

EPBC Act Approval Annual Compliance Report

Haughton Pipeline Stage 2

24005427

16 May 2024



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EPBC Act Approval Annual Compliance Report



Haughton Pipeline Stage 2

Kleinfelder Project: 24005427

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Only Townsville City Council, its designated representatives or relevant statutory authorities may use this document and only for the specific purpose for which this submission was prepared. It should not be otherwise referenced without permission.

Kleinfelder Australia Pty Ltd (Kleinfelder) has prepared this Annual Compliance Report in line with the Department of Climate Change, Energy, the Environment and Water *Annual Compliance Report Guidelines, Reporting under the Environment Protection and Biodiversity Act 1999 (2023)*. This document has relied on information provided by Townsville City Council and other third parties, with Kleinfelder assuming all information has been provided truthfully and accurately.



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: Robert Kent

Position: Principal Major Projects

Organisation: Townsville City Council (ABN: 44 741 992 072)

Date: 21 May 2024



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1 INTRODUCTION

1.1 GENERAL

Kleinfelder Australia Pty Ltd (Kleinfelder) was engaged by Townsville City Council (TCC) to prepare the first Annual Compliance Report for the Haughton Pipeline Stage 2 Project (HPS2 or the Project). The Project is located approximately 60 kilometres south-east of Townsville.

Approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for the Project (EPBC 2021/9133) was obtained on 23 February 2023, for the following approved action:

'To construct and operate a buried pressure pipeline, approximately 28.5km long, and associated infrastructure to provide transfer of about 364ML/day of raw water from Burdekin River to the Ross River Dam in Townsville, Queensland.'

1.2 PURPOSE OF REPORT

This compliance report has been prepared to satisfy the requirements of Condition 27 and Condition 28 of EPBC Approval 2021/9133 as it has been prepared in line with the *Annual Compliance Report Guidelines, Reporting under the Environment Protection and Biodiversity Act 1999* (DCCEEW, 2023).

The date of project EPBC Act Approval was 23 February 2023, therefore this report provides an assessment of compliance against each of the conditions between the period of 23 February 2023 to 23 February 2024.

The key dates that relate to EPBC Approval 2021/9133 are detailed in Table 1 below.

Table 1: Key Actions and Dates of EPBC Act Approval (2021/9133)

Action	Key Date
EPBC Act Approval	23 February 2023
Commencement of Action	14 August 2023
Commenced implementation of Offset Area Management Plan	17 July 2023
Commence implementation of Rehabilitation Management Plan	Within 20 business days of substantial completion of construction
Expiry of Commonwealth Approval	31 December 2051

This report will be published on the TCC website as per the timeframe set in condition 30a of the EPBC Approval, and provided to the Department of Climate Change, Energy, the Environment and Water (DCCEEW or the Department) in line with Condition 30b and 30c.



2 DESCRIPTION OF ACTIVITIES

2.1 PROJECT BACKGROUND

The Project comprises a new pump station at the Burdekin River Clare Weir Storage south of Townsville, a 1.8m diameter pipeline approximately 28.5km in length and ancillary disturbance locations for construction of the pipeline (laydowns, access roads, stockpile sites). Powerlink have carriage of the high voltage substation and overhead powerline connecting the substation to the pump station; however, this disturbance is included with the EPBC approved Action. Construction is expected to take 2.5 to 3 years, and operational maintenance and access has been accounted for in the impact.

The proposed action, along with the previously constructed Stage 1 and Stage 1.1, are collectively known as Houghton Pipeline Duplication Project (HPDP). The Project is located approximately 60 km southeast of Townsville, North Queensland, between the Houghton River and Burdekin River and the small townships of Clare and Millaroo in the Burdekin. The HPDP includes the following stages:

- Stage 1 of the Project was completed in 2020 and comprises approximately 33 km of DN1800 pipeline constructed from the Houghton River to Toonpan Creek at the head of Ross River Dam.
- Stage 1.1 of the Project was completed in 2021 and is an extension of the Stage 1 pipeline works by 4 km from the Houghton River, directed towards the Stage 2 pipeline alignment. The Stage 1.1 works end with an isolation valve pit and is the connection point for Stage 2.
- Stage 2 (this Project) comprises construction of new pump station and construction of a new 28.5 km water pipeline from the pump station to Stage 1.1 to provide an integrated water transfer system and associated ancillary works. Construction for the pipeline was due to begin in April 2023, with completion of the construction phase by the July 2025 however this timeline has likely changed due to a delay in obtaining landholder access agreements. Construction has since commenced August 2023.

The Project was classed as a controlled action on the 18 February 2022, requiring assessment by preliminary documentation, which occurred in the following key stages:

- A Preliminary Documentation (PD) report was prepared in response to DCCEEW's Request for Information following the Referral assessment, on 10 March 2022.
- After submission of the PD, the Department provided an adequacy response on 9 September 2022.
- The Project then entered into the public exhibition stage, for which public comments were consolidated and provided by the department on the 19 December 2022 for review and addressing.
- Conditioned approval was received on the 23 February 2022.

The total temporary disturbance footprint is 138.26 ha consisting of:

- Construction corridor for the 28.5 km long pipeline alignment – typically consisting of a 40 m wide corridor (for clearing activities, trenching works, pipe installation, fencing and stockpiling of excavated material and topsoil are to be accommodated within the pipeline clearance extents) reducing to a 20 m wide corridor at riparian zones and mapped watercourse/waterway crossing, and
- Temporary construction access and haulage roads and five stockpile areas for storing materials and equipment.

The total permanent disturbance footprint is 15.64 ha consisting of:

- A 4 m wide gravel access road along the length of the pipeline,
- Pump station, as per the extent of the pump station site (1.63 ha),
- Intake structure including 11.52 ha for intake structure and access road,
- Substation site including 1.7 ha to establish substation,
- Power supply works including 0.8 ha for overhead power utility easement and access road.

Operation and maintenance of the Project will involve the ongoing maintenance of a 21.5 m wide public utility easement, 10 m wide zone influence above the pipeline (where only ground layer stratum is proposed), 4 m wide permanent gravel access road for the length of the pipeline and operation of the pump station and substation.



2.2 ACTIVITIES DURING REPORTING PERIOD

Project activities that occurred during the reporting period (23 February 2023 to 23 February 2024) are detailed below:

- Delineation of construction corridor limits of clearing.
- Vegetation clearing (Completed excluding approximately 5km of pipeline easement, high voltage substation and powerline easement).
- Established site office, laydowns, stockpile pads and access roads.
- Commenced installation of the pipeline.
- Commenced limited implementation of Offset Area Management Plan activities.



3 COMPLIANCE ASSESSMENT

An assessment of compliance against EPBC Act Approval (EPBC 2021/9002) for the reporting period between 23 February 2023 and 23 February 2024, is provided in Table 2 and Table 3 below. In accordance with the *Annual Compliance Report Guidelines, Reporting under the Environment Protection and Biodiversity Act 1999* (DCCEEW, 2023), the compliance assessment presents a compliance status finding against each condition as ‘compliant’, ‘non-compliant’ or ‘not applicable’. Comments are provided against conditions where required.

Table 2: Compliance Assessment against EPBC Approval Conditions

Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
Part A- Conditions Specific to the Action				
<i>Maximum Clearing Limits</i>				
1)	The approval holder must not clear outside the Project Area	Yes	Not Compliant	<p>Surveys were conducted at the Project site on the 22nd and 23rd of April to ground-truth clearing survey data relevant to the reporting period (23 February 2023 to 23 February 2024).</p> <p>A discrepancy between the approved Project Area footprint (as noted in the provided Project Area kmz file by TCC) and survey data clearing extent (provided by the construction contractor) was found for several areas within the Project Area. These disturbances outside of the Project Area have not resulted in additional impacts of any MNES habitat beyond the thresholds approved in Condition 2 a) to c) during this reporting period.</p> <p>These mapping discrepancies have not resulted in clearing exceeding the overall approved Project Area as the total approved Project Area is 154.036ha (as calculated utilising the kmz provided by TCC), with the current survey data clearing extent (provided by construction contractor for the reporting period) at 108.039ha.</p> <p>There is 34.526ha, out of the currently available 45.997ha, of the approved Project Area remaining that is forecasted to be cleared.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
2)	The approval holder must not clear more than the following:			
	A) 96.34ha of Southern Black-throated Finch habitat	Yes	Compliant	Surveys were conducted at the Project site on the 22 nd and 23 rd of April to ground-truth clearing survey data relevant to the reporting period (23 February 2023 to 23 February 2024). Survey data was found to be accurate on the ground, with 68.23 hectares of Southern Black-throated Finch habitat cleared during the survey period.
	B) 134.2 ha of Koala habitat	Yes	Compliant	Surveys were conducted at the Project site on the 22 nd and 23 rd of April to ground-truth clearing survey data relevant to the reporting period (23 February 2023 to 23 February 2024). Survey data was found to be accurate on the ground, with 89.73 hectares of Koala habitat cleared during the survey period.
	C) 92.23 ha of Bare-rumped Sheathtail Bat habitat comprising no more than: <ul style="list-style-type: none"> ▪ 43.12 ha of Bare-rumped Sheathtail Bat roosting habitat ▪ 85.54 ha of Bare-rumped Sheathtail Bat foraging habitat 	Yes	Compliant	Surveys were conducted at the Project site on the 22 nd and 23 rd of April to ground-truth clearing survey data relevant to the reporting period (23 February 2023 to 23 February 2024). Survey data was found to be accurate on the ground, with 62.82 hectares of Bare-rumped Sheathtail Bat habitat cleared during the survey period, consisting of: <ul style="list-style-type: none"> • 24.88ha Roosting habitat, and • 37.27ha Foraging habitat.
<i>Rehabilitation Requirements</i>				
3)	Within 10 business days of the substantial completion of construction , the approval holder must notify the department in writing that construction is completed.	No	Not Applicable	Substantial completion of construction has not occurred within the reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report.
4)	Within 20 business days of substantial completion of construction , the approval holder must commence implementing the Rehabilitation Management Plan .	No	Not Applicable	Substantial completion of construction has not occurred within the reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
5)	Within 60 business days following 1-year anniversary of the date commencing implementation of the Rehabilitation Management Plan , the approval holder must submit a report to the department which provides evidence the rehabilitation areas have achieved acceptance criteria .	No	Not Applicable	Commencement of implementation of the Rehabilitation Management Plan has not occurred within the reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report.
6)	Once acceptance criteria are achieved, the approval holder must ensure acceptance criteria are maintained in all rehabilitation areas for at least 12 months following the date on which the report is submitted to the department in accordance with condition 5.	No	Not Applicable	Commencement of implementation of the Rehabilitation Management Plan and assessment of acceptance criteria has not occurred within the reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report
<i>Environmental Offset Requirements</i>				
7)	To compensate for residual significant impacts to protected matters , up to the limits specified in Condition 2, the approval holder must commence implementing the Offset Area Management Plan (OAMP) prior to commencement of the action and continue to implement it for the remainder of the life of the approval. The approval holder must notify the Department in writing of the date of commencing OAMP implementation within 20 business days of the date of commencing OAMP implementation.	Yes	Compliant	<p>The date for commencement of the implementation of the OAMP was 17 July 2023, with notification via an email to the Department from Townsville City Council on the 26 July 2023.</p> <p>The commencement of the Action occurred, following implementation of the OAMP, on 14 August 2023, as evidenced by an email on 25 August 2023 to the Department notifying of commencement of the Action.</p> <p>The Project is compliant with this condition.</p>
8)	If the Southern Black-Throated Finch has not been detected within the Offset Area within 3 years of the date of commencing the OAMP implementation, the approval holder must provide to the department within 20 business days of the 3-year anniversary of the date of commencing the OAMP implementation, a report that includes:	No	Not Applicable	Note, surveys for presence of the Southern Black-throated Finch are to be conducted yearly as per the OAMP and this condition to allow accurate reporting on the 3-year anniversary, however this condition was not assessed as part of this Annual Compliance Report.
	A) A detailed description of the survey method, timing and effort undertaken to detect the Southern Black-Throated Finch in the Offset Area,	No	Not Applicable	Details relevant to this Condition have been included in the Ecological Survey Report, for reporting in year 3, which will be assessed as part of the next 12-month reporting period. This condition was not assessed as part of this Annual Compliance Report.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
	B) An assessment of the likelihood of the Southern Black-Throated Finch being present in the Offset Area, including an analysis of the likely cause(s) for the failure to detect Southern Black-Throated Finch in the Offset Area, and	No	Not Applicable	The assessment of the likelihood of occurrence of the Southern Black-throated Finch being present in the offset area within 3 years of date of commencing OAMP implementation is not applicable to this reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report.
	C) The additional actions the approval holder proposes to undertake to increase the likelihood of detecting Southern Black-Throated Finch in the Offset Area.	No	Not Applicable	<p>Recommendations relating to the increase in survey effort required to increase likelihood of detection are included in the Ecological Survey Report (Kleinfelder, May 2024), which will be assessed as part of the next 12-month reporting period.</p> <p>This condition was not assessed as part of this Annual Compliance Report</p>
9)	Within 60 business days following each 5-year anniversary of the date of commencing OAMP implementation, until the expiry of this approval, the approval holder must submit to the Department and publish on the website for the remainder of the period of the approval, an OAMP Report, which assesses progress towards achieving and maintaining each of the completion criteria . If the Southern Black-Throated Finch has not been detected within the Offset Area within five years of the date of commencing OAMP implementation, the approval holder must inform the Department of this in writing before or when submitting the OAMP Report and note the requirements of conditions 8 and 10. The report must:	No	Not Applicable	<p>Reporting for this Condition is not required for this annual compliance monitoring period; however, details are required in line with this condition to allow accurate reporting on the 5-year anniversary of the OAMP implementation.</p> <p>Table 7.5 of the OAMP details the offset site ecological outcomes 20-year completion criteria (Appendix A). There are interim milestones for Year 1, Year 5, Year 10 and Year 15 (Appendix A).</p> <p>This condition was not assessed as part of this Annual Compliance Report</p>
	A) Detail performance achieved against all interim performance targets in the period since this approval decision, with more detail in respect of the period since the previous (if any) OAMP Report.	No	Not Applicable	<p>The Year 1 performance indicators as detailed in the OAMP are discussed in Table 3.</p> <p>This condition was not assessed as part of this Annual Compliance Report, however details relating to this condition included in this report will be assessed in Year 5 in accordance with this Condition.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
	<p>B) Describe the results and effectiveness of all management actions implemented during the period the subject of the current OAMP Report.</p>	No	Not Applicable	<p>Results and effectiveness of the OAMP management actions are discussed in Table 3, which will be assessed in Year 5 in accordance with this Condition.</p> <p>This condition was not assessed as part of this Annual Compliance Report</p>
	<p>C) Include all monitoring results, including all confirmed sightings of protected matters in a format consistent with the Guidelines for biological survey and mapped data; and</p>	No	Not Applicable	<p>All monitoring results are discussed in Table 3 and in the Ecological Survey Report (Kleinfelder, May 2024) which will be assessed for compliance in the following 12-month reporting period. Details will be assessed in Year 5 in accordance with this Condition. The monitoring data are presented in a format consistent with the guideline.</p> <p>This condition was not assessed as part of this Annual Compliance Report.</p>
	<p>D) Detail any interim performance targets not met, describe all corrective actions taken and evaluate their effectiveness.</p> <p>Once the completion criteria are achieved, the approval holder must ensure the completion criteria for the Offset Area are maintained for the remainder of the life of the approval.</p>	No	Not Applicable	<p>Section 5 details the Corrective Actions Summary, which includes corrective actions and their effectiveness for the Year 1 performance indicators not met, to be assessed in Year 5 in accordance with this Condition.</p> <p>This condition was not assessed as part of this Annual Compliance Report</p>
10)	<p>If the Southern Black-Throated Finch has not been detected within the Offset Area within five years of the date of commencing OAMP implementation and, after the receipt of the first OAMP Report, the Minister writes to the approval holder stating that he/she considers that the OAMP is not likely to achieve the confirmed presence of Southern Black-Throated Finch within the Offset Area, the approval holder must, within 6 months of receiving the Minister's notice, submit to the Department for the Minister's approval an Alternative OAMP. The Alternative OAMP must meet the requirements of the Environmental Offsets Policy and the Environmental Management Plan Guidelines to the satisfaction of the Minister.</p>	No	Not Applicable	<p>This condition was not assessed as part of this Annual Compliance Report as it is not applicable to the reporting period (23 February 2023 to 23 February 2024).</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
11)	Within 60 business days following the 20-year anniversary of the date of commencing OAMP implementation, the approval holder must submit a report to the department which provides evidence that the entire Offset Area has fully achieved and maintained the completion criteria . If any completion criterion has not been achieved within 20 years from the date of the OAMP implementation, the approval holder must provide, within 6 months, additional environmental offsets approved by the Minister in writing consistent with the Environmental Offsets Policy .	No	Not Applicable	This condition was not assessed as part of this Annual Compliance Report as it is not applicable to the reporting period (23 February 2023 to 23 February 2024).

