

# **BHP Iron Ore**

## **EPBC Act Strategic Environmental Assessment**

### **– Annual Environmental Report –**

**July 2024 – June 2025**



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## Abbreviations

Term	Meaning
AER	Annual Environmental Report
ANFO	Ammonium Nitrate Fuel Oil
APOP	Assurance Plan and Offsets Plan (Version 2.3)
AWT	Above water table
BHP	BHP Iron Ore Pty Ltd
CPWRMP	BHP Central Pilbara Water Resource Management Plan
Cth	Commonwealth
DAWE	Department of Agriculture, Water and the Environment (now DCCEEW)
DBCA	Department of Biodiversity, Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DoEE	Department of Environment and Energy (now DCCEEW)
DWER	Department of Water and Environmental Regulation
ELOR	Environmental Legal Obligations Register
EMP	Environmental Management Plan
EPBC or EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
ERI	Early Response Indicator
FMP	Fauna Management Plan
FY	Financial Year
FY2024	Financial Year 2024 (1 July 2023 to 30 June 2024)
FY2025 or the reporting period	Financial Year 2025 (1 July 2024 to 30 June 2025)
GIS	Geographical Information Systems
ha	Hectares
IRR	Impact Reconciliation Report
MAC	Mining Area C
MACEMP	Mining Area C Environmental Management Plan
MACFMP	BHP Mining Area C (South Flank) Fauna Management Plan
mAHD	Metres Australian Height Datum
MAR	Managed Aquifer Recharge
mRL	meters Relative Level
MS	Ministerial Statement
ng/g	Nanogram per gram
OB	Orebody
PEAHR	Project Environmental and Aboriginal Heritage Review
PEOF	Pilbara Environmental Offsets Fund
POP	Pilbara Olive Python
SAA	Strategic Assessment Area
SEA	Strategic Environmental Assessment
SNP	Single Nucleotide Polymorphism
SSAN	Security Storage Ammonium Nitrate
TSSC	Threatened Species Scientific Committee
WA	Western Australian
WAIO	Western Australian Iron Ore

## 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.

Signed 

Full name (please print): Tim Day  
Position (please print): Asset President Western Australian Iron Ore (WAIO)  
Organisation: BHP Iron Ore  
CAN: ACN 008 700 981  
  
Date 10/09/2025

Rev	Description of Amendment	Organisation	Name
Rev 0	Final Report	BHP Iron Ore Pty Ltd	David Bunting

# 1 Introduction

BHP Iron Ore Pty Ltd (BHP) holds the Pilbara Strategic Assessment Program (the Program), which was endorsed by the then Minister for the Environment and Energy on 11 May 2017 and an Approval Decision (the Approval) for taking actions in accordance with the Program was issued on 19 June 2017.

The Approval applies to the development of new iron ore mines and associated infrastructure and the expansion of existing iron ore mines and associated infrastructure within a defined Strategic Assessment Area in the Pilbara region of Western Australia (Map 1-1). Key commitments of the Program and conditions of the Approval include preparation and approval of an Assurance Plan and Offsets Plan and undertaking a validation process including preparation of a Validation Notice for each Notifiable Action (Figure 1.2) and BHP internal Decision Reports for Non-Notifiable Actions.

The Assurance Plan and Offsets Plan were originally separate documents, endorsed by the then Federal Minister for Environment on 11 May 2018. A review of the plans was undertaken in 2022 as part of the first five-year review, with the outcome being a single combined Assurance Plan and Offsets Plan (APOP) (BHP 2023). The APOP was approved as version 2 by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on 18 April 2023. Following subsequent minor administrative updates, version 2.3 (9 May 2023) is the most recent approved version and is herein referred to throughout this Annual Environmental Report (AER).

In accordance with the conditions of the approval decision relating to the Program, BHP is hereby submitting an AER for the reporting period between 1 July 2024 and 30 June 2025. An outline of the content of the report is provided below:

- Section 1: Introduction - Provides the Approval background and key terminology.
- Section 2: Approval Decision - Outlines compliance with the conditions of the Approval.
- Section 3: Program - Addresses the requirements of an annual report outlined in Part B, Chapter 5 of the endorsed Program.
- Section 4: Assurance Plan and Offsets Plan - Addresses the reporting requirements outlined in version 2.3 of the APOP.
- Section 5: Program Decisions and Disturbance
- Section 6: Validation Notices - Outlines compliance with obligations within the Validation Notices

Two new Validation Notices became effective during the reporting period (see Section 5 and Sections 6-3 to 6-6 including:

- Jimblebar Significant Amendment (effective 17 September 2024)
- East Pilbara Surplus Water Drilling (effective 13 November 2024)

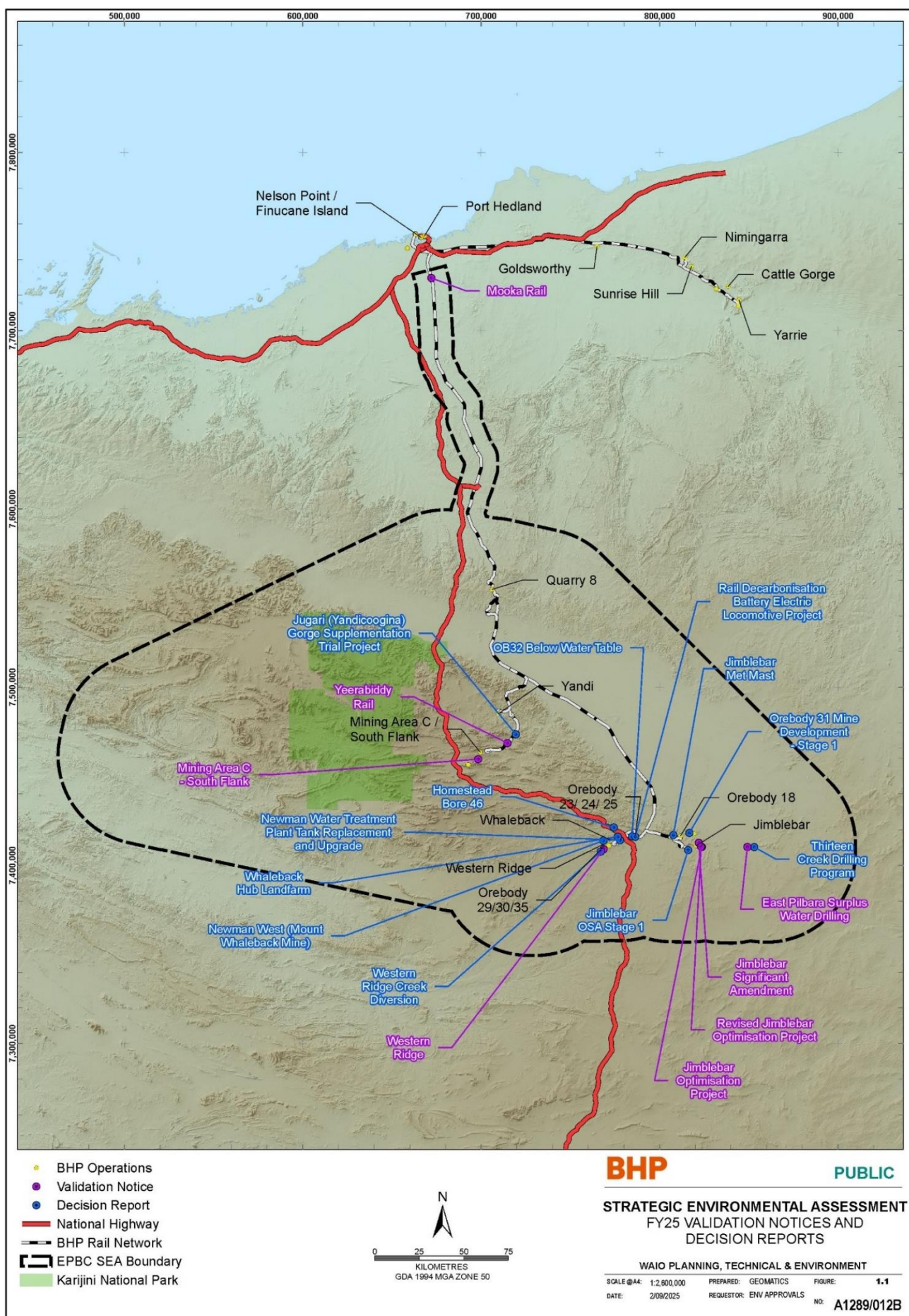
A further one Validation Notice was in preparation during the reporting period but did not become effective. This will be detailed in the next AER, once effective:

- Orebody 29/30/35 Validation Notice

There were three non-notifiable action Decision Reports finalised during the reporting period (see Section 5):

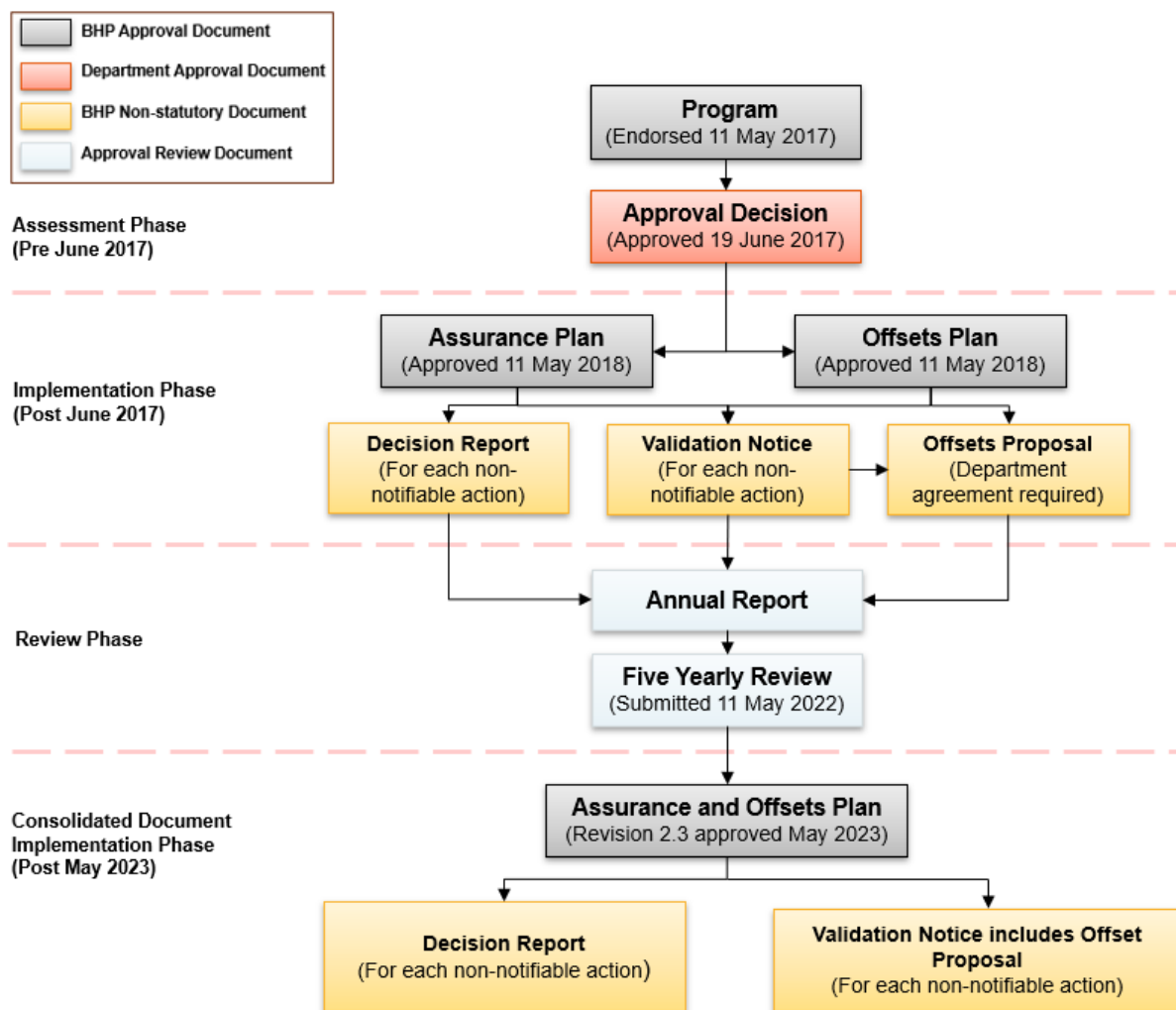
- Whaleback Hub Landfarm Decision Report (effective 3 April 2025)
- Newman Water Treatment Plant Tank Replacement and Upgrades (Rev 2) (effective 23 May 2025)
- Homestead Bore 46 Decision Report (effective 3 June 2025)

There were four non-compliances identified during the reporting period (see Section 6).



Map 1-1 BHP Strategic Assessment Area





**Figure 1-1 BHP Strategic Environmental Assessment – Approval Documents**

## 2 EPBC SEA Approval Decision

Table 2-1 assesses compliance against the 10 conditions of the Approval.

**Table 2-1 Audit Table for the EPBC SEA Approval Decision (Approved: 19 June 2017)**

Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
1	The approval holder must implement the endorsed Program.	Implement Assurance Plan, Offset Plan and Validation Notices in accordance with criteria in the Program.	Compliance reported annually in the BHP Iron Ore Strategic Environmental Assessment Annual Environmental Report (BHP SEA AER).	Activities have been implemented in accordance with the endorsed Program (see Conditions 3 and 7).	Life of Approval.	Compliant.
2	The approval holder must not make any validation decisions as outlined in Part C of the endorsed Program after 70 years from the date of the Approval.	No validation decisions to be made after 19 June 2087.	No validation decisions to be made after 19 June 2087.	No validation decisions to be made after 19 June 2087.	No validation decisions to be made after 19 June 2087.	No validation decisions to be made after 19 June 2087.
3	Within 12 months of the date of Approval, the approval holder must prepare and submit for the Minister's written Approval an Assurance Plan and an Offsets Plan in accordance with Section 3 of the endorsed Program.	Prepare and submit an Assurance Plan and Offsets Plan to the satisfaction of the Minister for Environment (or delegate).	Submitted Assurance Plan and Offset Plan.	The original Assurance Plan (dated 10 May 2018) and Offsets Plan (dated 10 May 2018) were prepared and submitted to the Department on 1 March 2018. This was within the 12-month timeframe. The Assurance Plan and Offsets Plan were approved by the Department on behalf of the Minister on 11 May 2018 (Reference Letter from G. Manning – Assistant Secretary Assessments (WA, SA, NT) and Post Approvals Branch Environment Standards Division dated 11 May 2018). Following a five year review, a single combined Assurance Plan and Offsets Plan (BHP 2023) was prepared and approved by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on 18 April 2023. BHP prepared a minor update and version 2.3 then came into effect on 9 May 2023.	Prior to 19 June 2018.	Closed.
	The approval holder must implement the approved Assurance Plan and Offsets Plan.	Implement Validation Notices and Decisions Reports in accordance with the requirements of the approved Assurance Plan and Offsets Plan.	Compliance reported annually in the BHP SEA AER.	The current Assurance Plan and Offset Plan, version 2.3 (BHP 2023) has been implemented and was published on BHP's website (available here: <a href="https://www.bhp.com/-/media/bhp/regulatory-information-media/iron-ore/western-australia-iron-ore/0000/western-australia-iron-ore-pilbara-strategic-assessment-commonwealth/2023bhpwaioapoprev23">https://www.bhp.com/-/media/bhp/regulatory-information-media/iron-ore/western-australia-iron-ore/0000/western-australia-iron-ore-pilbara-strategic-assessment-commonwealth/2023bhpwaioapoprev23</a> ).	Annually for the duration of the Approval.	Compliant.
	The approval holder must publish the approved Assurance Plan and Offsets Plan on its website within one (1) month of receiving written notice that the Assurance Plan and Offsets Plan are approved.	Publish the approved Assurance Plan and Offsets Plan on the BHP external website.	Submitted Assurance Plan and Offset Plan.	The current Assurance Plan and Offset Plan, version 2.3 (BHP 2023) was available within 1 month of the endorsement of version 2.0 by DCCEEW (endorsement occurred on 18 April 2023 and the current version was available on the BHP's website by 9 May 2023).	Within 1 month of Approval.	Complete.
4	<p>Unless otherwise agreed to in writing by the Minister, every five years from the date of Approval, the approval holder must review and revise the Assurance Plan and the Offsets Plan in accordance with Section 4.1 of the endorsed Program.</p> <p>The approval holder must submit the revised Plans for the Minister's Approval within 6 months of the five year anniversary of the date of Approval unless the Minister has agreed in writing that no revisions are necessary.</p> <p>If the approval holder does not submit the revised Plans for Approval, the approval holder may not give any further validation notices under Part C of the endorsed Program until the revised Plans have been submitted and approved.</p> <p>The Minister may, within 60 days of receipt by the Department of the revised Plans, advise the approval holder in writing that (a) the revised Plans are approved; or (b) additional revisions are required to be made to the Plans.</p> <p>If the Minister does not advise the approval holder within the 60 days, the revised Plans are taken to have been approved by the Minister and the approval holder must implement the revised Assurance Plan and Offsets Plan.</p> <p>If the Minister requires additional revisions to the Plans, the approval holder has to make the required revisions and resubmit the Plans for Approval.</p> <p>If the revised Plans are not submitted, no further validation notice may be given under Part C of the endorsed Program until the revised Plans have been submitted and approved.</p>	Prepare and submit a review and revision of the Assurance Plan and Offsets Plan to the satisfaction of the Minister for Environment (or delegate).	Five-yearly review document and revised Assurance Plan and Offsets Plan.	Not relevant within this reporting period.	The latest version (2.3) is dated May 2023.	Not required during this reporting period.

Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
	<p>The Minister has 30 days to advise the approval holder in writing whether the revised Plans are approved. If the Minister does not advise the approval holder within the 30 days, the revised Plans are taken to have been approved and the approval holder must implement the revised Assurance Plan and Offsets Plan.</p> <p>After receiving written notice from the Department that the revised Assurance Plan and Offsets Plan are approved, the approval holder must implement the revised Assurance Plan and Offsets Plan.</p> <p>The approval holder must publish and maintain the revised Assurance Plan and Offsets Plan on its website within one (1) month of receiving written notice from the Department that the plans have been approved.</p>					
5	<p>At any time, the approval holder may choose to review and revise the Assurance Plan and/or the Offsets Plan without requiring the Minister's Approval of the revised Plans if the revision does not:</p> <p>(a) include changes to Program Matters Outcomes;</p> <p>(b) affect the achievement or monitoring of Program Matters Outcomes; or</p> <p>(c) include changes to environmental offsets for any Program Matters.</p> <p>If the approval holder makes this choice, the approval holder must notify the Department in writing that the current approved Assurance Plan and/or Offsets Plan has been revised and provide the Department with a copy of the revised Assurance Plan and/or Offsets Plan.</p> <p>The approval holder must implement the revised Assurance Plan and/or Offsets Plan from the date of the written notice to the Department.</p> <p>The approval holder must publish the revised Assurance Plan and Offsets Plan on their website within one (1) month of the written notice to the Department.</p>	Prepare and submit a review and revision of the Assurance Plan and Offsets Plan to the satisfaction of the Minister for Environment (or delegate).	Revised Assurance Plan and Offsets Plan.	Not required during this reporting period.	Anytime during the duration of the Approval.	Not required during this reporting period.
6	The approval holder must inform any person that they authorise, permit or request to undertake any activity of obligations under the endorsed Program and conditions attached to this Approval that restrict or regulate the undertaking of activities within the strategic assessment area.	Obligations are maintained in the legal obligations register and documented within the Project Environmental and Aboriginal Heritage Review (PEAHR) prior to undertaking activities.	Western Australian Iron Ore (WAIOR) Environmental Legal Obligations Register (ELOR) and PEAHR documentation.	<p>All Validation Notice and Decision Report obligations are maintained in BHP's ELOR system and subsequently included in site-specific Project Environmental and Aboriginal Heritage Reviews (PEAHRs), as raised across WAIOR operations. Furthermore, all active Validation Notices are published on BHP's website (<a href="https://www.bhp.com/sustainability/environment/regulatory-information">https://www.bhp.com/sustainability/environment/regulatory-information</a>)</p> <p>During the reporting year, this requirement continued to be met via the upload of the two new effective Validation Notices and three new Decision Reports to ELOR, including all relevant obligations. These obligations have been documented/included into relevant PEAHRs as raised.</p>	Prior to undertaking activities.	Compliant.
7	An upper disturbance limit of 110,000 hectares applies to the approval holder. All activities that result in a direct disturbance will account towards the upper disturbance limit. The approval holder may undertake activities that result in a direct disturbance up to the maximum of 110,000 hectares less any direct disturbance permitted in a section 146B approval given in relation to assets divested by the approval holder and for which a validation notice has been given.	Maintain the program disturbance tracking register.	Program disturbance tracking register.	<p>Section 5 details the current disturbance undertaken during the reporting period against the upper disturbance limit.</p> <p>A total of 26,069 ha of disturbance has been allocated via Validation Notices and Decision Reports since July 2018. The current total disturbance has not exceeded the upper disturbance limit of 110,000 ha. No individual activities exceeded their allocated disturbance limit.</p>	Annually for the duration of the Approval.	Compliant.
8	By the first business day in October of each year after the commencement of this Approval, the approval holder must submit a report to the Department and publish the report on its website. The report must address the requirements of an annual report outlined in Part B of the endorsed Program.	Prepare and submit annual report and publish on BHP external website	BHP SEA AER.	<p>This document forms the "annual report" under the Approval for the 1 July 2024 to 30 June 2025 period.</p> <p>The FY2024 report was submitted on 29 September 2024 and was available on the BHP website from 1 October 2024. (<a href="https://www.bhp.com/-/media/bhp/regulatory-information-media/iron-ore/western-australia-iron-ore/0000/annual-environmental-reports/sea-aer-fy2024.pdf">https://www.bhp.com/-/media/bhp/regulatory-information-media/iron-ore/western-australia-iron-ore/0000/annual-environmental-reports/sea-aer-fy2024.pdf</a>)</p> <p>Section 3 documents the requirements of an annual report in accordance with Part B, Chapter 5 Reporting, of the Program.</p>	Annually for the duration of the Approval.	Compliant.
9	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions attached to this Approval, including measures taken to implement the endorsed Program, Assurance Plan and Offsets Plan and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act or used to verify compliance with the conditions attached to this Approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	<ol style="list-style-type: none"> <li>1. Maintain the program disturbance tracking register.</li> <li>2. Document decisions regarding notifiable and Non-Notifiable Actions</li> <li>3. Maintain the legal obligations register.</li> </ol>	<ol style="list-style-type: none"> <li>1. Program disturbance tracking register.</li> <li>2. Validation notices and decision reports.</li> <li>3. WAIOR ELOR.</li> </ol>	<ol style="list-style-type: none"> <li>1. Section 5 provides an extract of the Program disturbance tracking register, which details the disturbance undertaken during the reporting period against the upper disturbance limit.</li> <li>2. There were two Validation Notices and three Decision Reports completed during the reporting period.</li> <li>3. BHP is utilising the WAIOR ELOR database to administer and report against legal obligations.</li> </ol>	Duration of the Approval.	Compliant.

Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
10	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions attached to this Approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Appoint a Minister-approved independent auditor to undertake an audit of compliance with conditions.	Independent auditors report.	Not required during this reporting period.	When requested by the Minister.	Not required during this reporting period.



### 3 EPBC SEA Program Part B

Table 3-1 assesses compliance against the seven requirements of the reporting section of the Program.

