addition, a camera on telemetry captures daily cave structure imagery of Cave 18 (above quarterly requirement).

A datasheet on Cave 18 roost structure can be found in Appendix 4.

Microclimate (Temperature & Humidity)

Temperature at Cave 18 followed a pattern similar to the 2023/24 dataset, with a gentle rise around March and a gradual decline between June and September 2025 (Figure 10).

Relative humidity showed more variability, fluctuating between October 2024 and April 2025 before settling into a stable period from May through August. By September 2025, humidity levels dropped and aligned more closely with ambient conditions. This behaviour is consistent with the 2023/24 trend and reflects the influence of seasonal temperature cycles and rainfall typical of the warmer months. (Figure 11).

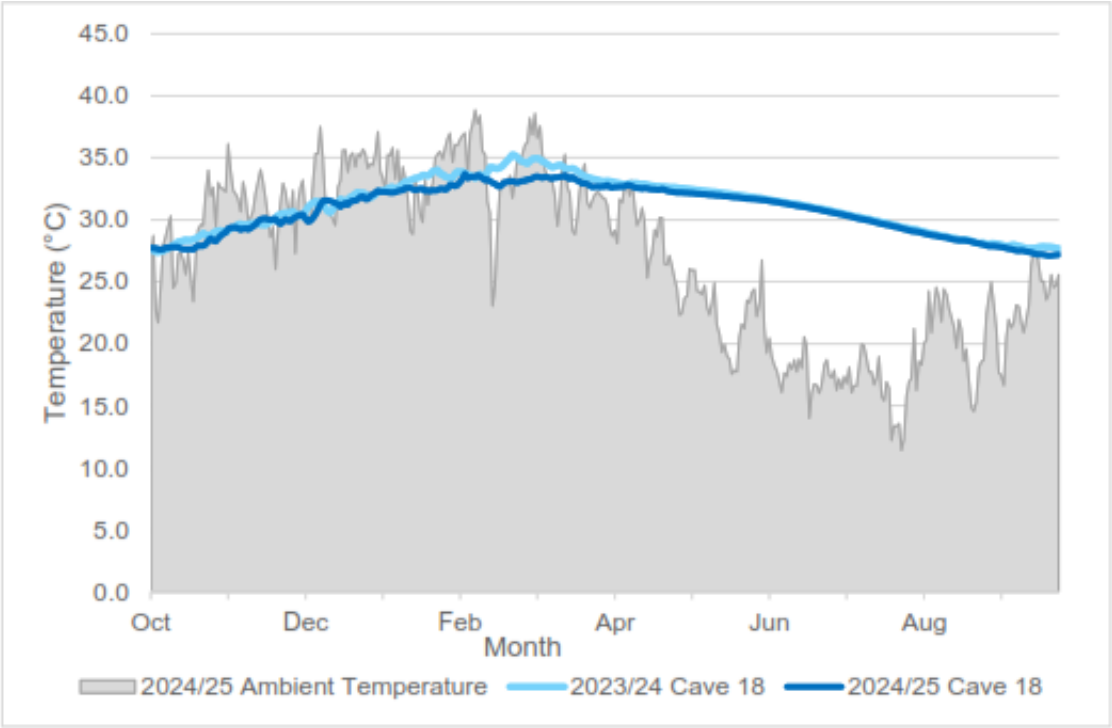


Figure 10: Cave 18 Average daily temperature vs ambient temperatures

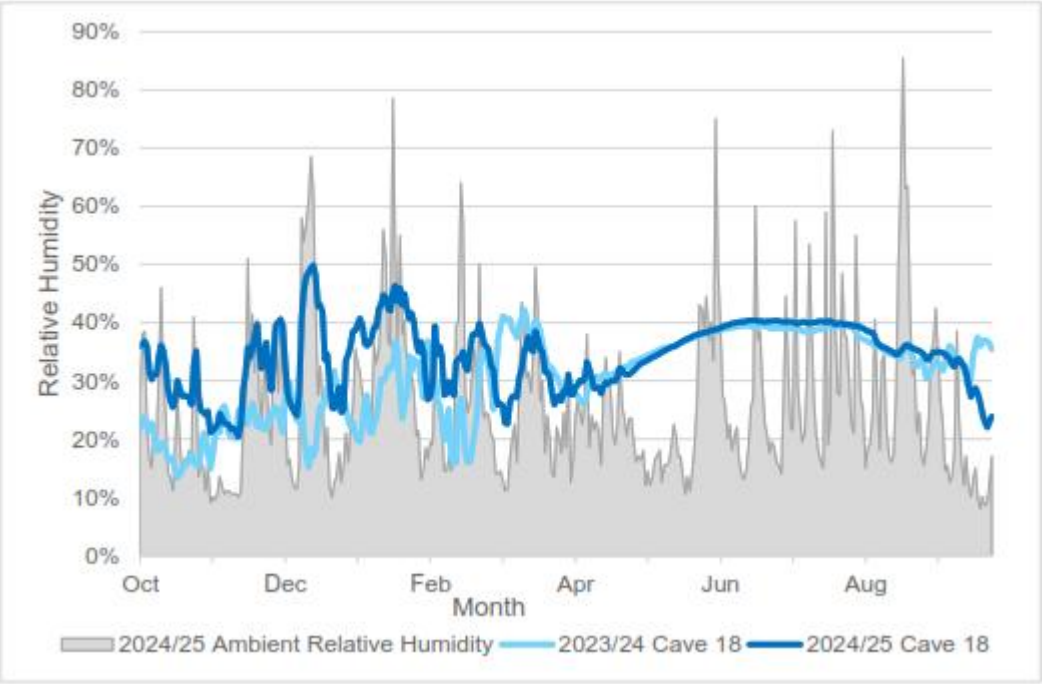


Figure 11: Cave 18 Average daily relative humidity vs ambient relative humidity

Acoustic Monitoring

Cave 18 is a category 2 roost. Roosting activity and cave usage at Cave 18 remained relatively consistent throughout the entire 2024/25 monitoring period, mirroring its behaviour in 2023/24 (Figure 12). Calls were recorded on every analysed night from October 2024 to January 2025, with regular roosting continuing across the remainder of the year. Nightly detection rates stayed above 60% for most of the period, except between February and May 2025, when they temporarily dropped from around 50% to 30%. Despite this brief dip, the stable year-to-year patterns at Cave 18 strongly suggest that mining activities are not influencing Ghost Bat roosting behaviour at this site.

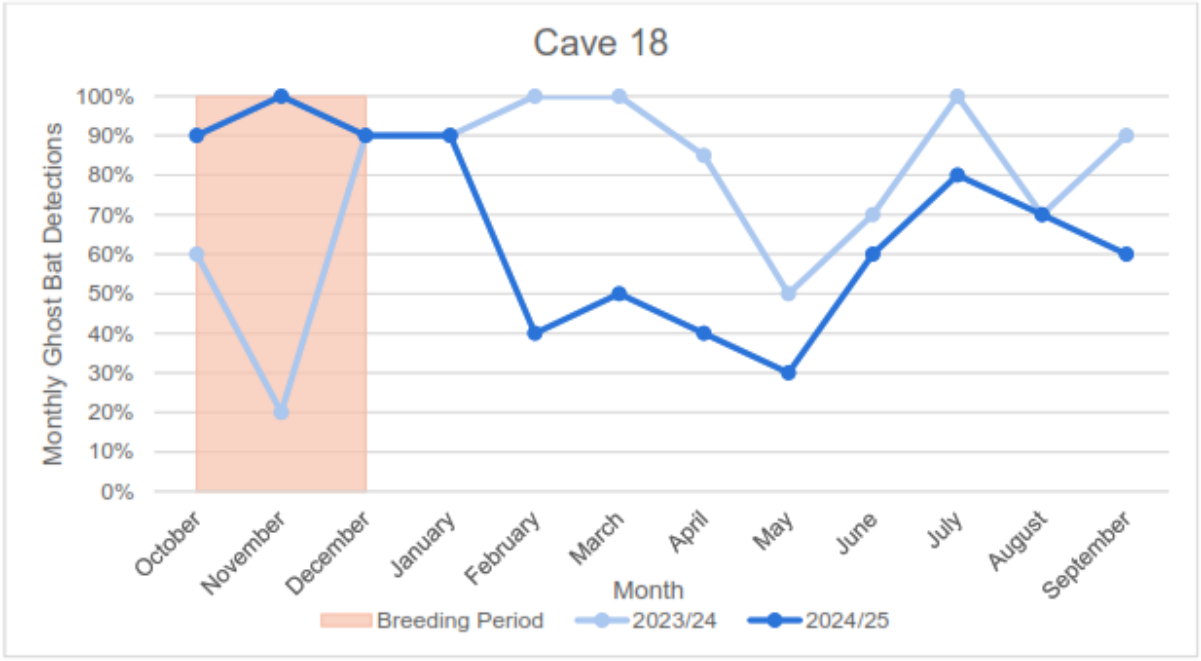


Figure 12: Cave 18 monthly ghost bat detections

Reference Roosts (Caves 2, 7, 8, 9, 10, 11, 12, 14 and 15)

Cave Structure Assessment

Cave structure was assessed quarterly at caves 11, 14 & 15 and biannually at caves 2, 7, 8, 9, 10 & 12. No evidence of structural change was observed. See appendix 3 for cave structure assessment images.

Microclimate

Temperature

Temperatures at the Ghost Bat reference roosts followed the same overall pattern recorded at the potential impact roosts. From October 2024 to April 2025, temperatures at all reference sites rose slightly, consistent with the gradual increase in ambient temperatures measured at the Paraburdoo weather station. Between May and September 2025, reference roost temperatures steadily decreased, again mirroring seasonal cooling in ambient conditions. This alignment indicates that temperature variation within the reference roosts is strongly driven by external climate patterns rather than roost-specific factors.

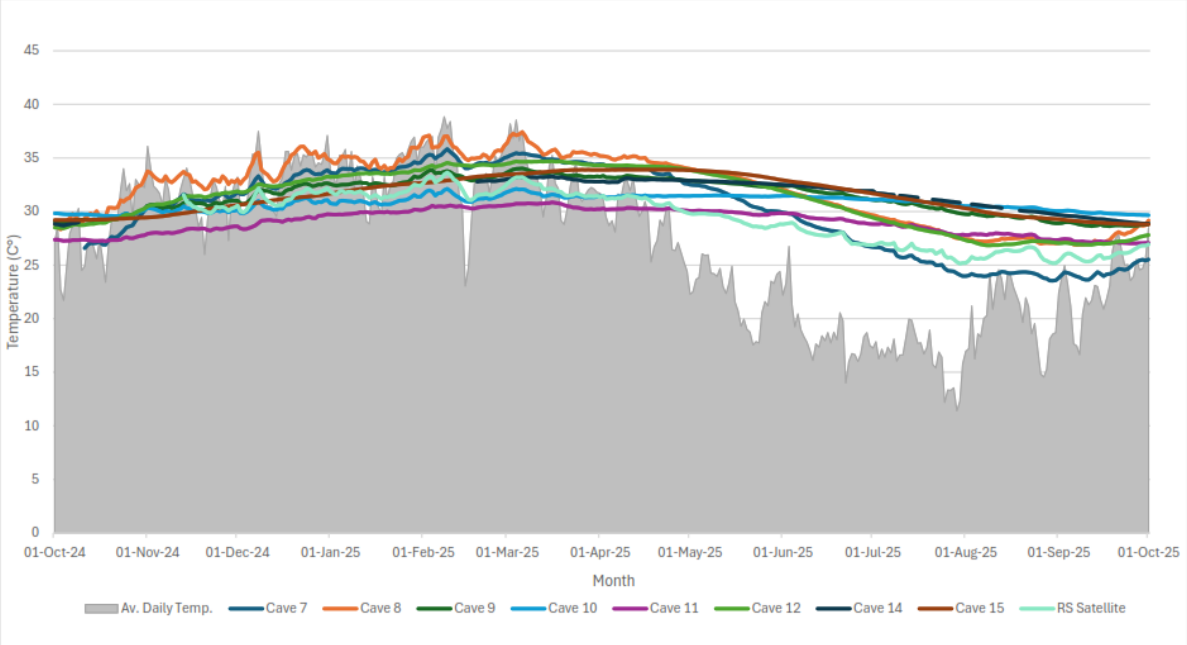


Figure 13: Average daily temperature for each Ghost Bat reference roost vs Ambient temperature

Humidity

Relative humidity at most Ghost Bat reference roosts fluctuated seasonally in line with ambient humidity patterns between October 2024 and September 2025. However, three roosts—Caves 10, 14 and 15—did not follow this trend, likely due to more complex cave structures that influence moisture retention. Cave 10 maintained elevated humidity (~65%) from mid-April to August 2025, while its long-term pattern typically shows higher humidity from April to July and lower values from August to March. Cave 14 behaved similarly to the potential impact caves, with humidity peaking during warmer months and stabilising during cooler months. Cave 15 remained consistently high in humidity (85–92%) across the entire monitoring period, reflecting a more sheltered or internally buffered cave environment.

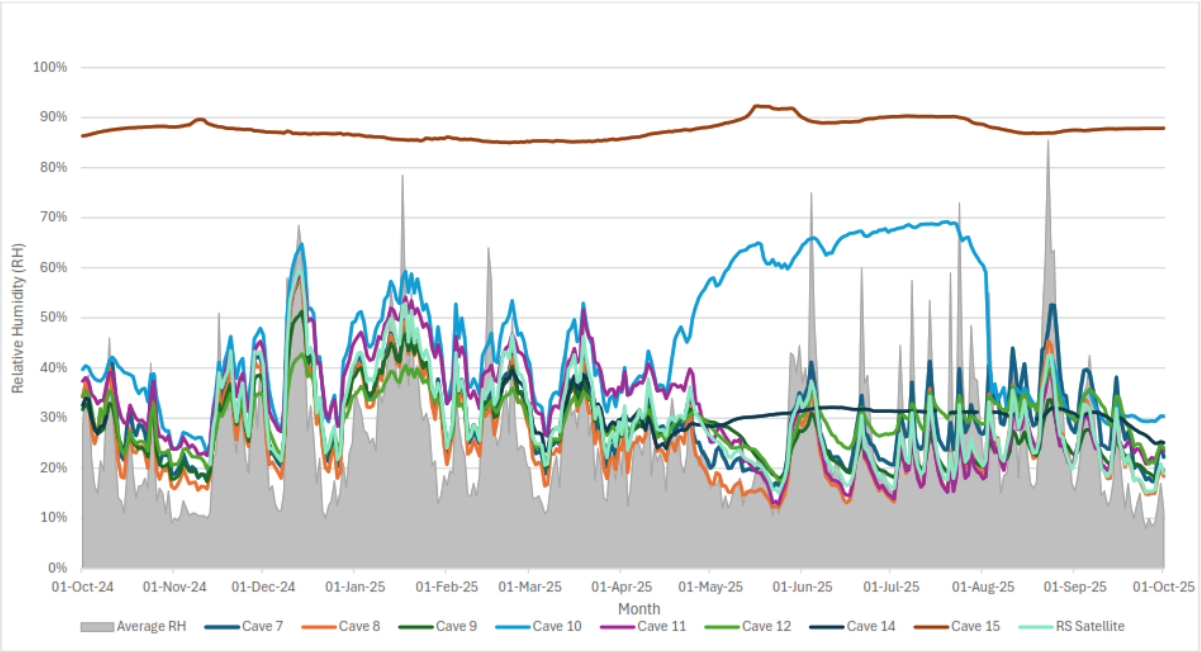


Figure 14: Average daily relative humidity for each Ghost Bat reference roost vs Ambient relative humidity

Acoustic Monitoring

Of the reference roosts, Caves 10, 11 & 15 are category 2 roosts and caves 2, 7, 8, 9, 12 & 14 are category 3 roosts. Although only required to conduct acoustic monitoring at 10 significant ghost bat roosts in the development envelope, in recognition of device reliability and the potential for remote equipment to fail at times, Rio Tinto have monitoring equipment at 12 (all roosts except cave 2 due to geotechnical stability of cave surrounds).

Data confirms the continued presence of Ghost bats in the development envelope.

At Cave 7, nightly detection rates ranged between 5% and 50% from October to December 2024. No Ghost Bat activity was recorded for the remainder of the 2024/25 monitoring period, except for approximately 10% monthly usage and occasional roosting during April (Figure 15). This reflects a decrease in both monthly cave usage and dependence on Cave 7 compared with the 2023/24 period.

At Cave 8, Ghost Bat roosting activity and overall cave use declined, with monthly detection rates falling from 10%–20% between April and August 2025, compared with 30%–60% during the 2023/24 period (Figure 16). Occasional roosting was observed in October and November 2024 and in April 2025, but no roosting activity was recorded during the other nine months.

