KIMBERLEY MINERAL SANDS

THUNDERBIRD OPERATIONS PTY LTD

EPBC 2016/7648 Annual Compliance Report July 1st 2022 – June 30th 2023

Thunderbird Mineral Sands Project



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AUTHORISATION

Revision Number	Reason for Issue	Prepared	Checked	Approved	Date
1	Requirement under EPBC	Molly Ahern/Micaela Green			18/06/2023
2	Requirement under EPBC		Mitchell Duley		20/06/2023
2	Requirement under EPBC			Michael Rose	28/06/2023



1. INTRODUCTION

1.1 Project Overview

Kimberley Mineral Sands (KMS) – a joint venture between Sheffield Resources Limited and Hong Kong based Yansteel is developing and operating a mineral sands mine at the Thunderbird deposit, a greenfields site in the Kimberley region of Western Australia. The Thunderbird Mineral Sands Project (Thunderbird) will operate for approximately 40 years.

Thunderbird is located on the Dampier Peninsula within the west Kimberley region of Western Australia (Figure 1), approximately 75 km west southwest of Derby and 95 km northeast of Broome. It is accessed from the Great Northern Highway via a 30 km long Site Access Road.

The project is located within the Mt Jowlaenga Pastoral Lease (H910623), held by the Yeeda Pastoral Company Pty Ltd. The Site Access Road intersects the Great Northern Highway approximately halfway between Broome and Derby; by road it is approximately 110 km to Derby and 100 km to Broome.

Thunderbird is a greenfield project and will comprise:

- Mining of heavy mineral sands over a 40 plus year period from the Thunderbird deposit
- Onsite primary and secondary processing of heavy mineral sands to produce a range of saleable products
- Abstraction and reinjection of groundwater from the Broome Sandstone Aquifer to allow mining and supply ore processing needs
- Development of infrastructure to support the project including power generation facilities, accommodation village, administration and maintenance buildings, internal roads, communications infrastructure, and waste storage and disposal facilities
- Upgrade and extension of the existing road (Mt Jowlaenga Road) from the Great Northern Highway to form a 30 km Site Access Road
- Transport of mineral sands products from the Mine Site via the Site Access Road and Great Northern Highway to Port for storage prior to export
- Export of bulk mineral sands products from the Port to international customers

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Thunderbird Mineral Sands Project



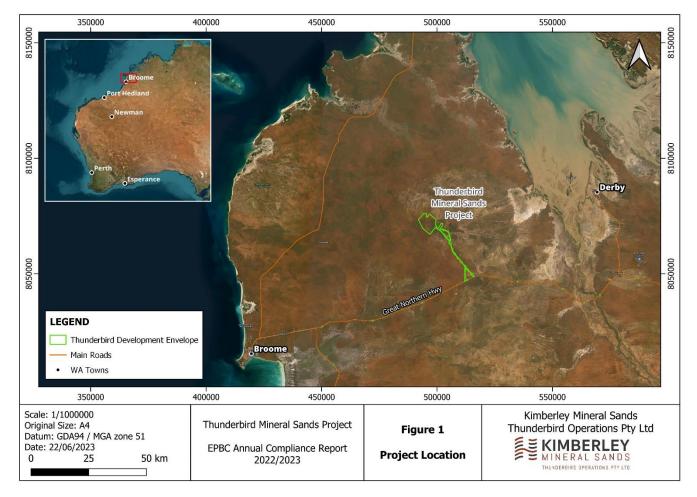


Figure 1. Locality Map

1.2 Objective

This report addresses condition 8 of EPBC 2016/7648, whereby:

By 30 June of each year after the commencement of the action, the approval holder must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of approved plans or strategies specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Minister at the same time as the compliance report is published.

The Project commenced the action on 11 August 2021. The Department was notified of commencement of the action on the 16th of December 2021 and at the time of reporting The Project remains in the construction phase ahead of a planned transition into operations Q1 2024.

1.3 Scope

This report details the commitments outlined within EPBC 2016/7648 (issued on 27 September 2018) and assessment of compliance against conditions 1-12 for the reporting period 1^{st} of July 2022 to 30^{th} June 2023.



2. STATEMENT OF COMPLIANCE

2.1 Proposal and Proponent

Table 1. Company and Proposal Details

Proposal Title	Thunderbird Mineral Sands Project		
Location of the Project	Kimberley Region, approximately 75 km west southwest of Derby and 95 km northeast of Broome. It is accessed from the Great Northern Highway via a 30 km long Site Access Road.		
Approved Action Number	EPBC 2016/7648		
Proponent Name	Thunderbird Operations PTY LTD		
Proponent's Australian Company Number (where relevant)	611 351 743		

2.2 Proponent Declaration

In making this declaration, I am aware that section 490 and 491 of the Environmental 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	Mass
Full Name (please print)	Mitchell Duley
Position (please print)	Environmental Superintendent
Organisation (please print including ABN/ACN if applicable)	Thunderbird Operations PTY LTD ACN 611 351 743 Kimberley Mineral Sands ABN 11 611 351 743
Date	28/06/2023



3. DESIGNATIONS TO RECORD FINDINGS

3.1 Assessment of Compliance

The terminology used to record findings in the compliance report (Table 1) is consistent with that used by the DCCEEW Annual Compliance Report Guidelines (2014).

Status	Description			
Compliant	'Compliance' is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.			
Non-compliant	A designation of 'non-compliance' should be given where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.			
Not Applicable	A designation of 'not applicable' should be given where the requirements of a condition or elements of a condition fall outside of the scope of the current reporting period. For example, a condition which apprise to an activity that has not yet commenced.			



4. COMPLIANCE ASSESSMENT

4.1 Audit Assessment

In accordance with condition 8 of the EPBC Act approval (Approval Reference EPBC 2016-7648), this report provides an update of Thunderbird's compliance against the relevant approval conditions (Table 3).

Table 3. Thunderbird Mineral Sands Project EPBC 2016/7648 Audit Assessment

EPBC 2016/7648					
Condition Number	Condition	Compliant/Non- Compliant/Not Applicable	Evidence/Comments		
1	For the protection of the Greater Bilby , the approval holder must not clear more than 1,961.1 ha, and must not clear any area outside the development envelope .	Non-Compliant	At the time of reporting, a total 397.31ha of land across the Thunderbird Development Envelope had been cleared (see Appendix A and C). Records are maintained via an 'Area of Disturbance' database which is regularly updated. Supporting survey and spatial data is retained as part of the assurance procedure to verify compliance against State and Commonwealth clearing allocations. An area of 116m ² was identified within an internal Permit as being cleared outside the Thunderbird Development Envelope (see Appendix B). The clearing was associated with surface water drainage infrastructure for the Thunderbird Mine Access Road, the drainage infrastructure is constructed on a Miscellaneous licence held by Thunderbird and the area cleared outside of this Licence falls on an exploration Licence also held by Thunderbird. This breach was identified as part of a survey audit conducted on the 24/03/23. The audit was completed on 12/04/23 and The Department of Mining Industry, Regulation and Safety (DMIRS) were notified on 14/04/23. DMIRS have not issued a notification of breach of tenement conditions in relation to this clearing. The clearing related to this non-compliance is found to have occurred in 2021, a period of rapid growth within KMS ahead of planned construction commencement in 2022. At this point the Environmental department of Thunderbird was managed entirely by an external consultant. In the time following this event an Environmental team and department Manager have entered the business, implementing rigorous procedures and controls surrounding land disturbance activities, to aid in the prevention of any re- occurrence.		



			Supporting Documents: Appendix A; Disturbance Areas Site Plan Appendix B; Permit to Clear 0048 Tenement and Development Boundary Breach Map Appendix C; Thunderbird Minesite Development Envelope Site Plan
2	 For the protection of the Greater Bilby, the approval holder must submit a Terrestrial Fauna Environmental Management Plan (TFEMP) to the Minister for approval. The TFEMP must: a) Detail the protocol/s that will be implemented during pre-clearance surveys, including to identify Greater Bilby burrows and for Greater Bilby capture and translocation into suitable habitat; and b) Comply with conditions 6-1,6-2,6-3,6-4,6-5,6-6,6-7 and 6-8 of the Western Australian Approval. The approval holder must not commence the action until the Minister has approved the TFEMP. The approved TFEMP must be implemented. 	Compliant	The Terrestrial Fauna Environmental Management Plan for The Thunderbird Mineral Sands Project dated 24 October 2018 was approved by the Minister on the 20 th November 2018 (see Appendix D). All clearing was conducted using internal permit to clear procedures (see Appendix E), and in accordance with the Greater Bilby disturbance protocols stipulated within the Terrestrial Fauna Environmental Management Plan. All Greater Bilby activity was recorded and documented in the internal Greater Bilby survey database (see Appendix F). Supporting Documents: Appendix D; Thunderbird Mineral Sands Project (EPBC 2016/7648): Terrestrial Fauna Environmental Management Plan and Offset Strategy Approval Letter (2018) Appendix E; Permit to Clear Example Appendix F; Greater Bilby Survey Summary
3	 The approval holder must within twelve months of the date of this approval submit to the Minister for approval an Offset Strategy that will compensate for the residual impacts to the Greater Bilby. The Offset Strategy must be consistent with the principles of the EPBC Act Environmental Offsets Policy, and must: a) Provide offsets for 1,961.1 ha of Greater Bilby habitat to be cleared as a result of the action; b) Prioritise land management activities with direct benefit for Greater Bilby habitat over research activities; c) Consistently with relevant approved conservation advice, recovery plans and threat abatement plans and/or regional conservation plans, identify threats to Greater Bilby, and nominate priorities for offset projects that are likely to realise a conservation benefit for Greater Bilby; d) Specify a financial commitment to offset projects based on a rate of at least \$2,500 (excluding GST) per hectare of Greater Bilby habitat cleared. The contributions rate must be amended quarterly to match inflation measured through CPI, taking the date of this approval as the starting point for adjustments; 	Compliant	The Offset Strategy for The Thunderbird Mineral Sands Project dated 13th October 2018 was approved by the Minister on the 20 th November 2018 (see Appendix D). A revision to the Offset Strategy was approved on the 7 th October 2020 (see Appendix G). A Subsequent revision to the Offset Strategy was submitted on the 17/04/2023, the approval process for this document was ongoing at the time of reporting (see Appendix H). This revision of the Offset Strategy is subject to Bilateral assessment by the Western Australian Department of Water and Environmental Regulation (DWER) as well as DCCEEW. The requirement for bilateral assessment is prompted by the amalgamation of the Greater Bilby Research and Conservation Plan (GBRCP) into the Offset Strategy. The GBRCP is a requirement of Condition 10 of WA EPA Ministerial Statement 1080, as such, assessment of the revised Offset Strategy will be coordinated by DWER with DCCEEW to align approval for the purposes of both Ministerial Statement 1080 and EPBC Act Approval 2016/70648.