Legal Securing of Environmental Offsets

12)	The approval holder must legally secure the Offset Area within 12 months from the date of the commencement of the action . The OAMP must be attached to the legal mechanism used to legally secure the Offset Area .	Yes	Not Applicable	<p>The Commencement of the Action occurred on 14 August 2023. Legally securing the Offset Area within 12 months from commencement of Action sets a final delivery date of 14 August 2024.</p> <p>A Request for a Declared Area application was drafted on the 29 September 2023, with the application submitted to the Department of Resources (DoR) on 22 January 2024. Declarations, such as the one used, are governed under the State of Queensland legislation, in particular Part 2, Division 4 of the <i>Vegetation Management Act 1999</i>.</p> <p>Attached for the application is details for 21 Lot on Plan parcels, with their total hectare area and the hectare area to be actively managed under the Declared Area included. Townsville City Council is listed as the owner of the 21 parcels, with signatures provided (dated 01/02/2024 by the TCC Chief Financial Officer). Two of the 21 parcels (Lot 103EP1450 and Lot 16EP14) have been granted tenancy to Townsville City Council by the Department of Resources, with Deed of Grant issued 29 June 2023.</p> <p>If the Request for a Declared Area application satisfies all criteria for a declaration, the Department of Resources will provide an offer that includes draft declaration notice, declared area code (if applicable), Property Map of Assessable Vegetation showing the area as Category A and a declared area management plan. Note, a declaration offer has not been offered yet as the application</p>
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Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
				<p>assessment is ongoing, noted via email correspondence between DoR and TCC requesting clarification of details (dated 31 January 2024).</p> <p>This Annual Compliance Report has provided information demonstrating Project partial compliance, as demonstrated through the submitted application to legally secure the area detailed above (noting there is no formal statutory timeframes for a final declaration decision). A full compliance assessment will be applicable within the subsequent 12-month reporting period.</p>
13)	The approval holder must provide written evidence to the department within 10 business days of the Offset Area being legally secured .	Yes	Not Applicable	Upon receipt and finalisation of declaration offer, TCC to provide written evidence to the Department within 10 business days. This condition will require compliance assessment in the preceding 12-month annual compliance reporting period.
14)	The approval holder must ensure the Offset Area , once legally secured , continues to be legally secured for, at least, the remainder of the life of the approval.	Yes	Not Applicable	<p>The declaration, once DoR and Townsville City Council agree on an offer, will take effect from the date the Chief Executive provides a signature on the declaration notice. The Declared Area will take effect on the same date and be applied over the Offset Area in perpetuity.</p> <p>The Project is considered compliant based on the legal pathway undertaken for legally securing the offset area.</p>
<i>Revision of Action Management Plans</i>				
15)	The approval holder may, at any time, apply to the Minister for a variation to the plan approved by the Minister , by submitting an application in accordance with the requirements of section 143A of the EPBC Act . If the Minister approves a revised plan then, from the date specified, the approval holder must implement the revised plan in place of the previous plan .	Yes	Not Applicable	The plans associated with the EPBC Approval (2021/9133) have not been varied during the reporting period.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
<i>Submission and Publication of Plans</i>				
16)	<p>Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date:</p> <p>A) of this approval, if the version of the plan to be implemented is specified in these conditions, or</p> <p>B) the plan is approved by the Minister in writing if the plan requires the approval of the Minister.</p>	Yes	Not Compliant	<p>The OAMP was published on the website 18 April 2023, 38 business days following the date of the EPBC Approval (23 February 2023).</p> <p>The RMP was published 18 July 2023, 83 business days following the date of the EPBC Approval (23 February 2023).</p>
		No	Not Applicable	
17)	The approval holder must keep all published plans required by these conditions on the website until, at least, the expiry date of this approval.	Yes	Compliant	The plans associated with the EPBC Approval (2021/9133) are the Offset Area Management Plan and Rehabilitation Management Plan, which are both published on the website at the following location: Projects - Environmental Approval Documents - Townsville City Council .
18)	The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public.	Yes	Compliant	<p>The OAMP and RMP do not contain any sensitive ecological data.</p> <p>The OAMP has mapped broad suitable habitat and publicly available records for the relevant MNES within the document, which is not considered <i>sensitive ecological data</i>.</p> <p>The RMP is exclusively on rehabilitation of the HPS2 Project site, and as such does not contain <i>sensitive ecological data</i>.</p>
19)	If sensitive ecological data is excluded or redacted from a plan , in accordance with condition 18, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website .	Yes	Compliant	No <i>sensitive ecological data</i> has been excluded or redacted from the OAMP or RMP.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
Part B – Administrative Conditions				
<i>Notification of Date of Commencement of the Action</i>				
20)	The approval holder must notify the department electronically of the date of commencement of the action, within 10 business days of commencement of the Action .	Yes	Compliant	The commencement of the Action occurred on 14 August 2023, with Townsville City Council notifying the department via an email on 25 August 2023.
21)	If the commencement of the Action does not occur within 5 years from the date of this approval, then the approval holder must not commence the Action without the prior written agreement of the Minister .	Yes	Compliant	The date of this approval is 23 February 2023. The commencement of the Action occurred within the 5 years on 14 August 2023.
<i>Compliance Records</i>				
22)	The approval holder must maintain accurate and complete compliance records .	Yes	Compliant	The approval holder has provided accurate and complete compliance records for this 12-month reporting period.
23)	If the department makes a request in writing, the approval holder must provide electronic copies of the compliance records to the department within the timeframes specified in the request.	Yes	Not Applicable	No request from the Department has been made during the reporting period.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
24)	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guidelines for biological survey and mapped data</i> , Commonwealth of Australia 2018, or as otherwise specified by the Minister in writing.	Yes	Compliant.	<p>Monitoring data (including <i>sensitive ecological data</i>), surveys, maps and other spatial data to be prepared ongoing for the life of the approval or otherwise specified in the conditions or plan commitments, as required by this approval includes:</p> <ul style="list-style-type: none"> • Surveys for the Southern Black-throated Finch in the Offset Area. • Surveys and/or monitoring required by the OAMP management actions, including: <ul style="list-style-type: none"> ▪ Monitoring for Bare-rumped Sheathtail Bat as per Table 7.7. <p>Monitoring data, surveys, maps and other spatial data specified above collected in line with Condition 7 and Condition 8 have been prepared in accordance with <i>Guidelines for biological survey and mapped data</i>, Commonwealth of Australia 2018.</p>
25)	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the <i>Guide to providing maps and boundary data for EPBC Act projects</i> , Commonwealth of Australia 2021, or as otherwise specified by the Minister in writing.	Yes	Compliant.	<p>Monitoring data (including <i>sensitive ecological data</i>), surveys, maps and other spatial data to be prepared ongoing for the life of the approval or otherwise specified in the conditions or plan commitments, as required by this approval includes:</p> <ul style="list-style-type: none"> • Surveys for the Southern Black-throated Finch in the Offset Area. • Surveys and/or monitoring required by the OAMP management actions, including: <ul style="list-style-type: none"> ▪ Annual pest animal monitoring required by Management Action 6 of Table 7.3. ▪ Performance indicators for each year of specified interim milestones as per Table 7.5. ▪ Monitoring commitments specified in Table 7.7. <p>Monitoring data, surveys, maps and other spatial data specified above collected in line with Condition 7 and Condition 8 has been prepared in accordance with <i>Guide to providing maps and boundary data for EPBC Act projects</i>, Commonwealth of Australia 2021.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
26)	The approval holder must submit all monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the Department in accordance with the requirements of each plan .	Yes	Not Applicable.	Monitoring data, surveys, maps, other spatial data and all species occurrence records data specified above, collected in line with Condition 7 and Condition 8, is required to be submitted electronically to the Department by TCC. Submission of data collected in line with Condition 7 and Condition 8 will be assessed as part of the next 12-month reporting period.
<i>Annual Compliance Reporting</i>				
27)	The approval holder must prepare a compliance report for each 12-month period from the date of this approval, or as otherwise agreed to in writing by the Minister .	Yes	Compliant	This compliance report is for the first 12-month period following the date of this approval, being 23 February 2023 to the 23 February 2024.
28)	The approval holder must ensure that each compliance report is consistent with the <i>Annual Compliance Report Guidelines, Commonwealth of Australia 2014</i> .	Yes	Compliant	This compliance report is prepared in accordance with the <i>Annual Compliance Report Guidelines, Reporting under the Environment Protection and Biodiversity Act 1999</i> (DCCEEW, 2023), noting this is the current version.
29)	The approval holder must ensure that each compliance report includes:	Yes	Compliant	This compliance report presents details in line with this condition.
	A) Accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents.	Yes	Compliant	Accurate and complete details of compliance and non-compliance with the conditions and associated plans, as well as incidents relating to any event which has the potential to, or does, impact on a protected matter, are contained within this compliance report.
	B) One or more shapefile showing all clearing of any protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared.	Yes	Compliant	Clearing of protected matters between 23 February 2023 and 23 February 2024 were surveyed, with shapefiles produced. Shapefiles and figures are packaged separately with this compliance report.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
	<p>C) All confirmed sightings, injuries, and mortalities of listed threatened species in a format consistent with the Guidelines for biological survey and mapped data.</p>	Yes	Compliant	<p>Sighting, injuries and mortalities of listed threatened species were reviewed via:</p> <ul style="list-style-type: none"> Listed threatened species surveys in the offset area. Details and findings of these surveys are in the Ecological Survey Report (Kleinfelder, May 2024) to be submitted and assessed as part of the next 12-month reporting period. Incidental observations of listed threatened species occurrence in the project area and offset area, provided in the Ecological Survey Report (Kleinfelder, May 2024) to be submitted and assessed as part of the next 12-month reporting period. Project Site pre-clearing surveys and the animal breeding place register completed in line with the High-risk Species Management Program requirements, governed by the Queensland Department of Environment and Science. <p>Findings in accordance with this condition were presented in a format consistent with <i>Guidelines for biological survey and mapped data</i>.</p>
	<p>D) A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.</p>	Yes	Compliant	<p>The plans relating to the EPBC Approval (2021/9133) conditions are the Offset Area Management Plan and Rehabilitation Management Plan.</p> <p>Compliance assessment of the implementation of the Offset Area Management Plan is set out in Table 3.</p> <p>The implementation of the Rehabilitation Management Plan has not been assessed as part of this reporting period as no activities under the plan have commenced.</p>
30)	<p>The approval holder must:</p> <p>A) Publish each compliance report on the website within 60 business days following the end of the 12-month period for which that compliance report is required.</p>	No	Not Applicable	<p>The first Annual Compliance Report (this document) shall be uploaded on the Townsville City Council public accessible Project website in accordance with this condition. As this is the first compliance report for the Project, this condition is not yet applicable.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
	B) Notify the department electronically, within 5 business days of the date of publication that a compliance report has been published on the website .	No	Not Applicable	Council shall notify the Department of publication of the first Annual Compliance Report (this document) in accordance with the stipulated timeframe. As this is the first compliance report for the Project, this condition is not yet applicable.
	C) Provide the weblink for the compliance report in the notification to the Department .	No	Not Applicable	Council shall notify the Department of publication of the first Annual Compliance Report (this document) and include a weblink. As this is the first compliance report for the Project, this condition is not yet applicable
	D) Keep all published compliance reports required by these conditions on the website until the expiry date of this approval.	No	Not Applicable	Townsville City Council are required to keep this compliance report, as well as future compliance reports, on the website until 31 December 2051. This will be assessed for compliance during each future annual compliance reporting. The first Annual Compliance Report (this document) must be published in accordance with timeframes stipulated in Condition 30(a). This condition is not yet applicable.
	E) Exclude or redact sensitive ecological data from compliance reports published on the website or otherwise provided to a member of the public.	Yes	Compliant	The Ecological Survey Report (Kleinfelder, May 2024) to be submitted and assessed as part of the next 12-month reporting period, includes species occurrence records that are considered <i>Sensitive Ecological Data</i> and as such will be excluded or redacted prior to publishing on the website.
	F) If sensitive ecological data is excluded or redacted from the published version, submit the full compliance report to the department within 5 business days of its publication on the website and notify the Department in writing what exclusions and redactions have been made in the version published on the website.	No	Not Applicable.	Council shall submit the full compliance report within 5 business days of its publication on the website and notify the Department in writing what exclusions or redactions have been made in the version published on the website. As this is the first compliance report for the Project, this condition is not yet applicable.