**Table 3-1 Audit Table for the EPBC SEA Program Part B**

Chapter	Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
5 Reporting	Item 1	Compliance with the Assurance Plan and Offsets Plan and Validation Notices.	Assess as part of the BHP annual reporting process.	BHP SEA AER.	Please refer to Table 4-1 as evidence of Assurance Plan and Offset Plan compliance. As described in Section 6, there were four non-compliances identified during the reporting period. These relate to commitments of three Validation Notices: <ul style="list-style-type: none"> <li>• Mining Area C (see Section 6.1)</li> <li>• Revised Jimblebar Optimisation Project) (see Section 6.3).</li> <li>• East Pilbara Surplus Water Drilling (Section 6.8)</li> </ul>	Annually for the duration of the Approval.	Non-compliant.
	Item 2	Actions determined not notifiable.	Assess activities against the Program and Assurance Plan and Offset Plan	Decision Report.	There were three Non-Notifiable actions in the reporting period as identified in Section 5.	Duration of the Approval.	Compliant.
	Item 3	Activities determined to be a notifiable action.	Assess activities against the Program and Assurance Plan and Offset Plan.	Decision Report and Validation Notice.	There were two actions determined to be Notifiable in the reporting period	Duration of the Approval.	Compliant.
	Item 4	Progress of notifiable actions, including when notifiable actions have commenced and completed.	Review progress of notifiable actions.	Program disturbance tracking register.	See Section 5: Program Decisions and Disturbance and Section 6: Validation Notices.	Annually for the duration of the Approval.	Compliant.
	Item 5	Assets divested through the process described in Section 2.1, noting the status of environmental obligations under this Program at the time of divestment.	Review BHP divestment activities.	Asset database.	No assets, subject to the Program, were divested during the reporting period.	Annually for the duration of the Approval.	Not required during this reporting period.
	Item 6	An account of the upper disturbance limit for all activities taken within the Strategic Assessment Area. This will include any direct disturbance that has occurred in the twelve month period and as a cumulative total.	Maintain the program disturbance tracking register.	Program disturbance tracking register.	Details of disturbance undertaken during the reporting period and the cumulative disturbance is provided in Section 5: Program Decisions and Disturbance.	Annually for the duration of the Approval.	Compliant.
	Item 7	Results of the five yearly review as described in Sections 4.1.1. and 4.1.2.	Prepare and submit a five yearly review to the satisfaction of the Minister.	Five yearly review document.	Not relevant within the reporting period.  BHP undertook the first comprehensive review of the implementation framework in 2022, as per the five yearly review document submitted to the Department on the 16 December 2022.  The second review is due after 19 December 2026 and before 19 December 2027, as per Table 8.2 in the Assurance Plan and Offset Plan, version 2.3 (BHP 2023).	Second review due after 19 December 2026 and before 19 December 2027.	Not required during this reporting period.

## 4 EPBC SEA Assurance Plan and Offsets Plan (Version 2.3)

Table 4-1 assesses compliance against the APOP version 2.3 Annual Environmental Report reporting requirements.

**Table 4-1 Audit Table for the EPBC SEA Assurance and Offsets Plan (Version 2.3)**

Chapter	Condition/Section	Requirement	How	Documentation	Evidence	Timeframe	Status
8 Implementation, Review, Adaptive Management and Reporting	Item 1	8.7 Data Management An annual review of the site monitoring register and the guideline trigger values to ensure the program is efficient, risk based and meets compliance requirements.	Review site monitoring registers and compliance audits.	Site monitoring register and compliance audit reports.	Site monitoring register reviews have been carried out across operations during the reporting period.	Annually for the duration of the Approval.	Compliant.
	Item 2	8.7 Data Management Environmental monitoring and measurement equipment is to be maintained/calibrated/verified in accordance with manufacturer's specifications.	Review site monitoring registers and compliance audits.	Site monitoring register and compliance audit reports.	<p>Fauna monitoring programs were undertaken during the reporting period, with a broad objective to understand population demographics, habitat usage and movement relating to the relevant SEA Program Matters species.</p> <p>Methods utilised to detect and monitor Program Matters species include equipment, such as transmitters, radio-telemetry, acoustic/ultrasonic recordings, motion cameras, tissue and scat collection and genetic/DNA sampling. All monitoring techniques with monitoring and measurement equipment were conducted in accordance with manufacturer's specifications and relevant contemporary guidelines.</p> <p>Groundwater level and water quality monitoring was also undertaken during the reporting period where mining and associated activities have the potential to impact on fauna habitat that supports Program Matter species (i.e. permanent waterholes).</p> <p>Maintenance, calibration and verification of equipment associated with water level and water quality sampling and analysis, was undertaken in accordance with the manufacturer's specifications and relevant industry standards. Furthermore, the site-specific Part V Operating Licences and Groundwater Operating Strategies, also outlines the specifications and standards to be adhered to. The details are reported in BHP's State Annual Environmental Report and the Annual Aquifer Report/Triennial Environmental Reports.</p>	Annually for the duration of the Approval.	Compliant.
	Item 3	8.7 Data Management Verify source data integrity to determine if the data from a sampling point has been mapped against the correct data program, data type, test methods and units of measurement are accurate.	Review site monitoring registers and compliance audits.	Site monitoring register and compliance audit reports.	<p>Any Vertebrate Fauna Surveys and Monitoring conducted during the reporting period includes a review and verification against existing records and mapping for Program Matter species to ensure that targeted fauna habitat sampling locations, records and measurements are accurate and up to date. Any new information on behaviour, movement and preferred habitat of Program Matters is also considered in future monitoring programs and surveys.</p> <p>Verification of the groundwater level monitoring data was completed during the reporting period. Verification activities included confirming sampling locations, checking monitoring equipment and ensuring consistency with previous monitoring data.</p>	Annually for the duration of the Approval.	Compliant.
	Item 4	8.7 Data Management Source monitoring data is analysed against trigger values, trends and outliers, and in consideration of the target environmental outcomes.	Review site monitoring registers and compliance audits.	Site monitoring register and compliance audit reports.	<p>Section 6 provides a review of any Program Matter monitoring programs against any trigger values, trends and outliers to determine if the Program Matter Objectives and Outcomes are being met.</p> <p>Source monitoring data (groundwater level monitoring data) was compared against trigger values during the reporting period. This is reported in the Annual Aquifer Report/Triennial Aquifer Report for each site operating area.</p>	Annually for the duration of the Approval.	Compliant.
	Item 5	8.7 Data Management An investigation is required for any values that are above triggers and thresholds.	Review site monitoring registers and compliance audits.	Site monitoring register and compliance audit reports.	There were no exceedances of triggers or thresholds during the reporting period.	Annually for the duration of the Approval.	Compliant.
	Item 6	8.10 Annual Environmental Report BHP decisions (Notifiable Actions and Non-Notifiable Actions) in relation to its activities within the SAA, and its compliance in relation to the upper disturbance limit of 110,000 ha specified in section 2.4 of the Program. An outline of offsets applicable to the decision, including	Review progress of Notifiable Actions and Non-Notifiable Actions and maintain the program disturbance tracking register.	<p>BHP SEA AER.</p> <p>Program disturbance tracking register.</p>	<p>See Section 5, which presents a brief summary of activity completed, as well as disturbance data, for all Notifiable Actions (Validation Notices) and Non-Notifiable Actions (Decision Reports) during the FY2025 reporting period.</p> <p>Section 6 presents a more detailed update on each of the Notifiable Actions (Validation Notices).</p>	Annually for the duration of the Approval.	Compliant

Chapter	Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
		offsets required under other legislation will be specified in the AER.					
	Item 7	8.10 Annual Environmental Report Notifiable Actions identified under the Program during the period covered by the report.	Assess activities against the Program and Assurance Plan.	Validation Notice.	There were two actions determined to be Notifiable Actions (Validation Notices) in the reporting period.	Annually for the duration of the Approval.	Compliant.
	Item 8	8.10 Annual Environmental Report Details of activities within the scope of the Program which were commenced during the period covered by the report but were determined not to be notifiable.	Review progress of Non-Notifiable Actions and maintain the program disturbance tracking register.	BHP SEA AER. Program disturbance tracking register.	Details of activities, which were determined to be Non-Notifiable (Decision Reports), are provided in Section 5.	Annually for the duration of the Approval.	Compliant.
	Item 9	8.10 Annual Environmental Report Status of implementation (planned start date, action commenced and planned completion date; and action completed) of all Notifiable Actions.	Review progress of notifiable actions and maintain the program disturbance tracking register.	BHP SEA AER. Program disturbance tracking register.	Status of implementation of all Notifiable Actions (Validation Notices) are provided in Section 5.  Section 6 presents a more detailed update on each of the Notifiable Actions (Validation Notices).	Annually for the duration of the Approval.	Compliant.
	Item 10	8.10 Annual Environmental Report Assets divested through the process described in section 2.1 of the Program.	Review BHP divestment activities.	Asset database.	No assets, subject to the Program, were divested during the reporting period.	Annually for the duration of the Approval.	Not required during this reporting period.
	Item 11	8.10 Annual Environmental Report Status of offsets implemented for each Notifiable Action.	Review progress of offset plans for notifiable actions.	BHP SEA AER.	The status of offset implementation is reported in Section 6 for each Validation Notice. The latest APOP (Version 2.3; BHP, 2023), requires that an Offset Proposal section is included in each Validation Notice.  BHP has committed to implementing offsets via financial contributions to the Pilbara Environmental Offset Fund to offset any residual impacts to Program Matters. Mining Area C – South Flank Validation Notice and the Jimblebar Optimisation Project 1, are an exception to this, where Mining Area C – South Flank Validation Notice has a separate Offset Plan (see below) and Jimblebar Optimisation Project 1 Validation Notice managed offsets for Program Matters through the State Ministerial Statement Impact Reconciliation process.  BHP initially submitted the Offsets Plan for Mining Area C-South Flank for review on 14 December 2018. BHP revised and resubmitted the Offset Plan on 27 June 2025 to DCCEEW for review and endorsement. A response from DCCEEW was pending at the end of the FY2025 reporting period.  During this reporting period, advanced financial offset payments were made to the PEOF for Jimblebar Significant Amendment and East Pilbara Surplus Drilling Program Validation Notices. Please refer to Section 6 for more information.	Annually for the duration of the Approval.	Compliant
	Item 12	8.10 Annual Environmental Report Disturbance areas associated with all actions, whether material or non-material, implemented since the Approval, with both the annual disturbance and the total disturbance (since the Approval) included.	Maintain the program disturbance tracking register.	Program disturbance tracking register.	Details of disturbance undertaken during the reporting period, as well as total disturbance (since the Approval) is provided in Section 5.	Annually for the duration of the Approval.	Compliant.
	Item 13	8.10 Annual Environmental Report Monitoring, management and corrective actions implemented during the reporting period to avoid, mitigate and offset impacts to Program Matters.	Maintain the program disturbance tracking register.	Program disturbance tracking register.	This is provided in Sections 5 and 6 of this AER.	Annually for the duration of the Approval.	Compliant
	Item 14	8.10 Annual Environmental Report Outcomes of compliance audits undertaken during the period covered by the report.	Review outcomes of compliance audits completed during the reporting period.	Compliance audit reports.	No compliance audits were completed during the reporting period.	Report annually on outcomes for the duration of the Approval.	Compliant
	Item 15	8.10 Annual Environmental Report Attainment of Program Matter Objectives and Outcomes.	Review site monitoring registers and compliance audits undertaken during the reporting period.  Prepare and submit a five yearly review to the satisfaction of the Minister.	Compliance audit reports.  BHP SEA AER.  Five-yearly review document if applicable during reporting period.	Section 6 provides further information on each of the Notifiable Actions (Validation Notices).	Annually for the duration of the Approval.	Compliant
	Item 16	8.10 Annual Environmental Report Summary of any exceedances of the Program Matter Outcomes relevant to	Review decision reports, notifiable actions and compliance audits	Monitoring reports.	No exceedances of the Program Matter Outcomes were identified during the reporting period. See Section 6.	Annually for the duration of the Approval.	Compliant.

Chapter	Condition/ Section	Requirement	How	Documentation	Evidence	Timeframe	Status
		each Notifiable Action, and corrective actions taken.	undertaken during the reporting period.				
	Item 17	8.10 Annual Environmental Report The effectiveness of management and corrective actions to avoid, mitigate and/or offset impacts to Program Matters.	Assess management commitments outlined in Validation Notices in the AER.	BHP SEA AER.	Section 6 provides further information for each of the Notifiable Actions (Validation Notices).	Annually for the duration of the Approval.	Compliant
	Item 18	8.10 Annual Environmental Report Deviations from the Program or from information and management commitments contained in a Validation Notice for a Notifiable Action.	Review decision reports, notifiable actions and compliance audits undertaken during the reporting period.	Monitoring registers and monitoring report and data review.  Compliance audit reports.  Land disturbance data.  PEOF fund, DWER invoice references and BHP PEOF Registers.  Event Management System.	Four non-compliances relating to: <ul style="list-style-type: none"> <li>Missed monthly groundwater level sampling at the Weeli Wolli, due to temporary telemetry failure. Related to monitoring commitments within the Mining Area C Validation Notice (Section 6.1).</li> <li>Missed monthly groundwater sampling at Ben's Oasis, due to temporary telemetry failure. Related to monitoring commitments within the Mining Area C Validation Notice (Section 6.1).</li> <li>Exceeding the clearing limit associated with minor drainage line, which is critical foraging habitat for Ghost Bats within the Revised Jimblebar Optimisation Project (Section 6.3). The project has cleared 18.52 ha to date under the VN, and the limit for minor drainage line is 12 ha.</li> <li>There was a late payment to PEOF for the advanced 10% financial contribution associated with the East Pilbara Surplus Water Drilling Validation Notice. The Validation Notice stipulates that payment must be made to PEOF within 30 days of the notice becoming effective (13/11/2024). However, according to the receipt, the payment was made on or around 21/01/2025, more than 60 days after the effective date (refer to Section 6.8 for further details).</li> </ul>	Annually for the duration of the Approval.	Non-compliant
	Item 19	8.10 Annual Environmental Report A summary of Pilbara Environmental Offsets Fund (PEOF) Impact Reconciliation Report submitted (refer Section 15.1 of the APOP).	Land disturbance requiring offset and financial contribution to PEOF summarised in AER	PEOF fund DWER invoice reference.	BHP provides a summary of contributions to the PEOF for the reporting period in Section 6 of the AER.	Annually for the duration of the Approval.	Compliant
	Item 20	8.10 Annual Environmental Report Outcomes of the five yearly reviews where these reviews occur within the reporting period (refer Section 8.12 of the APOP).	Prepare and submit a five yearly review to the satisfaction of the Minister.	Five-yearly review document and revised Assurance Plan and Offsets Plan.	Not relevant within this reporting period. The next five yearly review is planned for 2027.	Every five years.	Not required
16 Monitoring, Reporting and Adaptive Management	Item 1	16.3 Annual Environmental Report BHP will provide a progress summary of the offsets implemented and achievement of outcomes from the funding provided to the PEOF in the AER.	Review of financial contribution to PEOF through IRRs.	PEOF fund, DWER invoice references and BHP PEOF Registers.	BHP made advanced financial contributions to the PEOF for the two Validation Notices which became effective during the reporting period.  BHP provides a summary of financial contributions to the PEOF in the discussion in Section 6.  PEOF have an Implementation Plan and details of current and future projects on their website (see Pilbara Environmental Offsets Fund implementation plan).	Annually for the duration of the Approval.	Compliant
	Item 2	16.3 Annual Environmental Report BHP will prepare an AER as outlined in Section 8.10 of the APOP (see reference to items 1-15 under Section 8.10 of this table)	Preparation of this SEA AER.	This BHP SEA AER.	This document forms the "AER" under the Approval for the 1 July 2024 to 30 June 2025 period will be added to BHP's external website.	Annually for the duration of the Approval.	Compliant



## 5 Program Decisions and Disturbance

Two notifiable actions became ‘effective’ and three Non-Notifiable Actions were documented during the reporting period. Table 5-1 lists all the validation notices and decision reports that have been made under the Program to date, the disturbance allocated to each decision and the disturbance completed during the reporting period. Table 5-2 shows the disturbance by habitat type to 30 June 2025 for all Validation Notices and Decision Reports.

**Table 5-1 Program Decisions and Disturbance undertaken during the 2023/24 reporting period**

Project Name	Activities completed during reporting period	Decision Rationale	Decision Made	Date Decision Effective From	Proposed disturbance (ha)	Overall cumulative program disturbance remaining (ha)	Activity disturbance June 2018 to June 2024	Activity disturbance 1 July 24 to 30 June 25 (ha)	Total activity disturbance to 30 June 2025 (ha)	Overall cumulative activity disturbance remaining (ha)
Mining Area C	Mining continued at Mining Area C and South Flank.	Project fulfils the triggers of the Assurance Plan for Greater Bilby ( <i>Macrotis lagotis</i> ), Northern Quoll ( <i>Dasyurus hallucatus</i> ), Pilbara Leaf-Nosed Bat ( <i>Rhinonictus aurantia</i> ), Ghost Bat ( <i>Macroderma gigas</i> ) and Pilbara Olive Python ( <i>Liasis olivaceus barroni</i> ).	Validation Notice	July 2018	16,000.00	94,000.00	4,656.22	355.06	5,011.28	104,988.72
Jimblebar OSA1 Stage 1	No activity completed during the reporting period. This Non-Notifiable Notice is superseded by the Jimblebar Optimisation Project Validation Notice.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	August 2018	95.00	93,905.00	94.73	0.00	94.73	104,893.99
Western Creek Diversion	No activity completed during the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	February 2020	15.00	93,890.00	5.20	0.00	5.20	104,888.79
MAC Surplus Water	No activity completed during the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	April 2020	0.00	93,890.00	0.00	0.00	0.00	104,888.79
Jimblebar Optimisation Project	Clearing of mine infrastructure and exploration drilling areas.	Project fulfils the triggers of the Assurance Plan for the Greater Bilby ( <i>Macrotis lagotis</i> ), Northern Quoll ( <i>Dasyurus hallucatus</i> ), Pilbara Leaf-Nosed Bat ( <i>Rhinonictus aurantia</i> ), Ghost Bat ( <i>Macroderma gigas</i> ) and Pilbara Olive Python ( <i>Liasis olivaceus barroni</i> ).	Validation Notice	June 2020	2,000.00	91,890.00	517.26	0.00	517.26	104,371.53
OB31 Stage 1 Clearing	Stockpiling of overburden in a new overburden storage area at Jimblebar.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	December 2022	5.00	91,885.00	0.11	0.04	0.15	104,371.38
Mooka Rail Works	Additional rail sidings and re-alignment of existing rail sidings and associated infrastructure.	Records of Northern Quolls exist within a 500-m buffer of the activity boundary.	Validation Notice	July 2023	23.00	91,862.00	5.76	0.06	5.82	104,365.56
Jimblebar Optimisation Project Revised	Ongoing operation of Jimblebar mine.	Program Matter records occur within the Activity Area.	Validation Notice	September 2023	1,042.00	90,820.00	110.75	329.49	440.24	103,925.32
Newman Hub Western Ridge	Initial ground disturbance underway for preparation of foundations for construction. Communications infrastructure under construction.	The Project meets the Notifiable Action Triggers for Northern Quoll, Ghost Bat and Pilbara Olive Python.	Validation Notice	October 2023	4,266.00	86,554.00	129.51	719.23	848.74	103,076.58
Yeerabiddy Rail Works	Additional rail sidings and associated infrastructure near Mining Area C.	Records of Ghost Bats exist within a 500-m buffer of the activity boundary.	Validation Notice	October 2023	60.02	86,494.00	19.33	1.52	20.85	103,055.73
Thirteen Creek Drilling Program	Clearing commenced and completed. Drilling commenced and completed.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	August 2023	11.00	86,483.00	8.40	1.83	10.23	103,045.50
Rail decarbonisation electrification project	No onsite activity completed during the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	August 2023	0.02	86,483.00	0.00	0.00	0.00	103,045.50
Orebody 32 Below Water Table	Clearing commenced for below water table mining at Orebody 32.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	September 2023	224.00	86,259.00	0.00	32.31	32.31	103,013.19
Newman West (Mount Whaleback Mine)	No activity completed during the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	November 2023	155.00	86,104.00	0.00	0.00	0.00	103,013.19
Newman Water Treatment Plant Tank Replacement and Upgrades <sup>1</sup>	Internal Project disturbance approval (PEAHR) submitted as well as State Agreement changes.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	November 2023	7.00	86,097.00	0.90	0.00	0.90	103,012.29
Jimblebar Met Mast Decision Report <sup>1</sup>	Minor ground disturbance for LiDAR installation works and meteorological mast installation.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	November 2023	2.00	86,095.00	0.26	0.00	0.26	103,012.03
Jugari (Yandicoogina) Gorge Supplementation Trial Project <sup>1</sup>	No disturbance within the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	May 2024	1.00	83,982.00	0.00	0.00	0.00	103,012.03
Jimblebar Significant Amendment	Disturbance associated with this Project has not commenced.	The Project meets the Notifiable Action Triggers for both the Ghost Bat and Northern Quoll, with confirmed species records and suitable habitat identified within the proposed Activity Area.	Validation Notice	September 2024	2067.00	84,028.00	0.00	0.00	0.00	103,012.03

Project Name	Activities completed during reporting period	Decision Rationale	Decision Made	Date Decision Effective From	Proposed disturbance (ha)	Overall cumulative program disturbance remaining (ha)	Activity disturbance June 2018 to June 2024	Activity disturbance 1 July 24 to 30 June 25 (ha)	Total activity disturbance to 30 June 2025 (ha)	Overall cumulative activity disturbance remaining (ha)
East Pilbara Surplus Water Drilling	Disturbance associated with establishment of drill pads, sumps, tracks and monitoring bores for three surplus water drilling and test pumping programs.	The Project meets the Notifiable Action Trigger for the Greater Bilby, with evidence of transient individuals and supporting habitat occurring within the Activity Area.	Validation Notice	October 2024	45.00	83,983.00	0.00	4.66	4.66	103,007.37
Whaleback Hub Landfarm	Disturbance associated with the establishment of a landfarm for storage and bioremediation of hydrocarbon contaminated soil	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	April 2025	12.00	83,970.00	0.00	1.35	1.35	103,006.02
Newman Water Treatment Plant Tank Replacement and Upgrades (Rev 2)	Disturbance associated with the construction and installation of infrastructure relating to the Newman Water Treatment Plan.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	May 2025	1.00	83,969.00	0.00	0.88	0.88	103,005.14
Homestead Bore 46	No disturbance within the reporting period.	Project does not meet the Notifiable Action Triggers.	Non-Notifiable Action	June 2025	38.00	83,931.00	0.00	0.00	0.00	103,005.14

<sup>[1]</sup> In preparing the 2024 AER, BHP identified discrepancies between proposed and actual land disturbance boundaries for three Decision Reports (Non-Notifiable Actions). BHP has determined that actual land disturbance extents areas do not exceed proposed extents areas provided for in the Decision Reports. Further, that the actual land disturbance boundaries do not change the original Decision Report determinations (i.e. all remain as Non-Notifiable Actions). BHP has raised these discrepancies in its Event Management System for further investigation and will implement corrective actions aimed at preventing a re-occurrence.