	 e) Specify milestones for Greater Bilby habitat clearing and for expenditure on offset projects, with a staged process for developing and submitting offset projects for approval by the Department; f) Specify the process for reporting on expenditure on offset projects, and conservation outcomes achieved; and g) Outline the circumstances whereby the approval holder may request from the Minister an acquittal of a portion of the area of Greater Bilby habitat specified in Condition 3(a) as a result of implementing rehabilitation activities. The approval holder must not commence the action until the Minister has approved the Offset Strategy. The approval holder must implement the approved Offset Strategy. 		At the time of reporting, offsets had been paid up until the end of Q1 2023 – accounting for 397.24 cleared hectares (see Appendix I). Supporting Documents: Appendix D; Thunderbird Mineral Sands Project (EPBC 2016/7648): Terrestrial Fauna Environmental Management Plan and Offset Strategy Approval Letter (2018) Appendix G; Thunderbird Mineral Sands Project (EPBC 2016/7648) – revised Offset Strategy Approval Letter (2020) Appendix H; Ministerial Statement 1080 Thunderbird Mineral Sands Project, Condition 10 – Greater Bilby Research and Conservation Plan Submission Appendix I; Example Proof of Payment to Greater Bilby Offset Fund
4	 Offset project proposals submitted for approval in accordance with Condition 3(e) must: a) Specify the location and nature of offset project activities; b) Include project goal/s, budget, and a detailed offset project description, including timeframes for implementing the offset project, and reporting and publishing offset project results; c) Identify and manage all risks (including but not limited to environmental, administrative, financial, and governance risks) associated with implementing the offset project; d) Demonstrate how the offset project is consistent with the Offset Strategy; e) Outline consultations associated with developing the offset project, including the outcomes of those consultations; and f) Outline how the offset project complies with the principles of the EPBC Act Environmental Offsets Policy and, if relevant, how the offset project meets the criteria for research and educational programs identified in Appendix A of the EPBC Act Environmental Offsets Policy. 	Not Applicable	The GBRCP/Offset Strategy revision highlighted the most significant threats to the Greater Bilby population within The Dampier Peninsula. The priorities with regards to conservation and management were also discussed, with this information being used as a benchmark to assess potential offset projects that would have the greatest impact on the future Bilby population. The most beneficial of the proposed offset projects was targeted at feral cat control and fire management across the Dampier Peninsula. Submission of Offset projects will occur following approval of the revised Offset Strategy/GBRCP.
5	To protect Humpback Whales (Megaptera novaeangliae), the approval holder must ensure that shipping vessels it controls, and those which are under commercial arrangement between the approval holder and other parties, must:	Not Applicable	The project is currently in the construction phase and as such has not commenced export of materials from nominated port facilities.



	 a) Comply with Part 8, Division 8.01, Regulations 8.05 and 8.06 of the EPBC Regulations, and implement all mitigation and management measures specified therein; and b) Within State coastal waters, operate as though the mitigation and management measures specified in Part 8, Division 8.01, Regulations 8.05 and 8.06 of the EPBC Regulations apply, and comply with and implement those measures, as per Condition 5(a). 		
6	Within 30 days after the commencement of the action, the approval holder must advise the Minister in writing of the actual date of commencement .	Non-Compliant	Commencement was notified on the 16 th of December 2021, however the action had officially commenced on the 11 th of August 2021, therefore exceeding the 30 day notification period (see Appendix J). Supporting Documents: Appendix J; Commencement of the Action – Thunderbird Mineral Sands Project, WA, EPBC 2016/7648
7	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the strategy and plans required by this approval, and make them available upon request to the Minister . Such records may be subject to audit by the Minister or an independent auditor in accordance with section 458 of the EPBC Act , or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	 Thorough record keeping and data management practices are maintained in order to satisfy compliance with approval conditions on the Thunderbird Mineral Sands Project. The 'Permit to Clear', documents compliance actions completed for each area prior to clearing (see Appendix E). Supporting survey and spatial data is retained as part of the assurance procedure to verify compliance against clearing allocations. Post clearance survey data is collected for each area of disturbance with records being maintained via an 'Area of Disturbance' database that is regularly updated (see Appendix K). This ensures appropriate implementation of the TFEMP and accurate tracking of Offset payments. All database and records in relation to compliance to the conditions stated in this approval are available upon request. Supporting Documents: Appendix E; Permit to Clear Example Appendix K; Thunderbird Operations - Area of Disturbance Records
8	By 30 June of each year after the commencement of the action, the approval holder must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of approved plans or strategies specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Minister at the same time as the compliance report is published.	Compliant	Publication of this report on or before the 30 th of June represents compliance with condition 8 of EPBC 2016/7648.

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9	Upon the direction of the Minister , the approval holder must ensure that an independent audit of compliance with the conditions of 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 .	Not Applicable	No independent audit has been requested by the minister.
10	If, at any time after five years from the date of this approval, the approval holder has not commenced the action, then the approval holder must not commence the action without the written agreement of the Minister .	Compliant	The action has commenced (see Appendix J). Supporting Documents: Appendix J; Commencement of the Action – Thunderbird Mineral Sands Project, WA, EPBC 2016/7648
11	 The approval holder may choose to revise the plan approved by the Minister under Condition 2 without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised plan would not be likely to have a new or increased impact. If the approval holder makes this choice they must notify the Department in writing that the approved plan has been revised and provide the Department, at least four weeks before implementing the revised plan, with: a) An electronic copy of the revised plan; b) An explanation of the differences between the revised plan and the approved plan; and c) The reasons the approval holder considers that the taking of the action in accordance with the revised plan would not be likely to have a new or increased impact. 	Not Applicable	No revision to the approved plan has been made to date.
11A	The approval holder may revoke its choice under Condition 11 at any time by giving written notice to the Department . If the approval holder revokes the choice to implement the revised plan, without approval under section 143A of the EPBC Act , the plan approved by the Minister must be implemented.	Not Applicable	No revision to the approved plan has been made to date.
118	 If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised plan would be likely to have a new or increased impact, then: a) Condition 11 does not apply, or ceases to apply, in relation to the revised plan; and b) The approval holder must implement the plan approved by the Minister. 	Not Applicable	No revision to the approved plan has been made to date.

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	 To avoid any doubt, this condition does not affect any operation of Conditions 11 and 11A in the period before the day the notice is given. At the time of giving the notice, the Minister may also notify that for a specified period of time Condition 11 does not apply for the plan required under the approval. Conditions 11, 11A and 11B are not intended to limit the operation of section 143Aof the EPBC Act which allows the approval holder to submit a revised plan to the Minister for approval. 		
12	If the approval holder wishes to carry out the action otherwise than in accordance with the Offset Strategy approved by the Minister under Condition 3, the approval holder may submit a revised Offset Strategy for the Minister's approval. If the Minister approves the revised Offset Strategy, the approval holder must implement that strategy instead of the Offset Strategy as originally approved.	Compliant	 The latest approved revision of the Offset Strategy was formally accepted on the 8th of September 2020 (see Appendix G). A revision to the approved strategy was submitted on the 17th April 2023 and, at the time of writing this report, was awaiting approval (see Appendix H). The later revision of the Offset Strategy is to wait approval prior to implementation. Supporting Documents: Appendix G; Thunderbird Mineral Sands Project (EPBC 2016/7648) – revised Offset Strategy Approval Letter (2020) Appendix H; Ministerial Statement 1080 Thunderbird Mineral Sands Project, Condition 10 – Greater Bilby Research and Conservation Plan Submission
13	Unless otherwise agreed to in writing by the Minister , the approval holder must publish the plan or strategy referred to in these conditions of approval on their website. Each plan or strategy must be published on the website within 1 month of being approved by the Minister or from expiry of the four-week period in Condition 11.	Compliant	Both the Terrestrial Fauna Environmental Management Plan and Offset Strategy are available on the Kimberley Mineral Sands Website. Evidence: <u>https://www.kmsands.com.au/site/esg/environment</u>