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
<i>Reporting Non-compliance</i>				
31)	The approval holder must notify the Department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/ or actual non-compliance with the conditions or commitments made in a plan .	No	Not Applicable.	This condition was not triggered during this reporting period (23 February 2023 to 23 February 2024), as non-compliances and/or incidents identified within this document were not known until completing this first Annual Compliance Report.
32)	<p>The approval holder must specify in the notification:</p> <p>A) Any condition or commitment made in a plan which has been or may have been breached,</p> <p>B) A short description of the incident and/or potential non-compliance and/or actual non-compliance,</p> <p>C) The location (including co-ordinates), date, and time of the incident and/or potential non-compliance and/or actual non-compliance.</p>	No	Not Applicable.	There was non-compliance found within this reporting period which will be assessed for compliance against this condition in the subsequent 12-month reporting period. TCC have communicated no incidents, potential and/or actual non-compliance occurred within the reporting period.
33)	<p>The approval holder must provide to the Department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder must specify:</p> <p>A) any corrective action or investigation which the approval holder has already taken,</p> <p>B) the potential impacts of the incident and/or non-compliance, and</p> <p>C) the method and timing of any corrective action that will be undertaken by the approval holder.</p>	No	Not Applicable.	<p>This condition was not triggered during this reporting period (23 February 2023 to 23 February 2024), as non-compliances and/or incidents identified within this document were not known until completing this first Annual Compliance Report.</p> <p>There was non-compliance found within this reporting period which will be assessed for compliance against this condition in the subsequent 12-month reporting period. TCC have communicated no incidents, potential and/or actual non-compliance occurred within the reporting period.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
<i>Independent Audit</i>				
34)	The approval holder must ensure that an independent audit of compliance with the conditions is conducted for every five-year period following the commencement of the Action until this approval expires, unless otherwise specified in writing by the Minister .	No	Not Applicable	The commencement of the Action occurred on the 14 August 2023. The first independent audit will not be required until 2028, as such this condition does not apply to this Annual Compliance Report.
35)	<p>For each independent audit, the approval holder must:</p> <p>A) Provide the name and qualifications of the nominated independent auditor, the draft audit criteria, and proposed timeframe for submitting the audit report to the department prior to commencing the independent audit.</p> <p>B) Only commence the independent audit once the nominated independent auditor, audit criteria and timeframe for submitting the audit report have been approved in writing by the department.</p> <p>C) Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department.</p> <p>D) Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report.</p> <p>E) Keep every audit report published on the website until this approval expires.</p>	No	Not Applicable	This condition does not apply to this Annual Compliance Report.
36)	Each audit report must report for the five-year period preceding that audit report.	No	Not Applicable	<p>Note, compliance records for this reporting period must be kept by Townsville City Council to allow auditing as per this condition.</p> <p>This condition does not apply to this Annual Compliance Report.</p>



Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
37)	Each audit report must be completed to the satisfaction of the Minister and be consistent with the <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i> , Commonwealth of Australia 2019.	No	Not Applicable	This condition does not apply to this Annual Compliance Report.

Condition #	Condition	Condition Currently Triggered	Compliance Assessment	Findings including evidence and comments
<i>Completion of the Action</i>				
38)	The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.	No	Not Applicable	This condition was not assessed as part of this Annual Compliance Report as it is not applicable to the reporting period.
39)	Within 20 business days after the completion of the Action , and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data .	No	Not Applicable	Completion of the Action has not occurred within the reporting period (23 February 2023 to 23 February 2024) and as such this condition was not assessed as part of this Annual Compliance Report.

There are two plans associated with the EPBC Act Approval (2021/9133) which are:

- A) the Rehabilitation Management Plan governing rehabilitation of the Project Area, and
- B) the Offset Area Management Plan, which sets out management actions to be undertaken within the offset area for achievement of ecological outcomes/completion criteria that align with the EPBC Act approval and offset significant impacts of the project on MNES.

The Rehabilitation Management Plan has not been triggered for implementation as construction of the Project is ongoing, therefore it will not be assessed for compliance during this reporting period.

The Offset Area Management Plan commenced implementation on 17 July 2023 and as such required compliance assessment of management actions, interim milestones and monitoring commitments during this reporting period. Findings are set in Table 3 below.



Table 3: Compliance Assessment of Implementation of the Offset Area Management Plan

Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
1)	<p><i>Legally securing Offset Area</i></p> <p>The proponent will follow the process outlined in the Guide to Voluntary Declarations under the VM Act (effective 21 June 2019) to obtain the VDec, which is summarized below.</p> <p>A Request for a VDec application is submitted to the Queensland Department of Resources (DoR), including written consent from all registered owners, a description of the purpose of the VDec and how the area meets the criteria of high nature conservation value, and a copy of the Offset Area Management Plan.</p> <p>The DoR will assess the VDec request to ensure it meets all criteria required and to ensure the management plan contains the appropriate elements to ensure the declared area is managed to achieve the desired outcomes.</p> <p>Once the DoR is satisfied that the VDec request meets the criteria for a declaration, a VDec offer will be sent that includes a draft:</p> <ul style="list-style-type: none"> • Declaration notice. • Declared area code (if proposed). • Property Map of Assessable Vegetation (PMAV) showing the area as Category A vegetation, giving it a high level of protection similar to endangered regional ecosystems within a Category B area. • Declared area management plan, including map of the declared area. <p>After the DoR and the proponent agree to the offer, DoR will make the declaration and provide a finalised VDec package. The declaration takes effect from the date the chief executive signs the declaration notice. The offset area management plan has effect under the VDec process from the same date. The VDec will be applied over the offset areas in perpetuity.</p> <p>There are no statutory timeframes for the VDec application and approval process.</p>	Not applicable	Compliant	<p>A Request for a Declared Area application was drafted on the 29 September 2023. Declaration, such as the one used, are governed under the State of Queensland legislation, in particular Part 2, Division 4 of the Vegetation Management Act 1999. The application includes all required material to attach as part of the application including landowner details, description of property (including list of Lot on Plans and map), type of declaration and management plan.</p> <p>Attached for the application is details for 21 Lot on Plan parcels, with their total hectare area and the hectare area to be actively managed under the Declared Area included. Townsville City Council is listed as the owner of the 21 parcels, with signatures provided (dated 01/02/2024).</p> <p>Two of the 21 parcels (Lot 103EP1450 and Lot 16EP14) have been granted tenancy to Townsville City Council by the Department of Resources (DoR), with Deed of Grant issued 29 June 2023.</p> <p>If the Request for a Declared Area application satisfies all criteria for a declaration, the Department of Resources will provide an offer that includes draft declaration notice, declared area code (if applicable), Property Map of Assessable Vegetation showing the area as Category A and a declared area management plan.</p>



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
2	<p><i>Revegetation and Regeneration Management</i></p> <p>Within 6 months of Project approval by DCCEEW, revegetation will commence within nominated areas.</p> <p>The rehabilitation program will be undertaken by a suitably qualified bush regeneration contractor and will include measures to ensure the maintenance and survival of new nesting trees (Southern Black-Throated Finch) and roosting trees (Bare-rumped Sheath-tail Bat) in the offset sites.</p> <p>Within mapped regrowth areas, natural regeneration is preferred to the reconstruction of the vegetation community (i.e., soil improvements, dense planting etc.). Management of these areas will focus on controlling weeds and restricting access from vehicles or stock animals, or other existing significant disturbances, in order to promote further growth and new seedlings. Where natural regeneration is unsuccessful, minor infill planting will be implemented to facilitate recovery.</p> <p>A planting program will be designed for areas where disturbances occur within the offset sites (e.g., non-remnant). The species selected will be site-specific and dependent on localised habitat features and landforms, and consistent with the mapped regional ecosystem or pre-cleared regional ecosystem over the area, with key focus also on providing native grass food species for the Southern Black-Throated Finch.</p> <p>A monitoring and maintenance schedule will be implemented to provide adequate watering, weed control and replacement of tubestock or re-seeding, as necessary.</p>	<p>Refer Appendix A for OAMP Table 7.5 for relevant revegetation and rehabilitation Year 1 performance indicators.</p> <p>Refer Appendix A for OAMP Table 7.7 for relevant revegetation and rehabilitation monitoring frequencies and methodologies.</p>	Not Compliant	<p>Mechanical clearing of weeds was undertaken in July/August 2023 in approximately 4.94ha of the Offset Area, mapped under the OAMP for Natural Regeneration of Native Grasses and Weed Management, Fire Management and Wild Dog Management. Prior to the clearing, TCC engaged a consultant who surveyed the site to report on (report correspondence dated 28 June 2023) vegetation, habitat fauna values including nests, weeds and pest animal occurrences. Based on this information, the Project is compliant with the following points:</p> <ul style="list-style-type: none"> • Some regeneration works, being the mechanical weed clearing activity, occurred within 6 months of Project approval (23 February 2023). • Some rehabilitation has been undertaken by a bush regeneration contractor (WillAvago Vegetation Management and Contracting) in the form of mechanical clearing. The contractor is considered suitably qualified as they have 6 years in the vegetation management industry and extensive project experience in the region with this scope of works. Measures to ensure the maintenance and survival of new nesting trees and roosting trees in the offset site, such as flagging trees to be avoided by clearing, were undertaken during the mechanical clearing. • Area that was mechanically cleared of weeds is mapped as a regrowth area, for which the regeneration management activity (weed control) for that location is compliant. <p>Non-compliance includes:</p> <ul style="list-style-type: none"> • Access is not restricted across the entire site from vehicles or stock. • A planting program has not been designed for areas where disturbances occur within the offset site.