**Table 5-2 Total Clearing by Habitat Type to 30 June 2025 for all Validation Notices and Decision Reports**

<b>Habitat Type</b>	<b>Total clearing [ha] from July 2018 to June 2024</b>	<b>Total clearing [ha] for FY2025</b>	<b>Total clearing [ha] for the SEA from July 2018 to June 2025</b>
Drainage Area and Floodplain	449.32	232.11	681.43
Gorge and Gully	113.60	15.84	129.44
Hardpan Plain	15.13	0.02	15.15
Hillcrest and Hillslope	3,429.91	380.10	3810.01
Major Drainage Line	16.28	7.67	23.95
Minor Drainage Line	545.34	35.15	580.49
Mulga Woodland	152.87	341.86	494.73
Sand Plain	306.62	58.13	364.75
Stony Plain	513.29	360.05	873.34
Breakaway/Cliff	0.06	0.01	0.07
Unmapped	2.92	13.79	16.71
<b>TOTAL</b>	<b>5,545.34</b>	<b>1,444.73</b>	<b>6,990.07</b>

## 6 Validation Notices

### 6.1 Mining Area C

Mining Area C is located approximately 100 kilometres (km) northwest of the town of Newman in the Pilbara region of Western Australia. The mine is situated within Mineral Lease 281SA (ML281SA) and Mineral Lease 249SA (ML249SA) and is operated by BHP in accordance with the *Iron Ore (Mount Goldsworthy) Agreement Act 1964*.

Mining Area C - Northern Flank Operations commenced in August 2003 under Ministerial Statement (MS) 491, issued 24 December 1998. In February 2018, Ministerial Statement 491 was superseded by MS1072, which covers the existing Northern Flank Operations and the new Southern Flank development. In July 2018, the Mining Area C – South Flank Validation Notice became effective.

In March 2019, BHP submitted a section 45C application to amend MS1072 to allow the disposal of surplus water into a new Managed Aquifer Recharge (MAR) bore field at South Flank Valley and discharge to a drainage line that leads to Pebble Mouse Creek. This submission was approved on 15 January 2020. An EPBC non notifiable action Decision Report was finalised for the same project in May 2020. All ground disturbance for the project is included in the Mining Area C Validation Notice mentioned above.

Campaign mining continues through conventional open cut mining methods including drilling, blasting and categorisation of blasted material into iron ore or waste rock. Fixed and mobile ore crushing facilities are utilised through the operation. Ore is blended into stockpiles onsite and railed to BHP's shipping facilities at Port Hedland where it is shipped to overseas customers.

Mining activities continued as per the FY2025 mine plan which included a new pit east of the Great northern Highway (Highway pit) and commencement of campaign stripping in preparation for R-Deposit pit development. Mining continued in the existing footprint of highway pits, Grand Central, Highway and Vista deposits. Development of infrastructure (haul roads, Run of Mine pads and Overburden Storage Areas) continued in FY2025 to support production and ramp up of operations.

Mine dewatering continues at North Flank. MAR continues to be the main method of surplus water discharge. The A Deposit MAR ceased to operate in April 2019 to allow for mine expansion. The Juna Downs MAR became operational in May 2019. The South Flank Valley MAR concluded commissioning on 30 April 2022 and the commissioning report was submitted on 7 June 2022. Mine dewatering at South Flank MAR (Vista Pit) commenced at Vista A in November 2023.

#### 6.1.1 Validation Notice Deviations

Two non-compliances (deviation) relating to monthly ground water level data collection at Weeli Wolli Spring and Ben's Oasis has been identified during this reporting period. Further detail is provided in Section 6.1.5.

#### 6.1.2 Program Matter Monitoring and Outcomes

The monitoring required to be completed during the reporting period is outlined in Table 6-1. Monitoring results are discussed in the following sections.



**Table 6-1 Program Matter Monitoring Requirements for FY2025 Reporting Period**

Species	Monitoring	Parameter	Due Date	Performance Targets	Applicable Program Matter Outcome
Ghost Bat	Land disturbance reconciliation	Disturbance to Ghost Bat caves in the activity area during operations	Annually	No land disturbance within 50 m of 'to be retained High value ghost bat caves' or 'artificial ghost bat roosts'.	No loss of Ghost Bat population/s as a result of Program activities.
				No disturbance to any of the 'to be retained High value ghost bat caves' or 'artificial ghost bat roosts'.	
				No disturbance to any 'to be retained ghost bat cave' that renders it unsuitable ghost bat habitat.	
	Ghost Bat viability and presence	Presence/absence of Ghost Bat	July 2023 - Every 5 years during operations. BHP has implemented the annual Ghost Bat monitoring program	Signs of Ghost Bat use in the 'to be retained' Ghost Bat caves or artificial roosts (if applicable) within the activity area, within 5 years of cessation of operations.	No loss of Ghost Bat population/s as a result of Program activities.
Pilbara Olive Python	Land disturbance reconciliation	Land disturbance of pools Disturbance of Pilbara Olive Python habitat	Annually	No unauthorised disturbance beyond the activity area	Program activities do not physically disturb, or result in adverse changes to the hydrological regimes and/or water quality of the following waterholes: Weeli Wolli Spring, Ben's Oasis.
	Population monitoring	Presence/absence of Pilbara Olive Python	July 2028	NA	No loss of Pilbara Olive Python population/s as a result of Program activities.
	Hydrogeological monitoring	Groundwater levels	Annually	Monitoring commenced 2 years prior to commencement of dewatering of the eastern deposits.	Program activities do not physically disturb, or result in adverse changes to the hydrological regimes and/or water quality of the following waterholes: Weeli Wolli Spring, Ben's Oasis.
Greater Bilby	Land disturbance reconciliation	Disturbance to Greater Bilby habitat	Annually	No unauthorised disturbance beyond the activity area	No loss of Greater Bilby population/s as a result of Program activities.
	Population Monitoring	Presence/absence of Greater Bilby	July 2028	NA	No loss of Greater Bilby population/s as a result of Program activities.
Pilbara Leaf-nosed Bat	Land disturbance reconciliation	Disturbance to critical Pilbara Leaf-nosed Bat habitat	Annually	No unauthorised disturbance beyond the activity area	No loss of Pilbara leaf-nosed bat population/s as a result of Program activities.
	Population Monitoring	Presence/absence of Pilbara Leaf-nosed Bat	July 2028	Presence of species consistent with baseline data	No loss of Pilbara leaf-nosed bat population/s as a result of Program activities.
Northern Quoll	Land disturbance reconciliation	Disturbance to significant Northern Quoll habitat	Annually	No unauthorised disturbance beyond the activity area	No loss of Northern Quoll habitat that supports a high density population as a result of Program activities
	Population Monitoring	Presence/absence of Northern Quoll	July 2028	Presence of species consistent with baseline data.	No loss of Northern Quoll population/s as a result of Program activities.

### 6.1.3 Population Monitoring

Monitoring of Greater Bilby, Pilbara Olive Python, Leaf-Nosed Bat and Northern Quoll populations was not required during the reporting period as per the Validation Notice.

In respect of the Ghost Bat, based on the results of monitoring conducted during the FY2025 reporting period, BHP considers that the following Program Matter Outcome has been achieved for the FY2025 reporting period:

*No loss of Ghost Bat population/s as a result of program activities*

Based on the continued presence of Ghost Bats at Mining Area C during the reporting period, BHP considers that the following performance target in the Mining Area C Validation Notice has been achieved for the FY2025 reporting period:

*Signs of ghost bat use in the 'to be retained' ghost bat caves or artificial roosts (if applicable) within the activity area.*

Monitoring results for the Ghost Bat are discussed in the following sections.

#### 6.1.3.1 Ghost Bat Monitoring

##### Sampling

During the reporting period, five field trips were undertaken as part of the bi-monthly scat collection monitoring program to determine presence/absence of Ghost Bats from scat deposits as outlined in the *BHP Mining Area C (South Flank) Fauna Management Plan Version 1.1* (BHP 2020) (MACFMP). As outlined in Table 5 of the MACFMP, the targeted caves include:

- 18 high value retained or retained for minimum 5 years caves (AC13, AC14, AC17, AC18, SF04, SF05, SF08, SF14, SF18, SF26, SF27, AC01, AC02, AC05, AC06, AC08, AC09, SF06)  
Note: The Retained High Value Cave AC18 cannot currently be accessed for bi-monthly monitoring due to safety concerns as this cave is located within 250 metres of active mining by Rio Tinto. Monitoring is proposed to re-commence when safe access can be re-established
- The Mining Area C artificial roost (AR01)
- Reference sites at Tandanya and Mudlark Well, and
- Four Early Response Indicator Caves (ERI) (SF03, SF09, SF28, SF30).  
Note: The Early Response Indicator was reached in July 2021 and in response, the caves have been added to the bi-monthly scat program.

Additionally, FY2025 was the triennial year for monitoring all low value caves listed within the Fauna Management Plan, which was conducted in the September trip of the bi-monthly program.

Refer to Table 6-2 for the FMP monitoring results. The FY2025 trip details are below.

##### July 2024

A total of 31 caves were visited (i.e., accessible but may or may not be able to be entered), consisting of 18 high value caves, 11 reference sites, 6 additional caves and the artificial roost.

Caves not visited:

- AC14, AC17, AC18, SF24, SF02 due to no safe access, and SF30 due to time constraints

Caves not entered:

- AC06 due to falling from heights risk
- SF08 due to Ghost Bat Presence (partially – 40 scats observed before detection)

Scat, presence and general details:

- A total of 122 scats across 5 caves were observed and 81 collected.
- 1 Ghost Bat individual directly observed at SF08

##### September 2024

A total of 42 caves were visited (i.e., accessible but may or may not be able to be entered), consisting of 18 high value caves, 7 additional caves, the artificial roost and 17 triennial caves.

Caves not visited:

- SF24, AC17, AC18, AC4, AC12, AC19, AC25, AC34 AC37, AC38, SF12, SF13, SF16A, SF16B, SF17, SF19 and SF20 due to blasting proximity and unsafe access.

- Caves not entered:
- AC32 due to cave entrance size.
- AC06, AC07, AC26 and AC28 due to falling from heights risk
- No reference caves were visited this trip due to time constraints from accommodating triennial cave monitoring

Scat, presence and general details:

- A total of 573 scats across 13 caves were observed and 132 collected.
- 1 Ghost Bat individual directly observed at AC15.

#### January 2025

A total of 35 caves were visited (i.e., accessible but may or may not be able to be entered), consisting of 16 high value caves, 13 reference sites, 5 additional caves and the artificial roost.

Caves not accessed:

- AC17, AC18, SF24, SF02 due to safety concerns

Caves not entered:

- AC06 due to falling form heights risk

Scat Presence and General details:

- A total of 2318 scats across 12 caves were observed and 129 collected.
- No Ghost bats were observed
- Feral cat monitoring cameras installed at SF05, SF08, SF14, AC01, AC09, AC17

#### March 2025

A total of 35 caves were visited (i.e., accessible but may or may not be able to be entered), consisting of 16 high value caves, 13 reference sites, 5 additional caves and the artificial roost.

Caves not accessed:

- AC17, AC18, SF02, SF24 due to no safe access

Caves not entered:

- AC06 due to falling form heights risk

Scat, presence and general details:

- A total of 33 scats across 5 caves were observed and 33 collected.
- No ghost bats were observed.
- Water dripping was observed in AC08, triggering exit response from field crew over safety concerns

#### May 2025

A total of 32 caves were visited (i.e., accessible but may or may not be able to be entered), consisting of 14 high value caves, 13 reference sites, 4 additional caves and the artificial roost.

Caves not accessed:

- AC02, AC08, AC17, AC15, AC18, SF02, SF24 due to no safe access

Caves not entered:

- AC06 due to falling form heights risk

Scat, presence and general details:

- A total of 346 scats across 9 caves were observed and 71 collected.
- 2 Ghost bats were observed at SF08 – individuals flew to the back chamber allowing limited scat collection.

Seven of the 18 high value caves recorded no presence, with AC6 remaining inaccessible due to working at heights restrictions. An additional 2 caves (AC 17 and AC18) were inaccessible due to safety concerns, however those concerns have been mitigated for the FY2026 reporting period. Most visual observations of Ghost Bats were of individuals only (except SF08, n=2, May 2025). Cave visitations were aborted as soon as bats were noted, in order to avoid flushing roosting bats. Therefore, active caves were not able to be thoroughly examined in some instances, where multiple chambers exist.

**Table 6-2 Scat collection FMP bi-monthly monitoring**

Cave	Location	Jul-24		Sep-24		Jan-25		Mar-25		May-25	
		No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present
MS1072 Sites											
AC1	North Flank	0	0	4	0	2	0	0	0	0	0
AC2	North Flank	0	0	0	0	0	0	0	0	UA	UA
AC5	North Flank	0	0	0	0	0	0	0	0	0	0
AC6	North Flank	UA	UA	UA	UA	UA	UA	UA	UA	UA	UA
AC8	North Flank	0	0	0	0	0	0	8	0	UA	UA
AC9	North Flank	0	0	0	0	250	0	0	0	2	0
AC13	North Flank	0	0	0	0	0	0	0	0	1	0
AC14	South Flank	0	0	0	0	0	0	0	0	0	0
AC17	South Flank	UA	UA	UA	UA	UA	UA	UA	UA	UA	UA
AC18	South Flank	UA	UA	UA	UA	UA	UA	UA	UA	UA	UA
SF4	South Flank	0	0	0	0	0	0	0	0	1	0
SF5	South Flank	0	0	0	0	0	0	0	0	0	0
SF6	South Flank	0	0	0	0	0	0	0	0	0	0
SF8	South Flank	40	1	62	0	26	0	0	0	250	2
SF14	South Flank	0	0	6	0	0	0	0	0	0	0
SF18	South Flank	0	0	0	0	0	0	0	0	0	0
SF26	South Flank	0	0	0	0	13	0	0	0	0	0
SF27	South Flank	0	0	5	0	1	0	0	0	0	0
AR01	North Flank	0	0	0	0	0	0	0	0	0	0
Reference Sites											
ACW01	Tandanya	19	0	UA	UA	2	0	0	0	1	0
ACW06	Tandanya	0	0	UA	UA	0	0	0	0	0	0
ACW08	Mudlark	0	0	UA	UA	0	0	0	0	0	0
ACW10	Mudlark	0	0	UA	UA	4	0	0	0	75	0
ACW31	Tandanya	42	0	UA	UA	0	0	1	0	0	0
AC10	Packsaddle	0	0	UA	UA	0	0	0	0	0	0
M1	Mudlark	0	0	UA	UA	0	0	0	0	4	0
M2	Mudlark	0	0	UA	UA	0	0	0	0	0	0
CMIN-03	Ministers North	UA	UA	UA	UA	0	0	0	0	0	0
CMUD-063	Mudlark	UA	UA	UA	UA	9	0	0	0	0	0
CMUD-064	Mudlark	UA	UA	UA	UA	0	0	0	0	7	0
Early Response Indicator (ERI) Sites^											
SF03	South Flank	0	0	1	0	0	0	0	0	0	0
SF09	South Flank	0	0	0	0	0	0	0	0	0	0
SF28	South Flank	20	0	64	0	11	0	0	0	0	0
SF30	South Flank	UA	UA	0	0	0	0	0	0	0	0
Triennial Sites											
SF1	South Flank			UA	UA						
SF7	South Flank			0	0						
SF10	South Flank			0	0						
SF11	South Flank			0	0						
SF13	South Flank			UA	UA						
SF16A	South Flank			UA	UA						
SF16B	South Flank			UA	UA						
SF17	South Flank			UA	UA						
SF19	South Flank			UA	UA						
SF20	South Flank			UA	UA						
SF21	South Flank			0	0						
SF23	South Flank			0	0						
SF25	South Flank			0	0						
SF29	South Flank			0	0						
SF31	South Flank			0	0						
SF32	South Flank			0	0						
SF33	South Flank			0	0						
AC3	North Flank			UA	UA						
AC4	North Flank			UA	UA						
AC7	North Flank			UA	UA						



Cave	Location	Jul-24		Sep-24		Jan-25		Mar-25		May-25	
		No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present
AC12	South Flank			UA	UA						
AC15	North Flank			0	1	2,000	0	14	0	0	0
AC16	North Flank			25	0						
AC19	North Flank			UA	UA						
AC20	North Flank			200	0						
AC25	South Flank			UA	UA						
AC26	South Flank			UA	UA						
AC27	South Flank			0	0						
AC28	North Flank			UA	UA						
AC29	North Flank			0	0						
AC30	North Flank			0	0						
AC31	North Flank			1	0						

UA Not visited or entered due to Unsafe Access or conditions

^ ERI (Early Response Indicator) are the inclusion of additional monitoring caves due to an FMP trigger exceedance event in FY2022

NB For ease of viewing, orange highlight indicates scats present, light pink indicates bats present

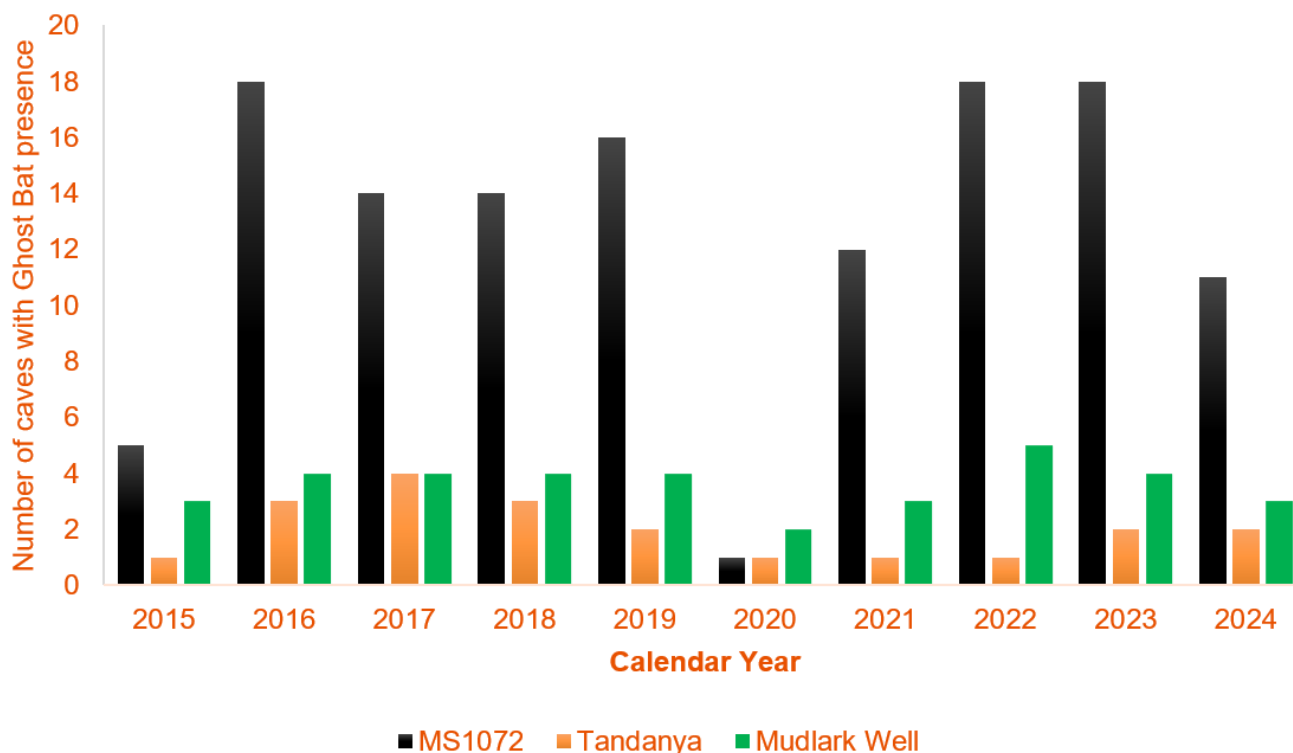
NB Grey shaded cells only get visited in September every three years as part of the triennial monitoring requirements

In February 2023, four high value caves (AC14, SF18, SF4 and SF26) reached a trigger criteria listed in the FMP due to no recorded scats over a 24-month period. Actions initiated in response to meeting the trigger criteria included:

- Increase the extent of the monitoring to low value caves or alternative location that the Ghost Bats may use
- Compare changes to results from other BHP Ghost Bat Monitoring programs
- Investigate the potential change in presence at high value caves to be retained and determine if additional threshold actions are required.

The extent of monitoring was increased to include low value caves and caves outside of the MS1072 Development Envelope as part of the response to the FMP trigger. This included caves in the Tandanya and Mudlark Well geoscience project areas to the west of the MS1072 Development Envelope.

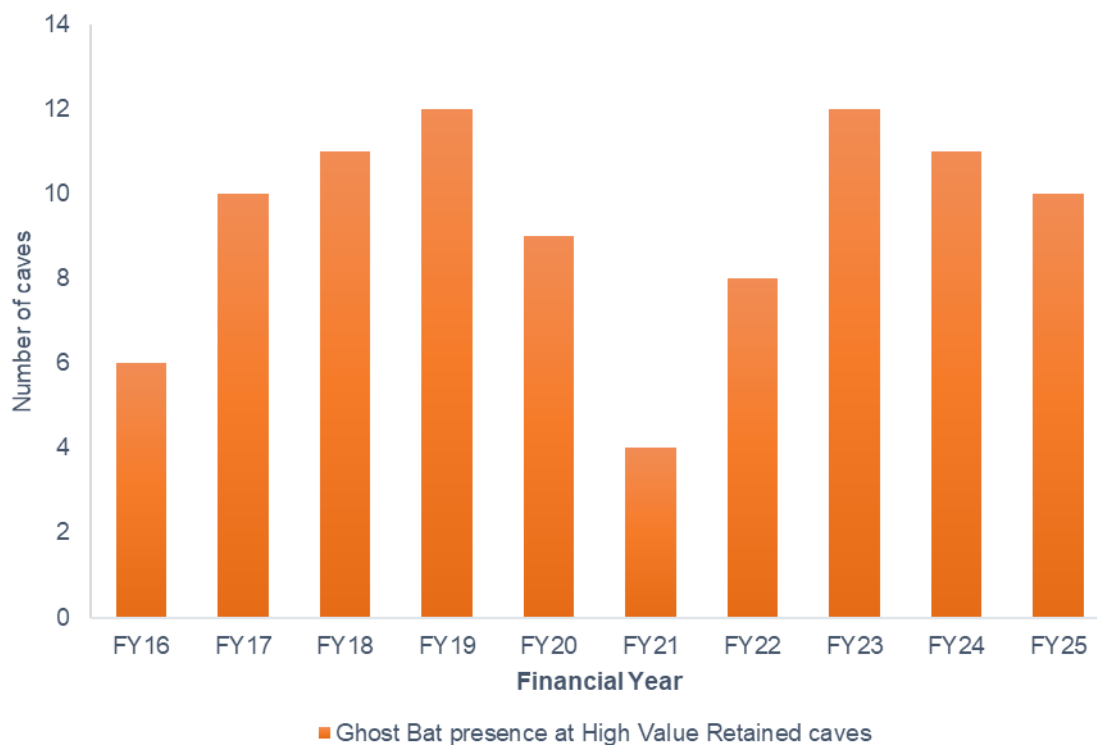
Ghost Bat presence, which comprises of records of fresh scats collected on midden sheets and observations of Ghost Bats has been compared across project areas in Figure 6-1. Given sampling regimes differ (e.g., number and selection of caves monitored and timing) from year-to-year and across projects, results cannot be directly compared. However, results indicate that Ghost Bats are still present across the eastern Hamersley subregion of the Pilbara.



**Figure 6-1 Number of caves with recorded Ghost Bat presence across different project areas**

Ghost Bat presence at high value retained caves has decreased marginally for caves in the MS1072 Development Envelope (Figure 6-2). A decrease was observed in FY2021, however, it is likely that this result is the function of the relatively low number of sampling events (three) that took place in 2020. The environmental criteria in the MS1072 MACFMP focuses on Ghost Bat absences from caves, rather than presence.