4.2 Definitions

Acquittal	Means reduction in the amount payable for the offset.
Clear/Cleared/Clearing	Means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of native vegetation, but does not include measures for weed and pest management.
Construction	Includes any preparatory works required to be undertaken including clearing vegetation, the erection of any onsite temporary structures and the use of heavy-duty equipment for the purpose of breaking the ground for buildings or infrastructure.
Commence, commenced or commencement	The first instance of any construction works for any infrastructure, excluding fences and signage, associated with the proposed action.
CPI	'Consumer Price Index' (or successor index) as a measure of inflation in Australia, as measured by the Reserve Bank of Australia.
Department ('s)	The Australian Government Department or any other agency administering the EPBC Act from time to time.
Development Envelope	The Boundary of the action as defined in Appendix C, where it is depicted as 'Thunderbird Minesite Development Envelope' and marked with a blue outline.
EPBC Act	The Environment Protection and Biodiversity Conservation Act 1999 (Cth).
EPBC Act Environmental Offsets Policy	The Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (October, 2012), or subsequent revision, including the Offsets Assessment Guide. Available at: http://www.environment.gov.au/epbc/publications/epbc-act- environmental-offsets-policy
EPBC Regulations	The Environment Protections and Biodiversity Conservation Regulations 2000 (Cth).
Greater Bilby	The EPBC Act listed Greater Bilby (Macrotis lagotis).
Independent expert	A scientist with relevant qualifications and expertise appointed and funded by the approval holder whose appointment is approved by the Department.
Mine pits	As defined in Appendix C, where it is depicted as 'mine pits' and highlighted in orange.
Minister	The Minister administering the EPBC Act and includes a delegate of the Minister.
Plan(s)	All plans specified in these conditions and/or those defined in the Offset Strategy.
Recovery Plan/s	A recovery plan made or adopted by the Minister under the EPBC Act.



Threat abatement plans	A threat abatement plan made or adopted by the Minister under the EPBC Act.
Western Australian Approval	Ministerial Statement No.1080 - Thunderbird Mineral Sands Project published on 10 August 2018 under the Environmental Protections Act 1986 (WA).

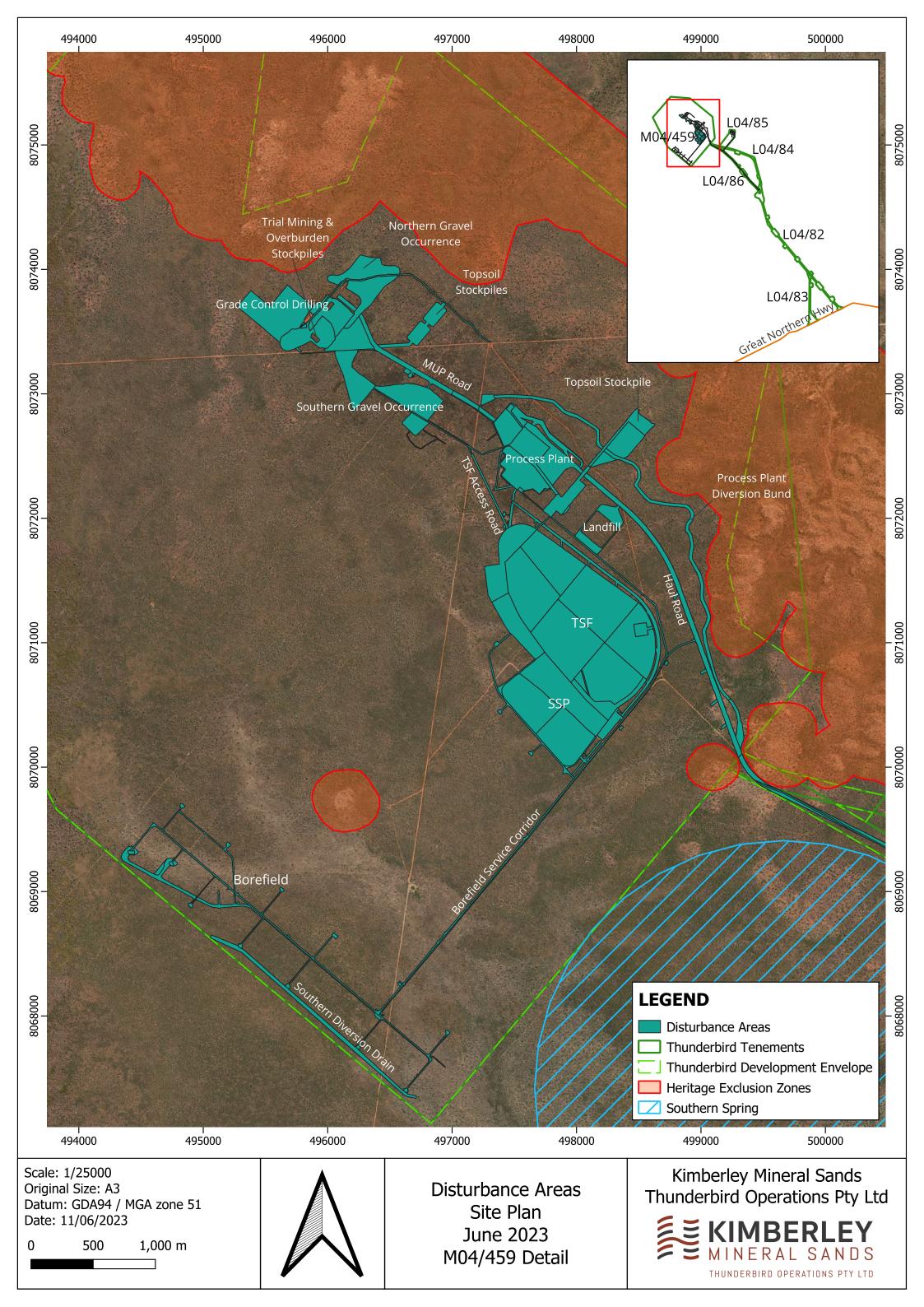
5. **REFERENCES**

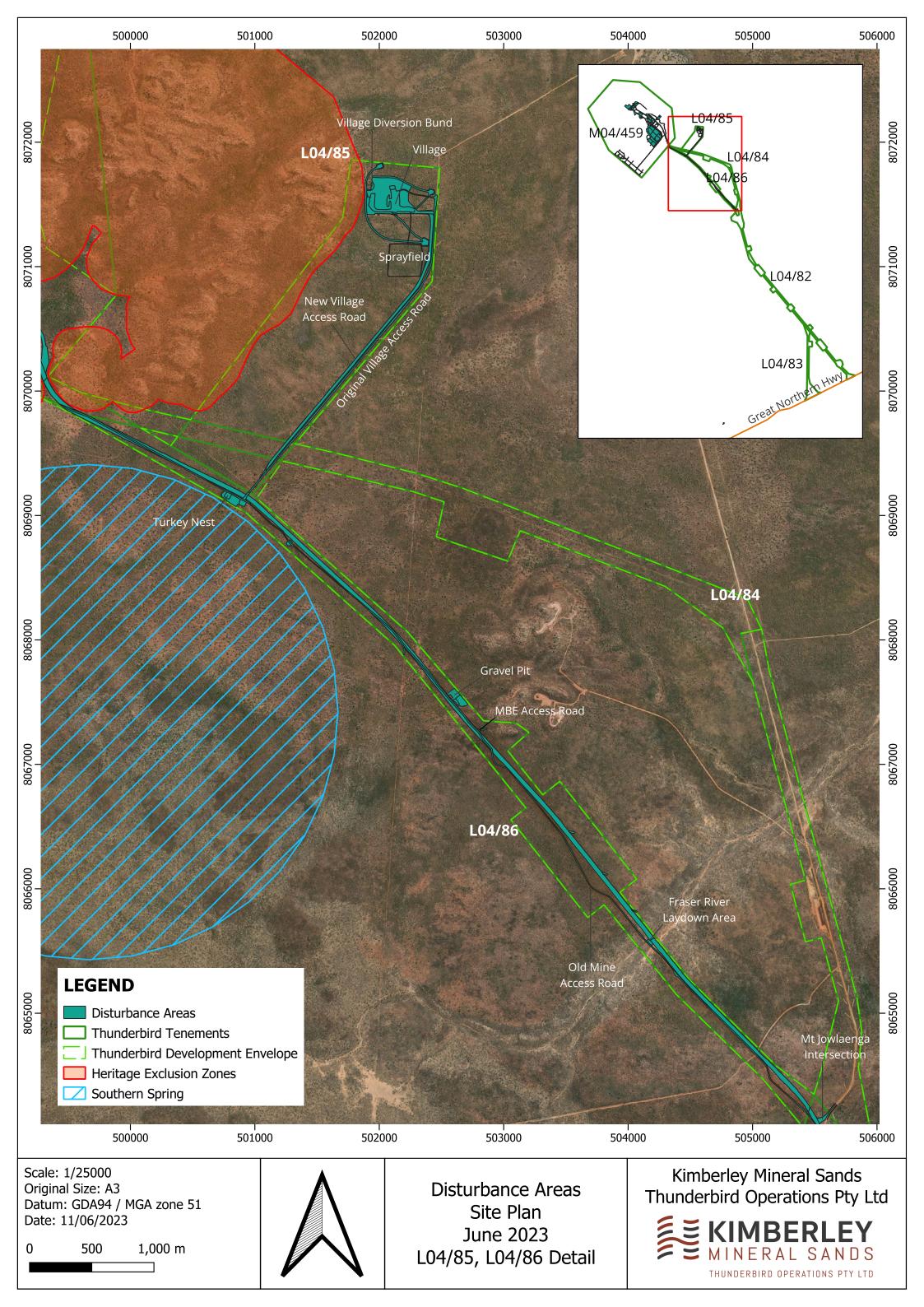
Department of Agriculture, Water and the Environment. 2014. Annual Compliance Report Guidelines. Department of Environment, Canberra ACT. 2014.