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
				<ul style="list-style-type: none"> Planting within disturbed areas on site has not occurred. Year 1 Performance Indicators for revegetation and regeneration related ecological outcomes have not been met. The monitoring frequency and methodology for revegetation has not occurred. A monitoring and maintenance schedule has not been developed and implemented for designated revegetation areas.
3)	<p>Weed Management</p> <p>Weed management measures will be implemented within 6 months of Project approval by DCCEEW and an ongoing weed control program will commence. Methods for weed control will be site-specific and appropriate to each species, with regards to best practice and relevant guidelines, such as:</p> <ul style="list-style-type: none"> Townsville City Biosecurity Plan 2020 – 2024. Biosecurity Queensland fact sheets. <p>Treatment options should be undertaken using an integrated approach. Methods may involve a combination of physical, chemical and/or biological methods, depending on the species and extent of infestations. Fire management as discussed below should also form part of the overall integrated approach. Some species may require subsequent treatments due to viability of seed banks for longer periods.</p> <p>Prior to any use of mechanical clearing, proposed treatment sites should be examined, and desirable trees and regrowth clearly marked with pink flagging tape to help reduce native vegetation.</p> <p>Appropriate minor use permits from the Commonwealth Australian Pesticides and Veterinary Medicines Authority may apply.</p>	<p>Refer Appendix A for OAMP Table 7.5 for relevant weed management Year 1 performance indicator.</p> <p>Refer Appendix A for OAMP Table 7.7 for relevant weed management monitoring frequency and methodology.</p>	Not Compliant	<p>Mechanical clearing of weeds was undertaken in July/August 2023 in approximately 4.94ha trial area of the Offset Area, mapped under the OAMP for Natural Regeneration of Native Grasses and Weed Management, Fire Management and Wild Dog Management. Prior to the clearing, TCC engaged a consultant who surveyed the site to report on (report correspondence dated 28 June 2023) vegetation, habitat fauna values including nests, weeds and pest animal occurrences. Based on this information, the Project is compliant with the following points:</p> <ul style="list-style-type: none"> Some minor weed management works, being the mechanical weed clearing activity, occurred within 6 months of Project approval (23 February 2023). <p>Non-compliance includes:</p> <ul style="list-style-type: none"> A site-specific and species appropriate weed control program has not been designed or implemented for the offset area. Year 1 Performance Indicators for weed management related ecological outcomes have not been met. The monitoring frequency and methodology for weed management has not occurred.



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
4)	<p><i>Water Source Management</i></p> <p>Within 12 months of Project approval, permanent water sources will be installed, at locations identified in Figure 7.1, in a manner that excludes livestock, macropods, and limits predation by feral cats (water troughs mounted on extended legs above ground level). Feral cats have been observed ambushing birds, including finches, at cattle troughs (NRA 2011).</p> <p>The permanent water source will consist of a windmill and water trough mounted on extended legs, with suitable perches. The provision of artificial permanent water sources will ensure that a water source is accessible within 400 m from any location within the Offset Area.</p>	<p>Refer Appendix A for OAMP Table 7.5 for relevant water source management Year 1 performance indicator.</p>	<p>Not Compliant</p>	<p>Water source has not been installed within 12 months of Project approval, being prior to 23 February 2024. The Year 1 Performance Indicator for supplying a permanent water source has not been met.</p> <p>Communications (email dated 27 October 2023) notes requirement for water source implementation near native grass rich species sites in the Offset Area as an action to be completed.</p>
5)	<p><i>Fire Management</i></p> <p>Within 12 months of Project approval, a Bushfire Management Plan will be developed and implemented. A review of historical fire management efforts and fire history will be undertaken for the proposed Offset Areas and surrounds. Fire management actions will be planned and implemented with the aim of protecting the Offset Area and Southern Black-Throated Finch habitat values and resources.</p> <p>The Queensland Herbarium (2021b) provides fire management guidelines for each of the Queensland Regional Ecosystems that occur within the Offset Area and are described in Table 7.4.</p> <p>Although the Queensland Herbarium (2021b) guidelines are developed for the general maintenance of a regional ecosystem and needs to be considered, they are not tailored to promote and maintain suitable foraging grasses for Southern Black-Throated Finch. Fire management should therefore aim to meet the Habitat Management Guidelines (NRA 2011) performance indicators for managing fire for Southern Black-Throated Finch habitat.</p> <p>A fire management strategy including a program of actions will be developed. Fire risks to the Southern Black-Throated Finch population</p>	<p>Refer Appendix A for OAMP Table 7.5 for relevant fire management Year 1 performance indicator.</p>	<p>Not Compliant</p>	<p>Fire management activities have occurred within the reporting period (23 February 2023 to 23 February 2024) in the form of maintenance of fire-breaks (verified email confirmation of services and invoice dated 6 July 2023).</p> <p>A controlled burn has been planned for 2024 (email correspondence dated 9 April 2024) in consideration of the Black-throated Finch, guided by the Management Plan for Black-throated Finch Habitat at Lake Ross Storage Area, Townsville (NRA Environmental Consultants, 2018). This will need to be assessed as part of the subsequent annual compliance reporting period.</p> <p>Non-compliance:</p> <ul style="list-style-type: none"> • A Bushfire Management Plan for the Offset Area has not been developed and implemented. • The Year 1 Performance Indicator for bushfire control has not been met.



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
	<p>will be managed through the implementation of the following key components:</p> <ul style="list-style-type: none"> • Identification and maintenance of fire breaks using existing fence-lines and track networks, widening fire breaks up to a width of 10 m if necessary. • Scheduled, periodic fuel management via hazard reduction burning. These will be developed and implemented in consultation with DES and Queensland Rural Fire Service with prescribed burns undertaken by suitably qualified and experienced practitioners. <p>Management of vegetation will be generally consistent with guidelines for the local regional ecosystem, with prescribed post-wet (May – June) burns at low intensity at intervals of between 2 and 7 years, with the aim to burn no greater than 20% percent of stands in any one year. This will reduce the potential for uncontrolled high intensity fires that have the capacity to burn out habitat across the entire Offset Area.</p> <p>Fire management actions will be reviewed every five years, at a minimum, in consultation with local Fire Management Authorities and including the DES and Qld Rural Fire Service.</p>			
6)	<p><i>Control of feral animals</i></p> <p>Baseline pest monitoring will be undertaken to identify evidence of feral or unwanted pests and development of a property-wide feral animal management program, specifying techniques (trapping, baiting, shooting) to be utilised and completed within 12 months of commencement of the action. Key priorities will be monitoring and management of cats, rabbits, wild dogs, and pigs.</p> <p>Annual pest monitoring by a suitably qualified pest management contractor, with evidence of pest animals GPS sightings recorded. Where there is evidence of pest animals, targeted trapping, baiting and/or shooting programs will be implemented by an independent suitably qualified pest management contractor. Where annual monitoring does</p>	<p>Refer Appendix A for OAMP Table 7.5 for relevant feral animal management Year 1 performance indicator.</p> <p>Refer Appendix A for OAMP Table</p>	Compliant	<p>Baseline pest monitoring and development of a property-wide feral animal management program is due within 12 months of commencement of action, therefore due prior to 14 August 2024.</p> <p>Kleinfelder was contracted to undertake pest monitoring via setting of unattended camera traps and spotlighting in the offset area, which will serve as the baseline monitoring to inform the feral animal management program.</p> <p>Participation with local land manager, the Ranger in Charge for Townsville Water, has occurred. Details of feral animal management conducted in the reporting period (23 February 2023 to 23 February 2024) include:</p>



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
	<p>not identify any feral or pest species monitoring will be reduced to two yearly.</p> <p>Where practical and appropriate, participate cooperatively in pest management planning and implementation with local land managers (government departments, local governments, and utility providers) to ensure effective pest management in the locality of the Offset Area.</p> <p>As discussed in Management Action 4 (water source management), permanent water sources will be provided within LRSA. The permanent water source will consist of a bore and windmill and water trough mounted on extended legs, with suitable perches. The trough mounted on extended legs will prevent predation by cats and will prevent other feral animals from utilising the water source.</p>	7.7 for relevant feral animal management monitoring frequency and methodology.		<ul style="list-style-type: none"> Feral dog and pig aerial shooting was conducted on two separate occasions of 23rd October 2023 and 3rd November 2023 within the offset area and general locality (dated email confirming quote helicopter/animal control company 10 October 2023, invoices for completed aerial works dated 8 November 2023 and pers. comms. Bradley Drinkwater- Townsville Water Ranger in Charge). The aerial shooting occurred in areas designated in the OAMP for feral pig and dog control. <p>Non-compliance:</p> <ul style="list-style-type: none"> A water source designed to restrict use by feral animals has not been installed as per Management Action 4. <p>This action is currently compliant and will be assessed for full compliance within the next 12-month reporting period, to ensure a feral animal management program with specific techniques according to the species identified during baseline monitoring, is developed and implemented.</p> <p>Table 7.5 of the OAMP has the development and implementation of the feral animal control program as a performance indicator for Year 1, which is considered to be within 1 year of date of start of commencement of action.</p> <p>To note, TCC have committed to development of a site-specific feral animal management plan by 30 September 2024.</p>
7)	<p><i>Reduction in cattle densities</i></p> <p>Cattle densities will be reduced from the Offset Area and fencing will be secured, where required, to prevent cattle entering the Offset Area from adjoining properties. Areas with high localised grazing impacts will be rehabilitated to re-establish native food grasses for the Southern Black-Throated Finch, and reinstatement of the native ground layer will require</p>	Not applicable	Compliant	Townsville City Council have ownership of the land within the Offset Area and removed stock entirely from site. No graziers have any agistment agreements for land within the Offset Area. Fencing and gates are present in majority of the Offset Area in good condition, however some areas of broken fence were observed particularly waterway crossing areas.



Action #	Management Action	Relevant Interim Milestones and Monitoring	Compliance Assessment	Findings including evidence and comments
	a holistic management combining management of weeds, fire, and existing pasture grasses.			Currently there are stock throughout the Offset Area due to broken fences. Pers. comms from the Townsville Water land manager for the area noted the owner of the stock from the neighbouring property has been provided with notifications to remove the stock as soon as possible with the local law team also involved (detailed in email correspondence 11 April 2024).



4 NEW ENVIRONMENTAL RISKS

No new environmental risks have been identified within the current reporting period (23 February 2023 to 23 February 2024) for the Project. Project environmental risks are managed through Council's Integrated Environmental Management System Framework, Environmental Policy and the Project's management plans. Details of these project specific plans are as follows.

- Construction Environmental Management Plan (EMP). Delivery and implementation of this plan is facilitated by the construction contractor and governed for effective use by the Council. This Plan is available on Council's website and on-site for all personnel involved in the Project, which includes key aspects such as:
 - Environmental roles and responsibilities,
 - Implementation of the CEMP through awareness training, specific inductions, compliance auditing, and incident, non-compliance and complaint reporting, and
 - Key environmental factors on site including their specific management and controls.