Given that Ghost Bats are known to utilise a variety of caves and that Ghost Bats may be hidden in chambers not accessible to humans or may not deposit scats on the midden sheet, it is difficult to rely on absence data. BHP WAIO submitted a revised MACFMP Version 2.1 on 24 March 2023, which proposed using presence data only to determine any potential changes in cave utilisation by the Ghost Bat in the MS1072 Development Envelope. Once the MACFMP Version 2.1 is endorsed, the above actions will be reviewed, and actions aligned to Version 2.1.

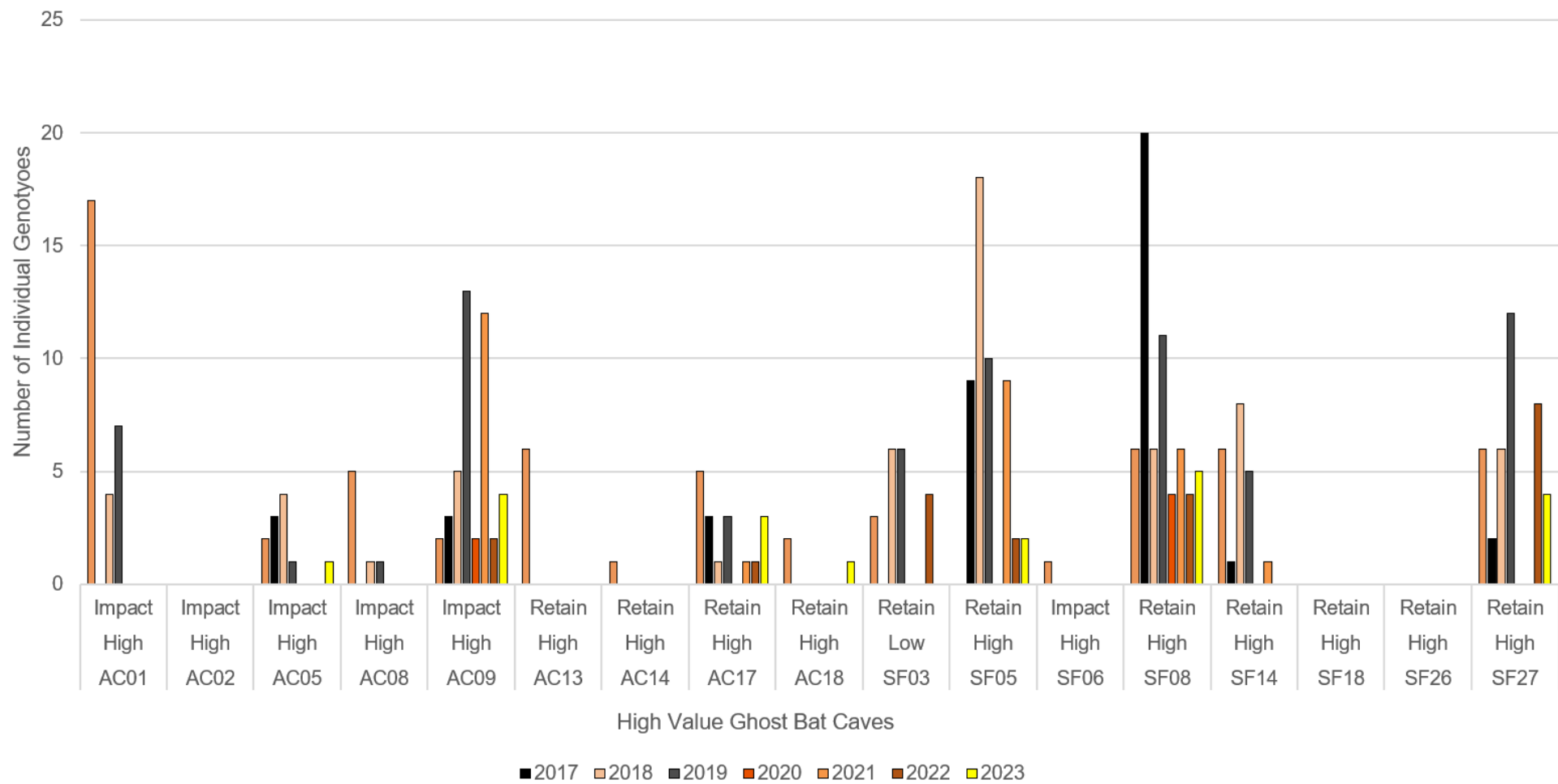


**Figure 6-2 Ghost Bat presence at High Value retained caves in the MS1072 Development Envelope**

### Genotype Analysis

Samples taken for genetic analysis are subject to a 12-month lead-time, therefore complete results from samples collected in the current reporting period are presented in the following years reporting.

Genetic results from samples collected between July 2023 and May 2024 remain under analysis with the Department of Biodiversity, Conservation and Attractions and therefore cannot be presented in this year's AER. Results will be provided in the FY2026 annual report or at request once BHP has received the genetic data and analysis from DBCA.



**Figure 6-3 Individual genotypes recorded in genetic analyses from high value caves at Mining Area C sampled in 2016 to 2023**

## Hormone Analysis

Scats collected during the monitoring period were analysed by Dr Tamara Keeley (University of Queensland) and Dr Kerry Franson (La Trobe University) for faecal metabolites (hormones) to determine the occurrence of pregnant individuals within caves.

A total of 443 samples were analysed, comprising 383 samples collected from 21 annually monitored caves and 60 scats collected from two triennially monitored caves. Although scats collected from AC16, CTAN-47 and CMAC-005 were considered fresh, they were not collected from scat sheets, therefore their age cannot be guaranteed and there is potential for progesterone levels to have degraded.

Of the 443 samples analysed, 228 scats (51.47%) contained elevated progesterone levels (progesterone levels exceeding 1,000 ng/g), indicating the presence of presumed pregnant females at 19 caves (Table 6-2).

Caves CMUD-002, CMUD-010, CMUD-047, CMUD-063 and SF27 recorded the highest proportion of scats with elevated progesterone (100% of scats collected) across all trips. SF08 and CTAN-01, were used most consistently by presumed pregnant females with three trips returning scats with elevated progesterone

**Table 6-3 Percentage of samples with elevated progesterone**

Area	Frequency	Category	Cave ID	Jul-24	Sep-24	Jan-25	Mar-25	May-25	Total
Area C	Annual	RHV	AC13	0	0	0	0	0	0
			AC14	0	0	0	0	0	0
		HV	AC01	0	0	0	0	0	0
			AC02	0	0	0	0	-	0
			AC05	0	0	0	0	0	0
			AC08	0	0	0	0	-	0
			AC09	0	0	0	0	0.23	0.23
			AR	AMAC-01	0	0	0	0	0
	Triennial	LV	AC15	-	*	2.71	1.81	-	4.51
			AC16	-	4.97 <sup>#</sup>	-	-	-	4.97 <sup>#</sup>
AC20			-	4.06	-	-	-	4.06	
South Flank	Annual	RHV	SF04	0	0	0	0	0	0
			SF05	0	0	0	0	0	0
			SF08	*	5.87	1.13	0	0.23	7.22
			SF14	0	0.90	0	0	0	0.9
			SF18	0	0	0	0	0	0
			SF26	0	0	0.45	0	0	0.45
			SF27	0	1.13	0.23	0	0	1.35
		LV	SF24	-	-	-	-	-	-
			SF03	0	0.23	0	0	0.23	0.45
			SF09	0	0	0	0	0	0
			SF28	0	3.84	1.58	0	0	5.52
			SF30	-	0	0	0	0	0
		HV	SF02	-	-	-	-	-	-
			SF06	0	0	0	0	0	0
Tandanya, Mudlark Well and East Packsaddle			CC	CTAN-01	3.39	0	0.23	0	0.23
		CTAN-06		0	-	0	0	0	0
		CMUD-08		0	-	0	0	0	0
		CMUD-10		0	-	0.90	0	0	0.9
		CTAN-31		4.51	0	0	0.23	0	4.74
		CMUD-01		0	-	0	0	0.09	0.09
		CMUD-02		0	-	0	1.35	0	1.35
		CEPA-10		0	-	0.90	0	0	0.90
		CMUD-63		0	-	1.81	0	0	1.81
		CMUD-64		0	-	0	0	1.13	1.13
		CMAC-005		-	-	4.29 <sup>#</sup>	0	0	4.29 <sup>#</sup>
CMUD-47		-	-	0	0	0	0		
Ministers North		CMIN-03	0	-	0	0	0	0	
Total (on and off-sheet)				7.9	20.99	15.35	4.29	2.93	51.57

NB RHV = Retained High Value Ghost Bat Caves; HV = High Value Ghost Bat Caves; LV = Low Value Ghost Bat Caves; CC = Contextual Caves; AR = Artificial Roost. '-' denotes caves that were not visited during a given monitoring survey. '\*' denotes caves that were not entered due to ghost bat presence. '<sup>#</sup>' denotes scats collected off-sheet. Scats with elevated progesterone levels have been shaded orange.

### 6.1.3.2 Pilbara Olive Python

Scheduled targeted monitoring was not required during the reporting period. One Pilbara Olive Python was observed at the Mulla Mulla camp within the activity area during FY2025 reporting period.

### 6.1.4 Management Commitments

An update on the management commitments is outlined below.

#### Barbed wire fence removal

No barbed wire fencing (within 50 km of the activity area) was removed or replaced during the reporting period. Metal bat deflectors were installed on security fences where barbed wire is a statutory design requirement, including the Mining Area C Security Storage Ammonium Nitrate (SSAN).

Planning and due diligence is ongoing with execution of the program slated for FY2026.

#### Feral animal control

A feral cat trapping program was implemented during the reporting period. One adult male, one juvenile female, and one adult female were trapped within proximity to camps and administration building.

#### Fire control/management

Drafting of a Fire Control Management Procedure has begun, with finalisation slated for FY2026.

#### Remove cattle from newly excised land from pastoral leases and construction of exclusion fencing (where applicable)

No updates during the reporting period.

#### Exclusion fencing around waterholes

No updates during the reporting period.

### 6.1.5 Hydrological Regimes

During FY2025 groundwater level monitoring data was collected at the pathway and receptor bores for Weeli Wolli and Ben's Oasis. There were no exceedances or non-compliances relating to trigger and threshold criteria associated with the BHP Central Pilbara Water Resource Management Plan Version 4.1 (BHP 2021) (CPWRMP), referenced in the Mining Area C Validation Notice.

A non-compliance relating to missed monthly groundwater bore levels at Weeli Wolli and Ben's Oasis under the Central Pilbara Water Resource Management Plan (Version 4.1) monitoring program was identified during FY2025. Refer to baseline groundwater level monitoring at the pathway and receptor bores for Weeli Wolli Spring (Table 6-4 and Figure 6-4) and Ben's Oasis (Table 6-5 and Figure 6-5).

Conceptual model refinement is ongoing as information through data sharing arrangements is made available and broader regional drilling campaigns produce usable data. Vista Oriental sub-deposit A commenced dewatering in November 2023 and is assessed as having no impact to Ben's Oasis. Dewatering activities at Vista Oriental sub-deposits adjacent to the Pebble Mouse Creek Valley that are assessed as having the potential to impact Ben's Oasis are not due to commence until Q3 FY2026.

Additional monitoring bores are planned for ML249SA to enhance the pathway-receptor network to the extent of BHP tenure.

Due to falling water levels in the vicinity of Ben's Oasis (Northeast of the Dyke) BHP has taken the decision to re-drill the existing monitoring bores HDD0001 – HDD0004 to a greater depth, and to install with EWS telemetry, ensuring ongoing monitoring of the area is maintained into the future.

Despite the presence of data gaps in the water level records from the Weeli Wolli Springs groundwater bores, BHP maintains that water levels at these monitoring sites have not been impacted. Consistent water level trends are visible in the available data and in adjacent bores with complete data sets.

Based on the monitoring undertaken during the FY2025 reporting period, BHP considers that the Program Matter Outcome has been achieved during the reporting period:

*Program activities do not physically disturb, or result in adverse changes to the hydrological regimes and/or water quality of the following waterholes: Weeli Wolli Spring, Ben's Oasis;*

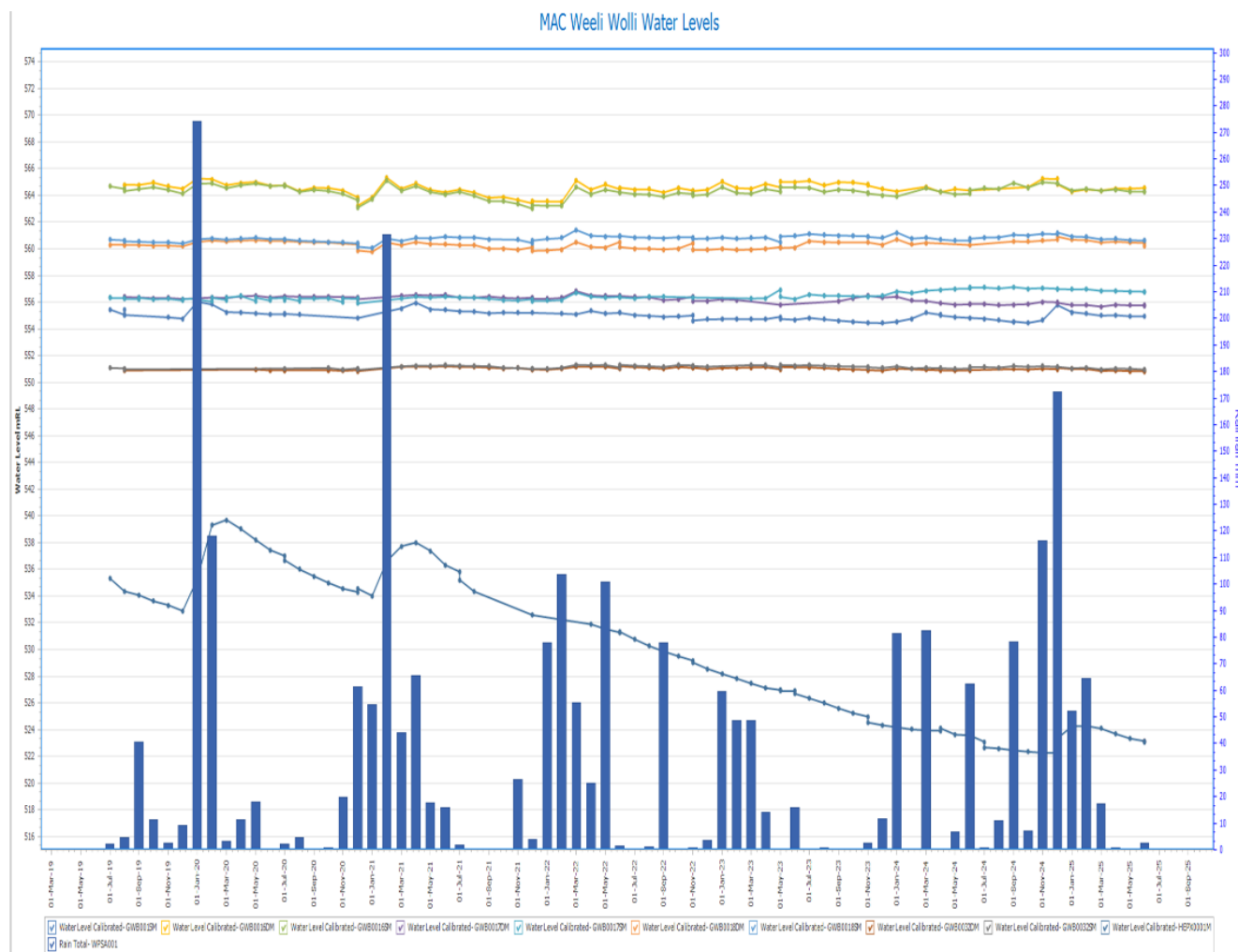


**Table 6-4 Groundwater levels for baseline understanding – Weeli Wolli Spring**

Sample Point ID	Weeli Wolli Springs											
	FY2025 (mbgl)											
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
<b>Early Warning</b>												
GWB0015M	23.75	23.85	23.96	24.07	24.12	22.79	23.14	23.38	23.49	23.54	23.58	23.61
HEPX0001M	86.89	87.03	87.12	87.25	87.35	87.14	85.84	85.36	85.48	85.78	86.15	86.52
<b>At Receptor</b>												
GWB0016DM	-	-	-	4.00	3.83	3.25	4.09	4.21	4.20	4.14	4.05	4.05
GWB0016SM	4.18	4.02	3.95	3.86	3.83	3.41	3.97	4.17	4.22	4.21	4.30	4.33
GWB0017DM	3.12	3.15	3.19	3.16	3.03	2.88	3.12	3.20	3.26	3.23	3.21	3.24
GWB0017SM	1.88	1.89	1.90	1.91	1.93	1.81	2.07	2.01	2.07	2.15	2.16	2.18
GWB0018DM	-	-	6.43	6.46	6.44	5.88	6.21	6.36	6.51	6.49	6.50	6.61
GWB0018SM	6.36	6.29	6.22	6.14	6.09	5.75	6.11	6.27	6.37	6.44	6.47	6.55
GWB0032DM	-	-	3.78	3.86	3.80	3.75	3.77	3.82	3.88	3.94	3.95	3.97

- Denotes that no reading was taken.

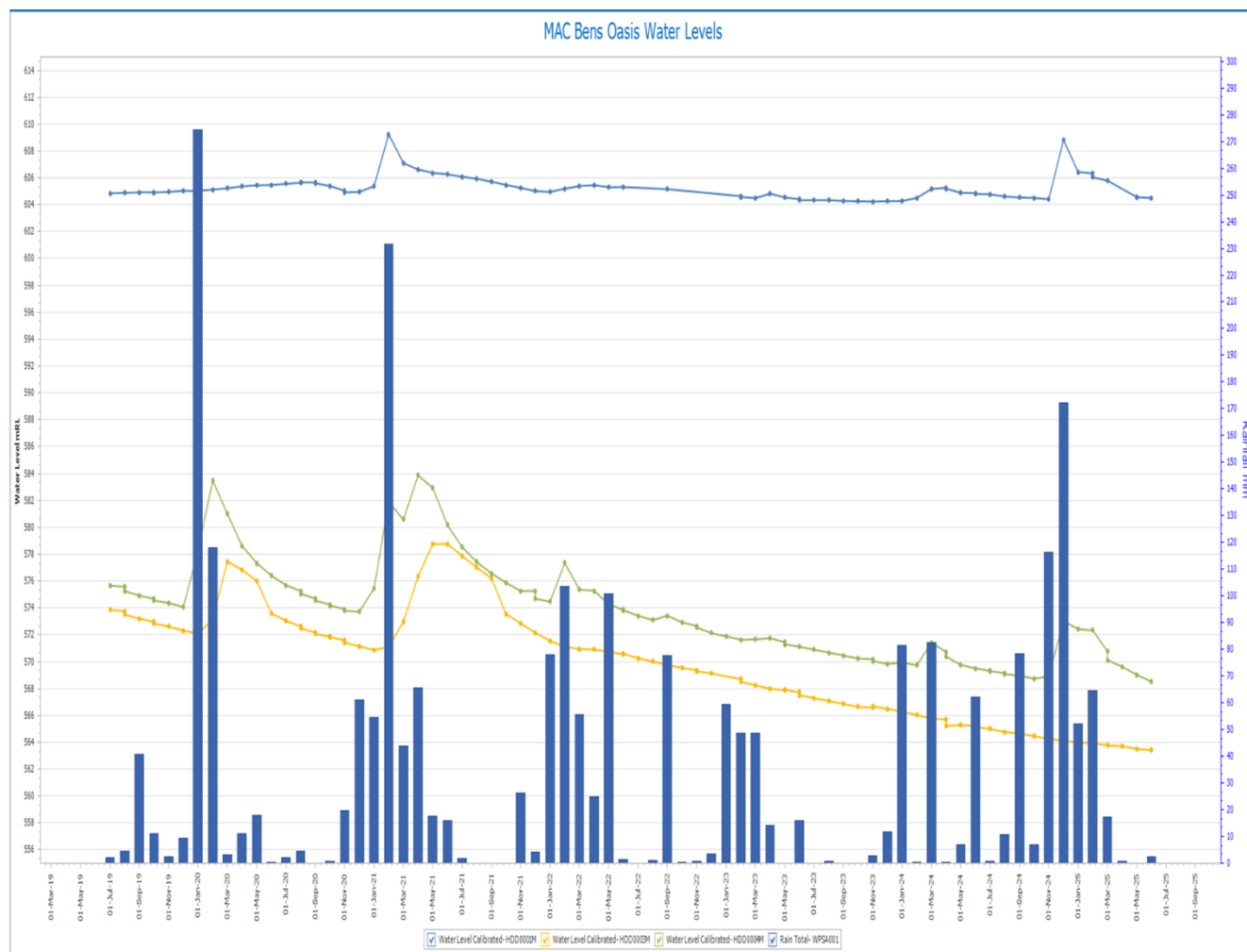
Monitoring was missed in the months of July, August (GWB0018DM, GWB0032DM, GWB0016DM) and September (GWB0016DM) due to telemetry failures. All three bores are maintained by Rio Tinto Iron Ore and were subsequently brought back online.

**Figure 6-4 Weeli Wolli Spring Groundwater Levels**

**Table 6-5 Groundwater levels for baseline understanding – Ben's Oasis**

Sample Point ID	Ben's Oasis FY2025 (mbgl)											
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
<b>Early Warning</b>												
HDD0004M	37.56	37.72	37.95	38.14	38.27	36.43	34.88	34.63	36.53	37.12	37.65	38.25
HDD0003M	42.71	42.88	43.04	43.21	43.38	43.55	43.70	43.84	43.91	44.02	44.16	44.31
<b>At Receptor</b>												
HDD0001M	17.40	17.50	17.65	17.61	17.77	14.94	14.85	16.06	16.35	-	17.62	17.64

- Denotes that no reading was taken.

**Figure 6-5 Ben's Oasis Groundwater Level Monitoring**

### 6.1.6 Offsets

BHP has prepared a MAC-South Fland Offsets Proposal to address residual impacts identified in the MAC-South Fland Validation Notice. The Proposal has been prepared to address a recommendation arising from the five yearly review of the EPBC Strategic Program. DCCEEW agrees in-principle to the three offset programs being proposed – Feral Cat Control, Ghost Bat Foraging Habitat Enhancement, and Artificial Ghost Bat Research – to compensate for the residual impact of removing the three category 2 Ghost bat roosts (SF01, AC05 and AC09), however the specific details of the design, planning and implementation of these offsets in the draft OMP, still require further review and agreement.

### 6.1.7 Land Disturbance Reconciliation

Disturbance undertaken during the reporting period under the Mining Area C Validation Notice is detailed in Table 6-6. The disturbance of habitats for all the Program Matters is shown in Map 6-1 and Map 6-2.