6. APPENDICES

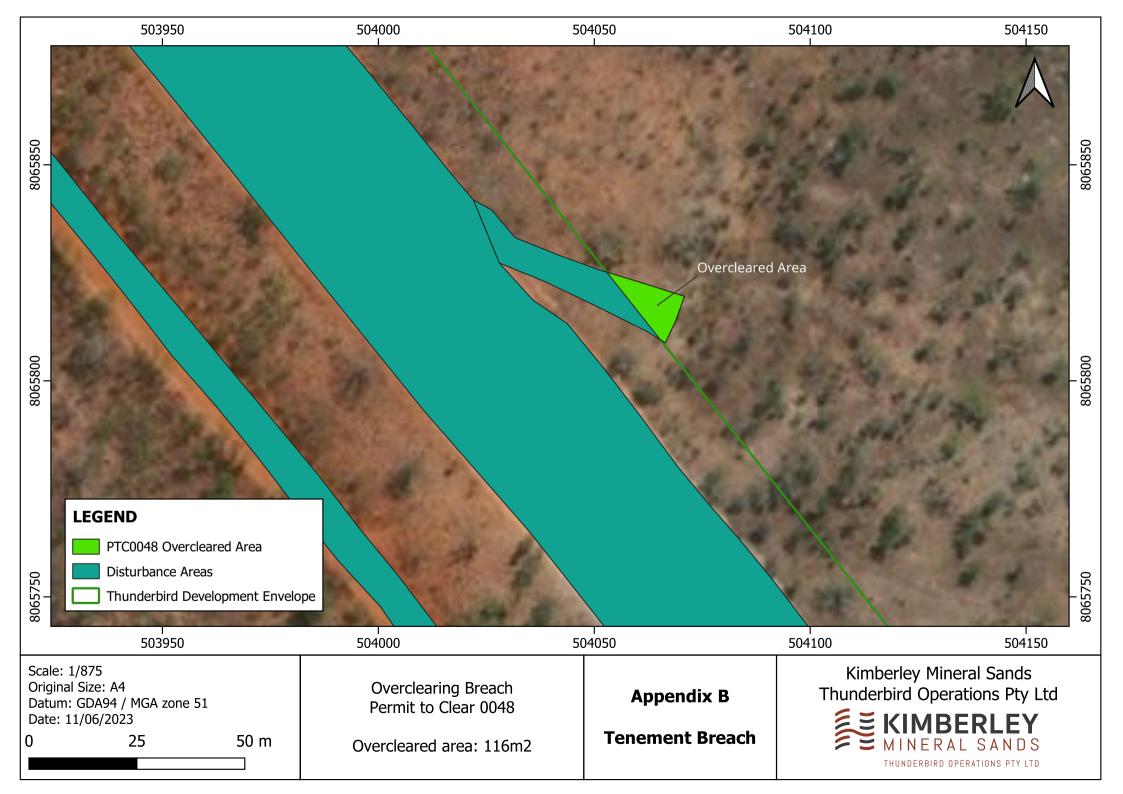
6.1 Appendix A: Disturbance Areas Site Plan







6.2 Appendix B: Permit to Clear 0048 Tenement and Development Boundary Breach Map

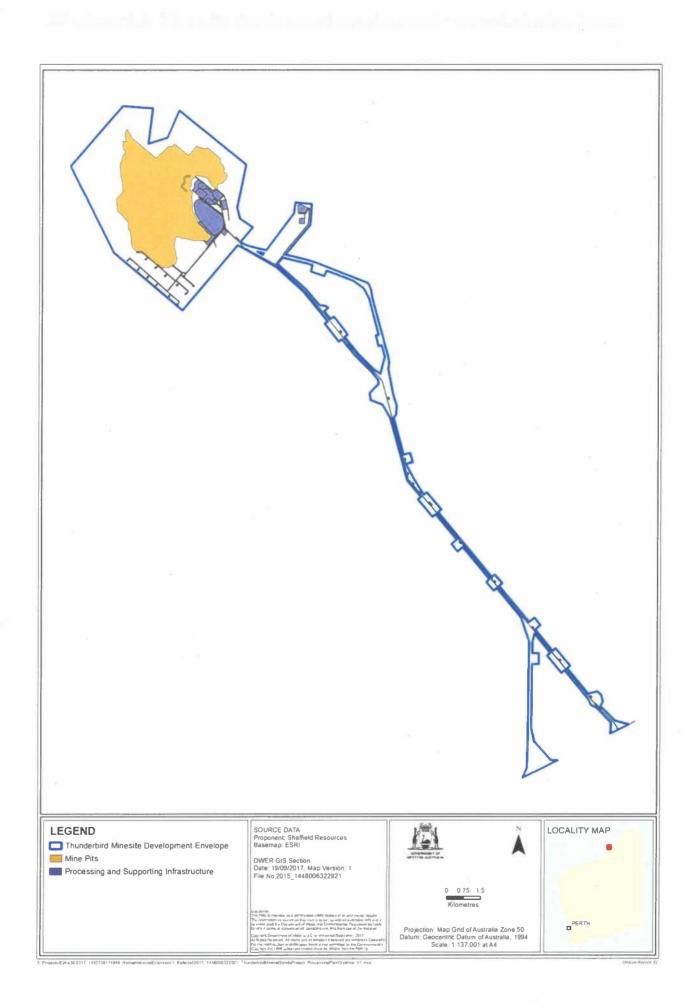








6.3 Appendix C: Thunderbird Minesite Development Envelope Site Plan





6.4 Appendix D: Thunderbird Mineral Sands Project (EPBC 2016/7648): Terrestrial Fauna Environmental Management Plan and Offset Strategy Approval Letter (2018)



Australian Government

Department of the Environment and Energy

Mr Wayne Groeneveld Sustainability Manager Thunderbird Operations Pty Ltd PO Box 205 WEST PERTH WA 6872

Thunderbird Mineral Sands Project (EPBC 2016/7648): Terrestrial Fauna Environmental Management Plan and Offset Strategy

Dear Mr Groeneveld

Thank you for submitting the Terrestrial Fauna Environmental Management Plan and Offset Strategy in accordance with Conditions 2 and 3 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval for EPBC 2016/7648.

Officers of this Department have advised me on the above, and the requirements of Conditions 2 and 3 of the approval for EPBC 2016/7648. On this basis, and as a delegate of the Minister for the Environment and Energy, I have decided to approve:

- the *Terrestrial Fauna Environmental Management Plan,* Version 5, dated 24 October 2018 as meeting the requirements of Condition 2 of the approval; and
- the Offset Strategy, dated 13 November 2018 as meeting the requirements of Condition 3 of the approval.

The approved Plan and Strategy must now be implemented.

Please note that the conditions of approval for EPBC 2016/7648 require, unless otherwise agreed in writing by the Minister, that the approved Plan and Strategy be published on your website within one month of the date of this approval.

The Department has an active monitoring program which includes monitoring inspections, and desktop document reviews and audits. Please ensure that you maintain accurate records of all activities associated with the conditions of approval, including implementation of the approved Plan and Strategy, so that they can be made available to the Department on request.

Should you require further information regarding my decision please contact Vaughn Cox on 02 6274 2005, or by email: <u>post.approvals@environment.gov.au</u>.

Yours sincerely

Greg Manning Assistant Secretary Assessments (WA, SA, NT) & Post Approvals Branch Environment Standards Division

2 November 2018



6.5 Appendix E: Permit to Clear Example

Document Reference: TOPL-ENV-FM-001 Version No: 04 Rev Date: 22/10/2022 Next Revision: 1/1/2023