- Erosion and Sediment Control Plan (ESCP). This plan was developed by a Certified Professional in Erosion and Sediment Control in accordance with Best Practice Erosion and Sediment Control guidelines for Australia. This plan sets out:
 - Statutory requirements,
 - Project site description and values, and
 - Erosion hazard assessment and soil loss equation for effective recommendation of erosion and sediment controls, including monitoring and maintenance requirements.

- High-risk Species Management Plan. This plan was developed and approved by the Queensland Department of Environment and Science, for disturbance to breeding places of special least concern, vulnerable and endangered species on site, specifically:
 - Black-throated Finch (Southern)
 - Squatter Pigeon (Southern)
 - Bare-rumped Sheathtail Bat
 - Eastern Osprey
 - Short-beaked Echidna
 - Colonial breeding bats (several species).



5 CORRECTIVE ACTIONS SUMMARY

Table 4: Corrective Actions Summary for Non-Compliance

Condition / Action	Summary and Recommended Corrective Actions	Potential Impacts	Recommended Timeframe
<p>1. The approval holder must not clear outside the Project Area</p>	<p>A mapping discrepancy between the approved Project Area (kmz file) and the survey data clearing extent (.dwg file) shows <i>clearing outside the Project Area</i> in several locations. However, the clearing undertaken within this reporting period has not exceeded the total approved Project Area or the approved thresholds for MNES habitat.</p> <p>Overall, a total 14.474ha of the approved Project Area footprint has not been disturbed in the areas cleared during the reporting period. Conversely, a total of only 1.738ha of the clearing survey data occurs outside of the approved Project Area (locations shown in Maps 1-7, Appendix B).</p> <p>One key location (Map 3 in Appendix B) was separated and detailed below as it accounts for a significant amount of the total hectares cleared outside of the approved Project Area:</p> <ul style="list-style-type: none"> • An approved access road off Ayr-Ravenswood Road (Map 3, Appendix B). A mapping exercise undertaken gave the following figures: <ul style="list-style-type: none"> ▪ Approved Project Area: 1.98ha ▪ Cleared Survey Extent: 2.759ha ▪ Approved Project Area not impacted: 0.556ha ▪ Area impacted outside of Approved Project Area: 1.401ha <p>Note, TCC have provided justification for this location noting the impact/clearing outside of the approved Project Area is the result of a misalignment between the physical position of the road and the approved Project Area polygon (as evidenced by road existing prior to the Project commencing). TCC noted no additional clearing was undertaken in this location, only reconstruction of the existing track and rec-construction via excavation where unsuitable material was found.</p> <p>The discrepancy illustrated in Map 7 is an amendment to the approved Project Area footprint that was applied for through DCCEWW 9 February 2024. The amendment has not yet been approved but is being followed up by TCC.</p> <p>A recommended corrective action is to ensure the remaining clearing is completed within the approved Project Area footprint and does not exceed the remaining 45.997ha of approved Project Area. A quality review is recommended to be completed regularly throughout the remaining period of clearing to ensure the total Project Area and MNES habitat clearing thresholds are not exceeded.</p>	<p>Clearing outside of the approved Project Area may result in impacts to MNES habitat beyond the approved clearing limit thresholds.</p>	<p>Throughout the remaining period of clearing / disturbance.</p>



Condition / Action	Summary and Recommended Corrective Actions	Potential Impacts	Recommended Timeframe
	<p>TCC have noted that non-conformances for the various locations included in Appendix B will be issued to the clearing contractor for these discrepancies and will seek an amendment to the approved Project Area footprint that aligns with the cleared survey extents.</p>		
<p>12. The approval holder must legally secure the Offset Area within 12 months from the date of the commencement of the action. The OAMP must be attached to the legal mechanism used to legally secure the Offset Area.</p> <p>Management Action 1. Legally securing offset area.</p>	<p>The OAMP includes two parcels (Lot 1 RP725617 and Lot 22 EP1450) in Table 2.6 listing them as part of the Offset Area and owned by Townsville City Council. However, neither of these parcels are accounted for in the Request for a Declared Area application or Deed of Grant notification provided by Department of Resources.</p> <p>It is recommended TCC remove these two lot parcels from Table 2.6 from the OAMP, to remove future potential compliance issues. The amended OAMP will then have to replace the current OAMP on the Project website. The original submission date noted in Table 2 under Condition 16a will still be applicable for the OAMP submission.</p> <p>This amendment to the OAMP will not trigger condition 15 (revision of action management plans) as there is no significant variation to the Offset Area or its associated management plan. These two parcels were likely only included due to a mapping exercise illustrating these two Lot parcels share a boundary with a lot included within the Offset Area.</p>	<p>No potential impacts as this is not an incident, or potential or actual non-compliance.</p>	<p>As soon as possible.</p>
<p>16. Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date:</p> <p>a. of this approval, if the version of the plan to be implemented is specified in these conditions</p>	<p>No corrective actions are recommended as the OAMP and RMP are now available on the TCC website: Projects - Environmental Approval Documents - Townsville City Council.</p>	<p>No potential impacts are expected from the non-compliance with this condition.</p>	<p>No timeframes proposed.</p>



Condition / Action	Summary and Recommended Corrective Actions	Potential Impacts	Recommended Timeframe
<p>Management Action 2. Revegetation and regeneration management.</p>	<p>Non-compliance includes:</p> <ul style="list-style-type: none"> • Access is not restricted across the entire site from vehicles or stock. • A planting program has not been designed for areas where disturbances occur within the offset site. Year 1 Performance Indicators for revegetation and regeneration related ecological outcomes have not been met. The monitoring frequency and methodology for revegetation has not occurred. • Planting within disturbed areas on site has not occurred. <p>It is recommended Townsville City Council remove stock from the Offset Area and repair fences where stock may potentially be entering the site.</p> <p>It is recommended Townsville City Council develop a planting program for the disturbed sites (non-remnant) within the Offset Area. The implementation of this planting program is recommended to occur after significantly more weed and feral animal control efforts have been undertaken, as the success of any planted tube stock or seeding of grasses will likely be significantly low due to being destroyed, eaten or out-competed by fast growing invasive species.</p>	<p>Access by stock is impacting on the Offset Area both in current suitable habitat for MNES species, and within the disturbed areas due to the spreading of weeds and reduction of foraging grass availability.</p> <p>The presence of weeds and feral animals on site significantly impacts on the condition of available habitat, reducing foraging and breeding resources for MNES species.</p>	<p>As soon as possible.</p> <p>TCC have committed to development of a site-specific revegetation and regeneration plan by 30 June 2025.</p>
<p>Management Action 3. Weed Management</p>	<p>Non-compliance includes:</p> <ul style="list-style-type: none"> • A site-specific and species appropriate weed control program has not been designed or implemented for the offset area. • Year 1 Performance Indicators for weed management related ecological outcomes have not been met. The monitoring frequency and methodology for weed management has not occurred. • It is recommended Townsville City Council develop a weed control program that considers the OAMP ecological outcomes and incorporates monitoring methodology as recommended by Section 7.4 of the OAMP (Appendix A). 	<p>The presence of weeds on site significantly impacts on the condition of available habitat, reducing foraging and breeding resources for MNES species.</p>	<p>As soon as possible.</p> <p>TCC have committed to development of a site-specific weed management plan by 30 September 2024.</p>



Condition / Action	Summary and Recommended Corrective Actions	Potential Impacts	Recommended Timeframe
Management Action 4. Water Source Management	It is recommended Townsville City Council install a predator restrictive designed water source.	In the Dry Season, Southern Black-throated Finch may not be able to utilise all potential habitat areas within the Offset Area due to the lack of a permanent water source.	As soon as possible. TCC have committed to installation of a permanent water source by 31 October 2025.
Management Action 5. Fire Management	<p>A Bushfire Management Plan for the Offset Area has not been developed and implemented. The Year 1 Performance Indicator for bushfire control has not been met (Appendix A).</p> <p>It is recommended Townsville City Council develop a Bushfire Management Plan in line with the proposed actions and guidelines listed in the OAMP.</p> <p>It is recommended Townsville City Council undertake the planned controlled burn scheduled for 2024 (email correspondence dated 9 April 2024), in consideration of the <i>Management Plan for Black-throated Finch Habitat at Lake Ross Storage Area, Townsville</i> (NRA Environmental Consultants, 2018).</p>	The presence of high fuel loads and a lack of routine controlled burns in the Offset Area could result in a more catastrophic fire for the site, severely impacting the current available habitat and potentially resulting in MNES species mortalities.	As soon as possible prior to Dry season (to allow for the 'cool' burn). TCC have committed to development of a site-specific fire management plan by 31 July 2024.

* Approved Project Area's which were not a part of the clearing survey data (provided by the construction contractor).

** Areas supplied as a part of the clearing survey data (provided by the construction contractor) that were outside the approved Project Area.



APPENDIX A OAMP MANAGEMENT ACTION MILESTONES AND MONITORING DETAILS

Table 7.3 Proposed management and mitigation measures for the relevant MNES

Justification	Proposed action
Management Action 1 – Legally securing offset area	
<p>It is proposed to use a voluntary declaration (VDec) to secure the offset area. A VDec is an option under the VM Act that provides a simplified, streamlined process for landholders to voluntarily protect areas of native vegetation not otherwise protected by the VM Act. A VDec can be used to protect areas of high nature conservation values (or areas vulnerable to land degradation), and to secure areas of land to satisfy statutory offset requirements.</p>	<p>The proponent will follow the process outlined in the Guide to Voluntary Declarations under the VM Act (effective 21 June 2019) to obtain the VDec, which is summarised below.</p> <p>A Request for a voluntary declaration application is submitted to the Queensland Department of Resources (DoR), including written consent from all registered owners, a description of the purpose of the VDec and how the area meets the criteria of high nature conservation value, and a copy of the offset area management plan.</p> <p>The DoR will assess the VDec request to ensure it meets all criteria required and to ensure the management plan contains the appropriate elements to ensure the declared area is managed to achieve the desired outcomes.</p> <p>Once the DoR is satisfied that the VDec request meets the criteria for a declaration, a VDec offer will be sent that includes a draft:</p> <ul style="list-style-type: none"> – Declaration notice. – Declared area code (if proposed). – Property Map of Assessable Vegetation (PMAV) showing the area as Category A vegetation, giving it a high level of protection similar to endangered regional ecosystems within a Category B area. – Declared area management plan, including map of the declared area. <p>After the DoR and the proponent agree to the offer, DoR will make the declaration and provide a finalised VDec package. The declaration takes effect from the date the chief executive signs the declaration notice. The offset area management plan has effect under the VDec process from the same date. The VDec will be applied over the offset areas in perpetuity.</p> <p>There are no statutory timeframes for the VDec application and approval process.</p>
Management Action 2 - Revegetation and regeneration management	
<p>Southern black-throated finch</p> <p>Southern black-throated finch habitat is broadly defined as grassy open woodlands and forests, typically dominated by <i>Eucalyptus</i>, <i>Acacia</i> and <i>Melaleuca</i>, especially on alluvium (river and creek flats). Nests are generally constructed in open areas with a low species diversity, a sparse shrub layer and low tree abundance. Nests are commonly constructed on a horizontal fork or within the twiggy branches of <i>Eucalyptus</i> spp., and occasionally in a hollow limb of a tree, termite mound, among grass, in old babbler nests and at the base of raptor nests (Higgins et al. 2006). In two heavily studied areas on the Townsville Coastal Plain, southern black-throated finch preferred <i>E. platyphylla</i> and <i>Melaleuca</i> spp., for nesting purposes (Rechetelo 2015).</p>	<p>Within 6 months of Project approval by DCCEEW, revegetation will commence within nominated areas.</p> <p>The rehabilitation program will be undertaken by a suitably qualified bush regeneration contractor and will include measures to ensure the maintenance and survival of new nesting (southern black-throated finch) and roosting (bare-rumped sheathtail bat) trees in the offset areas.</p> <p>Within mapped regrowth areas, natural regeneration is preferred to the reconstruction of the vegetation community (i.e. soil improvements, dense planting etc). Management of these areas will focus on controlling weeds and restricting access from vehicles or stock animals, or other existing significant disturbances, in order to promote further growth</p>