No disturbance has been undertaken at Weeli Wolli Spring or Ben's Oasis by BHP. Based on the disturbance undertaken during the FY2025 reporting period, BHP consider that the following Program Matter Outcome has been achieved during the FY2025 reporting period:

*Program activities do not physically disturb, or result in adverse changes to the hydrological regimes and/or water quality of the following waterholes: Weeli Wolli Spring, Ben's Oasis;*

The gorge and gully habitats do not support a high density population of Northern Quolls at Mining Area C. BHP considers that the following Program Matter Outcome has been achieved during the FY2025 reporting period:

*No loss of Northern Quoll habitat that supports a high density population as a result of Program activities;*

No land disturbance has occurred within 50 m of the retained high value ghost bat caves or artificial Ghost Bat roosts during the reporting period (Figure 7.3). BHP considers that the following performance targets in the Mining Area C Validation Notice have been achieved for the FY2025 reporting period:

*No land disturbance within 50 m of 'to be retained High value ghost bat caves' or 'artificial ghost bat roosts'.*

*No disturbance to any of the 'to be retained High value ghost bat caves' or 'artificial ghost bat roosts'.*

*No disturbance to any 'to be retained ghost bat cave' that renders it unsuitable ghost bat habitat.*

No land disturbance has occurred outside of the activity area (Map 6-1) and disturbance to habitats for each Program Matter remains below the impacts described in the Mining Area C Validation Notice (Table 6-6). BHP considers that the following performance target in the Mining Area C Validation Notice for the Greater Bilby, Pilbara Olive Python and Northern Quoll have been achieved for the FY2025 reporting period:

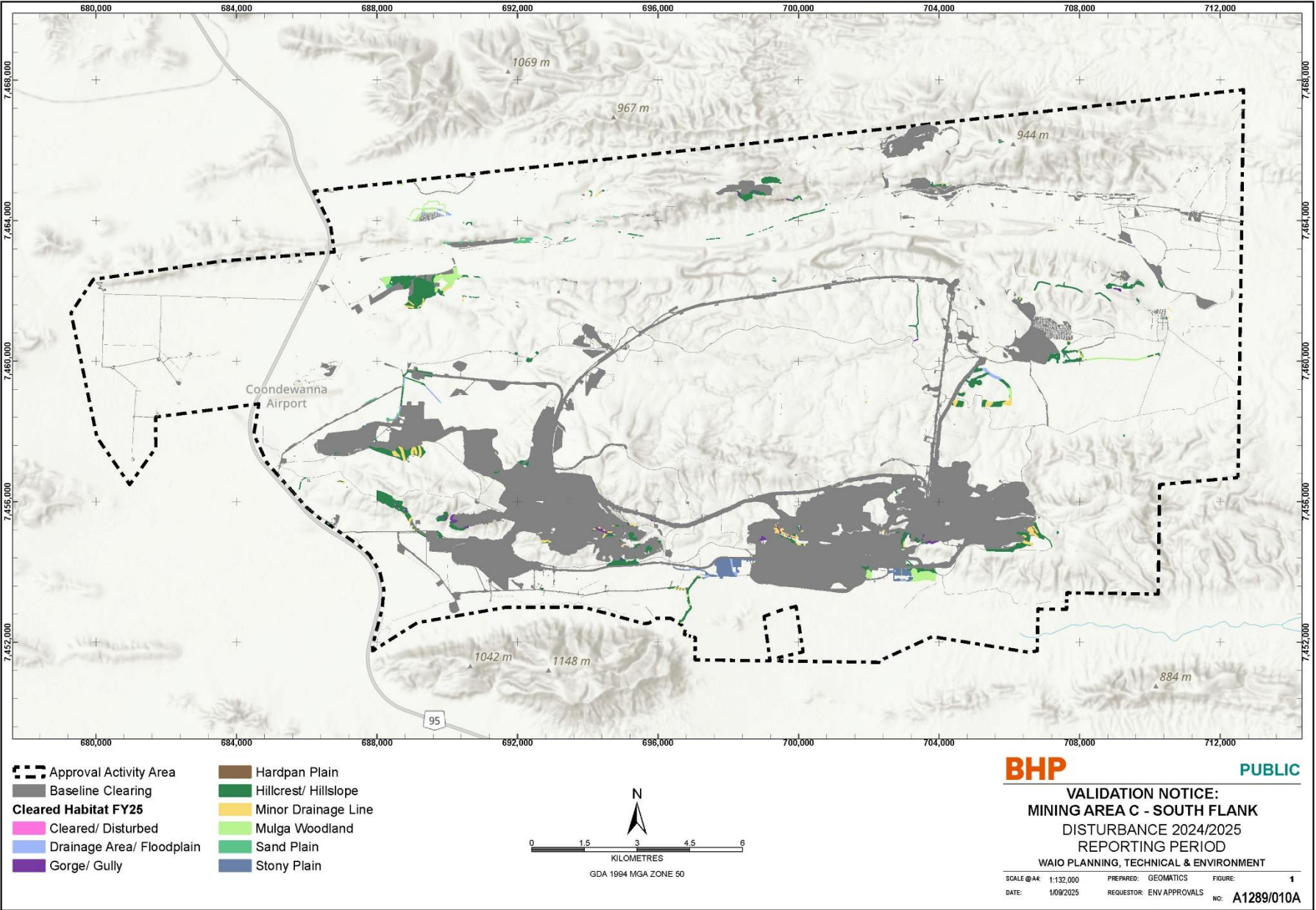
*No unauthorised disturbance beyond the activity area.*

All disturbance to habitats for each Program Matter remain below the impacts predicted during the Validation Process (Table 6-6).

**Table 6-6 Mining Area C Disturbance by habitat type**

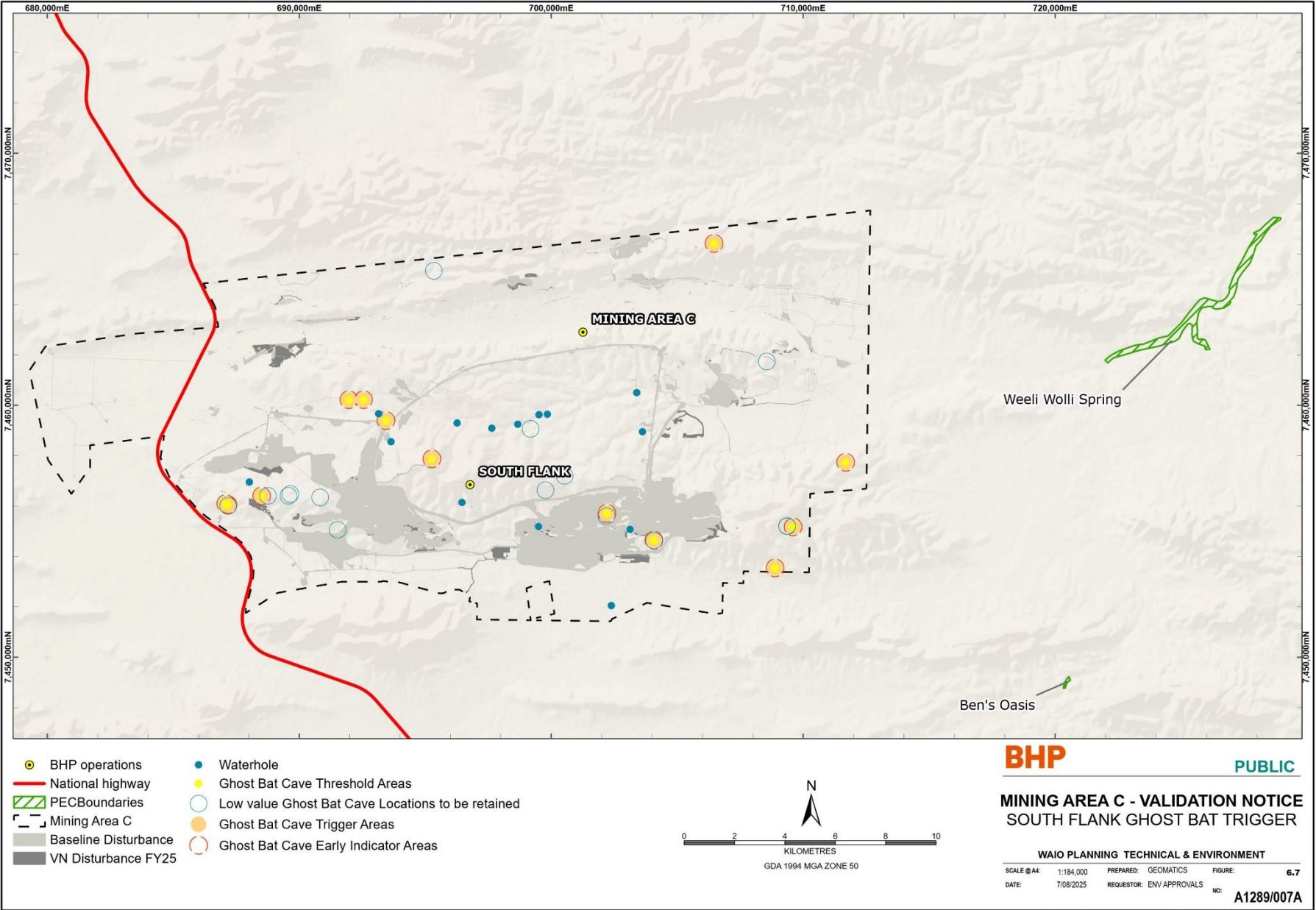
Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total Disturbance from July 2018 to June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Ghost Bat</b>			
Foraging Habitat <sup>1</sup>	249.79	4,451.19	14,502
Ghost Bat Caves	Nil	Four caves (2019 – SF22, 2020 – SF15, 2024 – AC3, AC11)	Thirty-six roosts (impact)
<b>Pilbara Olive Python</b>			
Gorge/Gully	15.60	128.54	1,123
Major Drainage	0.00	0.8	2
<b>Total</b>			<b>1,125</b>
<b>Greater Bilby</b>			
Sand Plain	6.48	134.9	236
<b>Pilbara Leaf-nosed Bat</b>			
Gorge/Gully	15.60	128.54	1,123
<b>Northern Quoll</b>			
Gorge/Gully	15.60	128.54	1,123

<sup>1</sup> Ghost Bat foraging habitat is based on a buffer of 4 km applied to high value roosts as per Area B outlined in Ministerial Statement 1072.



Map 6-1 Mining Area C VN Habitat Disturbance FY2025





Map 6-2 Mining Area C Ghost Bat Caves and Disturbance



## 6.2 Jimblebar Optimisation Project

Existing mining operations at Jimblebar are located approximately 40 km east of the town of Newman. Existing mining operations include above and below water table mining of open iron ore pits, overburden storage areas and the operation of associated mine, processing and rail infrastructure. Groundwater is abstracted for water supply and to dewater the orebodies.

Surplus water is managed through several methods:

- transfer to Ophthalmia Dam,
- controlled creek discharge to Jimblebar Creek and Caramulla Creek,
- MAR at Orebody 18 and Caramulla.

The Jimblebar Optimisation Project Validation Notice (May 2020) came into effect on the 8 June 2020. It became inactive during the reporting on 8 June 2025, as it was valid for 5 years. .

No activities occurred under the Jimblebar Optimisation Project Validation Notice (May 2020) in the period between 1 July 2024 to 8 June 2025.

## 6.3 Revised Jimblebar Optimisation Project Validation Notice

BHP prepared the Revised Jimblebar Optimisation Project Validation Notice (2023) to update offset commitments and identify additional disturbance required for new activities and infrastructure. The revised scope included:

- a solar project,
- Jimblebar enabling works for future beneficiation,
- train load out replacement,
- communications,
- Jimblebar East enabling works.

The Revised Jimblebar Optimisation Project Validation Notice did not reassess or alter the activities described in the original Validation Notice. It was published on 24 August 2023 and came into effect on 25 September 2023.

The following section reports on the reporting period from 1 July 2024 to 30 June 2025. The Revised Validation Notice authorises clearing of up to 1,042 ha, in addition to the 2,000 ha of clearing previously authorised in the original Validation Notice.

### 6.3.1 Validation Notice Deviations

One non-compliance was identified:

- A clearing limit exceedance to the minor drainage line fauna habitat was identified during the reporting period. In section 6.3.6, Table 6-6, it is noted that there has been clearing of a total of 18.52 ha of minor drainage line, which is regarded as critical foraging habitat for Ghost Bats. The Validation Notice identified 12 ha as the 'clearing' limit for this fauna habitat type.

### 6.3.2 Program Matter Monitoring and Outcomes

Monitoring requirements for the reporting period are outlined in Table 6-7. Results from the Ghost Bat monitoring program are discussed in Section 6.3.3.1.

**Table 6-7 Program Matter Monitoring Requirements for the Reporting Period**

Species	Monitoring	Parameters	Timing	Performance Targets	Applicable Program Matter Outcome
Ghost Bat	Monitoring Ghost Bat presence and usage of the Activity Area. Proposed monitoring includes: <ul style="list-style-type: none"> <li>Category 2 roosts (CJIM-03 and CNIN-03*) at least 6 monthly</li> <li>Category 3 roosts (CNIN-01, CNIN-13, CJIM-09) at least yearly</li> <li>Category 4 roosts (CJIM-01, CJIM-05, CJIM-06, CJIM-08, CJIM15, CJIM17, CJIM-20**, at least two yearly</li> </ul> <i>(Monitoring subject to safe access, heritage and tenure restrictions).</i>	Presence of Ghost Bat.	Six monthly to two yearly monitoring.	Presence or evidence of presence of Ghost Bat at one or more Ghost Bat roosts over two years of monitoring.	No loss (or maintain) Ghost Bat colony(s) as a result of Program activities.

\* Note: During the Validation Notice review completed in August 2023, there was an administrative error and CNIN-01 should be CNIN-03 (category 2 roost).

\*\* Note: As of February 2025, roost CJIM-20 is unable to be monitored due to access constraints to this cave due to heritage restrictions. This cave was last visited in April 2024 and was removed from monitoring program in the April 2025 update of the Terrestrial Fauna EMP (still pending regulatory approval).

### 6.3.3 Population Monitoring

Based on the Ghost Bat monitoring conducted during the reporting period, BHP considers that the Project Matter Outcomes have been achieved:

*Minimise loss of critical and supporting habitats of the Ghost Bat as a result of Program Activities within the SAA*

*No loss (or maintain) Ghost Bat colony(s) as a result of program activities*

Ghost Bat monitoring results are discussed in the following sections.

#### 6.3.3.1 Ghost Bat Monitoring

##### Sampling

In FY2025, four field trips were undertaken to assess the presence or absence of Ghost Bats in caves located within or adjacent to the Activity Area, in accordance with the monitoring conditions outlined in the Revised Validation Notice. The cave visitation frequencies specified in Table 6-8 were met within the reporting period.

Cave entry was restricted during the first half of the reporting period due to safety concerns associated with potential cave collapse and was subject to risk mitigation as part of BHP's Fatality Elimination Project. Following geotechnical assessments, cave entry was permitted during the second half of the reporting period. Risk of cave collapse will continue to be assessed and future entry may be restricted if it is deemed unsafe.

##### September 2024

During field trip one (13 to 16 September 2024):

- Eleven out of the twelve caves were visited.
- No scats were collected or Ghost Bats observed during the field trip.
- No cave entry was permitted due to safety concerns and pending geotechnical assessment of each cave for risk of collapse as part of BHP's Fatality Elimination Project.

##### February 2025

During field trip two (13 to 14 February 2025):

- Three out of the twelve caves were visited.
- No Ghost Bat scats were collected or Ghost Bats observed during the field trip.
- The survey team demobilised early as an incoming cyclone made it unsafe to undertake monitoring activities

##### March 2025

The survey team remobilised in March after the cyclone had passed.

During field trip three (16 to 18 March 2025):

- Three of the twelve caves were visited.
- No Ghost Bat scats were collected or Ghost Bats observed during the field trip.

#### April/May 2025

During field trip four (28 April to 2 May):

- Nine out of the twelve caves were visited.
- No scats were collected or Ghost Bats observed during the field trip.

**Table 6-8 Jimblebar caves monitored during the reporting period**

Cave ID	Roost Type	Visitation Frequency	September 2024	Feb 2025	March 2025	April/May 2025
CJIM-01	Category 4	Two yearly	✓			✓
CJIM-03	Category 2	Six monthly	✓	✓		✓
CJIM-05	Category 4	Two yearly	✓		✓	
CJIM-06	Category 4	Two yearly	✓			✓
CJIM-08	Category 4	Two yearly	✓			✓
CJIM-09	Category 3	Yearly	✓		✓	✓
CJIM-15	Category 4	Two yearly	✓			✓
CJIM-17	Category 4	Two yearly	✓			✓
CJIM-20	Category 4	Two yearly				
CNIN-01	Category 3	Yearly	✓	✓		✓
CNIN-03	Category 2	Six monthly	✓	✓		✓
CNIN-13	Category 3	Yearly	✓		✓	

#### Ultrasonic recordings

Bat call detection via ultrasonic monitoring was conducted across several caves during the FY2025 reporting period. Analysis of the acoustic data confirmed Ghost Bat call detections at cave CNIN-03 during the following months:

- October 2024,
- November 2024,
- March 2025,
- April 2025).

Additional ultrasonic data has been collected and is currently undergoing analysis concurrent with the preparation of this report.

#### 6.3.4 Management Commitments

An update on the management commitments is outlined below.

##### Implement feral cat management

Opportunistic sightings of feral cats are reported to the Site Environmental Specialist and/or documented in the BHP Event Management System. One feral cat sighting was reported during the reporting period at the main Jimblebar administration hub.

To monitor feral cat presence near Ghost Bat roosts, cameras were deployed during FY2025 at the entrances of the following caves: CJIM-003, CJIM-009, CNIN-003, CNIN-09, CNIN-012 and CNIN-001.

Feral cats were observed at CJIM-009, CNIN-003, CNIN-09, CNIN-012 and CNIN-001.

A draft version of the Feral Cat Monitoring at Ghost Bat Roosts report has been received. While results of the monitoring program will be further discussed in the next reporting period, preliminary findings confirm that feral cat predation is a threatening process to Ghost Bats. These insights will inform strategic management approaches to reduce the threat of feral cats in current and future developments.

A baseline feral cat monitoring program is planned for FY2026 to support the development of targeted feral cat management programs.

##### Implement fire management

Fire risk is managed through multiple controls across Jimblebar:

- Hot work management procedures are enforced via the BHP permitting system to ensure that any hot works across site complies with the BHP procedures and standards.
- Fire breaks are maintained around powerline corridors, water pipelines, conveyors, and infrastructure. These are managed through scheduled work orders occurring every six to twelve months.
- Designated smoking areas are available at crib huts and administrative buildings to ensure smoking is contained to specified areas and to reduce the risk of fire threats across site.

### Restrict barbed wire usage

Barbed wire has been limited onsite to areas where required by legislation (i.e. around the ANFO facility). To minimise risks to Ghost Bats, additional controls are implemented through the PEAHR system which ensures:

- Avoidance of barbed wire wherever possible,
- Where barb wire is necessary, only single strand barbed wire is used, with bat deflectors, to deter Ghost Bats.

### Restrict human access to high value Ghost Bat caves

Monitoring of Ghost Bat caves was completed outside of the Ghost Bat breeding season (October to January), with one field survey completed in September 2024.

#### 6.3.5 Offset Commitments

An advanced 10 per cent payment of the estimated total offset amount for the Revised Jimblebar Optimisation Project Validation Notice was contributed to the PEOF in October 2023.

The first biennial payment for the first two-yearly reporting period (1 July 2023 – 30 June 2025) will be made following submission of the EPBC Impact Reconciliation Report to PEOF by 1 October 2025.

Implementation and achievements of offset programs undertaken by PEOF are available on the [PEOF website](#).

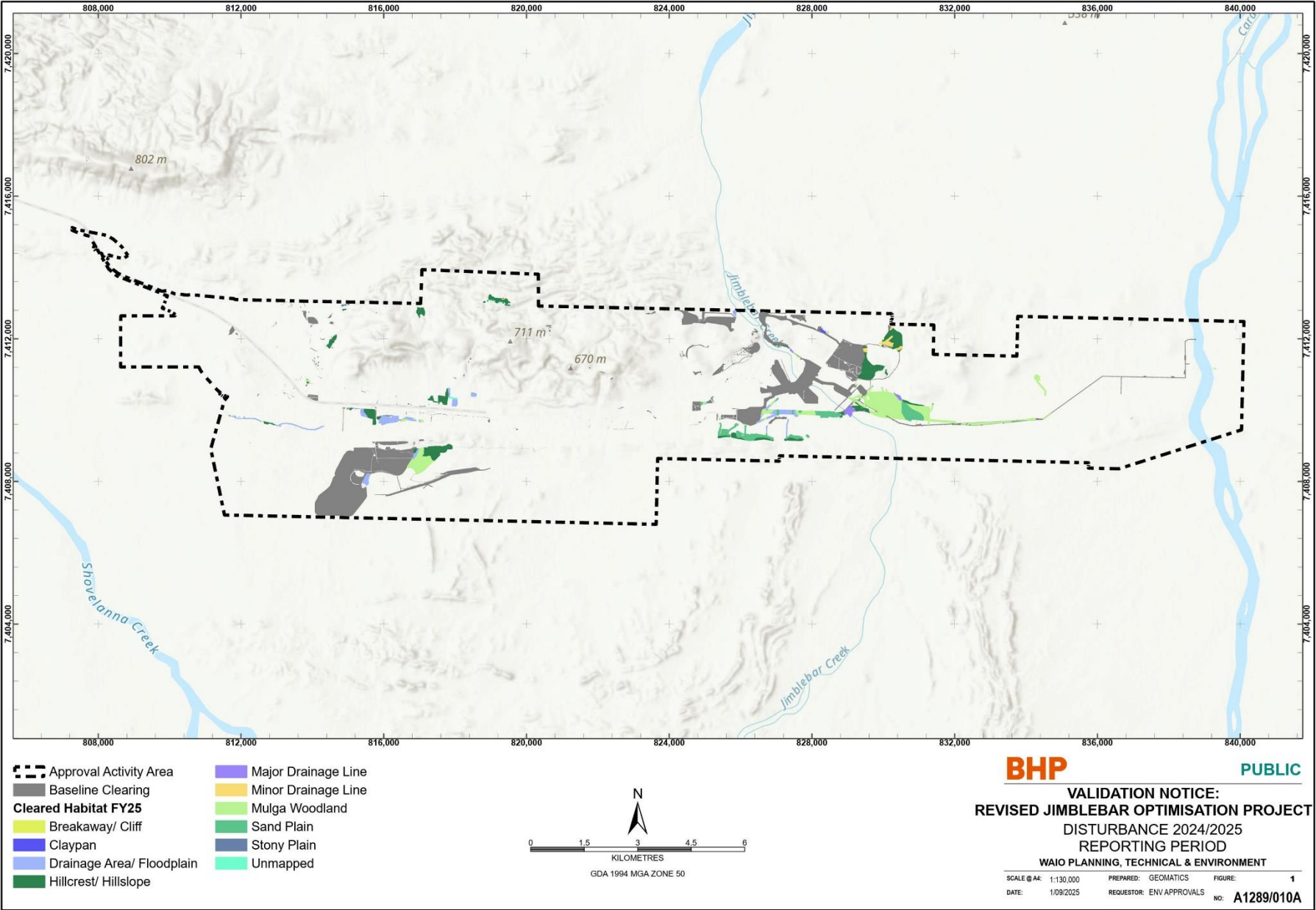
#### 6.3.6 Land Disturbance Reconciliation

The disturbance during the reporting period to critical roosting and critical foraging habitats associated with Ghost Bats is detailed in Table 6-9. The Total Predicted Disturbance (ha) is the combined total approved via the previous Jimblebar Optimisation Project Validation Notice and the Revised Jimblebar Optimisation Project Validation Notice.

During the reporting period, no category 3 or 4 roosts within the Activity Area were cleared. One non-compliance occurred in the reporting period where the Minor Drainage clearing limit was exceeded, please refer to the table below for further detail.