TOPL PERMIT TO CLEAR

KIMBERLEY MINERAL SANDS

Printed: 28/11/2022 3:29 pm

Electronic Version Current: Uncontrolled copy valid only

This form must be completed by the Perm							
Environmental Team along with the clearing JHA before any area of soil or vegetation is disturbed. Once clearing has finished, permits must be completed and hard copies given to the Environmental Team for filing.							
Issued Date: 25/11/2022 Permit Expiry	Date:	9/12/2022	Permit Owner (K	^{MS):} (Claudio Marone		
Description of location and tenement: Attach M TSF Stage 11 M04/459			Location Grid Co		ates (GDA only):		
Purpose of the clearing: Stage 11 of T	SF		Temporary (<3 n Permanent (>3 r	nonths	^{a) or} Permanent		
Current clearing on tenement (ha): 99.05					wance on tenement (ha): 117.2		
Land use: Tailings or Residue Sto	orag	e Facility	Is this land use a	approv	ed on this tenement? Yes		
Estimated area to be cleared (ha): 14.4			Actual area cleared (ha): 15.47ha.				
Proposed start date: 29/11/20; Proposed cor	npletic	on date: 30/11/20	Actual start date: Actual completion date:				
Topsoil volume (m ³): 28800 2000 m ³ per ha			How will the area be marked out prior to clearing? Clearing is bordered by previously cleared areas as such flagging is not required				
CHECKS PRIOR	то со	MMENCING			CLEARING PROCEDURE		
ITEM	~	ITE	M	1			
Has TOPL-ENV-PRO Land Clearing Procedure been referred to and followed?	V	Has proposed clea to minimum and a trees?		Ņ	 Take photos of area PRE-CLEARANCE for rehabilitation purposes Check topsoil is dry and mark out area 		
Is the proposed clearing within the 2019 Section 18 granted area? Has the IC Officer been contacted by writing to request 2x Heritage Monitors presence during clearing?				V	 Complete a JHA Walk the dozer around any boundaries Clear and stockpile vegetation Clear and stockpile topsoil (up to 2 m high, 		
Is the Bilby pre-clearance survey completed for this area? Attach evidence	\checkmark	Do operators und clearing required?		V	 single level, paddock dumped stockpiles) Store stockpiles away from traffic for rehabilitation purposes 		
Have Heritage Monitors completed a pre- clearance survey? Attach evidence	\checkmark	Has the permit be approved prior to clearing?	0	M	 To reduce weed invasion, ensure that no weed affected soil, mulch or fill is introduced 		

Please answer these questions:

Where will the topsoil be stockpiled? TSF Stockpile Area PTC0070/0071

Topsoil to be removed and stockpiled (paddock dumped) no greater than 2m high. DO NOT DRIVE ON TOPSOIL STOCKPILES.

Where will the vegetation be stockpiled?

TSF Stockpile Area PTC0070/0071

Separate vegetation and topsoil stockpiles.

Cost \$\$ - Have you considered the rehabilitation and ongoing costs to Thunderbird and whether this clearing necessary? \$500,000 - yes necessary for the TSF construction

~\$48,000 to \$1,350,000 per hectare to rehabilitate cleared land at Thunderbird. Ongoing MRF Annual Levy cost of \$200/hectare.

Permit to Clear Conditions/Comments:

Clearing to be completed by dozer with GPS. Excavator and moxies to take topsoil and vegetation to TSF stockpile area. Clearing is bound by existing cleared areas, as such no survey flagging is required. GPS to be calibrated to clearing boundaries prior to commencing any works. Any issues with GPS operator is to stop immediately and report to supervisor before continuing any clearing. Bilby pre-clearance survey completed on the 25/11/22, this permit expires on the 9/12/22.

Bilby and Heritage Pre-Clearance Survey Evidence Attached:

ROLE	FULL NAME	11	SIGNATURE	DATE
Environmental Specialist	Mitchell Duley	108	Y	28/11/2022
		1		

Approvals to be signed PRIOR to clearing

ROLE	FULL NAME	SIGNATURE	DATE
Permit Owner	-Claudio Marono-Kiran Ba	Nole 17	29/11/2-
Machinery Operator	MARNEY OLIVER	ARCeli	30-11-22
General Manager	Larry Hodges	Hodew	21 11 22

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POST	CLEARING	CHECKLIST-	ENVIRONMENT	/RANGERS

ITEM	WHO	DATE	ITEM	WHO	DATE
Ground-truthed clearing with GPS and photo			Stockpiles and area cleared added to AOD spreadsheet		
Ground-truthed topsoil stockpile with GPS and photo			Stockpiles and area cleared added to AOD GIS layer		
Ground-truthed vegetation stockpile with GPS			Checked total cleared against approvals and reported		



6.6 Appendix F: Greater Bilby Survey Summary

Oursen Arres	Associated	Stort Data	Survey C	oordinates	Survey	Habitat	Fauna	Bilby
Survey Area	Clearing Permit	Start Date	Easting	Northing	Area (ha)	Surveys Complete	Recording Complete	Activity Observed
Borefield Re-alignment Rev1	PTC0073	04/07/22	495481	8068821	16.7	YES	YES	NO
TSF Stage 4	PTC0074	07/07/22	497930	8070483	14.3	YES	YES	YES
TSF Offices	PTC0075	08/07/22	498195	8070220	1.86	YES	YES	NO
Exploration Grade Control Drilling	PTC0076	13/07/22	495876	8073671	14.3	YES	YES	NO
TSF Stage 5	PTC0079	13/07/22	497724	8070908	19.6	YES	YES	NO
Borefield Road Extension Stage 2&3	PTC0078	14/07/22	497900	8069788	3	YES	YES	NO
TSF Stage 7	PTC0081	14/07/22	497886	8071353	20	YES	YES	YES
TSF Stage 6	PTC0080	15/07/22	497600	8071827	10.3	YES	YES	NO
TSF Stages 8 & 9	PTC0082	21/07/22	498094	8071646	45	YES	YES	NO
Additional VAR	PTC0084	27/07/22	502387	8071425	0.46	YES	YES	NO
Borefield Stage 5	PTC0083	27/07/22	496705	8068363	3.89	YES	YES	NO
Process Plant Ext C Rev1	PTC0067	28/07/22	497624	8072227	6	YES	YES	NO
Jillian Ridge Fire Breaks	PTC0077	02/08/22	504279	804498	1.38	YES	YES	NO
TSF Stage 10	PTC0087	04/08/22	498614	8070669	17.1	YES	YES	NO
Village Culvert 5 & VAR Extra	PTC0088	05/08/22	501971	8071446	<0.5	YES	YES	NO
Borefield Stage 4 - Southern Diversion Drain	PTC0086	15/08/22	495287	8068552	11.4	YES	YES	NO
TSF Stage 12	PTC0089	20/08/22	498547	8071327	12.9	YES	YES	YES
TSF Stage 11a	PTC0090	21/08/22	498345	8070422	8.74	YES	YES	NO
TSF to Process Plant Corridor	PTC0091	06/09/22	497506	8072240	2	YES	YES	NO
TSF Comms Corridor Stage 11b	PTC0092	08/09/22	498039	8070721	0.7	YES	YES	NO
Borefield Realignment 1b	PTC0093	12/09/02	495349	8068903	1	YES	YES	NO
MUP Stage 1	PTC0094	12/09/22	497218	8072909	1.59	YES	YES	NO
RMU Pads	PTC0095	02/10/22	496526	8068164	1	YES	YES	NO
TSF&SSP Monitoring Bore Pads	PTC0096	12/10/22	498739	8070855	1.1	YES	YES	NO
North Diversion Drain Western Stilling Basin	PTC0097	10/10/22	497233	8073015	2.48	YES	YES	NO
Southern Occurence Stages 3&4	PTC0059 & PTC0101	22/10/22	496673	8072848	6.85	YES	YES	NO
TSF Zone 2	PTC0098	20/11/22	497363	8070638	1.49	YES	YES	NO
MUP Stage 2	PTC0099	15/10/22	497215	8072931	3.5	YES	YES	NO
MUP Stage 3	PTC0100	11/11/22	496075	8073861	13	YES	YES	NO
TSF to South Occurrence Corridor	PTC0102	11/11/22	496809	8072787	6.18	YES	YES	NO
TSF Stage 11c	PTC0103	24/11/22	498537	8070723	14.4	YES	YES	NO
MUP Stage 4 & 2B	PTC0104	17/01/23	496371	8073360	1.7	YES	YES	NO
TSF Skid Pad	PTC0105	21/03/23	497458	8071985	0.33	YES	YES	NO
MUP Booster Pad	PTC0106	26/03/23	496626	8073207	0.5	YES	YES	NO
MUP Extra Corner	PTC0107	30/03/23	496377	8073352	<0.5	YES	YES	NO
MUP Booster Pad Ext & Corner	PTC0106	06/04/23	495782	8073350	<0.5	YES	YES	NO
MUP Corner2	PTC0107	18/04/23	497332	8072772	<0.5	YES	YES	NO
MUP RMU Pad	PTC0108	04/05/23	495848	8073345	<0.5	YES	YES	NO
Mining Schedule Week 1	PTC0109	02/06/23	496388	8073364	15.2	YES	YES	NO
Mining Schedule Week 1-3	PTC0110	09/06/23	495768	8073334	10	YES	YES	NO
TSF Skid Pad Extension	PTC0111	09/06/23	497431	8071961	0.2	YES	YES	NO



6.7 Appendix G: Thunderbird Mineral Sands Project (EPBC 2016/7648) – revised Offset Strategy Approval Letter (2020)



Australian Government

Department of Agriculture, Water and the Environment

Mr Stuart Pether Chief Operating Officer Thunderbird Operations Pty Ltd PO Box 205 WEST PERTH WA 6872

Thunderbird Mineral Sands Project (EPBC 2016/7648) – revised Offset Strategy

Dear Mr Pether

Thank you for submitting the revised Offset Strategy for approval in accordance with condition 11C of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval EPBC 2016/7648.

Officers of the Department have advised me on the revised strategy and on the requirements of the EPBC Act conditions of approval for this project. On this basis, and as a delegate of the Minister for the Environment, I have decided to approve the Offset Strategy, Rev 1, dated 8 September 2020. The approved strategy must now be implemented in place of the strategy originally approved on 20 November 2018.

As you are aware, the Department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval including the implementation of the approved Offset Strategy, so that they may be made available to the Department on request.

Should you require any further information please contact Thomas Smith at Thomas.Smith@awe.gov.au or postapproval@awe.gov.au.