Justification	Proposed action
<p>The Project is anticipated to result in the loss of 96.34 ha (in aggregate) of potential habitat critical to the survival of the species. This comprises 82.14 ha of nesting and foraging habitat 82.14 ha and 14.19 ha of foraging only habitat 14.19 ha.</p> <p>The proposed offset area is subject to disturbance including some historical clearing (NRA 2011). Clearing and fragmentation of woodland is listed in the Significant Impact Guidelines as a major threat.</p> <p>Rehabilitation and revegetation is a key action that will improve BTF habitat values within the offset area, while also expanding habitat values in areas that have been subject to weed infestations. Rehabilitation aims to reinstate existing degraded areas and areas exposed as a result of management action 3 (weed management), with southern black-throated finch nesting trees consistent with the mapped regional ecosystem.</p> <p>The proposed offset area has been chosen as it contains remnant and regrowth <i>E. platyphylla</i> woodland (nesting habitat) and non-remnant vegetation (foraging habitat). The active revegetation (including the planting of tubestock) of non-remnant areas within the offset area has the potential to increase population by increasing the availability of nesting sites, and seeding the ground layer with native food grass species for the southern black-throated finch will increase the quality and abundance of food resources.</p>	<p>and new seedlings. Where natural regeneration is unsuccessful minor infill planting will be implemented to facilitate recovery.</p> <p>A planting program will be designed for areas where disturbances occur within the offset sites (e.g. non-remnant). The species selected will be site-specific and dependent on localised habitat features and landforms and consistent with the mapped regional ecosystem or pre-clear regional ecosystem over the area, with key focus also on providing native grass food species for the southern black-throated finch.</p> <p>A monitoring and maintenance schedule will be implemented to provide adequate watering, weed control and replacement of tubestock or re-seeding, as necessary.</p>
<p>Koala</p> <p>The koala has a specialist diet, feeding on the leaves of select species of <i>Eucalyptus</i>, <i>Lophostemon</i>, <i>Corymbia</i>, <i>Angophora</i> and occasionally <i>Melaleuca</i> and <i>Leptospermum</i> (Martin and Handasyde 1999; Moore and Foley 2000). Consequently, koalas are reliant on access to stands of forest and woodland that support those key food-tree species. Shelter (non-food) tree species are also used to rest and assist in thermoregulation (Crowther et al. 2013; Briscoe et al. 2015).</p> <p>The Project is anticipated to result in loss of 134.2 ha of habitat that constitutes habitat critical to the survival of the species, comprising 74.33 ha of forest or woodland and 48.25 ha of non-remnant (e.g. road-side, paddock trees) vegetation.</p> <p>Rehabilitation and revegetation is a key action that will improve koala habitat values within the offset area. Specifically, reinstating the natural RE communities has the potential to increase habitat connectivity and increase the availability of key resources including food and shelter trees for the koala.</p>	
<p>Bare-rump sheath-tail bat</p> <p>The Commonwealth listing advice identifies habitat as including mostly in lowland areas, typically in a range of woodland, forest and open environments (Schulz and Thomson 2007; Reardon et al. 2010; Dennis 2012). In north Queensland, the species occurs in lowland open woodland areas dominated by <i>Eucalyptus platyphylla</i> (poplar gum) (Compton and Johnson 1983). The species has been recorded using large, deep hollows for roosting and breeding in species <i>E. platyphylla</i>, <i>E. miniata</i>, <i>E. tetradonta</i> and <i>Melaleuca leucadendra</i> (TSSC 2016). Information on the dimensions of known roosting hollows is presented in the</p>	

Justification	Proposed action
<p>National Recovery Plan for the bare-rumped sheathtail bat (Schulz and Thomson 2007) and Australian bats (Churchill 1998), with all hollows ranging in size between 18 cm and 29 cm diameter. There are only two records in the last two decades, both from north-eastern Queensland (DAWE 2022A).</p> <p>The Project is anticipated to result in the following impact to bare-rumped sheathtail bat habitat:</p> <ul style="list-style-type: none"> – Loss of 92.23 ha (in aggregate), comprising: <ul style="list-style-type: none"> • Foraging and roosting habitat 36.44 ha • Foraging only habitat 49.11 ha • Roosting only habitat 6.68 ha – Direct loss of 10 large hollow-bearing trees and 27 moderate <i>E. platyphylla</i> hollow-bearing trees which represent potential roosting habitat for the bare-rumped sheathtail bat. – The loss of 325 small hollow-bearing <i>E. platyphylla</i> trees represents a loss of future potential roosting trees for the species. <p>Small hollows with narrow entrances take approximately 100 years to form. Hollows of a medium size will take around 200 years to form, and larger and deeper hollows can take a lot longer (Mackowski 1984; Menkorst 1984; and Scotts 1991). Vegetation clearing is listed as a major threat in the Conservation Advice for bare-rumped sheathtail bat.</p> <p>Rehabilitation and revegetation is a key action that will improve bare-rumped sheathtail bat habitat values within the offset area, while also expanding habitat values in areas that have been subject to weed infestations. Rehabilitation aims to reinstate existing degraded areas and areas exposed as a result of management action 3 (weed management), with future roosting trees consistent with the mapped regional ecosystem.</p> <p>The proposed offset area has been chosen as it contains remnant <i>E. platyphylla</i> woodland which contains roosting habitat (moderate to large hollows). The area also contains regrowth <i>E. platyphylla</i> representing future roosting habitat and non-remnant vegetation (foraging habitat). The active revegetation (including the planting of tubestock) of non-remnant areas within the offset area has the potential to increase population by increasing the availability of roosting sites.</p>	
Management Action 3 - Weed management	
<p>The vegetation communities understorey within the offset area were observed to be in an altered condition due to weed infestation. Many parts of the site contain a mid-dense to dense shrub layer of chinee apple (<i>Ziziphus mauritiana</i>) (listed under the <i>Biosecurity Act 2014</i>).</p> <p>Under normal conditions these communities would have a grassy woodland to open woodland structure suitable for a range of granivorous birds. These species commonly forage on grass seeds in open areas; however, the closure of the understorey has substantially reduced this habitat from both a structural</p>	<p>Weed management measures will be implemented within 6 months of Project approval by DCCEEW and an ongoing weed control program will commence. Methods for weed control will be site-specific and appropriate to each species, with regard to best practice and relevant guidelines, such as:</p> <ul style="list-style-type: none"> – Townsville City Biosecurity Plan 2020 – 2024. – Biosecurity Queensland fact sheets. <p>Treatment options should be undertaken using an integrated approach. Methods may involve a combination of physical, chemical and/or biological methods, depending on the</p>

Justification	Proposed action
<p>perspective and through competition with the native grass food source. Southern black-throated finch tend to avoid sites with high shrub cover and abundance, particular chinee apple (<i>Ziziphus mauritiana</i>), lantana (<i>Lantana camara</i>) and Townsville wattle (<i>Acacia leptostachya</i>) (Rechetelo 2015). Chinee apple also limits the application of fire as a management tool leading to vegetation thickening, which also alters the vegetation community structure. The closure of the understorey also suppresses the recruitment of native canopy species.</p> <p>Stylosanthes* (an introduced pasture legume) was also common within the ground layer strata, whereby potentially suppressing southern black-throated finch foraging grasses. Fire management has been recommended to maintain the balance between Stylosanthes* and palatable grass species in improved pastures (Partridge et al. 1996). Fire management is further discussed below.</p> <p>The field investigations identified the following weed species that are likely to lead to the degradation of southern black-throated finch habitat:</p> <p>Woody weeds</p> <ul style="list-style-type: none"> - Chinee apple (<i>Ziziphus mauritiana</i>) - Lantana (<i>Lantana camara</i>) - Townsville wattle (<i>Acacia leptostachya</i>) - Rubber vine (<i>Cryptostegia grandiflora</i>) - Parkinsonia (<i>Parkinsonia aculeata</i>) - Prickly Acacia (<i>Vachellia nilotica</i>; syn. <i>Acacia nilotica</i>) - Siam Weed (<i>Chromolaena odorata</i>). <p>Exotic forbs</p> <ul style="list-style-type: none"> - Snakeweed (<i>Stachytarpheta jamaicensis</i>) - Stylosanthes spp. Bellyache bush (<i>Jatropha gossypifolia</i>) - Horehound (<i>Mesosphaerum</i> (syn. <i>Hyptis</i>) <i>suaveolens</i>) - Sidas (mostly <i>Sida acuta</i>) - Broad-leaf Tea-tree - Quinine (<i>Petalostigma pubescens</i>). <p>Exotic grasses</p> <ul style="list-style-type: none"> - Sheda Grass (<i>Dichanthium annulatum</i>) - Parra Grass (<i>Urochloa mutica</i>) - Guinea Grass (<i>Megathyrsus maximus</i>) - Rhodes Grass (<i>Chloris gayana</i>) - Grader Grass (<i>Themeda quadrivalis</i>). <p>Invasion of habitat by exotic weed species, including exotic grasses is listed in the National Recovery Plan as a major threat and the Habitat Management Guidelines (NRA 2011) recommend the control of lantana* and chinee apple*.</p>	<p>species and extent of infestations. Fire management as discussed below should also form part of the overall integrated approach. Some species may require subsequent treatments due to viability of seed banks for longer periods.</p> <p>Prior to any use of mechanical clearing, proposed treatment sites should be examined, and desirable trees and regrowth clearly marked with pink flagging tape to help reduce native vegetation.</p> <p>Appropriate minor use permits from the Commonwealth Australian Pesticides and Veterinary Medicines Authority may apply.</p>

Justification	Proposed action
<p>To improve habitat value the removal and control of chinese apple and other invasive weeds is required to return the vegetation community to an open woodland structure with a sparse shrub stratum as recommended by NRA (2011).</p>	
<p>Management Action 4 - Water source management</p>	
<p>The provision of drinking sites will enhance the value of habitats for the southern black-throated finch and help reduce the impact of drought on the koala.</p> <p>Habitat critical to the survival of the species has not been formally defined in the National Recovery Plan for the southern black-throated finch (Black-throated finch Recovery Team 2007) or the Referral guidelines for the Black-throated finch (southern) (DEWHA 2009). Habitat critical to the survival of the species is likely to include nesting habitat. In the Townsville region the southern black-throated finch typically nests within 400 m of a water source and is rarely seen more than 1 km from permanent water during the breeding season (NRA 2006). Nesting sites also need to be near foraging habitat as observations suggest that during the breeding season the subspecies travels smaller distances than it does during the dry season (Mitchell 1996; NRA 2006; NRA 2007). The presence of suitable trees close to seasonal water sources is critical for the southern black-throated finch.</p> <p>Performance indicators for water supply detailed in the habitat management guidelines (NRA 2011) include:</p> <ul style="list-style-type: none"> – Southern black-throated finch using water sources. – Water sources are located within 200 m of and not more than 400 m from foraging habitat and near woody vegetation. <p>Compromised water sources due to drought and intense grazing regimes is listed in the Significant Impact Guidelines as a major threat.</p> <p>A permanent water source which contains water during an average wet season is located on the lower reaches of Landsdowne Creek, located greater than 700 m to the north-east of the offset area eastern extent. A section of Landsdowne Creek is located within the offset site (21 on E124186 and 2 on RP725617) and flows parallel to its eastern boundary. Within this reach Lansdowne Creek is considered semi-permanent. There are a number of farm dams located to the south of the offset area's southern extent which are considered permanent, the closest being within 200 m.</p> <p>Although one permanent dam is located within 400 m from the proposed offset area's south-eastern extent (Figure 2.3), due to the size of the proposed offset area, the lack of permanent water sources may restrict southern black-throated finch utilisation of the area. NRA (2011) suggests that water sources can be used to manipulate the distribution of southern black-throated finch within the landscape, in which species have been known to drink from artificial water sources (e.g. cattle troughs) if suitable perches are available. The installation of artificial permanent water points are proposed to ensure the distribution of southern black-throated finch is not restricted within the offset area.</p>	<p>Within 12 months of Project approval, permanent water sources will be installed at locations identified in Figure 7.1 in a manner that excludes livestock, macropods and limits predation by feral cats (water troughs mounted on extended legs above ground level). Feral cats have been observed ambushing birds, including finches, at cattle troughs (NRA 2011).</p> <p>The permanent water source will consist of a windmill and water trough mounted on extended legs, with suitable perches. The provision of artificial permanent water sources will ensure that a water source is accessible within 400 m from any location within the offset area.</p>