Cave 9 exhibited similar usage patterns to the 2023/24 period, with increased activity recorded from May to August (Figure 17). Roosting activity was also comparable to the previous monitoring year, with occasional and regular roosting recorded between January and June 2025, and nightly roosting in July 2025.

At Cave 10, both roosting activity and cave usage increased relative to 2023/24 (Figure 18). Regular roosting and high usage were recorded during the breeding season, which declined to occasional or no roosting in the months following January 2025.

Ghost Bat roosting and cave use at Cave 11 remained relatively consistent with the 2023/24 period. Roosting was recorded every month, with monthly detection rates similar to those observed in 2023/24 (Figure 19).

At Cave 12, roosting was minimal, similar to the 2023/24 results. Monthly detections were higher during the breeding period (20%–50%) and then decreased to 10%–25% between April and September 2025 (Figure 20).

At Cave 14, Ghost Bat activity fluctuated throughout the 2024/25 period, with a noticeable decline during the breeding season and an increase between March and August 2025 (Figure 21). Occasional and regular

roosting was noted between April and August 2025—higher than in the 2023/24 period. Monthly detection rates ranged from 20%–50% between April and August 2025.

Cave usage and roosting activity were highest at Cave 15, with roosting recorded every month during the 2024/25 period (Figure 22). Due to limited data between October and February 2024/25, it is difficult to conclusively assess whether activity levels changed compared with 2023/24. However, available data indicate that roosting and usage remained high, with detections between 40% and 100% from October 2024 to September 2025.