Yours sincerely

Dwaine Ma Maugh Director, Post Approvals Environment Assessments (Vic, Tas) and Post Approvals Branch

7 October 2020



6.8 Appendix H: Ministerial Statement 1080 Thunderbird Mineral Sands Project, Condition 10 – Greater Bilby Research and Conservation Plan Submission



P: +61 8 6555 8701 W: kmsands.com.au

KMS Reference: DWER Letter_Thunderbird Project GBRCP_17042023

17 April 2023

Senior Manager Environmental Compliance Compliance and Enforcement Department of Water and Environmental Regulation

By email: compliance@dwer.wa.gov.au

Attention: Senior Manager, Environmental Compliance

RE: Ministerial Statement 1080 THUNDERBIRD MINERAL SANDS PROJECT, Condition 10 – Greater Bilby Research and Conservation Plan Submission

On behalf of Thunderbird Operations Pty Ltd ('TOPL'), I am writing to formally submit the Greater Bilby Research and Conservation Plan ('GBRCP') in accordance with Condition 10 of Ministerial Statement 1080 (MS1080).

TOPL's correspondence to the Department of Water and Environmental Regulation (DWER) on 8 November 2022, provided an update on the Thunderbird Mineral Sands Project ('the Project') and confirmed the 'substantial commencement' date for the purposes of MS1080 of 7 October 2022 being the date the Financial Investment Decision for the Project was announced. Further to this correspondence, a meeting was then held with representatives of DWER and the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and TOPL via Teams on 16 March 2023. The purpose of the meeting was to specifically discuss the GBRCP and its interrelationship with Greater Bilby offset requirements under EPBC Act Approval 2016/7648 for the Project.

The GBRCP has been prepared in accordance with the outcomes of this meeting. In short, it was agreed that due to the need to further revise the already approved Offset Strategy under EPBC Act Approval 2016/7648, the revised Offset Strategy would satisfy the MS1080 condition 10 requirement for a GBRCP. The Offset Strategy was originally approved on 12 September 2018 with a revised version approved on 7 October 2020. The combining of the Offset Strategy and GBRCP is also in the interests of harmonisation of the ongoing implementation of approval conditions, consistent with the principles of the Bilateral Assessment undertaken for the Project. It was also agreed in the meeting that in TOPL submitting the combined GBRCP/revised Offset Strategy to DWER, copy DCCEEW, that DWER would also coordinate with DCCEEW to align approval of the document for the purposes of both MS1080 and EPBC Act Approval 2016/70648.

TOPL subsequently advised via email on 27 March 2023 that due to the timing of availability of revised mine plan information, the GBRCP would instead be submitted on 17 April 2023 rather than the previously advised date of early April 2023.

If you have any questions regarding this letter and the attached GBRCP, please do not hesitate to contact Gayle Williams on 043 8189 286 or gayle@envirominded.pro.

Yours sincerely

Michael Rose Chief Operating Officer Kimberley Mineral Sands

Cc: DCCEEW – Director, Post Approvals Section

Kimberley Mineral Sands Pty Ltd – ACN 623201507 | Thunderbird Operations Pty Ltd – ACN 611351743 Page 1 of 1



6.9 Appendix I: Example Proof of Payment to Greater Bilby Offset Fund



NAB Business Cash Maximiser For further information call 13 22 65 for Personal Accounts or 13 10 12 for Business Accounts.

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7000791 THUNDERBIRD OPERATIONS PTY LTD PO BOX 205 WEST PERTH WA 6872

Opening balance Total credits Total debits	\$1,069,987.83 \$1,752.53 \$167,047.05	
Closing balance	\$904,693.31	Cr

Statement starts 12 May 2023 Statement ends 31 May 2023

Account Balance Summary

Outlet Details

Murray Street Murray Street Mall, 239 Murray Street Mall Perth WA 6000

Account Details

THUNDERBIRD OPERATIONS PTY LTDBUS CASH MAXIMISERBSB number086-027Account number41-968-4966

Transaction Details

Date	Particulars	Debits Credit	s Balance
12 May 2023	Brought forward		1,069,987.83 Cr
12 May 2023	Please Note From Today Your Dr Interest Rate Is	10.220%	
	As At 12/05/2023 Your Variable Cr Interest Rate Is	1.950%	
	When Your Balance Is \$10,000 or More		1,069,987.83 Cr
16 May 2023	Internet Transfer Pymt-Id 232011542		
	Bilb Guarantee Int		
	Internet Transfer Pymt-Id 232010916		
	Bilby Guarantee	166,024.61	902,940.78 Cr
31 May 2023	Interest		3 904,693.31 Cr

Summary of Government Charges						
Government	From 1 July to date	Last year to 30 June				
Withholding tax	\$0.00	\$0.00				
Bank Account Debit (BAD) tax	\$0.00	\$0.00				
Bank Accounts Debits (BAD) Tax or abolished for all states & territories on this statement applies to debits p	effective 1/7/2005. A	ny amount shown				
For further information on any appl charges, please refer to the NAB's A	A Guide to Fees &					

Please retain this statement for taxation purposes

Explanatory Notes

Please check all entries and report any apparent error or possible unauthorised transaction immediately. We may subsequently adjust debits and credits, which may result in a change to your account balance to accurately reflect the obligations between us. For information on resolving problems or disputes, contact us on 1800 152 015, or ask at any NAB branch.



NAB Business Cash Maximiser For further information call 13 22 65 for Personal Accounts or 13 10 12 for Business Accounts.

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7000791 THUNDERBIRD OPERATIONS PTY LTD PO BOX 205 WEST PERTH WA 6872

Opening balance	\$0.00	
Total credits Total debits	\$167,180.91 \$0.00	
Closing balance	\$167,180.91	Cr

Statement starts 12 May 2023 Statement ends 31 May 2023

Account Balance Summary

Outlet Details

Murray Street

Perth WA 6000

Account Details

THUNDERBIRD OPERATIONS PTY LTDBUS CASH MAXIMISERBSB number086-027Account number46-226-3972

Transaction Details

Murray Street Mall, 239 Murray Street Mall

Date 12 May 2023	Particulars Brought forward		Debits	Credits	Balance 0.00
12 May 2023	Please Note From Today Your Dr Interest Rate Is	10.220%			
	As At 12/05/2023 Your Variable Cr Interest Rate Is	1.950%			
	When Your Balance Is \$10,000 or More				0.00
16 May 2023	Bilb Guarantee Int T Hunder Oper			1,022.44	
	Bilby Guarantee Thun Der Oper				167,047.05 Cr
31 May 2023	Interest			133 .8 6	167,180.91 Cr

Summary of Government	t Charges	
	From 1 July to date	Last year to 30 June
Government		
Withholding tax	\$0.00	\$0.00
Bank Account Debit (BAD) tax	\$0.00	\$0.00
Bank Accounts Debits (BAD) Tax o abolished for all states & territories on this statement applies to debits p	effective 1/7/2005. A	ny amount shown
For further information on any app charges, please refer to the NAB's ".		

Please retain this statement for taxation purposes

Explanatory Notes

Please check all entries and report any apparent error or possible unauthorised transaction immediately. We may subsequently adjust debits and credits, which may result in a change to your account balance to accurately reflect the obligations between us. For information on resolving problems or disputes, contact us on 1800 152 015, or ask at any NAB branch.



6.10 Appendix J: Commencement of the Action – Thunderbird Mineral Sands Project, WA, EPBC 2016/7648



Australian Government

Department of Agriculture, Water and the Environment

Ref: EPBC 2016/7648 Email: <u>epbcmonitoring@awe.gov.au</u>

Stuart Pether Chief Executive Officer Kimberley Mineral Sands Level 2, 41-47 Colin Street, WEST PERTH WA 6005

Dear Mr Pether,

Commencement of the Action – Thunderbird Mineral Sands Project, WA, EPBC 2016/7648

I refer to your letter on 16 December 2021 on behalf of Thunderbird Operations Pty Ltd notifying the Department of Agriculture, Water and the Environment (the department) of commencement of the action for Thunderbird Mineral Sands Project, WA in accordance with condition 6 of the *Environment Protection and Biodiversity Conservation Act 1999* (the Act) approval EPBC 2016/7648.

I note that the action commenced on 11 August 2021.

Condition 8 – Annual Compliance Reporting

Condition 8 of the approval states that the approval holder must prepare an Annual Compliance Report for each 12-month period preceding 30 June annually, following the commencement of the action. The approval holder must continue to publish each report and notify the Department of publication until the expiry of this approval on 30 June 2073. The reports must be published on the website by 30 June each year.

Please notify the department of publication of the reports by email, including a link to where the report is publicly available to <u>epbcmonitoring@awe.gov.au</u>. Please note the first Annual Compliance Report is due by 30 June 2022.

When preparing the report please refer to the department's Annual Compliance Report Guidelines available on the department's website at <u>http://www.environment.gov.au/epbc/publications/annual-compliance-report-guidelines</u>

I note that the notification of commencement was made outside the timeframe stipulated in condition 6 of the approval. I note that this delay may constitute a breach of section 142 of the EPBC Act. On this occasion, I consider it appropriate that no further compliance action is taken in response to this matter. This matter may be noted in your compliance history under the EPBC Act.

Please note that the conditions of approval require the approval holder to maintain accurate records of all activities associated with, or relevant to, the approval conditions so that they can be made available to the department on request. These documents may be

subject to audit and be used to verify compliance. Summaries of audits may be published by the department.