Justification	Proposed action
Management Action 5 - Fire management	
<p>Inappropriate fire regimes that lead to infrequent hot dry fires threaten roost resource availability for the bare-rumped sheathtail bat and increase the risk of uncontrolled wildfires that are a threat to the koala, bare-rumped sheathtail bat and southern black-throated finch.</p> <p>NRA (2018) suggested that historical fire regimes on LRSA are likely to be unfavourable for southern black-throated finch. The historical fire regime has probably contributed to the proliferation of certain weedy grasses and forbs that are unfavourable for southern black-throated finch (NRA 2018). The National Recovery Plan has identified the alteration of habitat by changes in fire regime as a major threat to southern black-throated finch.</p> <p>Fire has been infrequent in the south of the LRSA (0 to 1 fire since 2000). In other areas of the LRSA fire has been more frequent, whereby predominantly occurring during periods of relatively low rainfall and warm or hot weather (NRA 2018). Fires that occur at times of low soil moisture disadvantage native grasses and favour forbs (NRA 2018). Additionally, hot fires coinciding with these conditions can result in temporary broad-scale loss of plant biomass, thereby creating conditions favourable for weed ingress and homogenising grass flowering/seeding timeframes (NRA 2018). When repeated over the medium to long term, these conditions will likely disadvantage southern black-throated finch (NRA 2018).</p> <p>Stylosanthes* (an introduced pasture legume) which was commonly observed within the ground layer of the offset area, can out compete potential southern black-throated finch foraging grasses. Fire has been recommended to maintain the balance between Stylosanthes* and palatable grass species in improved pastures (Partridge et al. 1996).</p> <p>Consideration should also be given to where grader grass* and thatch grass* is present. Both species can expand rapidly in response to ground disturbance caused by fire (NRA 2018).</p> <p>Management should aim to prevent extensive and uncontrolled fires. This is especially an issue in areas that have high fuel loads, such as lands not grazed by cattle (NRA 2011).</p> <p>Recommendations for managing southern black-throated finch habitats with fire are listed in the Habitat Management Guidelines (NRA 2011) and include:</p> <ul style="list-style-type: none"> - Maintain landscapes that have variety in burning regimes, e.g. variety in the timing and intensity of fires and the areas burnt each year. This can be achieved by adopting a fire regime that involves burning fire breaks earlier in the season then following up with early dry season (May to July) patch burns (cool burns) in discrete areas (i.e. don't burn entire landscapes at once). Areas should be left unburnt for 5 or more years apart from fire breaks which may require more frequent treatment. - Southern black-throated finch will most likely benefit from landscapes that have a mosaic of fire histories (spatially and temporally). 	<p>Within 12 months of Project approval, a Bushfire Management Plan will be developed and implemented. A review of historical fire management efforts and fire history will be undertaken for the proposed offset areas and surrounds. Fire management actions will be planned and implemented with the aim of protecting the offset area and southern black-throated finch habitat values and resources.</p> <p>The Queensland Herbarium (2021b) provides fire management guidelines for each of the Queensland Regional Ecosystems that occur within the offset area and are described in Table 7.4.</p> <p>Although the Queensland Herbarium (2021b) guidelines are developed for the general maintenance of a regional ecosystem and needs to be considered, they are not tailored to promote and maintain suitable foraging grasses for southern black-throated finch. Fire management should therefore aim to meet the Habitat Management Guidelines (NRA 2011) performance indicators for managing fire for southern black-throated finch habitat.</p> <p>A fire management strategy including a program of actions will be developed. Fire risks to the southern black-throated finch population will be managed through the implementation of the following key components:</p> <ul style="list-style-type: none"> - Identification and maintenance of fire breaks using existing fence-lines and track networks, widening fire breaks up to a width of 10 m if necessary. - Scheduled, periodic fuel management via hazard reduction burning. These will be developed and implemented in consultation with DES and Queensland Rural Fire Service with prescribed burns undertaken by suitably qualified and experienced practitioners. <p>Management of vegetation will be generally consistent with guidelines for the local regional ecosystem, with prescribed post wet (May – June) burns at low intensity at intervals of between 2 and 7 years, with the aim to burn at no greater than 20% percent of stands in any one year. This will reduce the potential for uncontrolled high intensity fires that have the capacity to burn out habitat across the entire offset area.</p> <p>Fire management actions will be reviewed every five years, at a minimum, in consultation with local Fire Management Authorities and including the DES and Qld Rural Fire Service.</p>

Justification	Proposed action
<ul style="list-style-type: none"> – Protect dry season southern black-throated finch habitat, especially grasslands near to water, from late dry season fires. This is particularly important during dry years. Also protect grasslands near water sources during the southern black-throated finch breeding season when there is no alternative water or habitat nearby. – Burn when there is good soil moisture. Spell grasslands after fire to reduce woody vegetation thickening and assist in the recovery of native perennial grasses. – Wet season fires (January to March) should be avoided due to impacts on Cockatoo grass. – A fire regime recommended by the Queensland Herbarium (2021b) for REs 11.3.12, 11.3.25 and 11.3.35 is suitable for most southern black-throated finch habitats on LRSA. Igniting fires under appropriate weather conditions is essential for achieving these outcomes. 	
Management Action 6 – Control of feral animals	
<p>The National Recovery Plan has identified following as major threats to southern black-throated finch:</p> <ul style="list-style-type: none"> – Degradation of habitat by domestic stock and rabbits, including alterations to fuel load, vegetation structure and wet season food availability. – Predation by introduced predators. <p>Feral animals that pose a threat to southern black-throated finch include feral pigs (<i>Sus scrofa</i>), feral rabbits/hares (<i>Oryctolagus cuniculus</i> / <i>Lepus europaeus</i>) and feral cats (<i>Felis catus</i>) (NRA 2018). The feral animal species feral pigs* (<i>Sus scrofa</i>) and wild dogs (<i>Canis familiaris</i>) are considered common within the LSRA, where feral pigs* have a potential material impact on southern black-throated finch's habitat. While rabbits (<i>Oryctolagus cuniculus</i>) are considered uncommon within the LSRA (NRA 2018; Pers comm. Bradley Drinkwater (Ross River Dam Ranger)), the species can substantially degrade habitat for the southern black-throated finch and may degrade the quality of habitats at the offset area if left unchecked. Each year TCC conduct an aerial shooting program where they control approximately 30 wild dogs* and 220 wild pigs* per year (Pers comm. Bradley Drinkwater (Ross River Dam Ranger)).</p> <p>Southern black-throated finch require viable habitat which is made up of seeding grasses available all year round, in order to sufficiently support life, recruitment and genetic diversity (NRA 2018). Feral pigs can reduce of seedling grasses, such as Cockatoo Grass (<i>Alloteropsis semialata</i>), essential for southern black-throated finch and act as vector for the spreading and establishment of weed species. Feral pigs are known to remove Cockatoo Grass by digging up the plants to feed on the tubers (NRA 2011), thereby reducing the abundance of resources for southern black-throated finch.</p> <p>Feral cats also pose a threat to southern black-throated finch when drinking, where they have been observed attacking birds including finches at cattle troughs (NRA</p>	<p>Baseline pest monitoring will be undertaken to identify evidence of feral or unwanted pests and development of a property wide feral animal management program specifying techniques (trapping, baiting, shooting) to be utilised will be completed within 12 months of commencement of the action. Key priorities will be monitoring and management of cats, rabbits, wild dogs and pigs.</p> <p>Annual pest monitoring by a suitably qualified pest management contractor, with evidence of pest animals GPS recorded. Where there is evidence of pest animals, targeted trapping, baiting and/or shooting programs will be implemented by an independent suitably qualified pest management contractor. Where annual monitoring does not identify any feral or pest species monitoring will be reduced to 2 yearly.</p> <p>Where practical and appropriate, participate cooperatively in pest management planning and implementation with local land managers (government departments, local governments and utility providers) to ensure effective pest management in the locality of the offset area.</p> <p>As discussed in Management Action 4 (water source management), permanent water sources will be provided within LRSA. The permanent water source will consist of a bore and windmill and water trough mounted on extended legs, with suitable perches. The trough mounted on extended legs will prevent predation by cats and will prevent other feral animals from utilising the water source.</p>

Justification	Proposed action
<p>2011). Predators, such as feral cats, may occur in higher numbers in areas closer to water sources (Landsberg et al. 1997).</p> <p>Feral animals including the wild dog are common in the proposed offset area and have the potential to impose negative pressures on the koala, with dogs representing a key mortality threat to koalas (DAWE 2022A).</p>	
Management Action 7 – Reduction in cattle densities	
<p>The offset area has been subject to varying levels of cattle grazing. This has degraded understorey vegetation, with reduced extent and quality of foraging habitat for the southern black-throated finch within the offset area particularly notable. Reduction of cattle densities and reinstatement of native grassy ground layer will increase food availability for the southern black-throated finch.</p>	<p>Cattle densities will be reduced from the offset area and fencing will be secured where required to prevent cattle entering the offset area from adjoining properties.</p> <p>Areas with high localised grazing impacts will be rehabilitated to re-establish native food grasses for the southern black-throated finch, and reinstatement of the native ground layer will require a holistic management combining management of weeds, fire and existing pasture grasses.</p>

Fire management guidelines for each of the REs that occur within the offset area and are described in Table 7.4.

Table 7.4 Queensland Herbarium (2021b) fire management guidelines for each of the Queensland Regional Ecosystems in the offset area

RE code	Short description	DES Fire Management Guidelines
11.3.12	<i>Melaleuca viridiflora</i> , <i>M. argentea</i> +/- <i>M. dealbata</i> woodland on alluvial plains	<p>SEASON: Mid-dry season.</p> <p>INTENSITY: Low to moderate.</p> <p>INTERVAL: Occasional fires, typically every 5 - 10 years.</p> <p>STRATEGY: Use occasional burning to promote herbs and shrubs and reduce excessive fuel build up that can cause high intensity fires.</p> <p>ISSUES: The coastal north Queensland populations of <i>Grevillea pteridifolia</i> are fire-killed obligate seeders with fire promoted germination. Many herbs are promoted by fire, such as ground orchids. Conversely, terrestrial orchids can be killed by fires that are intense enough to scorch them in the canopy and therefore they provide a useful indicator of past fire intensities. Ensure maintenance of a diverse ground and shrub layer. Where <i>Grevillea pteridifolia</i> or other fire-killed shrubs are present, wait until subsequent post-fire seedlings have matured before burning again.</p>
11.3.25b	<i>Melaleuca leucadendra</i> and/or <i>M. fluviatilis</i> , <i>Nauclea orientalis</i> open forest	<p>SEASON: Primarily early dry season.</p> <p>INTENSITY: Low.</p> <p>INTERVAL: 3 - 5 years.</p> <p>STRATEGY: Protection relies on broad-scale management of surrounding country with numerous small fires throughout the year so that wildfires will be very limited in extent. c-g: Depending on position in the landscape, protection depends on broad-scale management of surrounding country, with numerous small fires throughout the year so that wildfires will be very limited in extent.</p> <p>ISSUES: Fringing communities are critical habitat. In some situations it may be best not to burn. Intense and extensive fires degrade vegetation structure and destroy fauna habitats. Restrict the extent and intensity of fires. Hollow trees are critical habitat. Green panic may be an issue and an intensive grazing regime for very short periods, may be necessary to limit potential of wildfire. If riparian areas need to be burnt to reduce fuel loads then burning should occur when there is good soil moisture and active growth.</p>
11.3.35	<i>Eucalyptus platyphylla</i> , <i>Corymbia clarksoniana</i> woodland on alluvial plains	<p>SEASON: Early dry season when there is good soil moisture, with some later fires in the early storm season or after good spring rains.</p> <p>INTENSITY: Primarily low to moderate, with occasional high intensity fires.</p> <p>INTERVAL: Typically 2 - 7 years, with some areas longer unburnt.</p> <p>STRATEGY: A predominance of early dry season fires is recommended, although there is value in occasional late dry season fires, or storm burns, over small areas. Burning should begin very soon after the wet season, to secure boundaries and adjacent fire-sensitive vegetation. Subsequent repeat ignitions can be used within the same section of land weeks or months after the boundaries have been secured by early burning, to produce a mixture of burnt areas with multiple ignition dates. Use topographical features to ignite areas as soon as they dry out. This will create a mosaic of areas that were burnt at different dates and unburnt sections within the same area of woodland. Burn away from riparian communities, which can be critical habitat for some species. Approximately 25% of the grassy woodlands within a landscape should receive patchy fires in most years.</p> <p>ISSUES: These woodlands have a diverse native grass and herb layer that is maintained and promoted by regular fire. Burning that starts immediately after the wet season, with follow up small fires ignited progressively over multiple dates can increase the availability of grass and herb seed, which is a critical food source for many birds and small mammals. Recently burnt grass clumps tend to produce more seed than unburnt clumps and the earlier burnt grass usually seeds earlier than later burnt grass. Maintaining a fire mosaic will help ensure protection of habitat and mitigate against wildfires. Low to moderate intensity burns with good soil moisture minimise the risk of losing hollow trees. An occasional late season burn will promote grasses and legumes. Ensure a diverse grass layer; maintain hollow-bearing trees and vegetation structure.</p>

7.3 Completion criteria and corrective actions

Completion criteria have been derived from the site habitat quality to demonstrate the improvement in the quality of habitat in the offset area over a 20-year period (Table 7.6). These have been broadly categorised to align with the ecological outcomes detailed in Section 6.4 herein. Additionally, interim milestones that set targets at 5-yearly intervals for progress towards achieving these offset completion criteria have been developed (Table 7.6).