**Table 6-9 Jimblebar Optimisation Project Revised Validation Notice Disturbance by habitat type**

Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Ghost Bat</b>			
<b>Critical roosting habitat</b>			
Gorge and Gully	0	0	<1 ha
<b>Critical foraging habitat</b>			
Major Drainage Line	5.84	17.41	233
Minor drainage line	5.22	18.52	12
Mulga Woodland	121.48	123.48	1,465
Drainage Area/Flood Plain	37.08	42.5	335
Sand Plain	44.25	52.69	407
Stony Plain	0.33	0.62	160
<b>Total</b>	<b>214.2</b>	<b>255.22</b>	<b>2,612</b>



Map 6-3 Revised Jimblebar Validation Notice - Habitat Disturbance FY2025



## 6.4 Mooka Rail Siding

The Mooka Rail Works are located approximately 22 km south of the town of Port Hedland, adjacent to BHP's Newman Main Rail Line in the Pilbara region of Western Australia. This rail line is a critical component of the WAIO Supply Chain, connecting BHP's Iron Ore mines at Newman, Jimblebar, Eastern Ridge, Yandi and Mining Area C with Port Hedland, where it is exported via the Nelson Point and Finucane Island facilities.

The Mooka Rail Works are being undertaken to upgrade existing rail infrastructure and ancillary facilities along a section of the Newman Rail Line known as 'Mooka'.

The activities include:

- Construction of five new rail sidings (low-speed track sections) totalling approximately 5 km.
- Re-alignment of an existing rail siding, including tie-ins.
- Construction of level crossings, access roads, derailleurs, signalling infrastructure and on-tracking points.
- Construction and relocation of supporting infrastructure and underground service.
- Geotechnical works.
- Decommissioning and closure of redundant infrastructure.

The Validation Notice was published on 14 June 2023 and came into effect from 4 July 2023.

The Validation Notice was required due to the Notifiable Action trigger being met for the Northern Quoll, with numerous records of the species adjacent to and within the Activity Area.

The Mooka Rail Works Activity commenced as planned in August 2023. During the reporting period, the majority of bulk earthworks and civil construction works were completed. The project remains on track to meet the five-year timeframe committed to in the Validation Notice, with construction, commissioning, rehabilitation, and demobilisation scheduled for completion within that period.

### 6.4.1 Validation Notice Deviations

No exceedances or deviations from the Mooka Rail Works Validation Notice were identified during the reporting period.

### 6.4.2 Program Matter Monitoring and Outcomes

Monitoring activities required during the reporting period are detailed in Table 6-10. Results from these monitoring programs are discussed in the following sections.

**Table 6-10 Program Matter Monitoring Requirements for FY2025 Reporting Period**

Species	Monitoring	Parameters	Timing	Performance Targets	Applicable Program Matter Outcome
Northern Quoll	Biannual monitoring at Sites Quarry 1 (Q1), Quarry 1 Control (Q1C), Quarry 2 (Q2) and Quarry 2 Control (Q2C). Monitoring to be undertaken twice a year. Techniques will include motion camera footage and targeted searches.	Presence or evidence of individuals	Six monthly monitoring.	Presence or evidence of Northern Quoll at one or more sites over two years of monitoring.	Minimise loss of critical and supporting habitats of the Northern Quoll as a result of Program Activities within the SAA,  AND  No loss (or maintain) Northern Quoll colony(s) as a result of program activities.
	Land disturbance reconciliation	Clearing does not exceed 23 ha Sand Plain	Annual land disturbance reconciliation.	No unauthorised disturbance beyond the Activity Area.	No loss of Northern Quoll habitat that supports a high density population as a result of Program activities

### 6.4.3 Population Monitoring

Monitoring of Northern Quoll populations was undertaken during the reporting period, in accordance with the requirements of the Validation Notice.

Based on the results of monitoring conducted during the reporting period, BHP considers that the following Program Matter Outcomes have been achieved:

*Minimise loss of critical and supporting habitats of the Northern Quoll as a result of Program Activities within the SAA.*

*No loss (or maintain) Northern Quoll colony(s) as a result of program activities.*

Monitoring results for the Northern Quoll are discussed in the following sections.

#### 6.4.3.1 Northern Quoll Monitoring

##### Methodology

During FY2025, two monitoring surveys were undertaken at four sites:

- Two impact sites: Quarry 1 (Q1) and Quarry 2 (Q2).
- Two control sites: Quarry 1 Control (Q1C) and Quarry 2 Control (Q2C).

Surveys were undertaken at the four sites:

- post-dry season (October 2024) (coinciding with the late breeding season),
- post-wet season (May 2025), (coinciding with male dispersal and the start of the breeding season).

The data collected is an estimate of individuals at each site, which will ultimately test the abundance of the Northern Quoll between the Quarry and Control sites (refer to Table 6-15).

Five long-term motion cameras were installed at each site for four weeks per season. An additional five cameras targeting feral predator species (Feral cat, Dingo and Red Fox) were installed at each site for four weeks, repeated bi-annually concurrently with the Northern Quoll monitoring. Cameras were focussed on tracks and areas that feral predators are more likely to utilise.

Additionally, active searches were conducted for any secondary evidence of Northern Quoll and feral predators. This included searching for tracks, remains, or scats, with any evidence of presence recorded.

Motion camera images were assessed with all recorded vertebrate fauna identified to species level where possible. Northern Quoll were individually identified based on the site, time and date of images captured, and their unique spot markings. Feral predators were also identified.

An estimation of Northern Quoll and feral predator abundance was measured by identifying the number of individuals recorded at each site.

##### Results

Monitoring resulted in 2025 indicated eight Northern Quoll present at three of the four sites (Q1, Q2 & Q2C), seven of these were recorded from the two Quarry sites (Q1, Q2).

One individual was recorded at Quarry site Q1 in the post-dry, and six individuals were recorded at Quarry site Q2 over two phases. One Northern Quoll was detected at Q2C post-wet, while no Northern Quoll was recorded at QC1 (Table 6-15).

Individual Northern Quolls were identified from a total of 250 motion camera trap nights over the two monitoring periods. Site Q2 recorded the highest number of individuals (six) identified from 200 motion camera triggers. Individual NQ7 recorded at site Q2, was recorded most often (a total of 70 times).

Records in 2025 (n=8) are the lowest to date, with 19 and 15 individuals recorded across the sites in 2023 and 2024, respectively. However, the decline overall was recorded across the Quarry sites as well as the Control sites. Quarry site records reduced from 15 individuals in 2023 to 13 individuals in 2024 to seven individuals in 2025. The Control site records declined similarly from four individuals in 2023 to two individuals in 2024 to one individual in 2025. The species continues to be present at the Quarry sites in 2025, as well as the Control sites.

As the declines were seen at both the control and impact sites this may indicate that this is a natural population variability. Additionally climate factors such as lower rainfall over the past two years as well as localised flooding of Quarry 1 due to an isolated weather event in 2025 may further contribute to the decline.

**Table 6-11 Results of Camera Trapping 2024/2025 – Northern Quoll Records**

Site	Camera ID	No. of Triggers		No. of Trap Nights		Triggers/ Camera trap night		Individual ID	
		(Post-dry)	(Post-wet)	(Post-dry)	(Post-wet)	(Post-dry)	(Post-wet)	(Post-dry)	(Post-wet)
Quarry 1 (Q1)	FP2	1	0	1	0	1	0	NQ1	-
	MC1	12	0	1	0	12	0	NQ1	-
Quarry 1 Control (Q1C)	N/A	0	0	0	0	0	0	-	-
Quarry 2 (Q2)	FP2	1	29	1	4	1	10	NQ2	NQ6, NQ8
	FP3	1	0	1	0	1	0	NQ2	-
	FP5	0	3	0	1	0	3	-	NQ8
	MC1	1	29	1	2	1	14.5	NQ2	NQ5
	MC2	2	0	1	0	2	0	NQ2	-
	MC3	6	35	1	7	6	5	NQ3	NQ5
	MC4	0	44	0	3	0	14.5	-	NQ6, NQ7
Quarry 2 Control (Q2C)	MC5	1	48	1	5	1	9.6	NQ3	NQ6, NQ7
	MC2	0	23	0	3	0	7.6	-	NQ4
Total	MC3	0	3	0	1	0	3	-	NQ4
		25	225	5	136	5	1.6	8	

**Table 6-12 Northern Quoll abundance over three years of monitoring**

Site	2011/2012	2023			2024			2025		
	Total	Post-dry	Post-wet	Total	Post-dry	Post-wet	Total	Post-dry	Post-wet	Total
<b>Quarry sites</b>										
Q1	5	0	0	0	0	0	0	1	0	1
Q2	13	5	10	15	5	8	13	2	4	6
<b>Sub-total Quarry sites</b>	18	5	10	15	5	8	13	3	4	7
<b>Control sites</b>										
Q1C	3	1	1	2	1	1*	1	0	0	0
Q2C	6	1	1	2	0	1	1	0	1	1
<b>Sub-total Control sites</b>	9	2	2	4			2	0	1	1
<b>Totals</b>	<b>27</b>		<b>19</b>			<b>15</b>			<b>8</b>	

#### 6.4.3.2 Feral Predator Monitoring

Monitoring resulted in a total of nine individual feral predators (seven Feral Cat, one Fox, and one Dingo) recorded across all sites. Post-wet season counts were higher than post-dry season records (Table 6-13).

Three Feral Cats were recorded from the two Quarry sites Q1 and Q2. Three Feral Cats (one adult and two kittens) were recorded from Control site Q2C. Based on the size, shape and stance, the adult Feral Cat at Q2C is likely a resident that was recorded during previous years of monitoring. The kittens were recorded in the post-wet season. No Feral Cats were recorded from Control site Q1C.

One Fox was recorded from two cameras at Control site Q1C over two nights during the post-wet season survey (12 and 29 May 2025). One Dingo was also recorded during a single night (18 May 2025) from Control site Q2C during the wet season.

Motion camera triggers were highest at Control site Q2C over two phases with a total of 36. This is due to the presence of a kitten that was recorded at the site over multiple days, which indicates the presence of a breeding female at this site. Potentially the same female has been recorded with kittens for the past two consecutive years. Feral predator abundance has decreased slightly this year by one individual. The greatest total number of predators was recorded from Control site Q2C, comprising three Feral Cats (including a breeding female and kittens) and one Dingo.

**Table 6-13 Results of camera trapping – predator records**

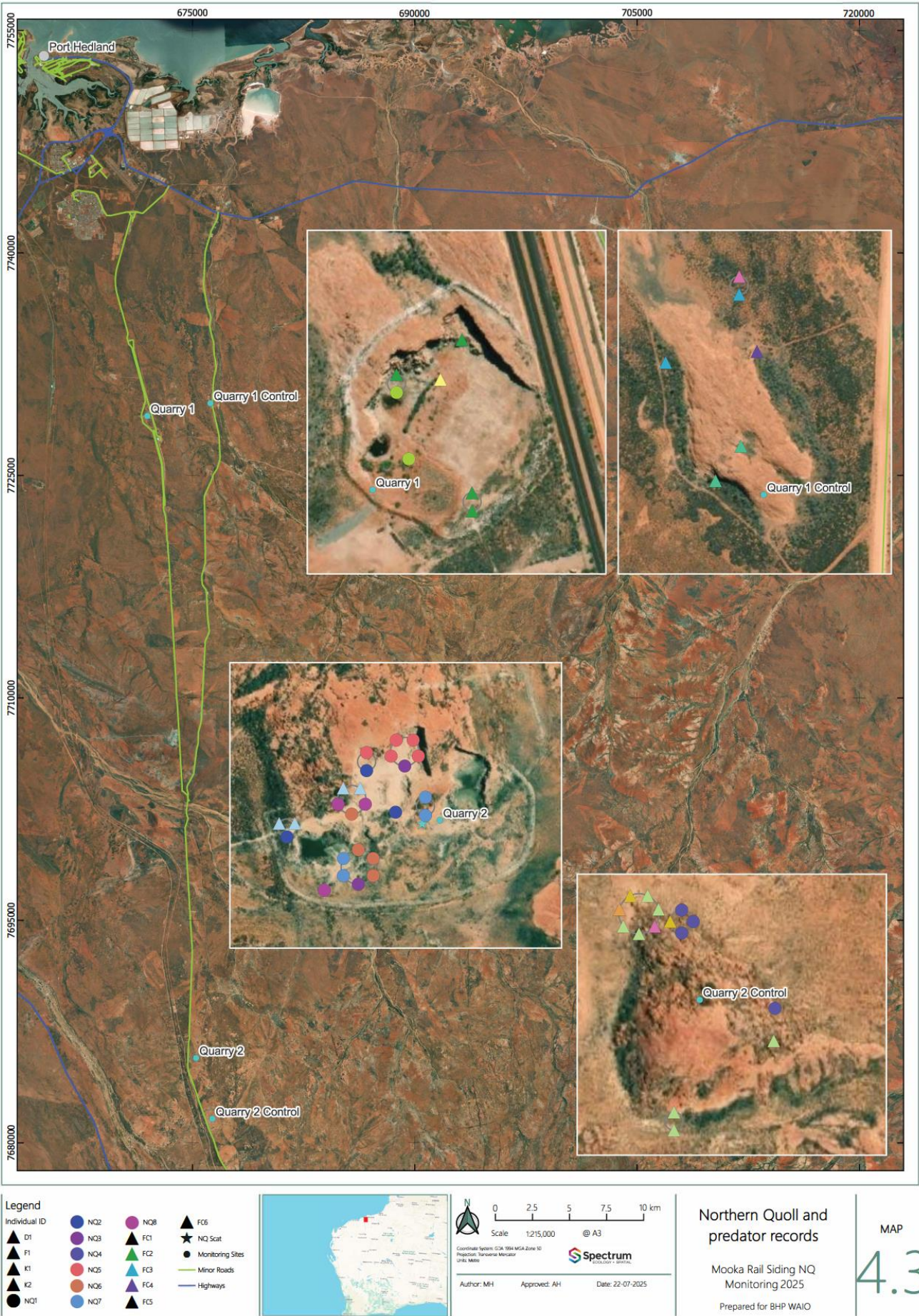
Site	MC Number	No. of Triggers		No. of trap nights		Triggers/ Camera trap night		Individual ID	
		Post-dry	Post-wet	Post-dry	Post-wet	Post-dry	Post-wet	Post-dry	Post-wet
<b>Quarry sites</b>									
Quarry 1 (Q1)	FP3	1	3	1	1	1	3	FC1	-
	FP5	1	6	1	1	1	6	FC1	-
	MC1	1	0	1	0	1	0	FC2	FC2
	MC4	13	1	1	1	13	1	FC2	FC2
Quarry 2 (Q2)	FP1	4	5	1	1	4	5	FC5	FC5
<b>Control sites</b>									
Quarry 1 Control (Q1C)	MC2	0	4	0	1	0	4	-	F1
	MC4	0	15	0	1	0	15	-	F1
	FP5	0	1	0	1	0	1	-	FC4
Quarry 2 Control (Q2C)	FP2	4	12	4	3	1	4	*FC6	*FC6, D1, K1, K2
	FP5	3	3	2	1	1.5	3	*FC6	*FC6
	MC2	0	23	0	1	0	23	-	K1
	MC4	4	0	3	0	1.3	0	*FC6	*FC6
<b>Total</b>		<b>31</b>	<b>80</b>	<b>14</b>	<b>13</b>	<b>2.2</b>	<b>6.1</b>	<b>9</b>	

**Table 6-14 Feral predator abundance over three years of monitoring**

Site	2023*		2024		2025	
	Post-dry	Post-wet	Post-dry	Post-wet	Post-dry	Post-wet
<b>Quarry sites</b>						
Q1	-	1*	1	1	2	2
Q2		-	1	1	1	1
<b>Sub-total Quarry sites</b>						
<b>Control sites</b>						
Q1C	1*	-	3	-	0	2
Q2C	-	1*	2	1	1	4
<b>Sub-total Control sites</b>						
<b>Totals</b>	<b>3*</b>		<b>10</b>		<b>9</b>	

\*feral predator abundance in 2023 is based on Northern Quoll cameras. Additional feral predator specific cameras were installed in 2024.





Map 6-4 Mooka Northern Quoll and Feral Predator Records



#### 6.4.4 Management Commitments

An update on the management commitments is outlined below.

##### Granite domes utilised by Northern Quoll

No updates during the reporting period.

##### Fire control/management

No updates during the reporting period.

##### Feral animal control

A Feral Cat trapping programme was not required this financial year, given that the opportunistic sighting was made outside of the Mooka Validation Notice boundary. There are no other updates to report this financial year.

#### 6.4.5 Offsets

In August 2023, BHP provided 100% of the estimated total offset contribution to the PEOF for the loss of 23 ha of supporting habitat for the Northern Quoll.

Given the full financial payment has been made up front, prior to the commencement of works under the Validation Notice, BHP is in discussions with DCCEEW and PEOF to remove the requirement for ongoing Impact Reconciliation Reporting.

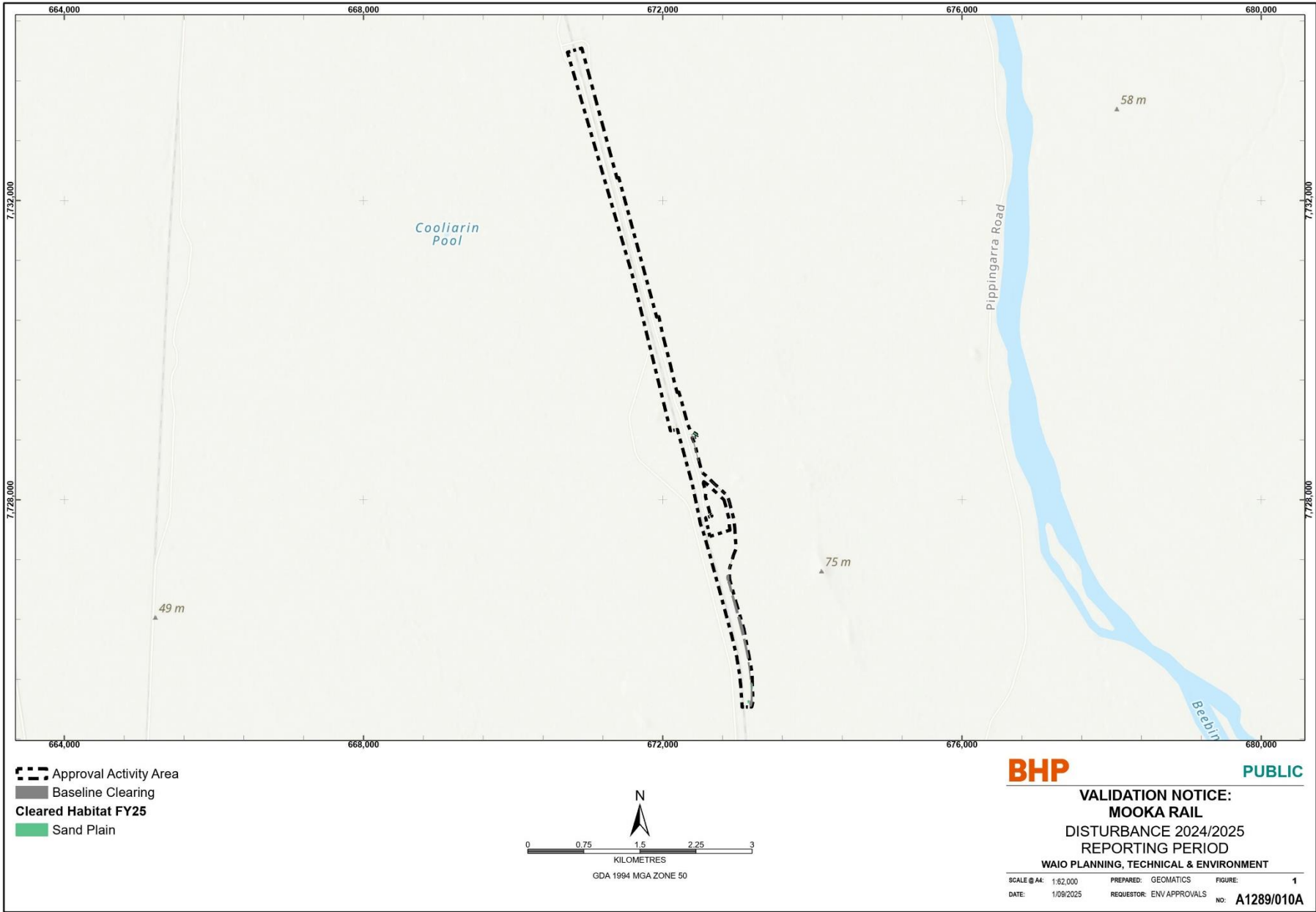
#### 6.4.6 Land Disturbance Reconciliation

Disturbance undertaken within the Northern Quoll supporting habitat during the reporting period, is provided in Table 6-15.

Ground disturbing activities are assessed in the PEHR system to ensure clearing does not exceed specified limits.

**Table 6-15 Mooka Rail Works Disturbance by habitat type**

Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Northern Quoll</b>			
<b>Supporting Habitat</b>			
Sand Plain	0.06	5.82	23



## 6.5 Yeerabiddy Rail Siding

The Yeerabiddy Rail Works are located immediately adjacent to the Mining Area C (MAC) Rail Line at Yeerabiddy approximately 13 km north of the MAC mine site, in the Pilbara region of Western Australia. The MAC Rail Line supports the WAIO Supply Chain by connecting the Iron Ore mines at MAC and South Flank Mine to the BHP Rail network.

The Yeerabiddy Rail Works are required to meet the capacity of the MAC and South Flank Mines and will improve efficiency and rail supply chain capacity.

Infrastructure proposed and approved within the Validation Notice 'Activity Area' includes:

- two additional rail sidings approximately 1.5 km and up to 5 km in length,
- level crossings, signals and associated infrastructure,
- access roads to maintain current level of access,
- other ancillary facilities to support the above works.

In August 2023, BHP submitted and published the Yeerabiddy Rail Works Validation Notice for public comment. The Yeerabiddy Validation Notice Rev 1 was finalised on 14 September 2023 and Rev 2 was finalised on 18 September with updates to the disturbance remaining in Table 2.1. The Validation Notice was effective from 12 October 2023.

Works on the Yeerabiddy Rail Works commenced as planned in December 2023 and involved set up of office areas and laydown areas at the southern end of the activity area. Between January 2024 and the end of June 2024, the Notifiable Action had substantively commenced, with the majority of bulk earthworks and civil construction works being completed. Rehabilitation was completed successfully in FY2025 between October 2024 and March 2025, which included rehabilitation of laydown areas and borrow pits. Additionally, the civil, track and signalling scopes carried over into FY2025 with the main commissioning event occurring in September 2024.

### 6.5.1 Validation Notice Deviations

No exceedances or deviations from the Yeerabiddy Rail Works Validation Notice were identified during the reporting period.

### 6.5.2 Program Matter Monitoring and Outcomes

The monitoring required to be completed during the reporting period is outlined in Table 6-16. Monitoring results are discussed in the following sections.

**Table 6-16 Program Matter Monitoring Requirements for FY2025 Reporting Period**

Species	Monitoring	Parameter	Due Date	Performance Targets	Applicable Program Matter Outcome
Ghost Bat	Proposed monitoring is as follows: <ul style="list-style-type: none"> <li>• the Category 2 roost (CMIN-03) at least 6 monthly</li> <li>• reference sites including but not limited to CMUD-01, CMUD-10 and CACW-31 (pending safe access, heritage and tenure restrictions).</li> </ul>	Ghost Bat presence or evidence	Biannual monitoring	Presence or evidence of presence of Ghost Bat at CMIN-03 over two years of monitoring	Minimise loss of critical and supporting habitats of the Ghost Bat as a result of the activity  No loss (or maintain) Ghost Bat colony(s) as a result of program activities

### 6.5.3 Population Monitoring

#### 6.5.3.1 Ghost Bat Monitoring

Based on the Ghost Bat monitoring conducted in the FY2025 reporting period, BHP considers the two Program Matter Outcomes have been achieved at the Yeerabiddy Rail Works for the reporting period:

*Minimise loss of critical and supporting habitats of the Ghost Bat as a result of Program Activities within the SAA*

and

*No loss (or maintain) Ghost Bat colony(s) as a result of program activities.*

Monitoring results are discussed in the following sections.