More information about the department's Monitoring and Audit program is available on the department's website at <u>http://www.environment.gov.au/epbc/compliance-and-enforcement/auditing.</u>

Section 142 of the Act requires an approval holder to comply with conditions attached to an approval. Penalties may apply to approval holders who contravene conditions.

If you would like to discuss this matter further, please contact Olivia Moore at epbcmonitoring@awe.gov.au

Yours sincerely,

Thomas Long Assistant Director Environmental Audit Section 18 January 2022



6.11 Appendix K: Thunderbird Operations - Area of Disturbance Records

_			ATIONS - AREAS OF DISTURBANCE REC MBERLEY ERAL SANDS	ORDS							-		Tenement M04/459 (Min M04/459 L04/82 L04/83 L04/83 L04/85 L04/85 L04/85	e Pits)	Approved REG ID 76594 418.8 68.8 1.6 4.5 4.5 4.5 4.5 7.5 7.6	DMRS AOD (Jan 23) 335.60 1.15 0 1.11 22.81 36.64 397.31	Approved PER EPBC 2016/7648 355.1 1605 1961.1	t Dotz Ai (Jun 23 65.20 332.10 397.3
PTC#	Date Cleared	Tenement	Mine Activity Type	Mine Activity Reference	Site Description	Category	Permit Area (ha)	L04/82	L04/83	L04/84	L04/85	L04/86 Su	L04/92 rveyed Areas (1	L04/93	M04/459 Non-Mine	M04/459 Mining	E04/129	Permit A Total
W 00001	1/02/2016	L04/86	Transport or service infrastructure corridor Building (other than workshop) or camp site		Mine Access Road (MAR)-POW 60 person Village - Stage 1	c c	Unknown 10	Clearing enco	porated within	PTC0007	2.614							0
0001	1/12/2017	L04/85	Topsoil stockpile		60 person Village - Stage 1	E	Unknown				0.121							0.12
0003	1/11/2017	L04/85	Transport or service infrastructure corridor		Village Road - Stage 1-POW	с	Unknown				3.637	0.125						3.76
0004	1/04/2018	L04/86	Dam - fresh water		Mine Access Road (MAR)	в	Unknown					0.202						0.20
0005	1/04/2018	L04/86	Dam – fresh water		Mine Access Road (MAR)	B	Unknown 0.11					0.211						0.2
0006		L04/86	Transport or service infrastructure corridor		Mine Access Road (MAR) turn around			0.172				0.114						
0007	1/08/2017	L04/86	Transport or service infrastructure corridor		Mine Access Road (MAR)	c	Unknown					7.594						7.7
8000	1/07/2018	L04/86	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Borrow Pit 1	с	0.65					0.492						0.4
00009	28/08/2018	L04/86	Laydown or hardstand area		Laydown area for mobile batching plant	c	0.69					0.751						0.7
00010	1/09/2018	L04/85	vegetation and is not otherwise described in this Table Borrow oil or shallow surface excavation (with a depth of less than 5 metres)		WWTP Sprayfield fence boundary Extension to Borrow pit 1	c	0.5				0.4	0.473						0.4
0012	10/09/2018	L04/86	Exploration operations: rehabilitated land		Checking for gravels along MAR	c	Unknown					0.473						0.4
			Land (other than land under rehabilitation or rehabilitated land) that is cleared of vegetation and is not otherwise described in this Table		Trial mining programme safety bunds	с	2.16											
			Laydown or hardstand area		Trial mining programme	c	0											
00013	9/10/2020	M04/459	Low-grade ore stockpile (class 1) Mining void (with a depth of at least 5 metres) — above ground water level		Trial mining programme	8	1.2									8.616		8.6
00013	9/10/2020	M04/459	Mining void (with a depth of at least 5 metres) — above ground water level Topsoil stockpile		Trial mining programme	E	1.1									8.616		8.6
			Transport or service infrastructure corridor		Access road installed	с	2.65											
			Waste dump or overburden stockpile (class 2)		Trial mining programme	в	1.27											
00014	20/10/2020	L04/86	Exploration operations: land under rehabilitation		Gravel Investigations	NA	0.67					0						0
0015	30/10/2020	L04/86	Transport or service infrastructure corridor		Spoon drains for MAR Trial Mining V2	c	Unknown 1.46					0						0
			Mining void (with a depth of at least 5 metres) — above ground water level Laydown or hardstand area		Trial Mining V2 Trial Mining V2	c	1.46 0.5											
	1/06/2021	M04/459	Waste dump or overburden stockpile (class 2)		Trial Mining V2	в	1.7									5.769		5.7
00016	1/06/2021	M04/459	Low-grade ore stockpile (class 1)		Trial Mining V2	в	1.22									5.769		5.7
			Topsoil stockpile		Trial Mining V2	E	0.58											
00017	22/07/2021	L04/82	Transport or service infrastructure corridor Transport or service infrastructure corridor		Trial Mining V2 Re-clear of mine access road	c	0.5 N/A re-clear	0										0
00017	NOT ISSUED	104/85	Transport or service infrastructure corridor Transport or service infrastructure corridor		MAR S-Bends	c	0	0				0						
00019	NOT ISSUED	L04/85	Transport or service infrastructure corridor		Village Access Road	с	0					0						0
00020	11/08/2021	L04/82	Transport or service infrastructure corridor		New MAR alignment Y junction to fraser	с	8.2	0.553										6.6
	7/08/2021	L04/86 M04/459				с	N/A re-clear					6.092			0			
C0021	5/08/2021	M04/459 M04/459	Transport or service infrastructure corridor Transport or service infrastructure corridor		5 ways to Kilto fire break maintenance Northern Bore rd. fire break maintenance	c	N/A re-clear								0			0
00023	4/08/2021	L04/85	Land (other than land under rehabilitation or rehabilitated land) that is cleared of vesetation and is not otherwise described in this Table		Existing road from homestead to village fire break maintenance	c	N/A re-clear				0							0
rc0024	9/08/2021	L04/85	Land (other than land under rehabilitation or rehabilitated land) that is cleared of vesetation and is not otherwise described in this Table		Village Fire break Maintenance	с	N/A re-clear				0							0
rc0025	15/08/2021	L04/86	Transport or service infrastructure corridor		New MAR Alignment Fraser river to village	с	18					15.579						15.5
TC0026	18/08/2021	L04/84 L04/86 M04/459	Transport or service infrastructure corridor		New MAR Alignment Village road to plant site	c	16.7			1.11		4.466			9.891			15.4
TC0027	NOT ISSUED	M04/459	Borefield		Start of Borefield Track		0								0			٥
100028	NOT ISSUED	M04/459	Borefield		Borefield Track - MAR to Central Rd		0								0			0
rc0029	18/09/2021	M04/459	Borefield		Access track for production bores TPB03 and 15 and monitoring bores TMB11 and 12 Drill pads for production bores TPB03 and 15 and monitoring	c	0.3								0			0.26
00030	18/09/2021 8/09/2021	M04/459 M04/459	Borefield Topsoil stockpile		bores TMB11 and 12 Topsoil storage area and access track	E	3.1								3.067			3.06
00032	4/09/2021	M04/459	Topsoil stockpile		Vegetation stockpile area within the TSF footprint to store vegetation from roads	E	1.1								1.098			1.05
00033	9/10/2021	M04/459	Plant site		Partial clearing of the plant site and access	в	11								5.802			9.93
			Laydown or hardstand area		Construction Laydown area	c									4.187			
C0034		M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Northern gravel occurrence. Soil investigation using 22 test oits to a maximum of 2.5 mBGL. Northern gravel occurrence. Progressive excavation of pindan	с	0.2									0		0
00035	22/10/2021	M04/459 M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres) Diversion channel or drain	Process Plant Diversion Drai	and gravels for MAR construction	C B	0								9.256	6.172		9.25
00037	19/10/2021	L04/86	Transport or service infrastructure corridor		MBE road clearing connecting meteorstone to new MAR	с	0.068					0.086						0.08
00038	21/10/2021	L04/86	Transport or service infrastructure corridor		Fraser river laydown area for culvert installation	с	0.16					0.126						0.13
00039	29/10/2021	M04/459	Diversion channel or drain	Process Plant Diversion Drail	n Diversion bund part 2 of 2 for site drainage Northern gravel occurrence. Progressive excavation of pindan	в	1.48								1.426			1.4
C0040	28/10/2021	M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		and eravels for MAR construction	c	6.91									ombine with PTC	.0035	0
C0041	29/10/2021		Transport or service infrastructure corridor Building (other than workshop) or camp site		Spoon drains along MAR 300 person village	B	0.7				6.004				0.497			0.45
0042	6/11/2021	L04/85	Diversion channel or drain	Village Diversion Drains	Drainage around village	c	10.9				2.883							8.8
0043			Topsoil stockpile		Extension to existing topsoil storage area (PTC0031) for additional topsoil storage capacity	E	6								5.826			5.8
0044	10/11/2021	M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Northern gravel occurrence. Progressive excavation of pindan and gravels for MAR construction	c	6.8									6.118		6.1
00045	30/11/2021 NOT ISSUED	M04/459 M04/459	Borefield		Construction water pipeline and access track Borefield Pipeline Road	c	8.23								8.501			8.5
		M04/459						0										
00047	18/11/2021	L04/86	Transport or service infrastructure corridor		Culvert Stream Training	c	0					0						6
C0048	17/12/2021	L04/86	Transport or service infrastructure corridor		Spoon drains along MAR	с	0.37					0.22						0.3
C0049	10/02/2022	M04/459	Laydown or hardstand area		Extension to Turkey nest area for machine access and fire break Extension to existing KMS gravel pit to win gravels for village	c	0.1								0.141			0.1
00050	9/02/2022	L04/86 M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres) Borefield		Extension to existing KMS gravel pit to win gravels for vitage construction Diversion of existing water corridor due to TSF design change	c	0.037					0.11			0.77			0.1
00051		M04/459 M04/459	Borefield Plant site		Diversion of existing water corridor due to TSF design change Plant site comms tower	8	0.74								0.412			0.4
00053	22/02/2022	M04/459	Landfill site		LOM Landfil	в	8.73								3.997			3.9
0054	10/03/2022	M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Southern Gravel Borrow pit, stage 1 clearing	c	6.98									6.871		6.8
0055	22/03/2022	L04/85	Building (other than workshop) or camp site	300 Person Village	Linen shed, dry mess maintenance track, drains and north pad extension	c	0.898				0.706							0.7
0056	22/03/2022	M04/459	Transport or service infrastructure corridor Building (other than workshop) or camp site	300 Person Village	Create 1 way track between southern occurrence and plant Access track to village WWTP	c	1				0.208				0.925	0.186		1.1
0057	8/04/2022	M04/459	Building (other than workshop) or camp site Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Southern Gravel Borrow pit, stage 2 clearing	c	8.49									8.439		8.4
00059	25/10/2022	M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Southern Gravel Stage 3	c	2.17									2.126		2.1
00060	26/04/2022	M04/459	Plant site		Process Plant Extension B	В	14.36								12.882			14.6
			Dam – saline water or process liquor		Process water ponds	A									1.77			
0061	18/04/2022	L04/82	Transport or service infrastructure corridor Diversion channel or drain	Village Diversion Drains	Upgrade Mt Jolaenga Intersection Village culvert realignment	c	0.46	0.425			0.019							0.4
0062	18/03/2022	L04/85	Diversion channel or drain Transport or service infrastructure corridor	Village Diversion Drains	Village cuvert realignment New Village access road	c	5.7				5.415							5.4
0064	25/04/2022	L04/82	Transport of an exe ministrative consider		Haul Road main gate turnaround	c	N/A re-clear	0										
0065	18/05/2022	M04/459	Borefield		Borefield road extension and pad installation	с	4.458								3.327			3.3
0066		M04/459	Transport or service infrastructure corridor		Required to construct separated road for moxy access to southern occurrence	c	0.1								0.054			0.0
							8.08	1							7.154			8.6
0067 0067rev1	28/07/2022	M04/459	Plant site		Process Plant Extension C	в	2.1								1.491			