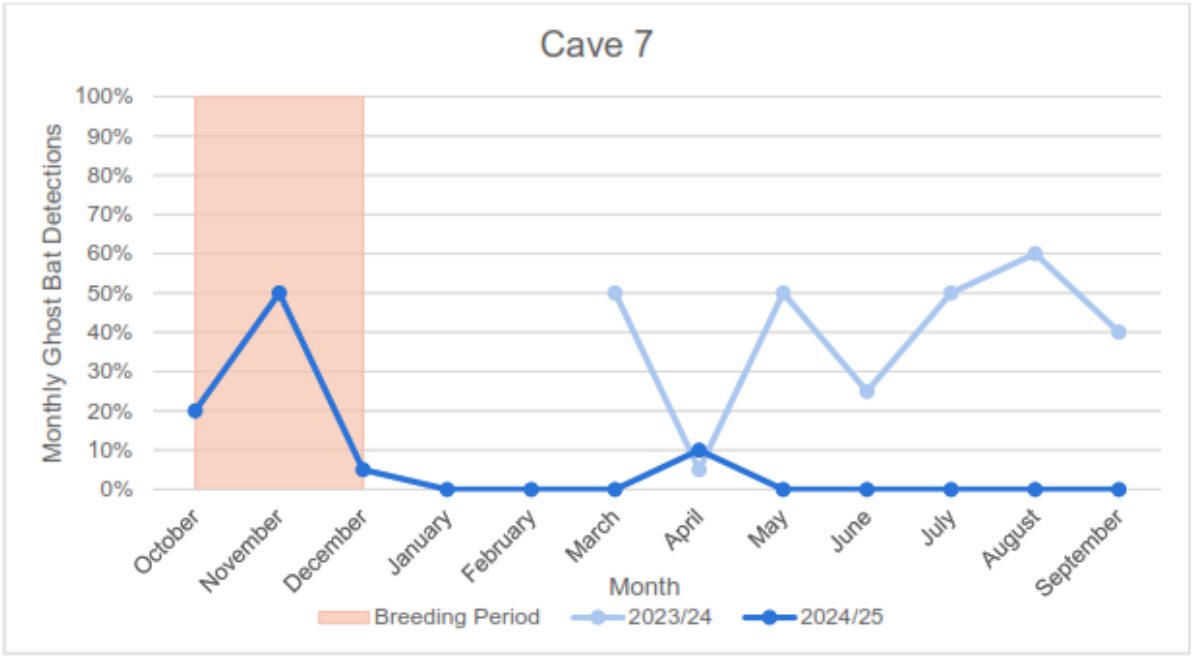


Figure 15: Cave 7 monthly ghost bat detections

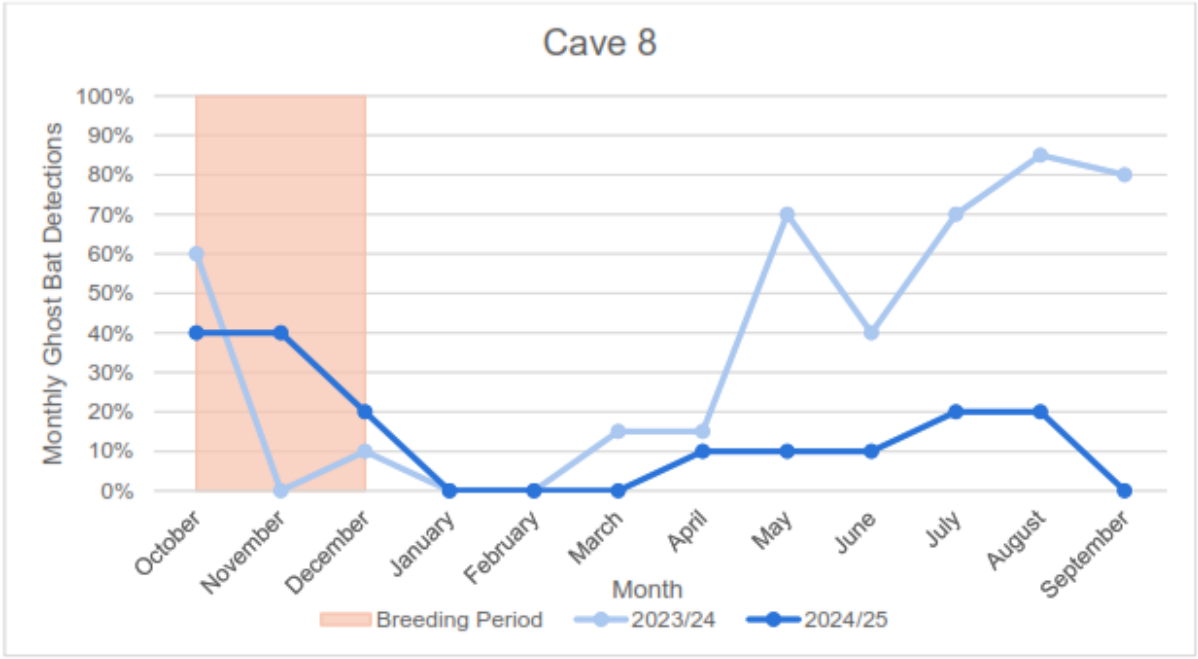


Figure 16: Cave 8 monthly ghost bat detections

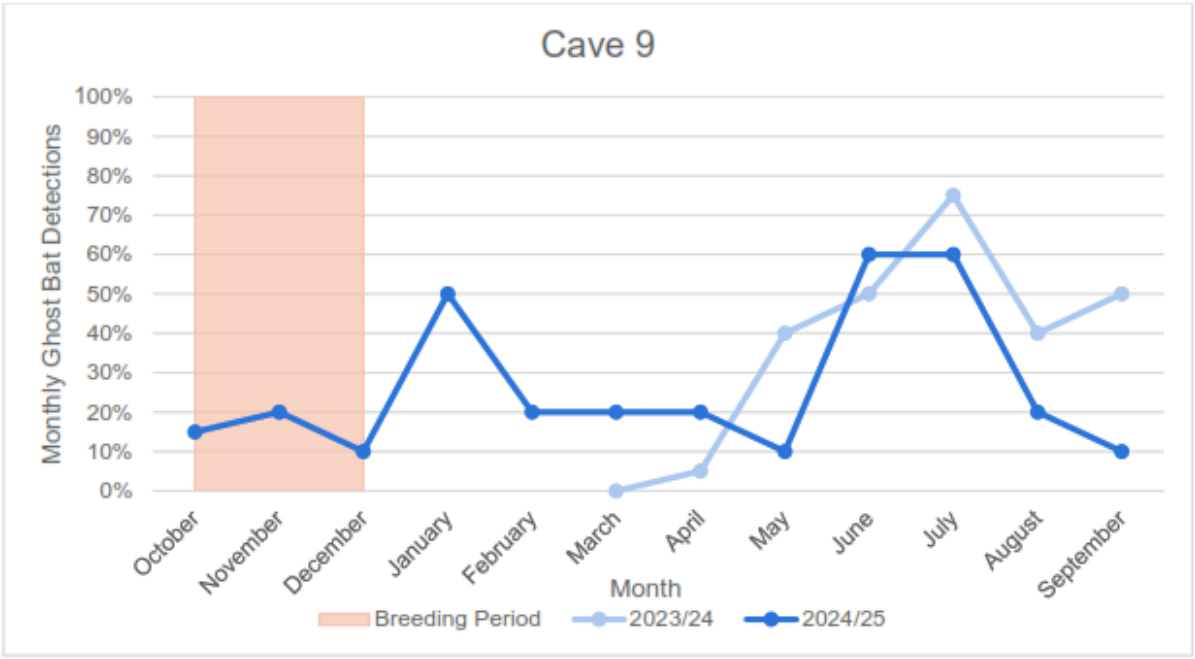


Figure 17: Cave 9 monthly ghost bat detections

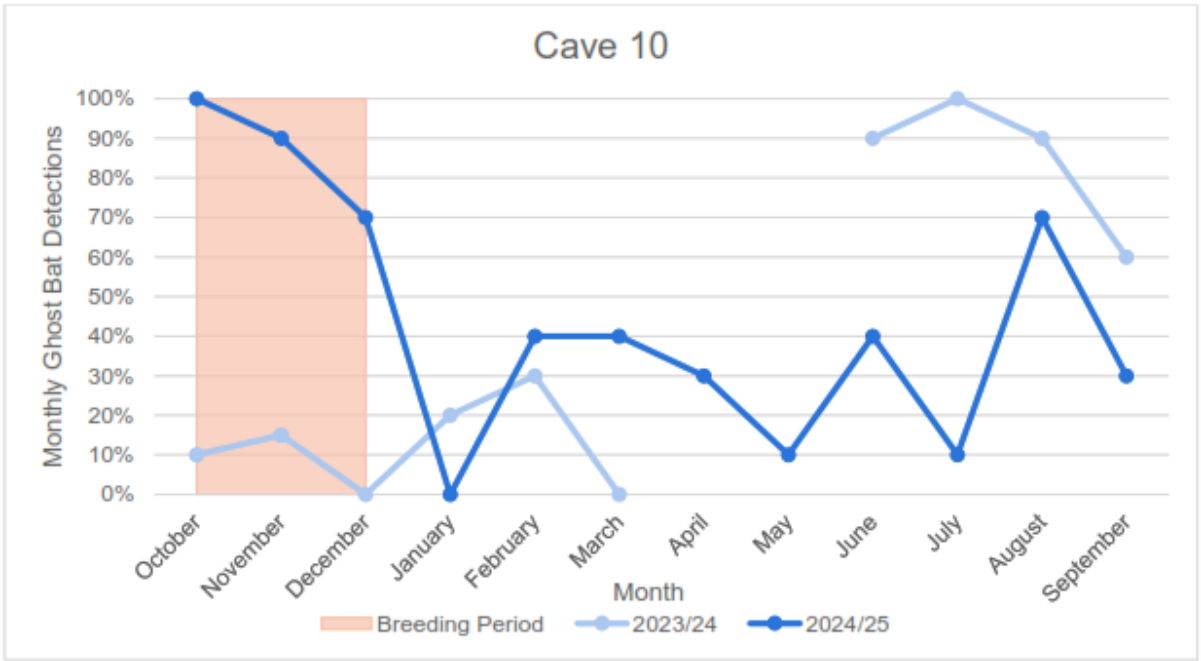


Figure 18: Cave 10 monthly ghost bat detections

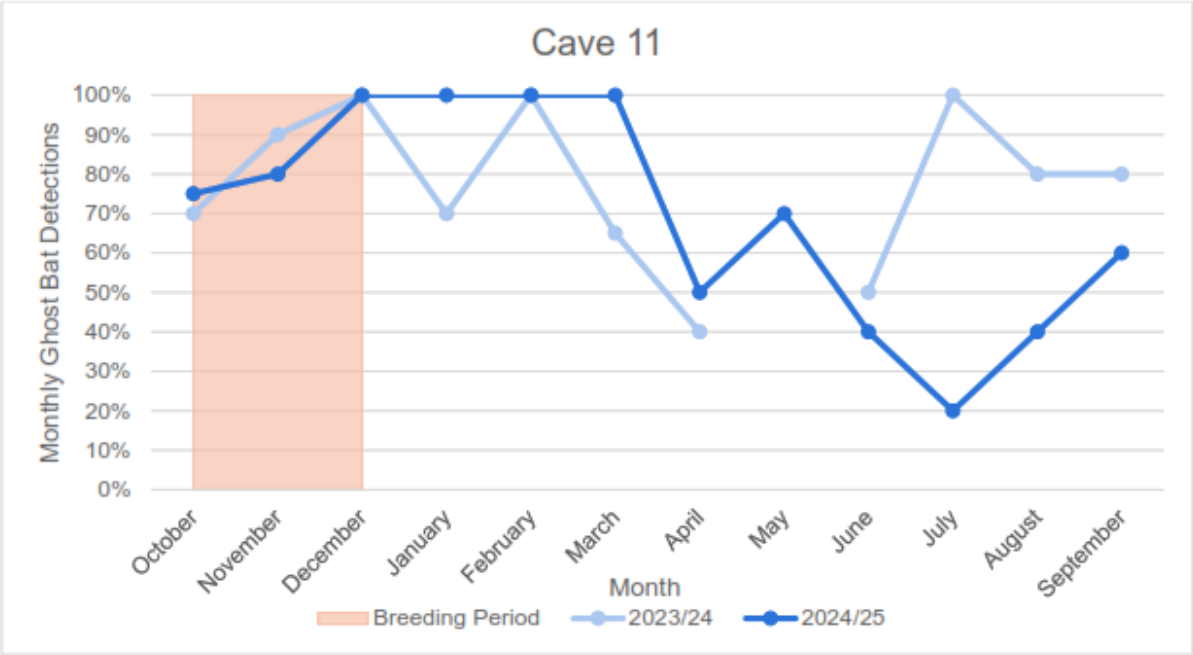


Figure 19: Cave 11 monthly ghost bat detections

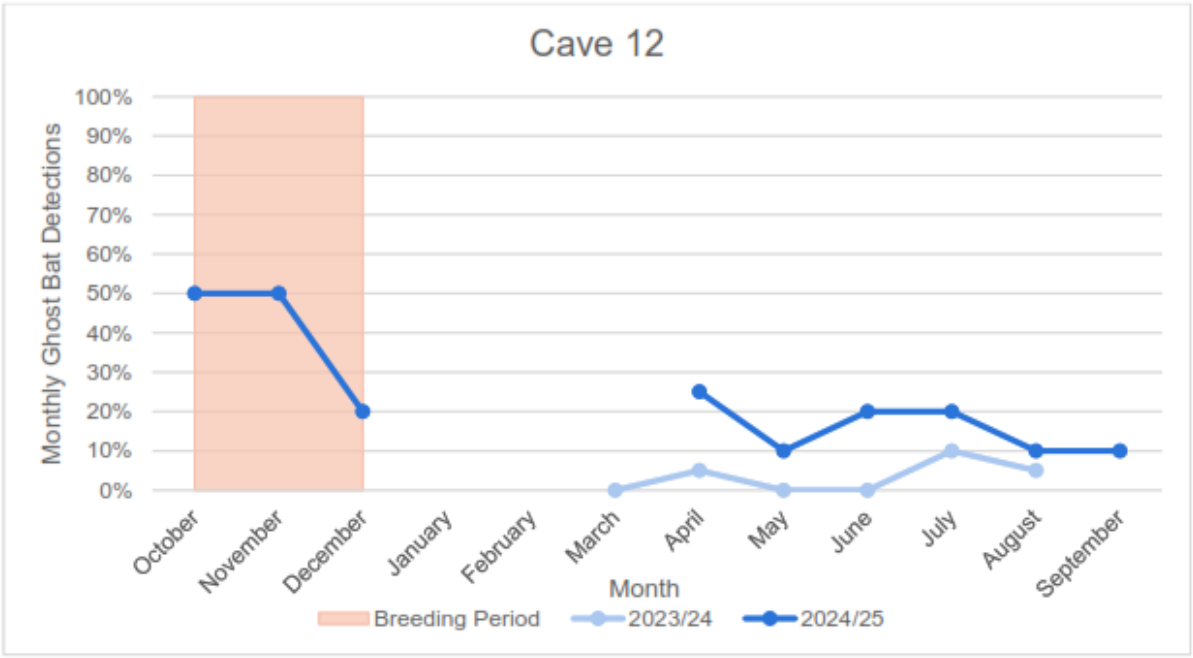


Figure 20: Cave 12 monthly ghost bat detections

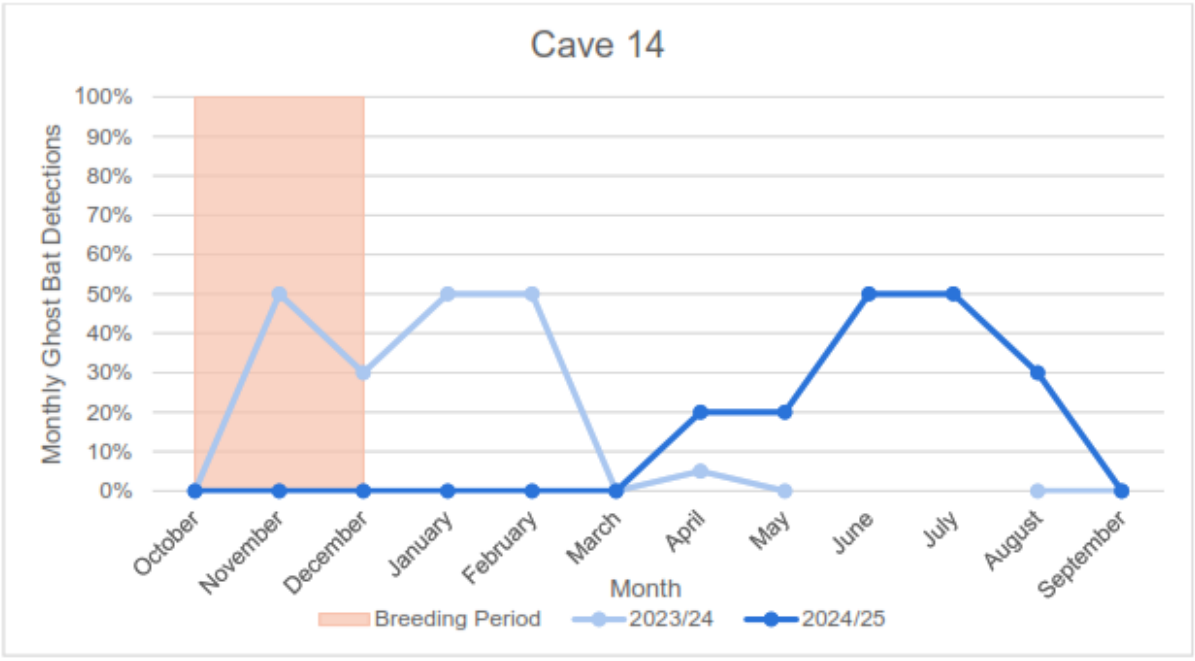


Figure 21: Cave 14 monthly ghost bat detections

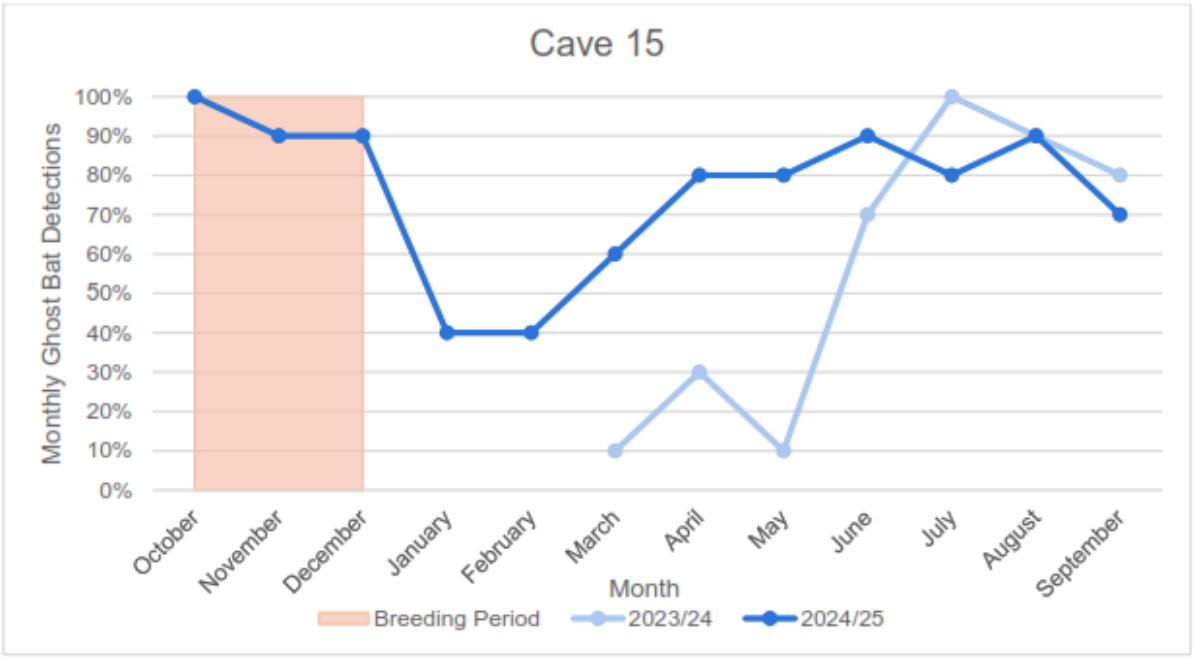


Figure 22: Cave 15 monthly ghost bat detections

Table 5: Ghost bat monitoring compliance table (October 2024 – September 2025)

			Cave Structure Assessment				Microclimate Analysis				Acoustic Monitoring			
Cave	Type	*Required Monitoring Frequency*	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2024	Q1 2025	Q2 2025	Q3 2025
6	Potential Impact	*Quarterly (biannual for acoustic monitoring)*	✓	✓	✓	✓	✓	✓	✓	✓	X		✓	
16	Potential Impact	*Quarterly (biannual for acoustic monitoring)*	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓#	
17	Potential Impact	*Quarterly (biannual for acoustic monitoring*	✓	✓	✓	✓	✓	✓	✓	✓	✓#		✓	
18	Potential Impact	*Quarterly (biannual for acoustic monitoring*	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
11	Reference	*Quarterly (biannual for structure assessment & acoustic monitoring)*	✓		✓		✓	✓	✓	✓	✓		✓	
14	Reference	*Quarterly (biannual for structure assessment & acoustic monitoring)*	✓		✓		X	✓#	✓#	✓#	✓		✓	
15	Reference	*Quarterly (biannual for structure assessment &*	✓		✓		✓	✓	✓	✓	✓		✓	

			Cave Structure Assessment		Microclimate Analysis				Acoustic Monitoring	
		acoustic monitoring)								
2	Reference	*Bi-annual*	✓	✓	*					
7	Reference	*Bi-annual*	✓	✓	✓		✓		✓	✓
8	Reference	*Bi-annual*	✓	✓	✓		✓		✓#	✓
9	Reference	*Bi-annual*	✓	✓	✓		✓		✓	✓
10	Reference	*Bi-annual*	✓	✓	✓		✓		✓	✓#
12	Reference	*Bi-annual*	✓	✓	✓		✓		X	✓

✓ - Data record

✓# - Data record contains gaps due to monitoring equipment failures, however environmental criteria able to be assessed for period

X – Insufficient data for environmental criteria assessment due to monitoring equipment failure

* Not required by EMP

Regional Ghost Bat Monitoring

The EMP requires acoustic monitoring and assessment for Ghost Bats at up to four regional roosts and species tracking of individuals from Western Range to determine species range and patterns of cave usage. A regional monitoring program for Ghost Bats (and Pilbara Leaf nosed Bats) has been initiated by Rio Tinto. This includes surveys to locate new significant roost sites for Ghost Bats (and Pilbara Leaf nosed Bats). It is anticipated that this regional data will feed into the ecology knowledge of these two species, and provide contextual information such as how Ghost Bats (and Pilbara Leaf nosed Bats) use caves within the Greater Paraburdoo area and regionally. Monitoring sites identified to provide data to establish regional presence of Ghost bats include those listed in the table below.

Table 6: Ghost bat monitoring sites

Site	Cave	Category	Distance from Cave 6 (Western Range, Paraburdoo)
Turee Syncline	TSC6	Likely Cat 3 (Provisionally allocated, still to be finalised)	47km
Turee Syncline	TSC8	Likely Cat 2	46 km
Karijini N.P	GB-CA-01	Potential Cat 2	71 km
Karijini N.P	KNP-GB-CA-02	Provisional Cat 3	98 km
Karijini N.P	GB-CA-03	Potential Cat 2	68km
Karijini N.P	GB-CA-13	Provisional Cat 3	108 km
Karijini N.P	GB-CA-16	Potential Cat 2	75 km

Acoustic monitoring equipment is installed at these locations. Data can be found in Appendix 9.

GPS tracking of four Ghost Bats was conducted in 2022 by internal Rio Tinto biologists and consulting bat expert Robert Bullen. It is likely this data will be presented in a peer reviewed scientific paper in the future (expanding on the results presented in Bullen. R., Reiffer. S. & Trainer. J. (2023) Satellite tracking Ghost bats (Macroderma gigas) in the Pilbara, Western Australia.)

3.1.2.2 Pilbara Leaf-nosed Bat Maternity Roost

The Ratty Spring Pilbara Leaf-nosed Bat (PLNb) roost (RSR) is over 1km from the closest construction or operational activities and is considered to be a reference roost. It is not expected to be impacted from the Greater Paraburdoo proposal throughout life of the project. It is monitored due to its regional significance. It is located within a large rocky gully (protected on all sides by high rocky walls) within the Gardagarli Spring.

Disturbance reconciliation

High value Ghost Bat and Pilbara leaf-nosed bat habitat (roosts) are protected within Mining Exclusion Zones (MEZ). An annal disturbance reconciliation found no disturbance within the 250m MEZ for RSR during the reporting period.

Table 7: MEZ Disturbance reconciliation

Location	Trigger (within 250m)	Threshold (roost disturbance)
Ratty Springs PLNB roost	0Ha	0Ha

Cave Structure Assessment

The nearest blasting activities during the reporting period were at 27W pit, which is over 3km to the west of the roost, meaning there was no requirement for vibration monitoring activities. Cave structure was assessed quarterly (above biannual requirement). No evidence of recent structural damage was recorded.

See Appendix 3 for cave structure assessment images.

Acoustic Monitoring

Acoustic Monitoring confirmed the presence of PLNb in the development envelope during the reporting period. For added robustness of the monitoring network, there are two forms of acoustic monitoring at RSR. A SM4 acoustic monitoring device, which is manually analysed by external consultants, is primarily used for data analysis. A separate SM4 unit is connected to BatAI technology which artificially processes bat calls and uploads data to a dashboard within 24hrs. This data is not used for formal analysis, however, provides a current snapshot of bat activity, allowing for proactive environmental management.

In November 2024, RTIO engaged Ecologist Bob Bullen (Bat Call WA) to establish the lower count limit for PLNb at RSR. This has been set at 1,105 calls per night. It is noted by Bat Call WA that typical nightly PLNb call numbers vary greatly with monthly averages between approximately 1,000 and 15,000 per night. Further information can be found in Appendix 6 *Ratty Spring Pilbara leaf-nosed bat monitoring Lower-control-limit* Memo, which will now form an addendum to the EMP.

Total nightly PLNb call activity at the Ratty Springs maternity roost ranged from 70 calls (27 December 2024) to 8,503 calls (29 May 2025) during the 2024/25 monitoring period. The average nightly activity was 2,640 PLNb calls (excluding BatAI data for consistency) (Figure 25), representing a 49% decrease from the 2023/24 monitoring period (M = 5,227).

For most of 2024/25, nightly PLNb calls at the Ratty Springs maternity roost remained above the Lower Control Limit (LCL) of 1,105. However, the total nightly call count dropped below the LCL for five or more consecutive nights on six occasions:

- 10–22 November 2024 (13 nights)
- 24 November 2024 – 2 January 2025 (40 nights)
- 4–12 January 2025 (9 nights)
- 29 January – 2 February 2025 (5 nights)
- 9–21 February 2025 (13 nights)
- 10–15 March 2025 (6 nights)

During the wet season (November 2024 – April 2025) the average nightly call activity was 1,139 calls, increasing during the dry season (May 2025 – October 2025) to 5,161 calls per night. This pattern aligns with historical trends, where PLNb activity is typically lower in the wet season and steadily increases through the dry season. The 2024/25 results follow this trend, with the lowest call counts recorded following heavy rainfall (Figure 25). A similar decline in PLNb calls between November 2024 and March 2025 was also noted at other Pilbara PLNb roosts).

No PLNb call data was collected at Ratty Springs maternity roost between 2 July and 18 August 2025 (48 nights) due to technical issues with the monitoring equipment. However, calls recorded from the backup BatAI system were used to verify that PLNb calls remained above the LCL (1,105). To maintain data consistency and accuracy, BatAI data was not included in formal analysis. On 9 October 2024, the monitoring system - including the solar panel and battery - was upgraded to a newer configuration to prevent the SM4 unit from shutting down and corrupting SD cards.

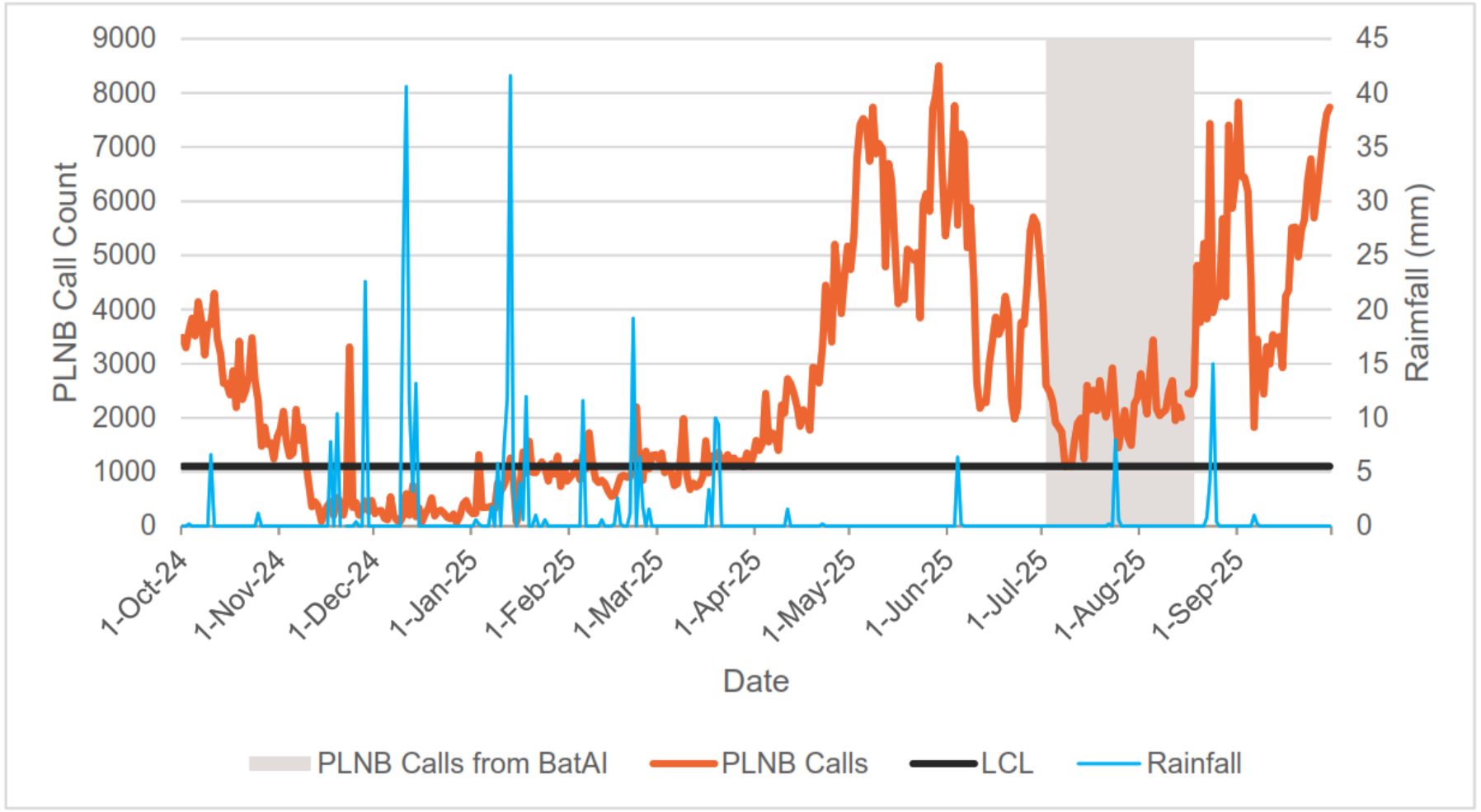


Figure 23: Total PLNB call activity at Ratty Springs maternity roost and daily rainfall (mm) at Paraburdoo between October 2024 and September 2025

Noise Monitoring

Environmental criteria associated with noise monitoring was undertaken with Svantek 977 Sound Level Meter (SLMs) from October 2024 to September 2025 at the Ratty Spring PLNB roost. For added robustness of the monitoring network, there are two forms of noise monitoring at RSR. One Svantek SLM, which is manually analysed by external consultants, is primarily used for data analysis. A separate Svantek SLM unit is connected to NoiseAI technology which artificially processes noise and uploads data to a dashboard within 24hrs. This data is not used for formal analysis, however, provides a current snapshot of noise, allowing for proactive environmental management.