## Sampling

As MAC and South Flank already have an established Ghost Bat Monitoring program, the Yeerabiddy monitoring locations were included in this program, with the first monitoring event being undertaken in July 2024.

In FY2025, five field trips were undertaken in July 24, September 24, January 25, March 25 and May 25 as part of the scat collection monitoring program to determine presence/absence of Ghost Bats from scat deposits (refer to Table 6-17). Targeted caves included:

- one cave within 500m of the Validation Notice boundary (CMIN-03)
- three reference caves (CMUD-01, CMUD-10 and CTAN - ACW-31).

Of the monitoring completed in these field trips, there have been no scats or evidence of Ghost Bats roosting in CMIN-03.

The absence of any evidence of Ghost Bat use is consistent with findings for many of the other approximately 34 roosts consistently monitored in the Central Pilbara by BHP. This is also consistent with conservation advice for the species where it is recognised that Ghost Bats move between a number of caves seasonally or as dictated by weather conditions and require a range of cave sites. Category 2 roosts have been defined (Bullen 2021) with having occupancy as low as 25% of the time. CMIN-03 was categorised by Biologic from a 2010 survey as a high value day roost, based on the presence of scats and cave structure only. The category was then converted to ratings adopted by DCCEEW in 2022 with the application of the precautionary principal. No time series data based on observations or ultrasonic recordings has been collected prior to the commencement of monitoring. This 24-month monitoring program will establish baseline occupancy for this roost.

**Table 6-17 VN Program Matter Monitoring Requirements for FY2025 Reporting Period**

Cave	Location	Jul-24		Sep-24		Jan-25		Mar-25		May-25	
		No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present	No. of Scats present	No. of Bats Present
Yeerabiddy Rail Works Site											
CMIN-03	Yeerabiddy	0	0	-	-	0	0	0	0	0	0
Reference Sites											
CMUD-01	Mudlark Well	0	0	-	-	0	0	0	0	4	0
CMUD-10	Mudlark Well	0	0	-	-	4	0	0	0	20	0
CTAN-31 (ACW-31)	Tandanya	42	0	-	-	0	0	1	0	0	0

### 6.5.4 Management Commitments

An update on the management commitments is outlined below:

#### Implement Feral Cat Management

Opportunistic sightings of Feral cats are reported to the Site Environmental Specialist and/or documented in the BHP Event Management System. There have been no Feral cat sightings within the Yeerabiddy Activity Area or within the vicinity of CMIN-03 during the FY2026 reporting period. Camera traps targeting cats, are placed at roosts more regularly occupied by the local population of Ghost Bats. Traps at roosts SF05, SF08, SF14, AC01, AC09 and AC17 have collectively recorded cats on 44 occasions during monitoring between January 2021 and March 2025. Visitation rates are commonly low for these roosts suggesting that Feral cats are not targeting roosts but rather moving through the area with an opportunistic feeding strategy.

**Table 6-18 Estimated Total Detections**

Estimated Total Detections						
Cave ID	Start Date	End Date	Nights	No. of Individuals	Visitations	Visitation Rate
AC01	15/01/2024	30/01/2025	381	1	10	0.026
AC09	16/01/2024	31/01/2025	381	1	16	0.042
SF05	17/01/2024	2/02/2025	382	1	2	0.005
SF08	17/01/2024	2/02/2025	285 <sup>^</sup>	0	0	0.000
SF14	18/01/2024	15/03/2025	422	3 <sup>^</sup>	16	0.038

<sup>^</sup> Denotes roosts with monitoring days removed from total due to interference with cameras.

### Implement Light Spill Management

There was a single night shift that occurred in August 2024 to install the turnouts onto the Main Line. The lighting for the works was set up such that it faced away from CMIN-03 to ensure that there was no light spill into the gorge.

Permanent solar lights were installed at the train driver changeout pad to ensure the safety application of handbrake at night, and to ensure that the train driver changeover pad has appropriate visibility during night time hours. The residual light from the light towers has been significantly reduced.

### Implement Fire Management

Hot work management procedures are in place through the BHP permitting system to ensure that any hot works across site comply with BHP procedures and standards.

The only activities requiring hot works management under BHP's Hot Work Permit process in FY2025 were:

- De-stressing works were completed between October – December 2024 that involved welding activities on track, however there was minimal to no vegetation in proximity these works.
- Turnout gridding activities were also performed under the same conditions.

### Restrict human access to high value Ghost Bat caves

The first round of biannual Ghost Bat monitoring occurred in January 2024 at cave CMIN-03. The cave is outside of the Yeerabiddy Project Activity Area and as such, the works remained at least 140 m from the cave as per the approved BHP PEHR boundary.

#### 6.5.5 Offsets

BHP provided financial contributions to the PEOF for the full offset commitment at the commencement of the Validation Notice in October 2023. Offsets applied to the loss of 60.02 ha of critical roosting and foraging habitat for the Ghost Bat, to achieve this Program Matter Objective.

#### 6.5.6 Land Disturbance Reconciliation

The clearing commitments which form part of this Validation Notice are presented in Table 6-18, including disturbance undertaken by habitat type during the reporting period. During FY2025, all ground disturbance was approved through BHP's internal PEHR process.

**Table 6-19 Yeerabiddy Rail Works Disturbance by habitat type**

Habitat	Activity disturbance between October 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Ghost Bat</b>			
<b>Critical roosting habitat</b>			
Breakaway/Cliff	0	0	0.34
<b>Critical foraging habitat</b>			
Hill Crest/Hill Slope	0.27	2.04	8.46
Minor Drainage Line	0.08	0.15	3.01
Drainage Area/Flood Plain	0.88	9.81	21.69
Stony Plain	0.29	8.86	26.52
<b>Total</b>	<b>19.33</b>	<b>20.85</b>	<b>60.02</b>



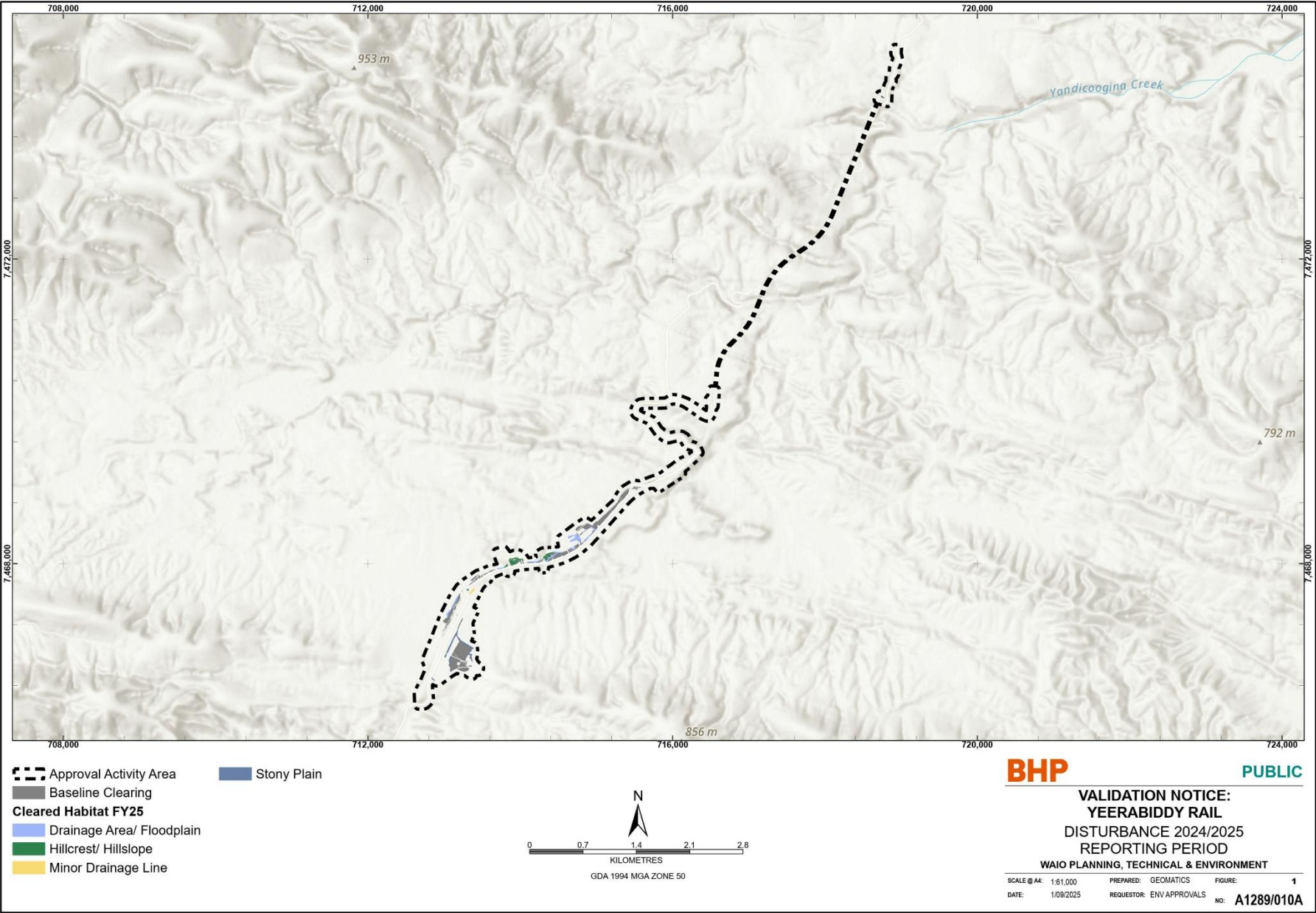


Figure 6-6 Yeerabiddy Rail Siding Validation Notice Habitat Disturbance FY2025

## 6.6 Western Ridge

Western Ridge is located approximately 2 km southwest of the town of Newman, in the Pilbara region of Western Australia. It is located adjacent to the Mt Whaleback mine and the Orebody 29/30/35 mine.

Western Ridge was declared a Derived Proposal subject to Ministerial Statement 1105 in September 2023. The Western Ridge Validation Notice took effect on 19 October 2023.

The Western Ridge project includes clearing of up to 4,281 ha within an Activity Area of 7,234 ha for above and below water table mining of four iron ore deposits, overburden storage areas, primary crusher overland conveyor, haul and access roads, stockpiles, dewatering, creek diversions, discharge of surplus water and associated mine infrastructure and activities.

The Western Ridge project is in execution phase, with construction activities commencing in July 2024.

### 6.6.1 Validation Notice Deviations

No deviations were reported in the reporting period.

### 6.6.2 Program Matter Monitoring and Outcomes

The monitoring required to be completed during the reporting period is outlined in Table 6-20. Monitoring results are discussed in the following sections.

**Table 6-20 Monitoring undertaken in the reporting period**

Species	Monitoring	Parameter	Due Date	Performance Targets	Applicable Program Matter Outcome
Ghost Bat	Quarterly monitoring at retained caves CWER-01, CWER-03, CWER-10, CWER-16 and CWER-17, using techniques such as scat collection and analysis, motion camera footage and microclimate monitoring. Annual monitoring at CWER-04, CWER-07, CWER-09 and CWER-14 providing safe access is confirmed. Techniques may include but are not limited to scat collection and microclimate monitoring.	Presence or evidence of Ghost Bat presence	Quarterly monitoring at CWER-01, CWER-03, CWER-10, CWER-16 and CWER-17  Annual monitoring at CWER-04, CWER-07, CWER-09, CWER-14	Presence or evidence of presence of Ghost Bat at one or more Ghost Bat caves over one year of monitoring	Minimise loss of critical and supporting habitats of the Ghost Bat as a result of Program Activities within the SAA  <b>AND</b>  No loss (or maintain) Ghost Bat colony(s) as a result of program activities
Pilbara Olive Python	Annual monitoring in the wet season of retained Gorge/Gully habitat within the Activity Area and/or temporary surface water features located within the Activity Area and Nankunya (outside of Activity Area). Exact sites are to be confirmed. Methods may include but are not limited to targeted searches, genetic analyses of scats/sloughs/tissue and eDNA markers in water features.	Presence or evidence of Pilbara Olive Python	Annual monitoring in wet season	Presence or evidence of presence of Pilbara Olive Python over one year of monitoring within the Activity Area and in critical habitat within 500 m of the Activity Area	Minimise loss of critical and supporting habitats of the Pilbara Olive Python as a result of Program Activities within the SAA  <b>AND</b>  No loss (or maintain) Pilbara Olive Python population(s) as a result of Program activities

### 6.6.3 Population Monitoring

Monitoring of Ghost Bat to date (described in Section 6.6.3.1) demonstrates that the following Program Matter Outcomes for Ghost Bat have been achieved for the reporting period:

*Minimise loss of critical and supporting habitats of the Ghost Bat as a result of Program Activities within the SAA.*

*No loss (or maintain) Ghost Bat colony(s) as a result of program activities*

Monitoring of Pilbara Olive Python (described in Section 6.6.3.2) similarly demonstrates that the following Program Matter Outcomes for Pilbara Olive Python have been achieved for the reporting period:

*Minimise loss of critical and supporting habitats of the Pilbara Olive Python as a result of Program Activities within the SAA.*

*No loss (or maintain) of Pilbara Olive Python population(s) as a result of Program activities.*

Monitoring results for Ghost Bat and Pilbara Olive Python are discussed in the following sections.

### 6.6.3.1 Ghost Bat Monitoring

Quarterly Ghost Bat monitoring has been carried out throughout the reporting period, as identified in Table 6-21 below.

**Table 6-21 Ghost Bat quarterly monitoring events in the reporting period**

Cave	Quarterly Monitoring and Results			
	13-16/09/2024	13-15/02/2025	15-19/03/2025	28/04/-03/05/2025
CWER-01	Photo monitoring pictures taken. (***)No cave entry: HOBO / Ultrasonic/ Reolink/Scat sheet/Cat cams not able to be checked)	No Sampling undertaken	Scat Sheet Checked: No Scat. Hobo Data Downloaded. Reolink SD card Swapped. Ultrasonic SD card Swapped (May be some lost data, Cards reading "dirty"). Cat Camera SD cards swapped. 0 Ghost Bats observed.	Ultrasonic and video camera monitoring. Cat monitoring via motion cameras. GB Trapping, Ultra SD cards swapped, Reolink card swapped and formatted, Scat sheet checked, Hobo downloaded. No Ghost bat presence.
CWER-03	Photo monitoring pictures taken. (***)No cave entry: HOBO / Ultrasonic/ Reolink/Scat sheet/Cat cams not able to be checked)	No Sampling undertaken	Scat Sheet Checked: 300 scat on sheet (35 collected). Hobo Data Downloaded. Reolink SD card Swapped. Ultrasonic SD card Swapped. Cat Camera SD cards swapped. A bat was seen and by the description the indication was a ghost bat.	Ultrasonic and video camera monitoring. Cat monitoring via motion cameras.  No sampling – Heritage Exclusion Zone
CWER-10	Photo monitoring pictures taken. (***)No cave entry: HOBO / Ultrasonic/ Reolink/Scat sheet/Cat cams not able to be checked)	No Sampling undertaken	Scat Sheet Checked: No Scat. Hobo Data Downloaded. Ultrasonic SD cards swapped. Ultrasonic monitoring in place. No Ghost Bat presence detected.	No sampling – Heritage Exclusion Zone
CWER-16	Photo monitoring pictures taken. Ultrasonic SD cards swapped - microphone seems to be damaged, will need to be replaced next trip and install earthing for mic. (Cave unsafe to enter, only ultrasonic monitoring at this cave)	No Sampling undertaken	Ultrasonic SD cards swapped. Reolink installed. Cave unsafe to enter, ultrasonic and video monitoring. No Ghost Bat presence noticed.	Cave unsafe to enter, only ultrasonic monitoring.
CWER-17	Photo monitoring pictures taken. (***)No cave entry: HOBO / Ultrasonic/ Reolink/Scat sheet/Cat cams not able to be checked)	No Sampling undertaken	Scat Sheet Checked: No Scat. Hobo Data Downloaded. Reolink SD cards swapped. Ultrasonic SD cards swapped. Cat camera SD cards swapped. No Ghost Bat presence noticed.	Ultrasonic and video camera monitoring.  No sampling – Heritage Exclusion Zone

**Table 6-22 Ghost Bat annual monitoring events in the reporting period**

Cave	Annual Monitoring and Results	
	13 to 16 September 2024	28 April – 3 May 2025
CWER-04	Photo monitoring pictures taken. (***)No cave entry: HOBO/Scat sheet not able to be checked)	Geotech assessed. Hobo downloaded, scat sheet checked.
CWER-07	Photo monitoring pictures taken. (***)No cave entry: HOBO/Scat sheet not able to be checked)	Geotech assessed. Hobo downloaded, scat sheet checked.
CWER-09	Photo monitoring pictures taken. (***)No cave entry: HOBO/Scat sheet not able to be checked)	Geotech assessed. Hobo downloaded, scat sheet checked.
CWER-14	Photo monitoring pictures taken. (***)No cave entry: HOBO/Scat sheet not able to be checked)	Geotech assessed. Hobo downloaded, scat sheet checked.

Note, microclimate monitoring has been ongoing at all of the abovementioned caves, with the exception of CWER-16 as it is unsafe to enter.

Data recorded from the ultrasonic recorders in the first two monitoring events in September 2024 detected the presence of Ghost Bats (including roosting individuals) at three caves including CWER-01, CWER-03 and CWER-16.

The second monitoring program was cancelled early due to an impending cyclone therefore no data was able to be collected due to having to cancel the monitoring program early. The second part of the monitoring program was completed 15-19 March 2025 to ensure all monitoring data was collected.

Reporting of Ghost Bat monitoring data is collated into an annual report. Preparation of the annual report commences after the final monitoring event of the calendar year. The report for the 2024-2025 monitoring was in preparation at the time of AER reporting.

#### 6.6.3.2 Pilbara Olive Python

Monitoring activities for Pilbara Olive Python were carried out during July, August, September, October and November 2024, as well as January and February 2025. The summary is as follows:

- During the 2025 reporting period at Western Ridge, no new Pilbara Olive Pythons were recorded. However, three pieces of secondary evidence (one slough, one scat and one set of remains) were collected. This maintains the total number of VHF-tagged individuals at eight, with ten unique genotyped individuals to date (including slough and remain of two other individuals).
- During targeted searches, secondary evidence of Pilbara Olive Pythons, including shed skins (sloughs), scats, and deceased individuals, were collected when encountered. A total of 10 secondary evidence records were documented at Western Ridge, where species identification was uncertain, samples were sent for genetic analysis.
- Scats were the most frequently encountered secondary sign at this site, more so than at any other monitoring location. Of the 25 samples collected: 12 were genetically confirmed as Pilbara Olive Pythons and six sloughs were collected, four of which genetic material was extracted. Of these, two of were genetically matched to known individuals (POP 201 and POP 211). The remaining two belonged to an individual that has not yet been captured at the site. Including both live captures and genetically confirmed secondary signs, a total of ten unique individuals have now been identified at Western Ridge since January 2022. During the 2025 reporting period, three samples of secondary evidence were recorded (one scat, one slough and one remains) with only the scat confirmed to pertain to a POP.
- Since the commencement of radio-tracking at Western Ridge in January 2022, Pilbara Olive Pythons have been observed using four different fauna habitats:
  - Gorge/Gully being the most frequently used across all individuals (72.8 % of location events),
  - Hillcrest/Hillslope (20.4% of location events),
  - Minor Drainage Lines (3.9 % of location events), and
  - Breakaway/Cliff (2.9 % of location events).

The two most frequently tracked individuals, POP 211 (21 location events) and POP 216 (28 location events), exhibited broadly similar habitat use, though POP 216 was not recorded in Breakaway/Cliff habitats.

#### 6.6.4 Management Commitments

An update on the management commitments is outlined below.

##### Implement feral cat management

Feral cat management processes have been identified within the conditions allocated to the PEAHRs for the activities. All interactions with feral animals are reported to allow for management practices to be specific to the areas of interactions.

##### Implement fire management

BHP has implemented procedures to ensure high risk tasks, such as hot works, are not carried out at high risk times and that all fire notifications from the relevant authorities are implemented. Emergency services are available to support in the event of any fire incident.

##### Restrict barbed wire usage:

Restricted use of barbed wire has been managed through the PEAHR system. Infrastructure that has been procured for the management of dust emissions have been designed and constructed to ensure no barbed wire



is utilised on the fencing around the monitoring unit. There is no active infrastructure established within Western Ridge that has a legal requirement to have barbed wire installed.

#### Restrict human access to high value Ghost Bat caves:

High value bat caves have been identified within the company's spatial systems which are utilised for the internal PEAHR permits. Buffers application to high value bat caves are recorded in these systems indicated and have been excluded from all permits, in accordance with the avoidance commitments made in the Validation Notice.

#### 6.6.5 Offsets

An advanced 10 per cent payment of the estimated total offset amount for the Western Ridge Validation Notice was contributed to the PEOF in December 2023

The first biennial payment for the first two-yearly reporting period (1 July 2023 – 30 June 2025) will be made following submission of the EPBC Impact Reconciliation Report to PEOF by 1 October 2025.

Implementation and achievements of offset programs undertaken by PEOF are available on the [PEOF website](#).

#### 6.6.6 Land Disturbance Reconciliation

Disturbance undertaken within the Northern Quoll (critical denning and foraging habitat and supporting habitat), Ghost Bat critical roosting, critical foraging habitat and supporting habitat, Pilbara Olive Python critical and supporting habitat, Pilbara Leaf-nosed Bat supporting foraging habitat during the reporting period, is provided in Table 6-23.