PTC0069	5/06/2022	L04/85	Transport or service infrastructure corridor	New Village Access Road	New Village road culvert installation	с	0.14				0.125							0.125
			Transport or service infrastructure corridor Topsoil stockpile	new vinage Access Road	New Vilage road culvert installation TSF Stage 1, fence line, bore access and stockpile area	A					v.425				2.269			
PTC0070	17/06/2022	M04/459	Tonsoil stocknike		TSF stage 1 stockpile area	F	10.02								7.392			9.661
700071	21/06/2022	M04/459	Tailings or residue storage facility (class 1)		TSF construction and access roads	A	10.3								9.878			9.878
		M04/459	Dam - saline water or process liquor		SSP construction		12.2								11.658			11.658
	6/07/2022	M04/459	Reneficial		Borefield realignment for flood mitigation	c	5.66								5.306			5.306
PTC0074	8/07/2022	M04/459	Dam - saline water or process liquor		SW portion of SSP	A	12.4								12.384			12.384
	8/07/2022	M04/459	Building (other than workshop) or camp site		TSF construction offices and laydown yard	с	1.87								1.738			1.738
		M04/459	Land (other than land under rehabilitation or rehabilitated land) that has been disturbed		Clearing for grade control drilling	c	14.3									13.778		13.778
		E04/129	by exploration operations Transport or service infrastructure corridor		Jillian Ridge Fire Breaks	c	1.18										1.045	1.045
		M04/459	Borefield		Re-alignment of borefield road	c	2.68								2.307			2.307
		M04/459	Dam – saline water or process liquor		NE SSP Clearing	A	14.9								15.216			15.216
		M04/459	Tailings or residue storage facility (class 1)		NE corner of TSF		12.8								12.776			12.776
		M04/459	Tailings or residue storage facility (class 1)		NW corner of TSF	A	16.2								16.283			16.283
		M04/459	Tailings of residue storage facility (class 1) Tailings or residue storage facility (class 1)		Centre Portion of TSF	A	39.8								39.767			39.767
		M04/459	Rozefisiri		Widening Borefield road	c	1.49								1.484			1.484
		104/85		New Village Access Road	Culverts installation	c	0.132				0.187				1.404			0.187
		M04/459	Land (other than land under rehabilitation or rehabilitated land) that is cleared of	New Vilage Access Road	Process Plant Spray Field	c	0				0.107				0			0.107
		M04/459	vegetation and is not otherwise described in this Table Diversion channel or drain		Process Plant Spray Field Borefield Southern Diversion Drain	в	6.1								5.949			5.949
					South eastern corner of TSF	A	12.8								12,788			12,788
		M04/459	Tailings or residue storage facility (class 1) Transport or service infrastructure corridor	New Village Access Road	South eastern corner of TSF Village culvert and additional VAR clearing	A C	0.056				0.11				12.788			0.11
				new village Access Road							0.11				6.443			0.11 6.443
		M04/459	Diversion channel or drain		TSF Diversion Drain	8	6.93											
		M04/459 M04/459	Tailings or residue storage facility (class 1)		TSF stage 11 embankments	A C	3.89								3.889			3.889
			Transport or service infrastructure corridor		Plant Site to TSF Corridor	c												
		M04/459	Tailings or residue storage facility (class 1)		Temporary comms corridor through TSF stage 11	c	0.23								0.178			0.178
		M04/459	Diversion channel or drain		Borefield Pad Drainage	в	0.47								0.423			0.423
		M04/459	Transport or service infrastructure corridor		Stage 1 of MUP road	c	0.61								0.427	0.105		0.532
		M04/459	Borefield		Borefield RMU Pads	c	0.28								0.312			0.312
		M04/459	Borefield		TSF Monitoring Bore Pads	с	0.3								0.252			0.252
100037		M04/459		Process Plant Diversion Drain	Northern Diversion Drain Stilling Basin	в	0.73								0.687	0.010		0.6964
		M04/459	Transport or service infrastructure corridor		Work zones around SSP walls	A	1								0.904			0.904
		M04/459	Transport or service infrastructure corridor		MUP road stage 2	c	0.84									0.861		0.861
PTC0099 rev1	20/01/2023	M04/459	Transport or service infrastructure corridor		MUP Road Stage 2b	c	0.1									0.059		0.059
PTC0100	11/11/2022	M04/459	Transport or service infrastructure corridor		MUP road stage 3	c	4.93								0.098	4.525		4.623
PTC0101	24/10/2022	M04/459	Borrow pit or shallow surface excavation (with a depth of less than 5 metres)		Southern Occurrence stage 4 test pits	c	0.47									0.349		0.349
		M04/459	Transport or service infrastructure corridor		One way track SO to TSF	c	1.27								0.66	0.571		1.231
		M04/459	Tailings or residue storage facility (class 1)		Stage 11 of TSF	A	14.4								15.467			15.467
PTC0104	20/01/2023	M04/459	Transport or service infrastructure corridor		MUP Stage 4	c	0.37									0.402		0.402
PTC0105	27/03/2023	M04/459	Transport or service infrastructure corridor		TSF Skid Pad	с	0.068								0.067			0.067
PTC0106	30/03/2023	M04/459	Transport or service infrastructure corridor		MUP Booster Pad & Corner Ext	c	0.232									0.229		0.229
PTC0107	6/04/2023	M04/459	Transport or service infrastructure corridor		MUP Booster Pad Extension	c	0.020								0.003	0.017		0.02
PTC0108	4/05/2023	M04/459	Transport or service infrastructure corridor		MUP RMU Pad	с	0.001									0.001		0.001
			Mining void (with a depth of at least 5 metres) — above ground water level			c												
			Waste dump or overburden stockpile (class 2)			в												3
PTC0109	In Progress	M04/459	Low-grade ore stockpile (class 1)		Carey Mining Week 1 - Stockpile and Access	в	10.53											Progre
			Topsoil stockpile			E												Ē
			Transport or service infrastructure corridor			с												
			Mining void (with a depth of at least 5 metres) — above ground water level			в												3
PTC010	In Progress	M04/459	Waste dump or overburden stockpile (class 2)		Carey Mining Week 2 - Access Road and Starter Pit	с	5.475											Progre:
			Transport or service infrastructure corridor			с												Ē
PTC0111	15/06/2023	M04/459	Transport or service infrastructure corridor		TSF Skid Pad Extension	с	0.072								0.07			0.07
																		0
																		0
																		0
																		0
																		0
																		0
																		0
								1.15	0	1.11	22.81	36.64	0	0	270.39	65.20	1.05	397.31