Analysis of noise monitoring data was assessed against RTIO's EMP criteria. For data analysis purposes, Rio Tinto uses frequency filtering so that only frequencies at which noises attributable to mining can occur (25 – 1600 Hz). This is a conservative way to reduce false positive noise exceedances.

Data demonstrated there were zero project attributable 70 db(Z) exceedances and twenty-five non-project attributed 70 db(Z) exceedances. A manual review of all audio alerts indicated that exceedances were driven by extraneous noise sources, including wind, rain, local fauna, rain, thunder and commercial aircraft. The highest frequency filtered time period was on 18 March 2025, with an average of 81.4dB(Z) between 5 – 6pm. On review the dominant noise was rain. Noise levels during the 2024/25 monitoring period were generally comparable to the 2023/24 period.

Table 8 outlines all exceedances of the frequency filtered noise limit and an overview of what can be heard when then recording is listened to. This enables an assessment of project attributability. The noise assessment is then correlated with call count data to enable an overall assessment against the trigger / threshold criteria (Table 2).

Table 8: Gardagarli (Ratty Springs) maternity roost - Trigger / Threshold Criteria Exceedance and Assessment Table

Noise		**Call Count**			
LZ10>70 dB(Z) over a one (1) hour period, at the Pilbara Leaf-nosed Bat maternity roost	**Attributable to proposal?**	**Trigger criterion:** **Reducing call counts at, or below Lower Call Limit for five (5) or more consecutive nights at the Pilbara Leaf-nosed Bat maternity roost**	**Threshold criterion:** **Reducing call count trend identified by the initial trigger criteria 2 remains below Lower Call Limit for 15 consecutive nights at the Pilbara Leaf-nosed Bat maternity roost,**	**Attributable to proposal?**	**Trigger / Threshold Criteria Exceeded?**
24 October 2024 (13:00) – 70.8dB(Z)	No – wind & local fauna	N/A	N/A	N/A	**No**
16 November 2024 (12:00) – 74.3dB(Z)	No - wind	**13 Nights (10 – 22 November 2024)**	N/A	No – seasonal LCL & regional decline	**No**
16 November 2024 (13:00) – 73.5 dB(Z)	No - wind	**13 Nights (10 – 22 November 2024)**	N/A	No – seasonal LCL & regional decline	**No**
9 December 2024 (11:00) – 70.3 dB(Z)	No – wind & insects	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
10 December 2024 (18:00) – 74.2 dB(Z)	No – wind & insects	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**

10 December 2024 (19:00) – 74.2 dB(Z)	No - rain	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
13 December 2024 (13:00) – 70.5 dB(Z)	No - wind	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
14 December 2024 (00:00) – 70.4 dB(Z)	No - rain	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
14 December 2024 (05:00) – 70.9 dB(Z)	No - rain	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
1 January 2025 (19:00) – 71.8dB(Z)	No - wind	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
2 January 2025 (17:00) – 77.2 dB(Z)	No - wind	N/A	**40 Nights (24 November 2024 – 2 January 2025)**	No – seasonal LCL & regional decline	**No**
13 January 2025 (05:00) – 71.1 dB(Z)	No - wind	N/A	N/A	N/A	**No**
19 January 2025 (13:00) – 70.7 dB(Z)	No - wind	N/A	N/A	N/A	**No**
19 January 2025 (14:00) – 71.6 dB(Z)	No - wind	N/A	N/A	N/A	**No**
19 January 2025 (15:00) – 72.4 dB(Z)	No - wind	N/A	N/A	N/A	**No**

4 February 2025 (16:00) – 72.6dB(Z)	No - rain	N/A	N/A	N/A	**No**
4 February 2025 (17:00) – 72.7dB(Z)	No - wind	N/A	N/A	N/A	**No**
21 February 2025 (19:00) – 76.9dB(Z)	No – wind & rain	13 Nights – (9 – 21 February 2025)	N/A	No – seasonal LCL & regional decline	**No**
22 February 2025 (19:00) – 72.0dB(Z)	No – wind, rain & thunder	N/A	N/A	N/A	**No**
23 February 2025 (15:00) – 72.9dB(Z)	No – wind & rain	N/A	N/A	N/A	**No**
8 March 2025 (18:00) – 72.1dB(Z)	No - rain	N/A	N/A	N/A	**No**
8 March 2025 (19:00) – 73.5dB(Z)	No – rain, wind & thunder	N/A	N/A	N/A	**No**
18 March 2025 (17:00) – 81.4dB(Z)	No - rain	N/A	N/A	N/A	**No**
19 March 2025 (16:00) – 72.5dB(Z)	No – rain, wind & thunder	N/A	N/A	N/A	**No**
2 May 2025 (11:00) – 78.4dB(Z)	**Yes - Wind dominant, mining equipment audible**	N/A	N/A	N/A	**No**

Table 9: Gardagarli (Ratty Springs) maternity roost - Monitoring Compliance Table

			Cave Structure Assessment		Acoustic Monitoring				Noise Monitoring
Cave	**Type**	***Required Monitoring Frequency***	**H1**	**H2**	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Continuous**
RSR	Reference	*Cave structure biannual, acoustic quarterly, Noise monitoring post blast or as triggered*	✓	✓	✓	✓	✓	✓#	✓#

✓ - Data record complete

✓# - Data record contains gaps due to monitoring equipment failures, however environmental criteria able to be assessed for period using back-up AI system.

X – Data not recorded for period

3.2 Inland water, Riparian vegetation and subterranean fauna

3.2.1 Environmental criteria

The below table summarises the environmental criteria associated with inland waters and terrestrial fauna required by Ministerial Statement 1195.

Table 10: Environmental criteria associated with inland waters, riparian vegetation and subterranean fauna

Key environmental factor: Inland waters and terrestrial fauna	
Environmental outcomes, trigger and threshold criteria and management targets as per MS1195	**Reporting period 1 January – 31 December 2025**
Trigger criterion:	**Status report:**
1. Persistent groundwater fed pool surface water level fall below historically recorded natural range during wet-season or dry-season monitoring at (Gardagarli [Ratty Springs]), attributable to the Proposal	Criteria not exceeded
2. Greater proportion of overstorey indicator stands within the Gardagarli (Ratty Springs) capture zone of Pirraburdu Creek show a significant declining trend in MSAVI since baseline, and/or greater average rate of decline, in comparison to reference areas, attributable to the Proposal.	Criteria not exceeded
3. Significant decline in number and/ or change in composition of native perennial species within Gardagarli (Ratty Springs) monitoring areas since baseline, in comparison to reference areas, attributable to the Proposal.	Criteria not exceeded
4. Groundwater level changes in the riparian zone of Seven Mile Creek are greater than predicted during wet-season or dry-season monitoring, attributable to the Proposal. Specifically, water levels in any of the bores fall below respective trigger criteria water levels, attributable to the Proposal	Criteria exceeded
5. Greater proportion of overstorey indicator stands[1] within zone 1 of Seven Mile Creek shows a significant declining trend in MSAVI since baseline, and/or greater average decline, in comparison to reference areas	Criteria exceeded
6. Persistent groundwater fed pools (Gardagarli (Ratty Springs) and Gurungu (Doggers Gorge)) surface water levels fall below historically recorded natural range during wet or dry season monitoring, attributable to the Proposal.	Criteria not exceeded
7. Persistent surface water fed gorge pools (WR01-W01, WR01-W03, WR01-W06) are dry during a wet season or dry season monitoring event, attributable to the Proposal	Criteria not exceeded
8. Non-persistent surface water fed gorge pools (ERP3 and ERP 4) are dry during a wet season monitoring event, attributable to the Proposal.	Criteria not exceeded
9. Pool water quality change is greater than predicted[2]at WR01-W01, WR01-W03, WR01-W06, ERP3, ERP 4, Gardagarli (Ratty Springs) and Gurungu (Doggers Gorge) during wet-season or dry-season monitoring, attributable to the Proposal	Criteria not exceeded
Threshold criterion:	**Status report:**

1. Persistent groundwater fed pool surface water levels fall below historically recorded natural range during wet or dry season monitoring at Gardagarli (Ratty Springs), during two (2) consecutive wet season or dry season monitoring events, attributable to the Proposal	Criteria not exceeded
2. More than one monitoring site within Gardagarli (Ratty Springs) monitoring areas displays significant structural or compositional change to key species since baseline, attributable to the Proposal.	Criteria not exceeded
3. The area of decline below the MSAVI baseline 5th percentile for overstorey canopy area within zone 1 of Seven Mile creek is 10%[3] greater than reference areas, trend continues over two or more consecutive dry season monitoring events with no evidence of seasonal recovery, is outside of historical baseline variation, and attributable to the Proposal	Criteria not exceeded
4. Vegetation community within zone 1 of Seven Mile Creek displays structural or compositional change since baseline and trends attributable to the Proposal and different to reference areas.	Criteria not exceeded
5. Persistent groundwater fed pools (Gardagarli (Ratty Springs) and Gurungu (Doggers Gorge)) surface water levels fall below historically recorded natural range during wet or dry season monitoring, during two (2) consecutive wet season or dry-season monitoring events[4] attributable to the Proposal	Criteria not exceeded
6. Persistent surface water fed gorge pools (WR01-W01, WR01-W03, WR01-W06) are dry during two (2) consecutive wet season monitoring events attributable to the Proposal.	Criteria not exceeded
7. Non-persistent surface water fed gorge pools (ERP3 and ERP 4) are dry during two (2) consecutive wet season monitoring events, attributable to the Proposal.	Criteria not exceeded
8. Pool water quality change is greater than predicted at WR01-W01, WR01-W03, WR01-W06, ERP3, ERP 4, Gardagarli (Ratty Springs) and Gurungu (Doggers Gorge) during two (2) consecutive wet season and dry season monitoring events attributable to the Proposal	Criteria not exceeded

3.2.2 Results, analysis and interpretation

3.2.2.1 Monitoring Methodology

3.2.2.1.1 Remote Sensing

High resolution satellite imagery (WorldView (WV)) is captured at the end of the dry season, with freely available medium (Sentinel-2) and coarse (Landsat) resolution imagery captured throughout the year. Spectral indexes are applied to the imagery to extract vegetation condition trends and generate a likelihood layer of overstorey phreatophyte vegetation. Vegetation indexes such as the Modified Soil Adjusted Index (MSAVI) is positively related to vegetation presence due to the absorption and reflectance characteristics from the red and near-infrared (NIR) bands. Vegetation that is healthy has high photosynthetic activity, absorbing energy in the red band and strongly reflecting in the NIR band, while in vegetation that is unhealthy the contrast between absorption and reflectance between bands is minimal. Further information can be found in Astron 2025.

Long-term Landsat (1986 to 2024) MSAVI values are assessed at a stand level across each monitoring zone for Seven Mile Creek and Ratty Springs trigger criterion. A stand is a 150m x 150m cell, in which each cell overlays at least 20 phreatophyte overstorey canopies. The analysis is designed to detect localised trends in MSAVI since baseline and compare the proportion of stands showing a significant declining trend to baseline and reference values.

Thresholds are informed by MSAVI baseline statistics (5th percentile) within the canopy union layer, derived from WV imagery. The canopy union layer represents the baseline canopy extent of likely phreatophyte overstorey vegetation. The layer is derived from machine learning techniques, utilising training data of phreatophytes and numerous spectral indices to separate understorey and overstorey vegetation. A decrease below the MSAVI baseline 5th percentile represents a change below the lower end (one-tailed) of a normally distributed data set and may indicate that canopy health has decreased beyond patterns of natural variation. Long-term seasonal and regional trends derived from Landsat and Sentinel imagery are used to validate and distinguish project related impacts from natural seasonal variation. In addition, fire scars and rainfall data are qualitatively compared to remote sensing results.

Rainfall analysis is also completed in conjunction with remote sensing. In 2025, the total rainfall (estimated 184.20 mm at Paraburdoo) was below the long-term average (1890 to 2023) of 253 mm and was lower than the rainfall total in 2024 of 238 mm. Monthly rainfall was below the long-term monthly average rainfall for all months of the reporting period.

Remote sensing for Paraburdoo is captured for Gardagarli (Ratty Springs) and Seven Mile Creek and the results are presented in the following Sections 4.3.2.2 and 4.3.2.3.

3.2.2.1.2 On-ground vegetation monitoring

Monitoring of riparian vegetation was carried out across 20 established sites within six priority areas (PAs): Gardagarli (Ratty Springs) (PA1), Seven Mile Creek (PA2 and PA4), Dalarn (Howie's Hole) and Gurungu (Dogger's Gorge) (PA3), Bellary Creek (PA5), and Pirraburdu Creek (PA6). These sites include 14 potential impact sites within PA1, PA2 (Zone 1 of Seven Mile Creek in the EMP), PA3 (Gurungu), PA4, and PA6, along with six reference sites located in PA3 (Dalarn), PA4, and PA5. Data on floristic composition and vegetation condition were collected from three to five quadrats at each site, with tree health assessments conducted on 10 to 15 permanently marked Eucalyptus camaldulensis and Eucalyptus victrix trees per site.

3.2.2.2 Riparian vegetation of Gardagarli (Ratty) Springs

3.2.2.2.1 Remote sensing of riparian vegetation

Remote sensing of riparian vegetation within Gardagarli (Ratty Springs) is analysed to identify broad scale trends in riparian condition and cover by evaluating an index of vegetation health and likelihood layer of overstorey phreatophyte canopy extent. The results are used to assess the Trigger and Threshold criterion listed in Table 13. Riparian monitoring zones, categorised as either potential impact or reference, are listed in

Table 9. Baseline monitoring ended in 2023 with the commencement of dewatering. Background on the data captured for remote sensing analysis is provided in Section 3.2.2.1.1.

Table 11: Environmental Management Plan riparian management zone Gardagarli (Ratty Springs), comparative reference zone and high-resolution image availability

Riparian Management Zone	Environmental Value	Comparative Reference Zone	Imagery Availability
Gardagarli (Ratty Spring)	Pirraburdu Creek/Ratty Spring	Bellary Creek Reference Tabletop North Reference Tabletop South Reference Howie's Hole	2018-2025 (WV) 1986-2025 (Landsat)

WV indicates high-resolution WorldView imagery.

MSAVI data for Gardagarli (Ratty Springs) displayed that MSAVI values across all three sensors (Landsat, Sentinel-2 and Worldview) varied depending on the period for data capture. For Landsat data (1986 to 2025), Ratty Springs had a positive trend in mean change in MSAVI within stands during the baseline period (0.00176) and a slope more positive than the average of the comparative reference zones (0.00025 for the potential impact period). The median MSAVI value from the WorldView data increased between 2024 to 2025, indicating a positive seasonal recovery reflective of the increased rainfall in 2025. In comparison to reference zones, it was slightly under the 75th percentile and slightly lower than the 2024 values which were within the 95th percentile. No areas of decline were identified within the imagery upon visual inspection.

The EMP trigger for Ratty Springs as listed in Table 8 was not exceeded in 2025. The trigger is assessed as exceeded if by either the percentage of stands with a negative slope in MSAVI since baseline within Ratty Springs is more than the mean of the corresponding reference zones or; Ratty Springs has a greater average decline than the mean of the corresponding reference zones. Over the potential impact period (the potential impact zone) Ratty Springs had a lower percentage of stands with a negative slope (12.5%) compared with the respective reference zone averages (39.9%). Ratty Springs also had positive MSAVI trends in mean change within stands during both the baseline period (0.00371) and potential impact period (0.00176) compared to the reference zone average for the baseline period (-0.00123) and potential impact period (0.00025).