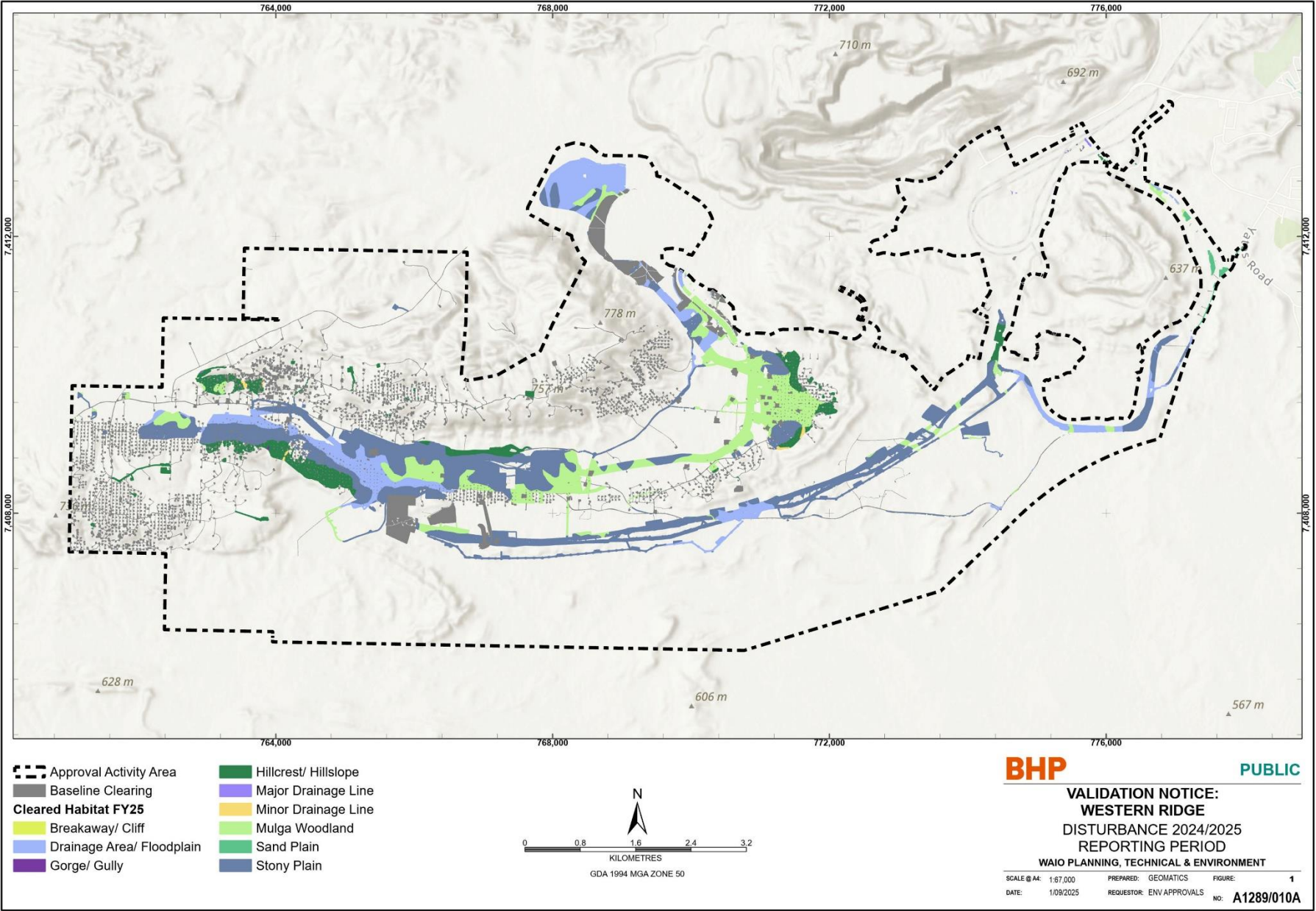
Land disturbance is managed through an internal PEAHR process which allows for management of clearing within approved limits and avoidance of habitats, where applicable.

**Table 6-23 Western Ridge Disturbance by habitat type**

Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Northern Quoll</b>			
<b>Critical denning and foraging habitat</b>			
Gorge/Gully	0.25	0.47	108.00
Breakaway/Cliff	0.00	0.06	39.00
<b>Total</b>	<b>0.25</b>	<b>0.53</b>	<b>147.00</b>
<b>Supporting foraging habitat</b>			
Hill Crest/Hill Slope	65.48	83.34	1,162.70
Stony Plain	321.99	373.95	1,469.30
<b>Total</b>	<b>387.47</b>	<b>457.29</b>	<b>2,632.00</b>
<b>Ghost Bat</b>			
<b>Critical roosting habitat</b>			
Gorge/Gully	0.25	0.47	108.00
Breakaway/Cliff	0.00	0.06	39.00
<b>Total</b>	<b>0.25</b>	<b>0.53</b>	<b>147.00</b>
<b>Critical foraging habitat</b>			
Drainage Area/Floodplain	153.09	180.17	379.40
Mulga Woodland	174.22	205.29	647.80
Stony Plain	321.99	373.95	1,469.30
Minor Drainage Line	1.22	1.47	56.00
<b>Total</b>	<b>650.52</b>	<b>761.18</b>	<b>2,552.50</b>
<b>Supporting habitat</b>			
Category 4 roosts	One cave (FY2025 - SF11)	One cave (FY2025 - SF11)	Five
<b>Pilbara Olive Python</b>			
<b>Critical habitat</b>			
Gorge/Gully	0.25	0.47	108.00
Breakaway/Cliff	0.00	0.06	39.00
<b>Total</b>		<b>0.53</b>	<b>147.00</b>
<b>Supporting habitat</b>			
Minor Drainage Line	1.22	1.47	56.00
<b>Pilbara Leaf-nosed Bat</b>			



Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Supporting foraging habitat</b>			
Gorge/Gully	0.25	0.47	108.00
Breakaway/Cliff	0.00	0.06	39.00
Hillcrest/Hillslope	65.48	83.34	1,162.70
Minor Drainage Line	1.22	1.47	56.00
Drainage Area/Floodplain	153.09	180.17	379.40
<b>Total</b>	<b>220.04</b>	<b>265.51</b>	<b>1,745.10</b>



Map 6-6 Western Ridge Validation Notice - Habitat Disturbance FY2025

## 6.7 Jimblebar Significant Amendment

The Jimblebar mining operations are located approximately 40 km east of the town of Newman and include above and below water table mining of open iron ore pits, overburden storage areas and the operation of associated mine, processing and rail infrastructure. Groundwater is abstracted for water supply and to dewater the orebodies. Surplus water management includes transfer to Ophthalmia Dam, controlled creek discharge to Jimblebar Creek and Caramulla Creek and MAR at Orebody 18 and Caramulla.

The Jimblebar Significant Amendment Validation Notice was first published for public comment in February 2024 and came into effect on 17 September 2024. This section reports on the Jimblebar Significant Amendment Validation Notice (September 2024) from 17 September 2024 to 30 June 2025.

BHP prepared the Validation Notice to identify additional disturbance required for new activities and infrastructure. New infrastructure and activities included in the Validation Notice include additional overburden storage areas, pit expansions including below water table mining, pipeline corridors, haul roads, creek diversion, processing infrastructure, overland conveyor, beneficiation plant, in-pit tailings storage, topsoil stockpiles, borrow and laydown, communications infrastructure and rehabilitation and closure.

The Jimblebar Significant Amendment Validation Notice (September 2024) did not reassess or change the activity described in original Jimblebar Optimisation Project Validation Notice (2020) or the revised Jimblebar Optimisation Project Validation Notice (September 2023). The Jimblebar Significant Amendment Validation Notice Activity Area overlaps with the Revised Validation Notice Activity Area, however, the activities assessed under the Significant Amendment are in addition to (and not covered by) the Revised Validation Notice.

BHP has also referred Jimblebar Significant Amendment Proposal under the State Part IV of the *Environmental Protection Act 1986* (EP Act), with approval currently pending.

### 6.7.1 Validation Notice Deviations

No deviations were reported in the reporting period.

### 6.7.2 Program Matter Monitoring and Outcomes

The monitoring required to be completed during the reporting period is outlined in Table 6-20. Monitoring results are discussed in the following sections.

**Table 6-24 Monitoring undertaken in the reporting period**

Species	Monitoring	Parameter	Due Date	Performance Targets	Applicable Program Matter Outcome
Ghost Bat	Monitoring Ghost Bat presence and usage of the Activity Area. Proposed monitoring is as follows: <ul style="list-style-type: none"> <li>Category 2 roosts (CJIM-03 and CNIN-03) at least 6 monthly</li> <li>Category 3 roosts (CNIN-01, CNIN-13, CJIM-09) at least yearly</li> <li>Category 4 roosts (CJIM-01, CJIM-05, CJIM-06, CJIM-08, CJIM15, CJIM17, CJIM-20*, at least two yearly</li> </ul> (all pending safe access, heritage and tenure restrictions).	Presence of Ghost Bat.	Six monthly to two yearly monitoring.	Presence or evidence of presence of Ghost Bat at one or more Ghost Bat roosts over two years of monitoring.	No loss (or maintain) Ghost Bat colony(s) as a result of Program activities.

\* As of February 2025, roost CJIM-20 is unable to be monitored due to access constraints to this cave due to heritage restrictions. This cave was last visited in April 2024 and was removed from monitoring program in the April 2025 update of the Terrestrial Fauna EMP (still pending regulatory approval).

### 6.7.3 Population Monitoring

Monitoring of Ghost Bat to date (described below) demonstrates that the following Program Matter Outcomes for Ghost Bat have been achieved for the FY2025 reporting period:

*Minimise loss of critical and supporting habitats of the Ghost Bat as a result of Program Activities within the SAA*

AND

*No loss (or maintain) Ghost Bat colony(s) as a result of program activities*

Monitoring results for Ghost Bat is discussed in the following sections.

#### 6.7.3.1 Ghost Bat Monitoring

##### Sampling

In FY2025, three field trips were undertaken to determine presence/absence of Ghost Bats in caves within or adjacent to the activity in line with the monitoring conditions of the Significant Amendment Validation Notice. Cave visiting frequencies outlined within the Validation Notice (Table 6-8) were achieved within the reporting period. Cave entry was permitted, based on geotechnical assessment prior to entry. Cave collapse risk will continue to be assessed, and entry may be restricted in the future if it is determined it is unsafe to enter.

##### February 2025

During field trip two (13 to 14 February 2025), three out of the twelve caves were visited. No Ghost Bat scats were collected, or Ghost Bats observed during the field trip. The survey team demobilised early as an incoming cyclone made it unsafe to undertake monitoring activities

##### March 2025

The survey team remobilised in March after the cyclone had passed. During field trip three (16 to 18 March 2025), three of the twelve caves were visited. No Ghost Bat scats were collected, or Ghost Bats observed during the field trip.

##### April/May 2025

During field trip four (28 April to 2 May), nine out of the twelve caves were visited. No scats were collected, or Ghost Bats observed during the field trip.

**Table 6-25 Jimblebar caves monitored during FY2025 reporting period**

Cave ID	Roost Type	Visitation Frequency	Feb 2025	March 2025	April/May 2025
CJIM-01	Category 4	Two yearly			✓
CJIM-03	Category 2	Six monthly	✓		✓
CJIM-05	Category 4	Two yearly		✓	
CJIM-06	Category 4	Two yearly			✓
CJIM-08	Category 4	Two yearly			✓
CJIM-09	Category 3	Yearly		✓	✓
CJIM-15	Category 4	Two yearly			✓
CJIM-17	Category 4	Two yearly			✓
CJIM-20	Category 4	Two yearly			
CNIN-01	Category 3	Yearly	✓		✓
CNIN-03	Category 2	Six monthly	✓		✓
CNIN-13	Category 3	Yearly		✓	

##### Ultrasonic recordings

Bat call detection was conducted via ultrasonic monitoring across several caves during the reporting period. Analysis of the data found Ghost Bat calls at the following cave:

- CNIN-03 (October and November 2024 as well as March and April 2025).

Further ultrasonic data has been collected and is being analysed concurrently to this report.

### 6.7.4 Management Commitments

An update on the management commitments is outlined below.

**Restrict barbed wire usage:**

Barbed wire has been limited onsite to areas where required by legislation (i.e. around the ANFO facility). Conditions are also applied through the PEAHR system to ensure that barbed wire is avoided, and where it is required to be used, only single strand barbed wire is used, with bat deflectors installed to deter Ghost Bats.

**Restrict access to Ghost Bat caves during breeding season:**

High value bat caves have been identified within the company's spatial systems which are utilised for the internal PEAHR permits. Buffers application to high value bat caves are recorded in these systems indicated and have been excluded from all permits, in accordance with the avoidance commitments made in the Validation Notice.

Monitoring of Ghost Bat caves was completed outside of the Ghost Bat breeding season (October\* to January), with a total of three field surveys completed in February, March and May 2025.

\*Please note the start of the Ghost Bat breeding season has been revised to October in the Significant Amendment Validation Notice

**Feral cat control:**

Opportunistic sightings of Feral cats are reported to the Site Environmental Specialist and/or documented in the BHP Event Management System. There has been one Feral cat sighting reported during the reporting period at the main Jimblebar administration hub.

Cameras for monitoring of feral cats have been deployed during FY2025 to monitor Feral cat presence at the entrances of the following caves: CJIM-003, CJIM-009, CNIN-003, CNIN-09, CNIN-012 and CNIN-001. Feral cats were observed at CJIM-009, CNIN-003, CNIN-09, CNIN-012 and CNIN-001. At the time of preparation of this report a draft version of the Feral Cat Monitoring at Ghost Bat Roosts report has been received. Results of the monitoring program will be further discussed in the next reporting period. Preliminary findings of the monitoring program have confirmed feral cat predation is a threatening process to ghost bats and provides valuable insight for the application of strategic management approaches towards reducing the threat of feral cats on ghost bats for existing and future developments.

A baseline feral cat monitoring program is planned for FY2026 to help inform future targeted feral cat management programs.

**Implement fire management**

Hot work management procedures are in place through the BHP permitting system to ensure that any hot works across site comply with the BHP procedures and standards.

Across Jimblebar, fire breaks are implemented around powerline corridors, water pipelines, conveyors, and infrastructure to ensure that fire risks are managed appropriately and to reduce the risk of fire to the Ghost Bat population. Fire break management is maintained through work orders which are scheduled between six to twelve months annually.

Designated smoking areas are available at crib huts and administrative buildings to ensure smoking is contained to specified areas and to reduce the risk of fire threats across site.

**6.7.5 Offsets**

BHP provided an initial 10 per cent advance payment of the estimated financial offset contribution to the PEOF on 8 October 2024 and 20 March 2025. Offsets applied to the loss of 871.6 ha of critical habitat, supporting habitat and critical foraging habitat for the Ghost Bat, and 1,206.5 ha of supporting habitat for the Northern Quoll, to achieve the Program Matter Objective.

Implementation and achievements of offset programs undertaken by PEOF are shown on the [PEOF website](#). The implementation of current and future offset programs funded by BHPs contributions are discussed further in Section 1-5 above.



### 6.7.6 Land Disturbance Reconciliation

Land disturbance is managed through an internal PEHR process which allows for management of clearing within approved limits and avoidance of habitats, where applicable. As the Jimblebar Significant Amendment Part IV is still under assessment, no clearing has occurred during the reporting period attributable to the Significant Amendment Validation Notice.

**Table 6-26 Jimblebar Significant Amendment Validation Notice Disturbance by habitat type**

Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
<b>Ghost Bat</b>			
<b>Critical roosting habitat</b>			
Gorge/Gully	0	0	7.6
Breakaway/Cliff	0	0	2.5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>10.1</b>
<b>Critical foraging habitat</b>			
Drainage Area/Floodplain	0	0	269.3
Mulga Woodland	0	0	510
Major Drainage line	0	0	16
Minor Drainage Line	0	0	24.9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>820.2</b>
<b>Supporting habitat</b>			
Sand Plain	0	0	24.4
Stony Plain	0	0	16.9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>41.3</b>
<b>Northern Quoll</b>			
<b>Supporting habitat</b>			
Hill Crest/Hill Slope	0	0	1,067.1
Sand Plain	0	0	24.4
Stony Plain	0	0	16.9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,108.4</b>

## 6.8 East Pilbara Surplus Water Drilling

The East Pilbara Surplus Water Drilling activity is located 62 km east of Newman and 16 km east of Jimblebar Mine, in the Pilbara Region of Western Australia (Activity Area).

The Activity is required to support the future management of surplus water which has been abstracted to allow mining below the water table at BHP's existing and proposed future eastern Pilbara hub iron ore operations. The aquifer testing that comprises the proposed Activity will inform the selection of the proposed future surplus water management infrastructure and design which will be the subject of future environmental approvals.

The Activity consists of a staged hydrogeological drilling and assessment program, for the purpose of assessing location suitability for potential water reinjection bores and discharge as part of the Eastern Pilbara Regional Surplus Water Project and Managed Aquifer Recharge (MAR) borefield.

The East Pilbara Surplus Water Drilling activity was first published for comment in July 2024 and came into effect on 13 November 2024. This section reports on 13 November 2024 to 30 June 2025.

### 6.8.1 Validation Notice Deviations

One non-compliance was identified:

- There was a late payment to PEOF for the advanced 10% financial contribution associated with the East Pilbara Surplus Water Drilling Validation Notice. The Validation Notice stipulates that payment must be made to PEOF within 30 days of the notice becoming effective (13/11/2024). However, according to the PEOF receipt, the payment was made on or around 21/01/2025, more than 60 days after the effective date. This deviation is considered an administrative non-compliance with no potential or actual environmental impact.

### 6.8.2 Clearing Commitments

An update on the clearing commitments is outlined below.

### Clearing limit commitments

BHPs PEHR ground disturbance system has been implemented over the project area during the reporting period. All disturbance has remained within the clearing limits as shown in Table 6-27 below.

### Disturbance to Greater Bilby burrows/diggings commitments

Pre-clearance inspections were undertaken in the Activity Area on 24 February 2025 in preparation for a test pumping program. These inspections did not find any evidence of Greater Bilby and were cleared to proceed.

A 50 m exclusion zone has been placed around all historical burrows and diggings. All suspected new burrows/diggings will be subject to the same 50 m exclusion zone and further investigations to confirm identification of activity.

#### 6.8.3 Management Commitments

An update on the management commitments is outlined below.

##### Implement discharge management plan:

The Discharge Management Plan is implemented and mandated through the PEHR disturbance system. Water quality is constantly monitored and tested before release to the environment, as dictated by the Discharge Management Plan. All water discharged to the environment during the reporting period met the water quality standards as dictated in the Discharge Management Plan.

All wetting fronts during the reporting period were within the predicted limits, as set out in the Discharge Management Plan. Discharge was also managed to prevent scouring and erosion by using scouring rock, containing discharge whenever possible and limiting discharge flow rates.

##### Implement fire management:

Smoking is not permitted anywhere within the Activity Area.

Hot work management procedures are in place through the BHP permitting system to ensure that any hot works across site comply with the BHP procedures and standards.

Across Jimblebar, fire breaks are implemented around powerline corridors, water pipelines, conveyors, and infrastructure to ensure that fire risks are managed appropriately. Fire break management is maintained through work orders which are scheduled between six to twelve months annually. Emergency services are available to support in the event of any fire incident.

##### Implement weed management:

Weed management and hygiene practises are implemented through the PEHR disturbance system. All clearing equipment is required to be cleaned and inspected before beginning ground disturbing works. Weed presence is investigated through inspections of the work area and if required, formal weed mapping and treatment is implemented.

##### Implement speed restrictions:

Speed limits within the Activity Area gazetted to 40 km/hour and monitored by BHP's IVMS to reduce potential for risk of fauna strike and manage dust.

No speed exceedances were recorded in the Activity Area during the reporting period.

##### Implement feral animal management:

Opportunistic sightings of feral cats and foxes are reported to the Site Environmental Specialist and documented in the BHP Event Management System. There have been no feral cat or fox sightings, or incidents reported during the reporting period. A feral animal trapping program was not required during the reporting period as no opportunistic sightings were reported.

#### 6.8.4 Offsets

BHP provided the 10 per cent advance payment based on the predicated total offset contribution in January 2025. Offsets applied to the loss of 45 ha of supporting habitat which supports foraging for the Greater Bilby, to achieve the Program Matter Objective. Disturbance of supporting habitat is outlined below in Table 6-27.

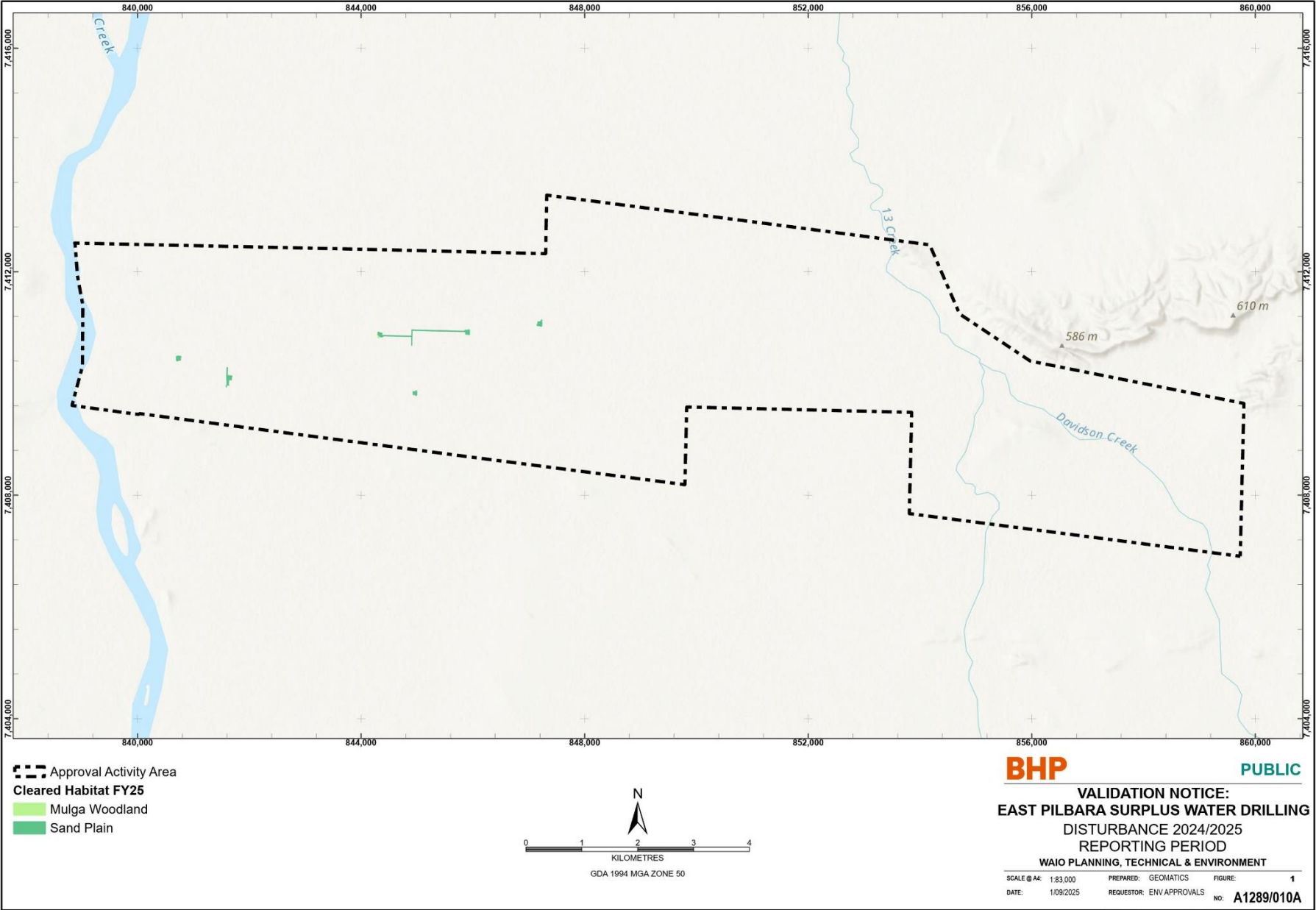
Implementation and achievements of offset programs undertaken by PEOF are shown on the [PEOF website](#). The implementation of current and future offset programs funded by BHPs contributions are discussed further in Section 1-5 above.

6.8.5 Land Disturbance Reconciliation

Land disturbance is managed through an internal PEAHR process which allows for management of clearing within approved limits and avoidance of habitats, where applicable. Given that the validation Notice became effective in November 2024, the clearing reported from 13 November 2024 to 30 June 2025 is the total clearing to date.

Table 6-27 East Pilbara Surplus Water Drilling disturbance by habitat type

Habitat	Activity disturbance July 2024 to June 2025 (ha)	Total disturbance as of 30 June 2025 (ha)	Total Predicted Disturbance (ha)
Greater Bilby			
Supporting foraging habitat			
Sand Plain	4.52	4.52	29
Mulga Woodland	0.14	0.14	15
Stony Plain	0.00	0.00	1
Total	4.66	4.66	45



Map 6-7 East Pilbara Surplus Water Drilling Validation Notice - Habitat Disturbance FY2025