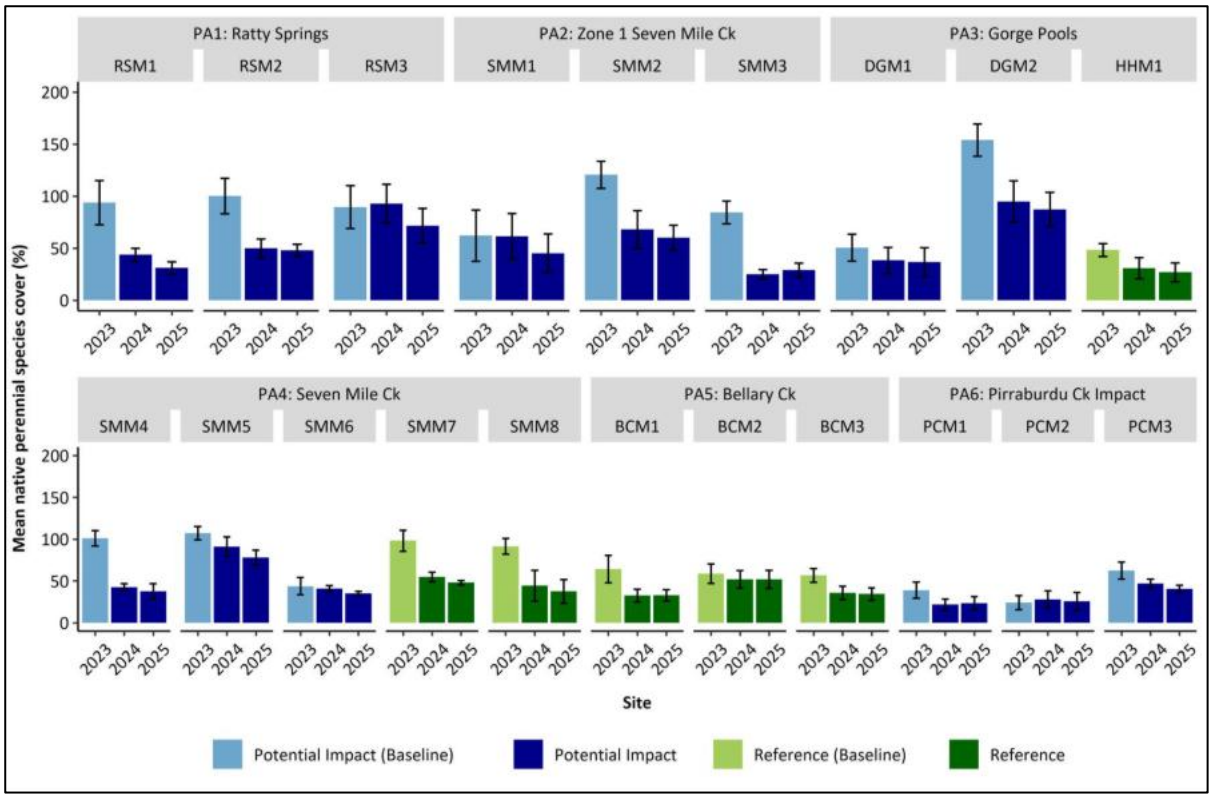
Thus, the proportion of overstorey indicator stands within Ratty Springs did not show a significant declining trend in MSAVI since baseline or greater average rate of decline in comparison to reference areas and was not exceeded in 2025.

3.2.2.2.2 On ground vegetation monitoring

In the 2025 reporting period, no trigger or threshold criteria were exceeded. One site (RSM1) was significantly different compared to its associated reference sites since baseline (2023) (Figure 24). With analysis of groundwater drawdown, rainfall, and discharge, the decline in cover was determined to be attributable to natural variation in environmental conditions.

There were no significant changes between baseline (2023) and 2025 in native perennial species assemblages for any of the priority areas, and there were no significant differences in the manner of change in native perennial species assemblages since baseline (2023) between any priority area and associated reference sites.

Significant structural change since baseline occurred in all sites, including 94% of reference sites, the threshold criteria was not exceeded as this difference is less than 20 percentage points and there were no losses of species that were dominant at baseline.



Values are mean and standard error of the variation across quadrats.

Figure 24: Cover (%) of native perennial species at each site from 2023 to 2025, with sites grouped by priority area (PA)

3.2.2.3 Riparian vegetation of Seven Mile Creek

3.2.2.3.1 Remote Sensing of Riparian Vegetation

Remote sensing of riparian vegetation within Seven Mile Creek is analysed to identify broad scale trends in riparian condition and cover by evaluating an index of vegetation health and likelihood layer of overstorey phreatophyte canopy extent. The results are used to assess the Trigger and Threshold. Riparian monitoring zones, categorised as either potential impact or reference, are listed in Table 8. Baseline monitoring in 2023 with the commencement of dewatering. Background on the data captured for remote sensing analysis is provided in Section 3.2.2.1.1.

Table 12: Environmental Management Plan riparian management zone for Seven Mile Creek, comparative reference zone and high-resolution image availability

Riparian Management Zone	Environmental Value	Comparative Reference Zone	Imagery Availability
Zone 1 Low Management	Seven Mile Creek	Paraburdoo Upstream Reference North Paraburdoo Upstream Reference South Paraburdoo Downstream Reference Pirraburdu Downstream Reference Pirraburdu Upstream Reference Seven Mile Reference Tabletop North Reference Tabletop South Reference	2018-2025 (WV) 2015-2025 (Sentinel-2) 1986-2025 (Landsat)

WV indicates high-resolution WorldView imagery.

The MSAVI data for Zone 1 Low Management did not vary across the WorldView and Sentinel sensors in 2025, with the 2025 median MSAVI value above the baseline median and reference zones. For the Landsat dataset, the 2025 median MSAVI value was lower than the baseline median, however higher than the

reference zone combined. When assessing the trend in MSAVI values per stand within Zone 1 Low Management, the average decline within the potential impact period (-0.00060) was greater than the reference zones (-0.00035). No significant areas of decline were identified in the MSAVI data and high-resolution imagery indicating potential declines in understorey may have influenced this value as there were neutral changes in the higher resolution imagery (WorldView).

The EMP trigger as listed in Table 8 was exceeded in 2025 for Zone 1 Low Management. The trigger for Zone 1 Low Management is assessed as exceeded if either the percentage of stands with a negative slope in MSAVI since baseline within Zone 1 Low Management is more than the mean of the corresponding reference site or; the Zone 1 Low Management has a greater average decline than the mean of the corresponding reference zones (Table 10). Both conditions were exceeded with the average decline in MSAVI trends greater than reference zones (-0.00060 versus –0.00035) and the percentage of stands with a negative slope was 79.4% at Zone 1 Low Management in comparison to the combined reference (66.9%).

The threshold criterion as listed in Table 8 was not exceeded in 2025 for Zone 1 Low Management. The threshold criterion for Seven Mile Creek is assessed through two criteria that must both be met for there to be an exceedance. Criteria one specifies that the proportion of pixels below the baseline 5th percentile within Zone 1 Low Management is 10 percentage points or greater than mean of the corresponding reference zones and secondly criteria one is to have been met for at least two consecutive annual dry season monitoring events.

The remote sensing analysis from 2025 displayed that the percentage area of potential GDV canopy with a MSAVI value below the 5th percentile was 7.9% for Zone 1 Low Management. Compared to the reference zone, Zone 1 Low Management was less than 10 percentage points greater than the comparative reference zone average (9.6%). Thus, the proportion of pixels below the 5th percentile for Zone 1 Low Management was similar to the corresponding reference zones. Hence the threshold criterion was not exceeded.

3.2.2.3.2 On ground vegetation monitoring

In the 2025 reporting period, no trigger or threshold criterion were exceeded. Structural changes were noted in 100% of quadrats since the baseline (2023), but these changes were consistent with the reference areas, and no loss of dominant species occurred. A decrease in cover of native perennial species was observed; however, this was in line with reference sites (Figure 26). Total native species richness varied across majority of sample sites (Figure 25).

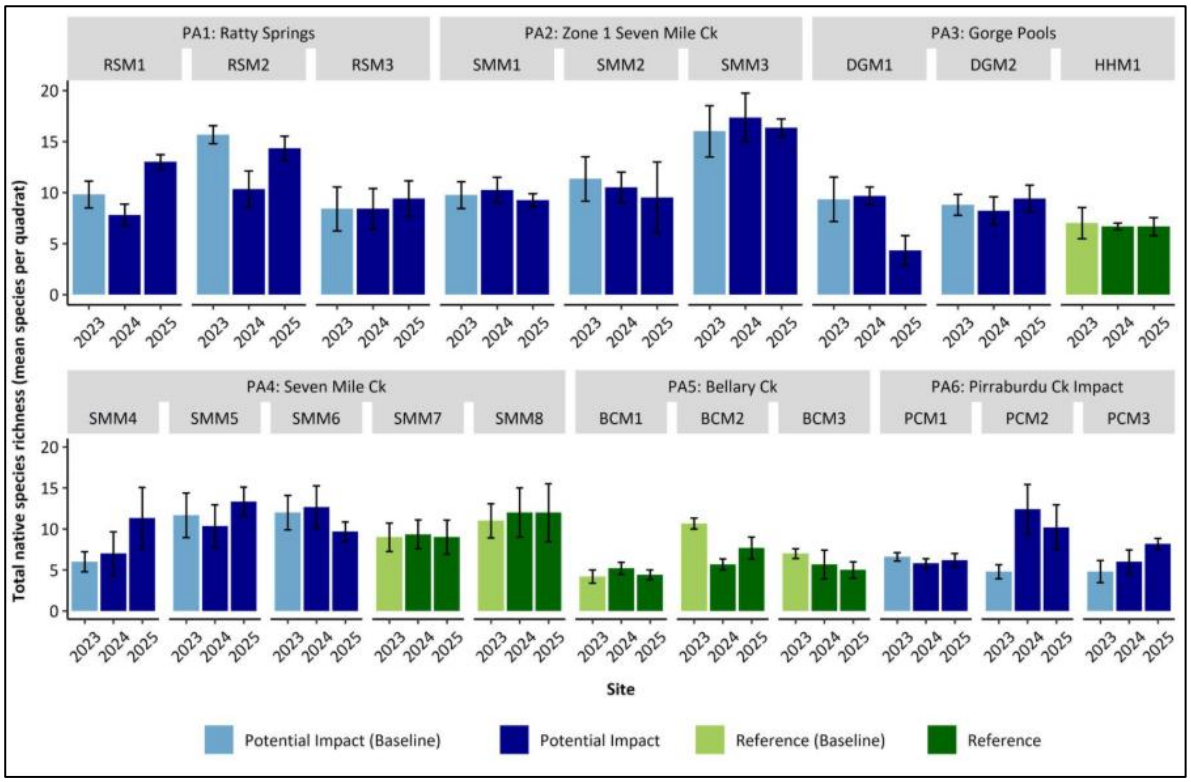


Figure 25: Species richness of all natives within each site from 2023 to 2025, with sites grouped by priority area (PA)

3.2.2.4 Groundwater levels in the riparian zone of Seven Mile Creek

Environment criteria for inland waters requires the monitoring of three compliance bores in Seven Mile Creek to ensure impacts to groundwater levels in the riparian zone are not greater than predicted. The three bores are MB17NLC005, MB19SMC0004, and MB19SMC0001.

MB17NLC0005

During quarter 4 of the reporting period, MB17NLC0005 groundwater levels dropped below 339.6mRL exceeding the EMP early warning criteria. An incident was lodged and investigation commenced. The investigation found that the Paraburdoo Operations drawdown at Seven Mile Creek was greater than predicted. Immediate action resulted in the isolation of nearby bore, WB254EE0002 to help with aquifer assessment and prevention of the trigger exceedance. A complete early response action was deployed as per the EMP including assessment of regional groundwater and climactic data risks to riparian vegetation and a full review of abstraction rate and number of bores.

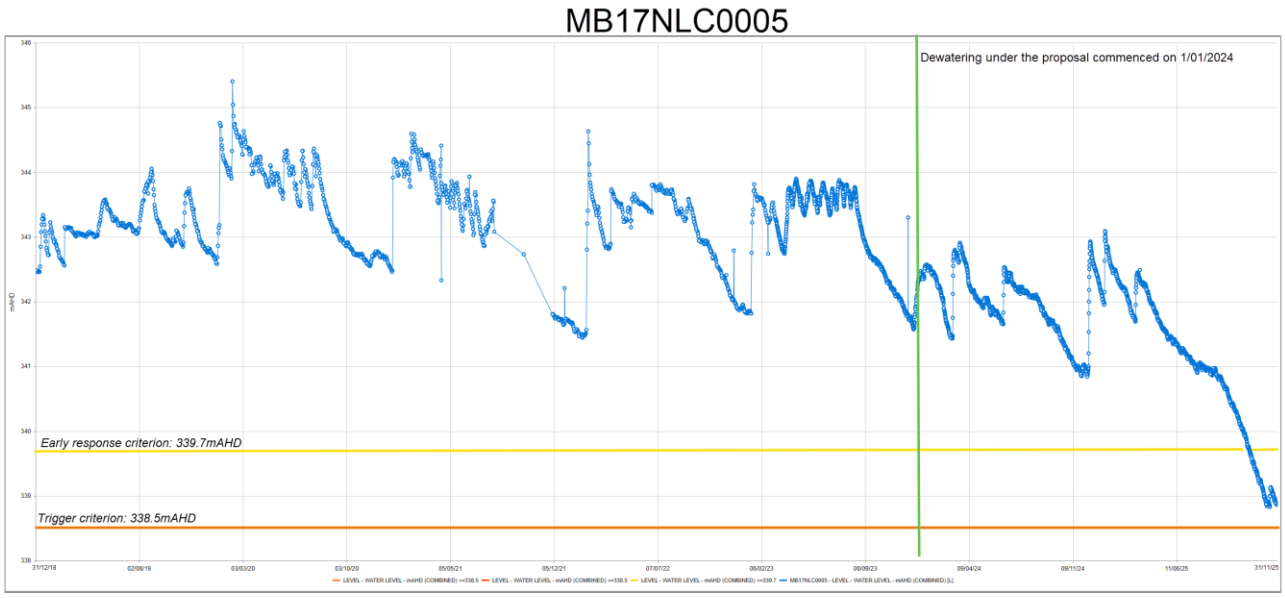


Figure 26: Groundwater level at MB17NLC0005 – 2018 to 2025

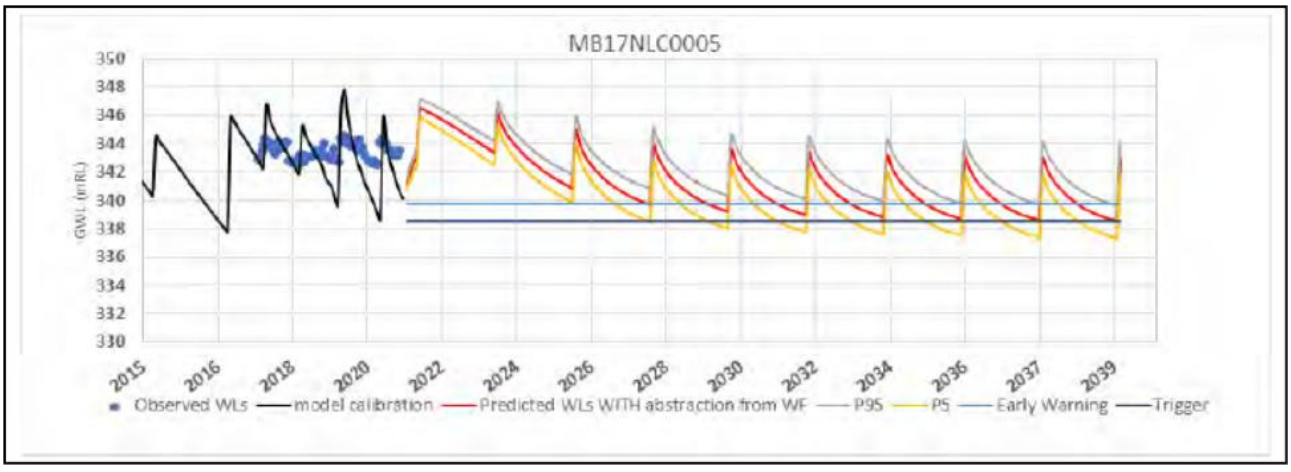


Figure 27: Predicted groundwater levels for MB17NLC0005 from EMP

MB19SMC0004

As reported in the 2024 ACAR, the trigger level was exceeded in the 2024 reporting period. An incident was lodged and investigation completed. The investigation found that the compliance bore (MB19SMC0004) is monitoring the deep aquifer rather than the shallow alluvial aquifer that supports the riparian vegetation. As the compliance bore is a set of two nested bores, one screened in the shallow aquifer and another screened

in the deep aquifer at the same master well (Figure 28). The one screened in the shallow aquifer (MB19SMC0003) has not hit the trigger or early response levels, while the one screened in the deep aquifer (MB19SMC0004) has exceeded both the trigger and early response level.

The incorrect bore has been embedded in the EMP by error. This error in the EMP will be rectified in a future amendment of the Environmental Management Plan. In the interim, both the shallow and deep bores at the location of MB19SMC0004 will be monitored and reported and will be reported as a trigger exceedance.

The deep aquifer showed continued decline during the reporting period. The shallow aquifer experienced a recharge event and is more stable.

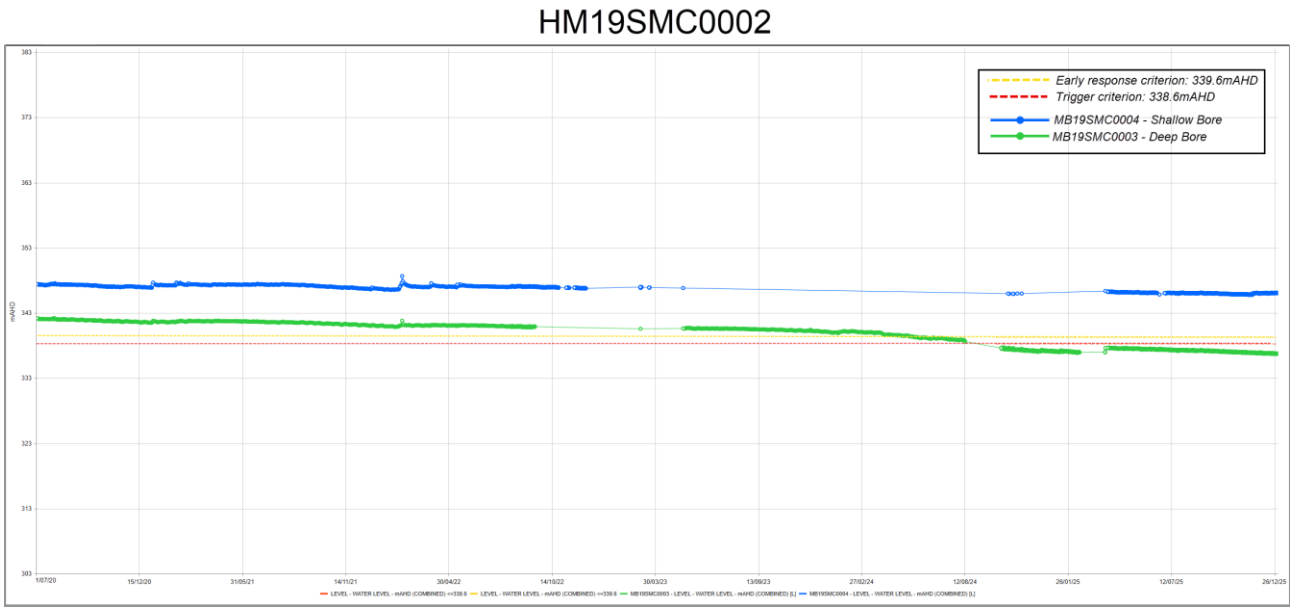


Figure 28: Deep and shallow bores at location of MB19SMC0004 & MB19SMC0003 (master well HM19SMC0002)

MB19SMC0001

No early warning criterion was exceeded during the reporting period at MB19SMC0001. Slight drawdown at this monitoring location is predicted by environmental impact modelling conducted for the EMP, as displayed in Figures 29 and 30. Observed groundwater monitoring levels are within the higher end of the modelled range forecast in the EMP, with observed figures being close to the 95th percentile forecast. Figure 31 shows an apparent decline in groundwater for the reporting period. This is a result of failed telemetry equipment. A replacement of telemetry equipment at this location will be reinstated.

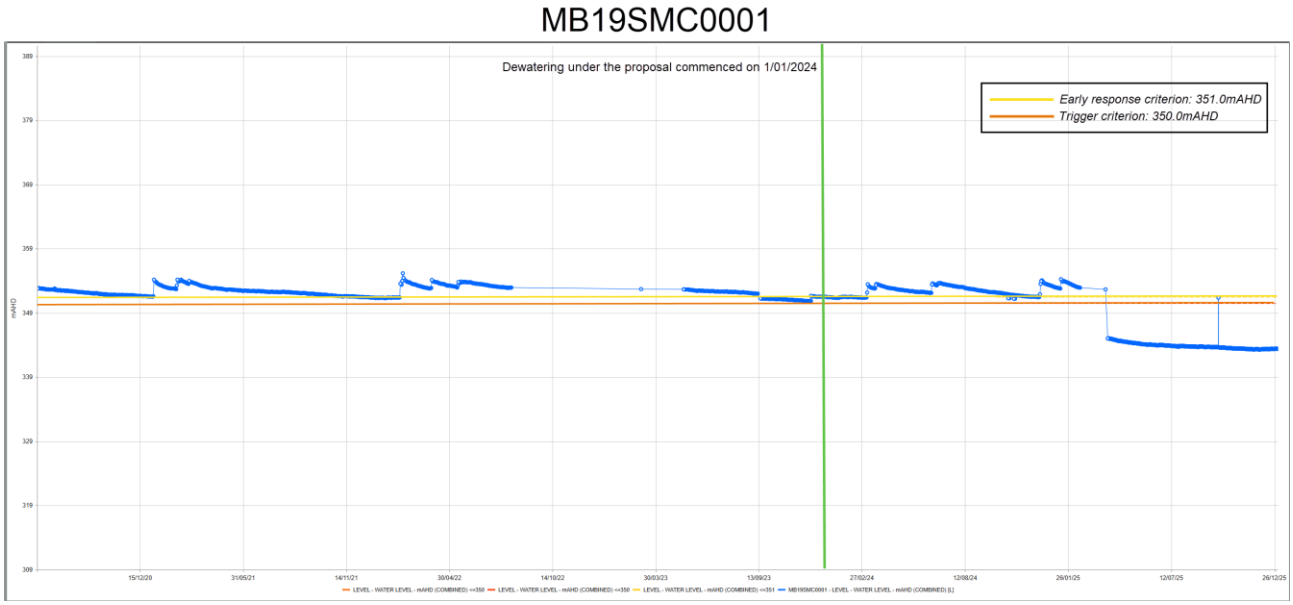


Figure 29: Groundwater level at MB19SMC0001- 2020 to 2025

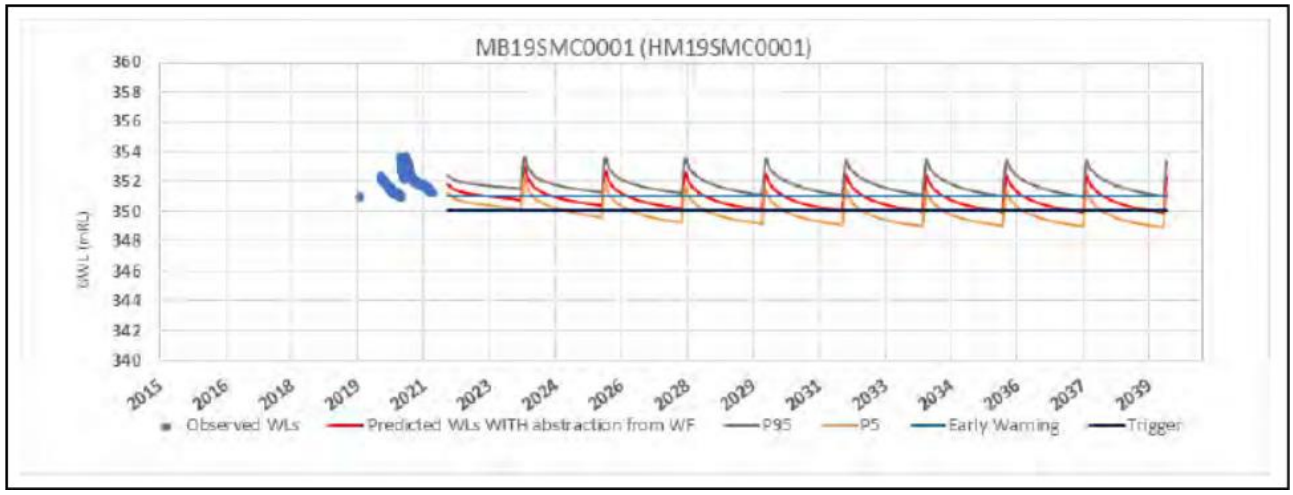


Figure 30: Predicted groundwater levels for MB19SMC0001 from EMP

3.2.2.5 Groundwater at the Seven Mile Creek Riparian Zone, north of the Development Envelope

Monitoring bores tracking groundwater levels in the riparian zone in Seven Mile Creek north of the development envelope did not show a decline in water levels outside that of natural variation (Figures 31 and 32).

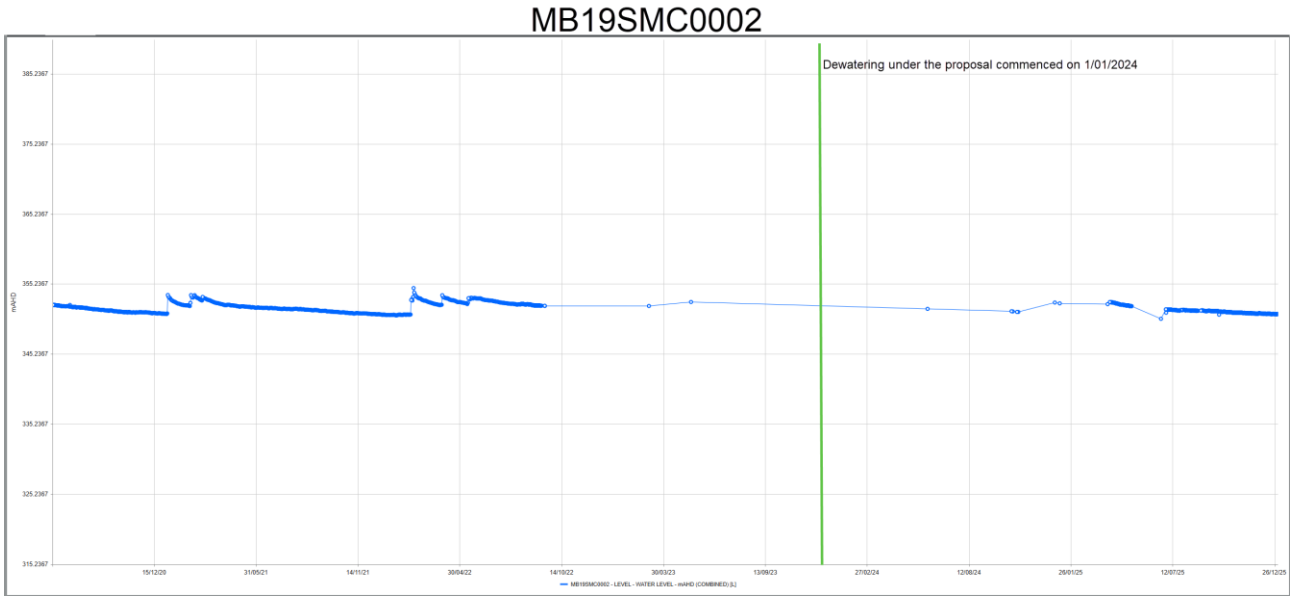


Figure 31: Groundwater levels at MB19SMC0002 – 2020 to 2025

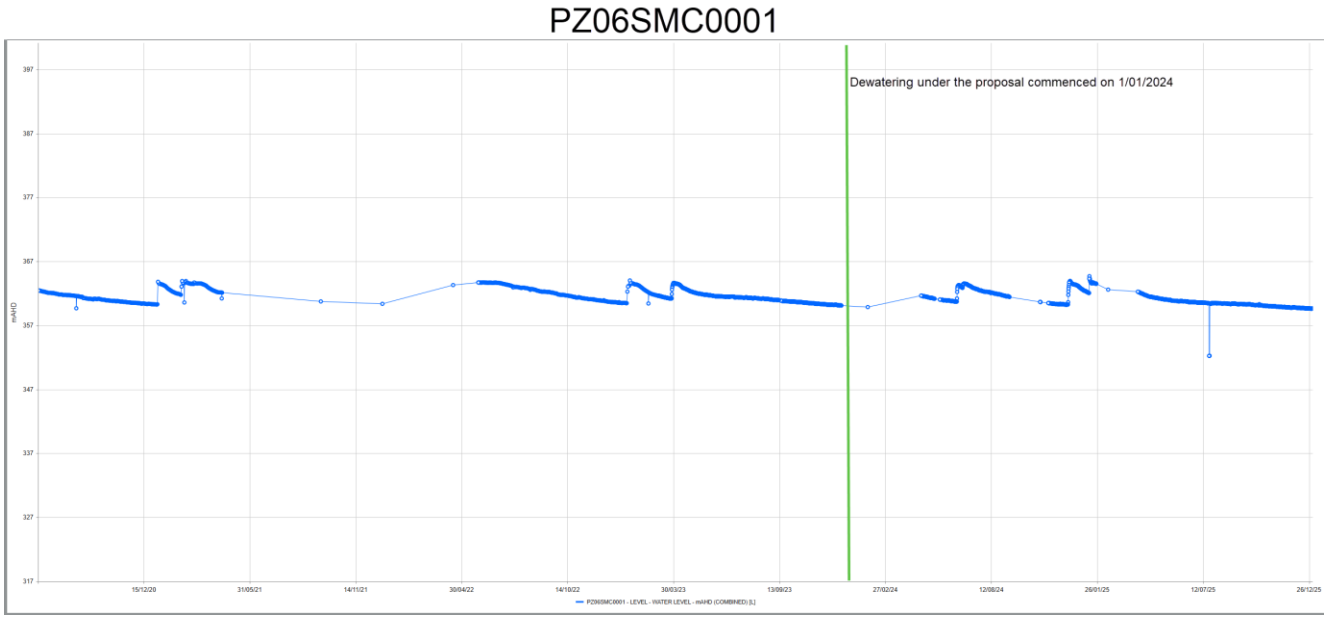


Figure 32: Groundwater levels at PZ06SMC0001 – 2020 to 2025

3.2.2.6 1.2.2.6 Water Level & Quality at Western Range Gorges, Eastern Range Pools, Gardagarli (Ratty) Springs & Gurungu (Doggers Gorge)

Western Range Gorges

The Western Range gorges are persistent surface water fed gorge pools. They contained water at all monitoring events during the reporting period. Pool surface water level monitoring images can be found in Appendix 2.

As stated in the EMP, Rio Tinto will update the predicted pool water quality data for each relevant pool at the conclusion of baseline (after substantial earthworks have occurred in the upstream catchment). Earthworks has occurred upstream of the WR01-W06 and WR01-W03 catchment, meaning the pools are out of baseline phase. Baseline data is still being collected for pool WR01-W01. Water quality is being assessed against ANZECC95 guidelines while site specific trigger values are being developed. There were no exceedances to ANZECC95 guidelines during the reporting period.

pH will continue to be monitored and any exceedances to future site-specific trigger values will be reported. All water quality data for the Western Range Pools can be found in Appendix 1.

Eastern Range Pools

The Eastern Range pools are non-persistent surface water fed gorge pools. They contained water at all monitoring events during the reporting period. Pool surface water level monitoring images can be found in Appendix 2.

As per the EMP, Rio Tinto will update the predicted pool water quality data for each relevant pool at the conclusion of baseline (after substantial earthworks have occurred in the upstream catchment of 42 East Extension (42EE) and 47 East (47E). As earthworks upstream of the catchment are a result of previous mining approvals, the pools are considered to be in baseline period. All water quality data for the Eastern Range Pools can be found in Appendix 1.

Gardagarli (Ratty Springs)

Gardagarli (Ratty Springs) is a persistent, groundwater-fed pool. Gardagarli is a confirm no impact location. No substantial ground disturbing activities are planned for the vicinity of the spring or the upstream catchment. As per the EMP, RTIO will update the predicted pool water quality data for all pools once a more robust dataset is achieved locations still in baseline phase. Predicted pool quality will also be updated for Gardagarli (Ratty Spring) at this time. Water quality data can be found in Appendix 1.

Groundwater levels remained within the historically recorded range however post-wet-season declines were greater than typically observed. Surface water levels at the pool were recorded below the historical range for two consecutive seasons, which could indicate a potential threshold exceedance if attributed to the proposal. However a comprehensive investigation determined that the observed decline was driven by climatic conditions rather than dewatering associated with the proposal.

This conclusion is supported by evidence that a subsurface dyke acts as a hydraulic barrier between Paraburdoo Mine and Gardagarli. Groundwater monitoring data from sites located between the mine and Gardagarli confirm that this barrier prevents drawdown from the Seven Mile Creek bores from influencing groundwater levels at the pool. Additionally, Rio Tinto conducts no groundwater or surface-water abstraction within the upstream catchment of Gardagarli.

Several consecutive years of below-average rainfall is therefore the most likely cause of the reduced surface-water and groundwater levels observed at the site.

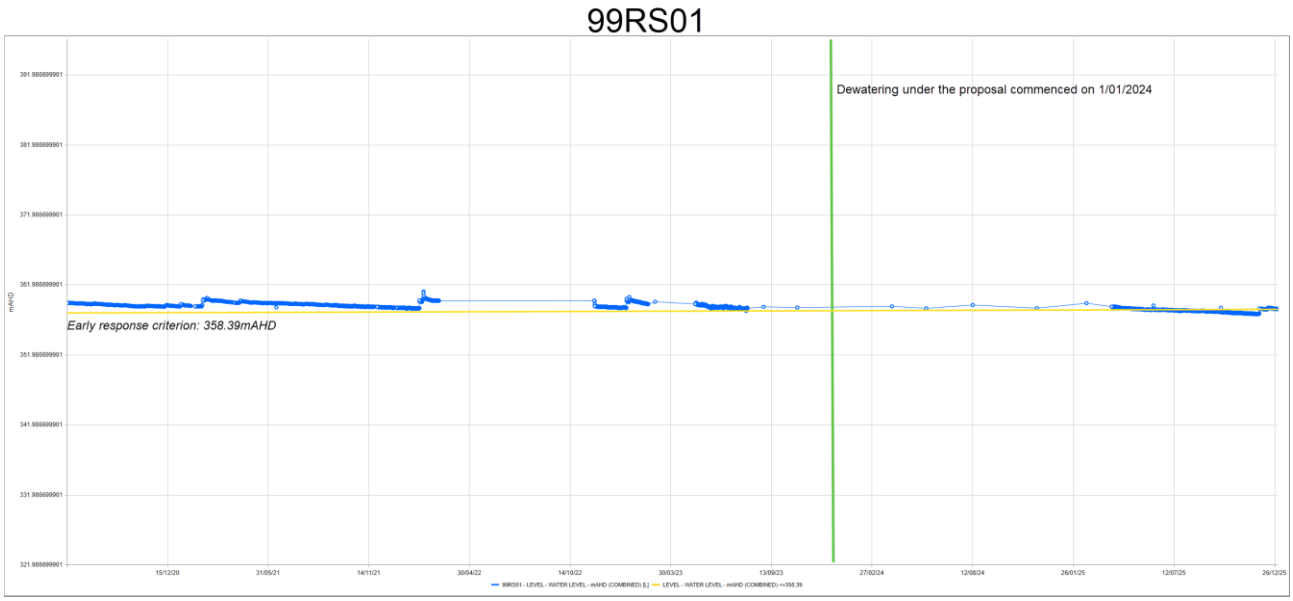


Figure 33: Groundwater levels at 99RS01 – 2020 to 2025

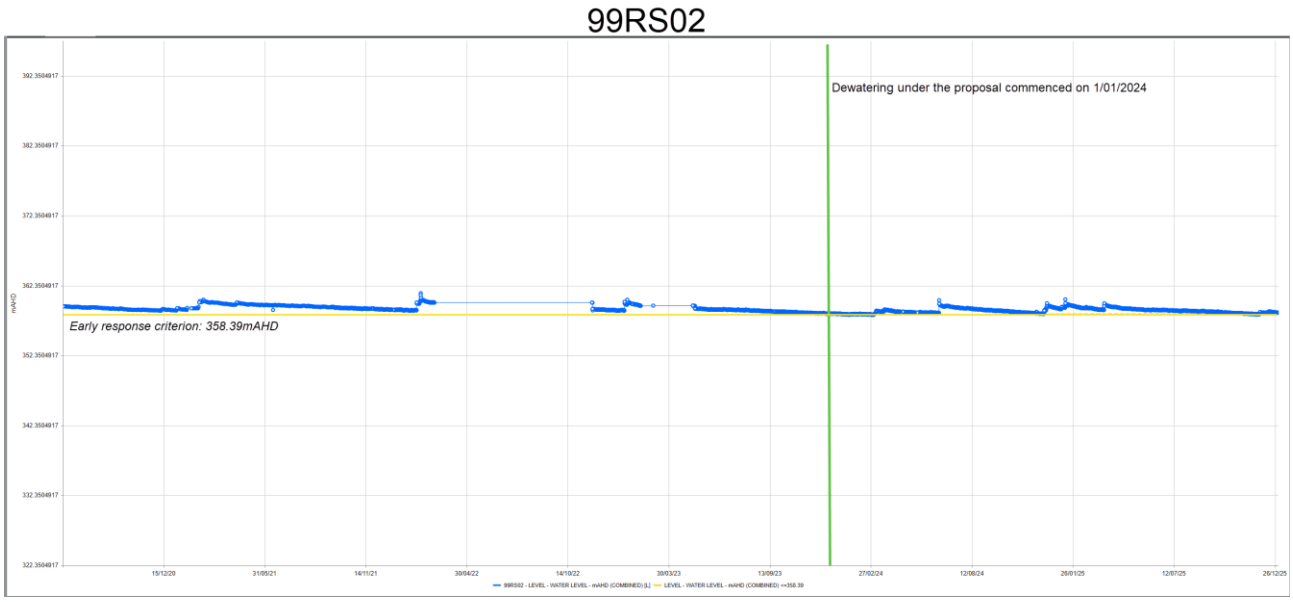


Figure 34: Groundwater levels at 99RS02 – 2020 to 2025

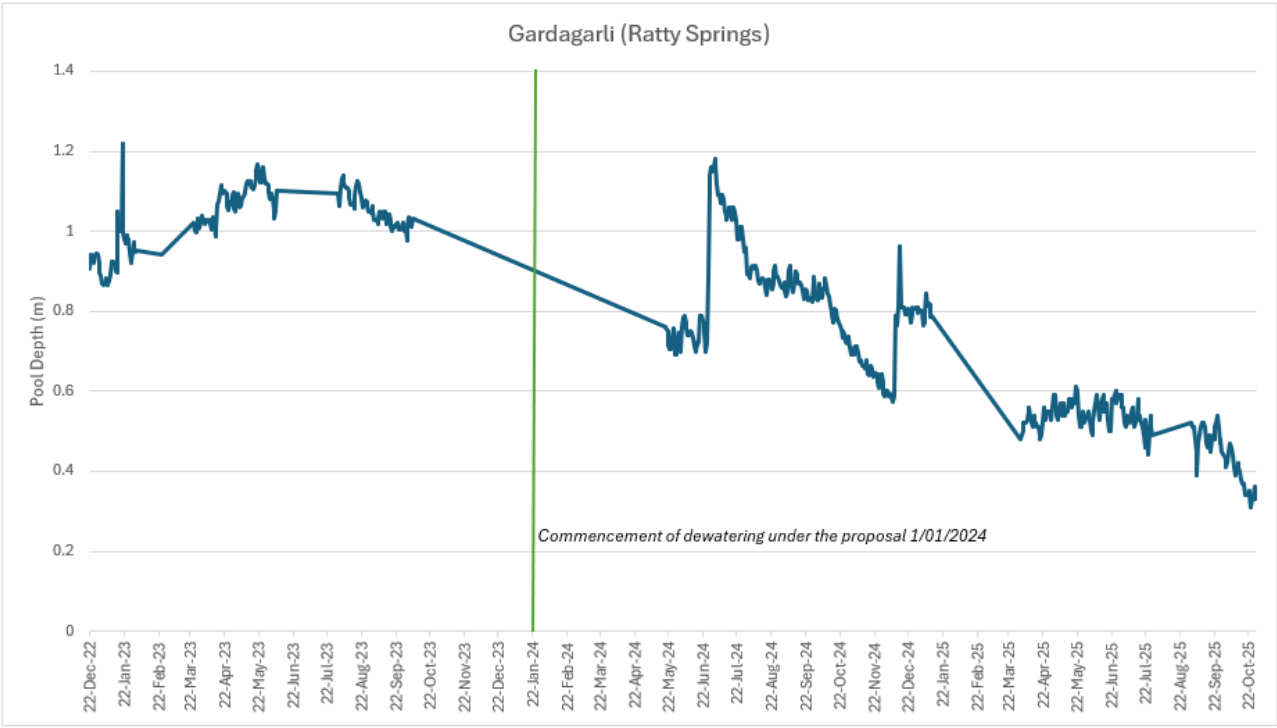


Figure 35: Pool depth (surface water) at Gardagali (Ratty Springs) – 2022 - 2025

Pool surface water level monitoring images can be found in Appendix 2.

Gurungu (Doggers Gorge)

Gurungu (Doggers Gorge) is a persistent groundwater fed pool. Pool-depth records show a pattern of strong seasonal variability since 2018, with several pronounced wet-season peaks followed by extended periods of little to no standing water. Depths reached around 1 m in early 2018 before declining to near zero later that year, a cycle that repeated through 2019 and again in 2020. From 2021 through mid-2022 the pool remained dry, after which depths gradually increased through 2023, peaking at just over 1 m immediately prior to the commencement of dewatering on 1 January 2024. Following the start of dewatering, the pool briefly returned to very low depths but subsequently recovered during 2024–25, reaching some of the highest recorded levels in the dataset (around 1.2 m). Overall, while dewatering commencement coincides with a short dry period, the broader record indicates that long-term trends continue to be dominated by strong natural variability rather than a sustained decline in pool depth.

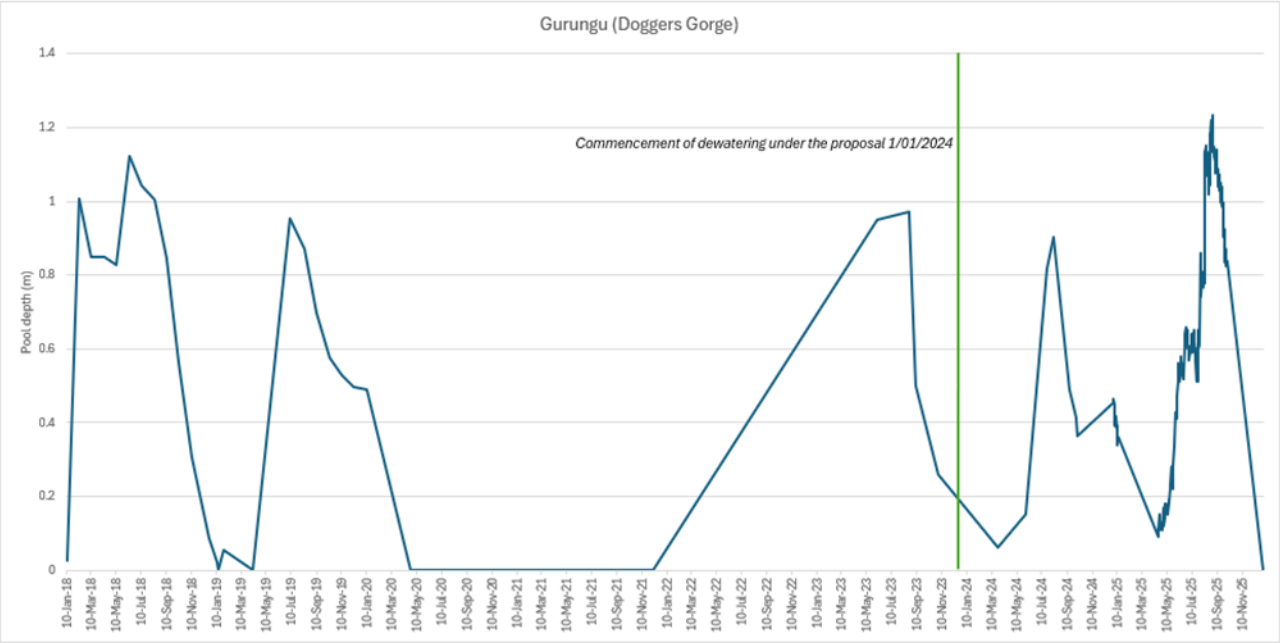


Figure 36: Pool depth (surface water) at Gurungu (Doggers Gorge) – 2018 to 2024

Pool surface water level monitoring images can be found in Appendix 2.

For the purposes of water quality, Gurungu (Doggers Gorge) is still considered to be in baseline. No substantial ground disturbing activities are planned for the vicinity of the spring or the upstream catchment. As per the EMP, Rio Tinto will update the predicted pool water quality data for each relevant pool at the conclusion of baseline (after substantial earthworks have occurred in the upstream catchment). Predicted pool quality also be updated for Gurungu (Doggers Gorge) at this time. Water quality data can be found in Appendix 1.

3.3 Management Targets

Table 13: Environmental factors associated with threatened flora, threatened fauna and inland waters

Key environmental factors: Threatened flora, threatened fauna and inland waters	
Environmental outcomes and objectives with associated criteria as per MS1195	**Reporting period 1 January – 31 December 2024**
Management Targets	**Status report:**
1. Maintain long-term habitat connectivity between the Western Range Aluta quadrata sub-populations contained in the Western Range Aluta quadrata Mining Exclusion Zone with a nominal 200 m wide habitat corridor.	Not applicable (Habitat has not yet been disconnected)
2. Provision and maintenance of firefighting equipment in accordance with the relevant fire safety standards	Management target met.
3. Firefighting emergency response procedures are in place	Management target met.
4. No incidents of vehicles being used off designated roads outside operational areas unless in the case of emergency or for necessary activities, that result in significant impacts to high value MNES habitat.	Management target met.
5. Implementation of speed limits in areas identified as having high value for MNES fauna.	Management target met.
6. Induction material contains information relating Ghost Bat, Northern Quoll, Pilbara Leaf-nosed Bat and Pilbara Olive Python	Management target met.
7. Records of all EPBC Act listed threatened species observed are appropriately maintained	Management target met.
8. Fauna handling is undertaken in accordance with Rio Tinto's Wildlife Interaction Guidelines and the requirements of the BC Act.	Management target met.
9. No incidents of native fauna feeding, hunting or keeping of firearms or pets on site.	Management target met.
10. Access to the MEZs/MRZs (which potentially contain significant roosts or caves) is restricted to authorised personnel and there are no incidents of unauthorised access.	Management target met.
11. No use of barbed wire on site, except in the case of statutory requirements	Management target met.
12. Where barbed wire is used in accordance with statutory requirements, reflectors are installed	Management target met.
13. Compliance with equipment hygiene procedures.	Management target met.
14. Weed control is informed and targeted.	Management target met.
15. Induction material contains information relating weed management and control	Management target met.
16. Feral animal control is informed and targeted.	Management target met.
17. Feral animal control actions are implemented.	Management target met.

18. Feral animal presence is discouraged.	Management target met.
19. Induction material contains information relating feral animals.	Management target met.
20. No disturbance, other than existing and authorised clearing, in the MEZ or MRZ.	Management target met.
21. Implementation of blast management controls for Ghost Bat caves within 300 m of proposed pits (caves 6, 16, 17 and 18).	Management target met.
22. Implementation of blast management controls for Pilbara Leaf-nosed Bat maternal roost within 300 m of proposed blast.	Management target met.
23. No blasting undertaken outside of daylight hours	Management target met.
24. Lighting and dust management actions are implemented	Management target met.
25. No clearing undertaken outside of daylight hours.	Management target met.

3.3.1 Results, analysis and interpretation

Threatening process: Fire

Appropriate firefighting equipment is available and maintained by the Paraburdoo Emergency Response Team. Emergency Response is available 24/7 as per the Greater Paraburdoo Emergency Response Plan (our ref; RTIO-HSE-0310085). Hot work permit system is in place for any scope which has risk of source of ignition.

Threatening process: Vehicle & Machinery Movements

No incidents of vehicles being used off designated roads outside of operational areas resulting in significant impact to high value MNES habitat were reported during the period. Unsealed roads have a maximum speed limit of 60km/h which is signposted. More conservative speed limits as required by the EPBC approval are implemented in designated habitat zones.

Roads and tracks identified as crossing through high value MNES habitat have fauna warning signage.

As per the Rio Tinto Land Disturbance Work Practice (our ref; RTIO-HSE-0123835) clearing is staged in such a way which encourages fauna to safety leave the vicinity.

Threatening process: Fauna encounters/interactions

The Paraburdoo Site Essentials Induction which is completed by all personnel at commencement of working at Paraburdoo contains information on MNES fauna Northern quoll, Ghost bat, Pilbara leaf-nosed bat and Pilbara Olive python including identifying characteristics and habitat they are likely to frequent.

Threatened species observations are tracked in the site fauna register. No incidents of native fauna feeding or hunting were recorded during the reporting period. A firearm is kept on site for use in pastoral management activities and is utilised by licenced and authorised personnel only.

Access to MEZ and MRZ is restricted to authorised personnel only. Signage is in place at all track entry points.

Unauthorized legacy barbed wire was identified in the development envelope (none within MEZ or MRZ). Further details on this non-compliance are outlined in Section 3.1.

Threatening process: Weeds

A total of 40 days of weed control were completed within the development envelope during the reporting period.

A weed survey covering the development envelope but targeting areas surrounding *Aluta quadrata* populations is conducted annually by external botanists. Findings from this survey are used to inform target areas for the subsequent years weed control efforts.

The Paraburdoo Site Essentials Induction which is completed by all personnel at commencement of working at Paraburdoo contains information on common weed species found at Paraburdoo, how to report them and the equipment hygiene procedure.

Threatening process: Feral Animals

A total of 21 days of feral animal control was undertaken during the reporting period. Four feral cats were caught and euthanised as a result of this work. Control efforts targets areas of high feral populations like accommodation villages and crib rooms as well as areas of high value MNES habitat. Trapping was undertaken near the Ratty Spring Pilbara leaf nosed bat maternity roost as this has been identified as particularly sensitive to feral cats. One cat was trapped and euthanised near Ratty Spring.

Inductions completed by all personnel working at Paraburdoo Operations contains information on feral pests found at Paraburdoo and which could pose a threat to the area in the future (e.g. Cane toad). Feral animal presence is discouraged on site by:

- Prohibiting feeding animals
- Prohibiting keeping pets
- Appropriate waste disposal for food scraps and other wastes as per the Rio Tinto waste management guidelines.

Threatening process: Noise & Vibration

No unauthorised disturbance took place in MEZ or MRZ during the reporting period. Blast management controls were implemented for Ghost Bat caves within 300 m of proposed pits (caves 6, 16, 17 and 18). Blast management was not required at the Ratty Springs Pilbara leaf-nosed bat maternity roost as no blasting took place within 300 meters of the associated MEZ. This is not anticipated to occur for the life of the proposal. No blasting was undertaken outside of daylight hours during the reporting period.

Threatening process: Dust & Light

MEZ and MRZ is delineated in online systems to ensure high value habitat is retained. Permanent lighting is installed only where required and has been designed to minimise light spill into high value MNES habitat. MEZ and MRZ is delineated in online systems to ensure high value habitat is retained. Permanent lighting is installed only where required and has been designed to minimise light spill into high value MNES habitat. Application of dust suppression and blast management near dust sensitive receptors were implemented. Six dust monitoring units have been deployed at various locations to ensure impacts to x are minimal. Locations are displayed in Appendix 5.

4 New environmental risks

There are no new environmental risks that have become apparent during the reporting period.

5 Declaration of accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Appendices

Appendix 1: Water Quality Data

Western Range

Field	H1					H2				
	Date	pH	temp	EC	DO (ppm)	Date	pH	temp	EC	DO (ppm)
SW18WR002	8/03/2025	7.46	26.7	223	4.12	8/10/2025	7.71	17.4	304	4.22
SW18WR005	9/03/2025	7.54	28.6	156	3.8	7/1/2025	7.5	17.7	198	3.99
SW18WR006	9/03/2025	7.96	27.7	156	4.6	8/10/2025	7.86	18.1	203	4.72

Water quality field data for H1 and H2 2025

Chemical	Date	TSS	TDS	Nitrate	Phosphorus	Na	K	Ca	Mg	Chloride	Carbonate CO3	Bi-carbonate HCO3	SO4	Al	B	Fe	Cu	As	Cr	Pb	Cd	Hg	Ni	Se	Mn
SW18WR002	8/03/2025	<5	164	0.28	0.04	11.00	4	23	6	16	<1	62	28	0.021	0.059	0.028	0.0021	0.0004	<0.0002	<0.0001	<0.00005	<0.00004	0.0008	0.0002	0.002
SW18WR005	9/03/2025	<5	82	0.09	<0.01	6	6	13	4	10	<1	58	6	0.009	0.082	0.017	0.0005	0.0007	<0.0002	<0.0001	<0.00005	<0.00004	0.0005	0.0002	0.013
SW18WR006	9/03/2025	<5	326	0.02	0.01	10	7	58	15	16	<1	76	145	0.008	0.040	0.034	0.0006	0.0003	<0.0002	<0.0001	<0.00005	<0.00004	<0.0005	<0.0002	0.046

Water quality chemical for 2025.

Eastern Range

Field	H1					H2				
	Date	pH	temp	EC	DO (ppm)	Date	pH	temp	EC	DO (ppm)
ERP3	8/3/25	7.63	28.9	1550	3.77	9/08/2025	7.15	18.2	285	4.61
ERP4	8/3/25	7.03	26.3	78	3.4	9/08/2025	6.73	17	91	4

Water quality field data for H1 and H2 2025

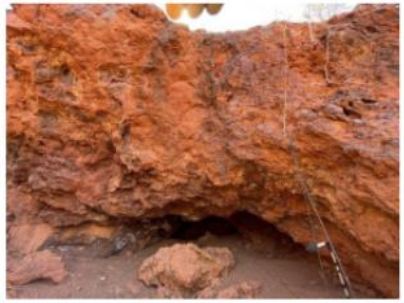
Chemical	Date	TSS	TDS	Nitrate	Phosphorus	Na	K	Ca	Mg	Chloride	Carbonate CO3	Bi-carbonate HCO3	SO4	Al	B	Fe	Cu	As	Cr	Pb	Cd	Hg	Ni	Se	Mn
ERP3	8/3/25	<5	103	0.14	0.04	12	7	7	4	17	<1	38	11	<0.005	0.128	0.024	<0.0005	0.0004	<0.0002	<0.0001	<0.00005	<0.00004	<0.0005	<0.0002	0.192
ERP4	8/3/25	<5	685	0.54	0.31	3	5	5	2	4	<1	26	5	0.469	0.083	0.374	0.0011	<0.0002	0.0004	0.000	<0.00005	<0.00004	0.0005	<0.0002	0.004

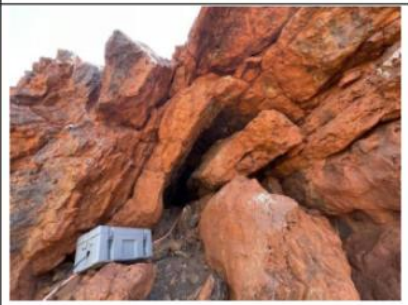
Water quality chemical for 2025

Appendix 2: Cave Structure Assessment
Cave 2

H1 (20/05/2025)

H2 (2/11/2025)

Cave 6 (Category 2)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T1 and T5 surveys due to these surveys coinciding with Ghost Bat breeding season (T5) and heavy rainfall combined with nearby blasting activities within 24 hours of site visit (T1). No observed structural changes were recorded during the 2025 T3 survey.

Cave 7 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photos were taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 8 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 9 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 10 (Category 2)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 11 (Category 2)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat

Cave 12 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 14 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

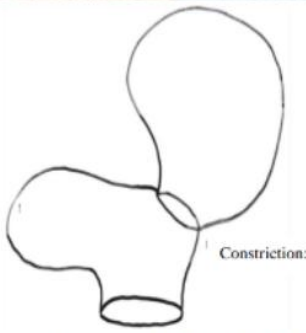
Cave 15 (Category 2)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Cave 16 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T1 andT5 survey due to these surveys coinciding with Ghost Bat breeding season (T5) and heavy rainfall combined with nearby blasting activities within 24 hours of site visit (T1). No observed structural changes were recorded during the 2025 T3 survey.

Cave 17 (Category 3)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

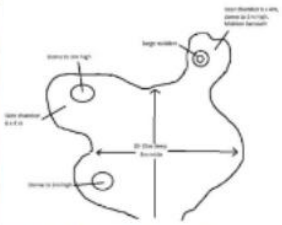
Cave 18 (Category 2)				Structural changes between visits
Baseline image (2023 Q3)	2025 T1	2025 T3	2025 T5	
				No observed structural changes.
				No observed structural changes.
				No photo was taken during the 2025 T5 survey due to the survey coinciding with Ghost Bat breeding season. No observed structural changes were recorded during the 2025 T1 and T3 surveys.

Appendix 3: Ghost Bat Roost Structure Data Sheet

	MGA Zone 50 K		Description	Photograph
	Easting (mE)	Northing (mE)		
Cave 6 **Cat. 2** Regular PGb nocturnal visits detected. Regular diurnal roosting recorded.	550146	7435298	**Entrance:** open/wide (6 m wide x 1 m high) **Orientation:** South-west **Internal:** two domed caverns, left dome has soultion pipes 5-7 m in height, right dome is large cavern (15 m deep x 10 m wide x 20 m high) **Conditions** raised humidity and elevated temperature	  Entrance: 6 m wide x 1 m high opening into 5 m deep dome

	MGA Zone 50 K		Description	Photograph
	Easting (mE)	Northing (mE)		
Cave 16 **Cat. 3** Regular PGb nocturnal visits detected	550049	7435094	**Entrance:** wide (3.0 m wide x 2.5 m high) **Orientation:** east-south-east **Internal:** one long tunnel (~15 m to 20 m) leading to one high rear domed cavern	

	MGA Zone 50 K		Description	Photograph
	Easting (mE)	Northing (mE)		
Cave 17 **Cat. 3** Regular PGb nocturnal visits detected	550032	7435091	**Entrance:** narrow (0.5 m wide x 0.5 m high) **Orientation:** east-south-east **Internal:** two chambers, one left (15 m deep x 2.5 m wide x 1.5 m high) and one right (15 m deep x 2.5 m wide x 1.5 m high) **Conditions:** Raised humidity and elevated temperature	

	MGA Zone 50 K		Description	Photograph
	Easting (mE)	Northing (mE)		
Cave 18 **Cat. 2** Regular PGb nocturnal visits detected. Regular diurnal roosting recorded.	549038	7435427	**Entrance:** 3 m x 3 m **Orientation**: South **Internal**: One large chamber (8 m wide x ~12 m deep), one rear chamber (6 m x 4 m). Cave has three domes 3 m high.	 Cave 18 entrance image by S. Reiffer (RTIO)   PGB midden image by T. Moyle (Biologic); cave layout by S. Reiffer (RTIO)

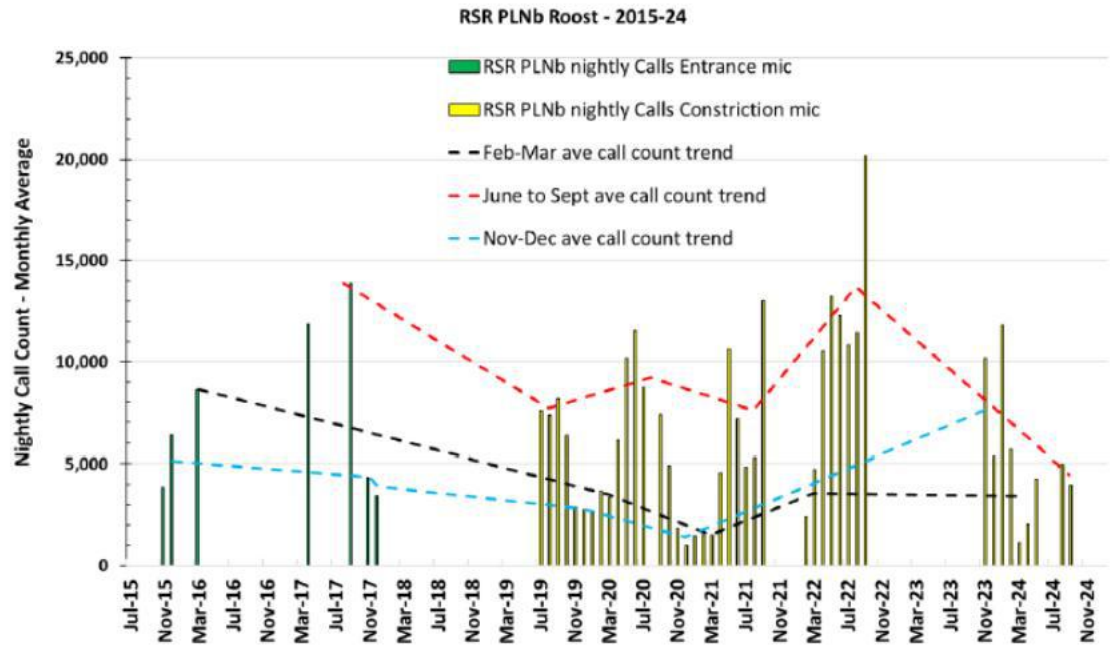
Appendix 4: Ratty Spring Pilbara leaf-nosed bat monitoring Lower-control-limit Memo

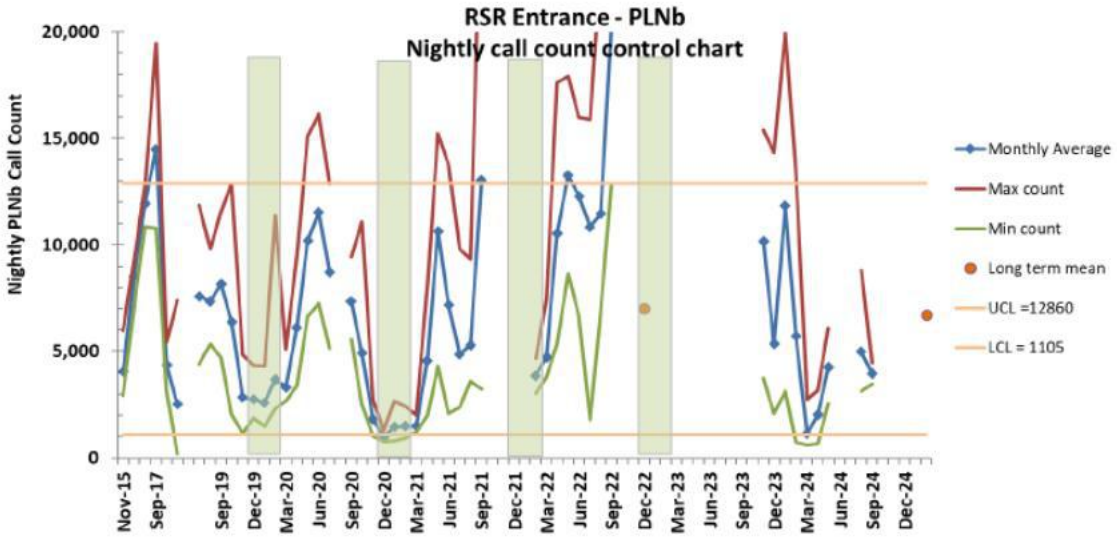
Ratty Spring Pilbara leaf-nosed bat monitoring Lower-control-limit.

In order to meet requirements outlined in Appendix 3 of the Greater Paraburdoo Environmental Management plan, this memo contains the outcome of the analysis of nightly PLNB call counts collected throughout the baseline phase, and assigns a Lower Count Level to be used with EMP trigger and threshold criteria (EMP Table 2-8)

Activity level and number of bats present at roosts monitored in the Pilbara, varies in both a seasonal and year to year manner (Bat Call, in prep). These variations show that multi-year collection of data representing the undisturbed activity at roosts must be undertaken to set realistic triggers and thresholds at roosts to be potentially disturbed during future nearby mining operations. They also show that non-anthropogenic factors (i.e., climate, fire, disease) must be recognised in any roost management plan published for a Project.

Rio Tinto has been monitoring the activity of Pilbara leaf-nosed bats (PLNb) at the Ratty Spring Roost (RSR) near Paraburdoo since 2015. Data has been available for the majority of nights between the years 2019 to 2022. These years preceded the expansion of the Paraburdoo mine operations to Western Range deposits and therefore constitute a representative baseline period of undisturbed PLNb activity at the roost. Note the existing Paraburdoo mine established in 1972 has been ongoing through this period. The baseline period ended in December 2022 and the impact period commenced January 2023 as expansion project activities commenced. Recordings from the baseline period show that the typical nightly PLNb call numbers vary greatly with monthly averages between approximately 1,000 and 15,000 per night. The baseline period average nightly call level was 6,985 (s.d. 1,959). This variation can be used to compare PLNb activity during the mines operational phase nearby the roost throughout the impact period. Given the wide variation of call counts, Lower and Upper call Limits (UCL and LCL) are recommended to be set at Ave +/- 3 s.d. which are 12,860 and 1,105 respectively.





From 2023 onwards, throughout the operating period, the Lower count limit (LCL) of 1, 105 nightly call count should therefore be implemented when assessing EMP trigger and threshold criteria.

[redacted]

Appendix 5: Dust monitor locations