Monitoring results will be used to determine if the interim milestones are being achieved. These interim milestones provide an indication of the success of the management measures being implemented for southern black-throated finch, bare-rumped sheathtail bat and koala habitat and serve as trigger values where failure to achieve these will result in the implementation of corrective actions. Accordingly, corrective actions are detailed in Table 7.5.

Table 7.5 Interim milestones, completion criteria and corrective actions

Ecological outcome	Year 1 performance indicator	Year 5 performance indicator	Year 10 performance indicator	Year 15 performance indicator	Completion criteria	Corrective actions
Increase the area and quality of habitat for the relevant MNES species.	<ul style="list-style-type: none"> At least 90 percent survival of planted tubestock is observed. At least 70 percent germination of seeds is observed. Natural regeneration of key flora species from all vegetation strata is observed in regrowth areas. 	<ul style="list-style-type: none"> Regeneration and establishment of native plant communities is recorded. No notable areas of dieback are recorded. Net increase in canopy cover is recorded. Increase in habitat scores is recorded as per 5 year milestones in Table 7.6. 	<ul style="list-style-type: none"> Net increase in canopy cover is maintained. Recruitment and regeneration of native plants is maintained. Increase in habitat condition scores is recorded as per 10 year milestones in Table 7.6 . 	<ul style="list-style-type: none"> Net increase in canopy cover is maintained. Recruitment and regeneration of native plants is maintained. Increase in habitat condition scores is recorded as per 15 year milestones in Table 7.6. 	<ul style="list-style-type: none"> Restore the RE vegetation across non-remnant and regrowth areas to achieve floristics comparable to that of the relevant RE benchmarks. Achieve required point increase in habitat condition scores. 	Review potential reasons, such as seasonal or climatic conditions or surveying variation, and/or undertake additional management (e.g. watering; active planting of tubestock and/or seeding).
Increase species richness of canopy and shrub level vegetation.	<ul style="list-style-type: none"> At least 90 percent survival of planted tubestock is recorded. 	<ul style="list-style-type: none"> Net increase in canopy and shrub species diversity is recorded. 	<ul style="list-style-type: none"> Net increase in canopy and shrub species diversity is maintained. 	<ul style="list-style-type: none"> Maintain the net increase in canopy and shrub species diversity 	<ul style="list-style-type: none"> Species richness of canopy layer meets or exceeds RE benchmark. 	Active planting of tubestock.
Increase the cover and diversity of native grass species for southern black-throated finch.	<ul style="list-style-type: none"> At least 70 percent germination of seeds is observed. 	<ul style="list-style-type: none"> Net increase in cover and diversity of target native grass is recorded. 	<ul style="list-style-type: none"> Net increase in cover and diversity of target native grass is maintained. 	<ul style="list-style-type: none"> Net increase in cover and diversity of target native grass is maintained. 	<ul style="list-style-type: none"> Diversity and cover of native grasses is comparable to that of the relevant RE benchmarks. 	Seeding with southern black-throated finch food species.
Reduce weed density	<ul style="list-style-type: none"> Program for weed management has been developed and commenced to reduce the presence of weeds. 	<ul style="list-style-type: none"> Weed management has reduced the density and extent of existing weed infestations. No new weed infestations have established. 	<ul style="list-style-type: none"> No net increase in weed cover is recorded. 	<ul style="list-style-type: none"> No net increase in weed cover is recorded. 	<ul style="list-style-type: none"> Density and extent of shrubby weeds and grassy weeds within the offset area reduced to 70% of baseline level. 	Review and update the weed management program, and implement necessary actions.
Provide artificial permanent water sources	<ul style="list-style-type: none"> Establish artificial permanent water source. 	<ul style="list-style-type: none"> Quality and functionality of artificial permanent water 	<ul style="list-style-type: none"> Quality and functionality of artificial permanent water 	<ul style="list-style-type: none"> Quality and functionality of artificial permanent water 	<ul style="list-style-type: none"> Artificial permanent water source provides suitable quality 	Repair or modify artificial water source.

Ecological outcome	Year 1 performance indicator	Year 5 performance indicator	Year 10 performance indicator	Year 15 performance indicator	Completion criteria	Corrective actions
		source is maintained.	source is maintained.	source is maintained.	and quantity of water.	
No uncontrolled bushfires that burn more than 50% of the offset area	<ul style="list-style-type: none"> - A fire management strategy has been developed for the offset area and commenced. 	<ul style="list-style-type: none"> - No uncontrolled bushfires that burn more than 50% of the offset area have occurred. 	<ul style="list-style-type: none"> - No uncontrolled bushfires that burn more than 50% of the offset area have occurred. 	<ul style="list-style-type: none"> - No uncontrolled bushfires that burn more than 50% of the offset area have occurred. 	<ul style="list-style-type: none"> - No uncontrolled bushfires that burn more than 50% of the offset area have occurred. 	Review Bushfire Management Plan and implement necessary actions.
Reduce feral animal density (pigs and dogs)	<ul style="list-style-type: none"> - Program for the control of feral animals has been developed and commenced to reduce the presence of pigs and dogs. 	<ul style="list-style-type: none"> - Feral animal density is lower than that of the baseline. - No areas of notable habitat damage by feral animals are recorded. 	<ul style="list-style-type: none"> - No net increase in feral animal density is recorded. - No areas of notable habitat damage by feral animals are recorded. 	<ul style="list-style-type: none"> - No net increase in feral animal density is recorded. - No areas of notable habitat damage by feral animals are recorded. 	<ul style="list-style-type: none"> - Feral animal densities have been reduced to prevent the degradation of habitat by pigs and prevent koala injury by dogs. 	Review and update the feral animal management program, and implement necessary actions.

Table 7.6 *Habitat quality scores at completion and 5-yearly interim milestones*

Assessment unit	Starting habitat quality	Year 5 target (+/- 0.3)	Year 10 target (+/- 0.3)	Year 15 target (+/- 0.3)	Year 20 (Final completion)
Bare-rumped sheathtail bat					
AU2 Remnant 11.3.25b	5.71	6.13	6.55	6.97	7.39
AU3 Remnant 11.3.35	6.19	6.49	6.79	7.09	7.39
AU5 Regrowth 11.3.35	6.07	6.47	6.86	7.25	7.65
AU7 Non remnant 11.3.25b	5.13	5.71	6.28	6.86	7.43
AU8 Non remnant 11.3.35	5.13	5.74	6.34	6.95	7.55
Total	5.75	6.19	6.63	7.06	7.50
Southern black-throated finch					
AU1 Remnant 11.3.12	6.07	6.41	6.74	7.08	7.41
AU2 Remnant 11.3.25b	4.93	5.32	5.71	6.1	6.49
AU3 Remnant 11.3.35	5.5	5.82	6.13	6.45	6.76
AU4 Regrowth 11.3.12	5.41	5.76	6.11	6.45	6.8
AU5 Regrowth 11.3.35	5.28	5.64	5.99	6.35	6.7
AU6 Non remnant 11.3.12	4.38	4.77	5.16	5.54	5.93
AU7 Non remnant 11.3.25b	4.32	4.76	5.21	5.65	6.09
AU8 Non remnant 11.3.35	4.33	4.75	5.17	5.58	6.0
Total	5.05	5.41	5.78	6.14	6.50
Koala					
AU2 Remnant 11.3.25b	4.65	4.91	5.16	5.42	5.67
AU3 Remnant 11.3.35	4.78	5.02	5.27	5.51	5.75
AU5 Regrowth 11.3.35	4.86	5.13	5.4	5.67	5.94
AU7 Non remnant 11.3.25b	4.02	4.48	4.94	5.39	5.85
AU8 Non remnant 11.3.35	3.72	4.14	4.57	4.99	5.41
Total	4.41	4.73	5.04	5.36	5.67

7.4 Monitoring commitments

Monitoring will be undertaken to evaluate the effectiveness of management actions and assess whether interim milestones are being met. Proposed monitoring is detailed in Table 7.7, including the frequency and method of monitoring for each aspect.

Table 7.7 *Monitoring commitments*

Monitoring aspect	Monitoring frequency	Method
Baseline survey event	The condition surveys that have been undertaken to inform preparation of this OAMP will form the baseline data.	N/A
Revegetation	<ul style="list-style-type: none"> – Weekly during the establishment phase (typically 12 weeks). – Every 3 months for the first year after initial revegetation, then every six months in years 2 and 3 after initial treatment. 	– Assess plant health and mortality.

Monitoring aspect	Monitoring frequency	Method
Weed infestations	<ul style="list-style-type: none"> – Every 3 months for the first year after initial treatment, then every six months in years 2 and 3 after initial treatment. – Scheduled inspection and follow-up treatments once in years 4 and 5 after initial treatment. 	<ul style="list-style-type: none"> – Assess density and extent of weed infestations.
Habitat condition and photographs	<ul style="list-style-type: none"> – The condition plots will be assessed at Years 5, 10, 15 and 20 after the baseline survey. – The timing of ongoing monitoring is to correspond to that of baseline surveys. 	<ul style="list-style-type: none"> – Condition monitoring will be undertaken at the plots assessed during baseline surveys. – Assessment within these plots will be undertaken in accordance with <i>Guide to Determining Terrestrial Habitat Quality</i> (DES 2020). – Locations and photographs of any disturbances or areas requiring maintenance or removal will be recorded as part of these surveys, including evidence of past fires, artificial water sources, access tracks, fences, dumped waste, internal external firebreaks, hazard fuel loads and erosion.
Feral animals	<ul style="list-style-type: none"> – Years 1, 3 and 5 after baseline survey. – Timing of ongoing monitoring to correspond to that of baseline surveys. 	To be determined as part of developing the feral animal management program (e.g. ground-based camera trapping, spotlighting transects).
MNES fauna species*	<ul style="list-style-type: none"> – Surveys of southern black-throated finch and bare-rumped sheath-tail bat to determine species usage of the offset site 	<p>In accordance with the relevant survey guidelines (DEWHA 2009a,b; DSWEPaC 2011), including:</p> <ul style="list-style-type: none"> – Bare-rumped sheath-tail bat: dusk roost watches, Anabat detector – Southern black-throated finch: area searches around waterbodies for nests and birds; waterbody watches; vigilant bird surveys

*Given that the presence of koala has not been confirmed at the impact site, no monitoring to determine koala presence at the offset site has been proposed, i.e. the offset aims to achieve a 'like for like' replacement as required under the offsets framework

7.5 Adaptive management

An adaptive implementation program will be used to ensure uncertainty is reduced over time, and that completion criteria are attained and maintained over the period of approval. As more information becomes available following ongoing performance monitoring, the management and monitoring regime will be reviewed and revised to maximise the likelihood of attaining and maintaining the outcomes to be achieved by implementing the OAMP. Any updates to the OAMP which do not result in a material change to the environmental outcomes, performance and completion criteria will be made by TCC without the requirement of informing the DCCEEW. If material amendments likely to alter the environmental outcomes, or performance and completion criteria are proposed to the OAMP, the amendments and justification for the contingency measures will be provided to the DCCEEW in writing.

Adaptive management will be used to incorporate changes in any of the following areas:

- Assimilation of new data or information - such as, updates to conservation advice or new threat abatement plans relevant to the southern black-throated finch, bare-rumped sheath-tail bat and koala.
- Project coordination and scheduling – to manage unforeseen disruptions to schedule such as inclement weather on contractor works for management actions and environmental consultant monitoring events.



APPENDIX B APPROVED PROJECT AREA CLEARING DISCREPANCY LOCATIONS

Red infilled polygon: approved Project Area

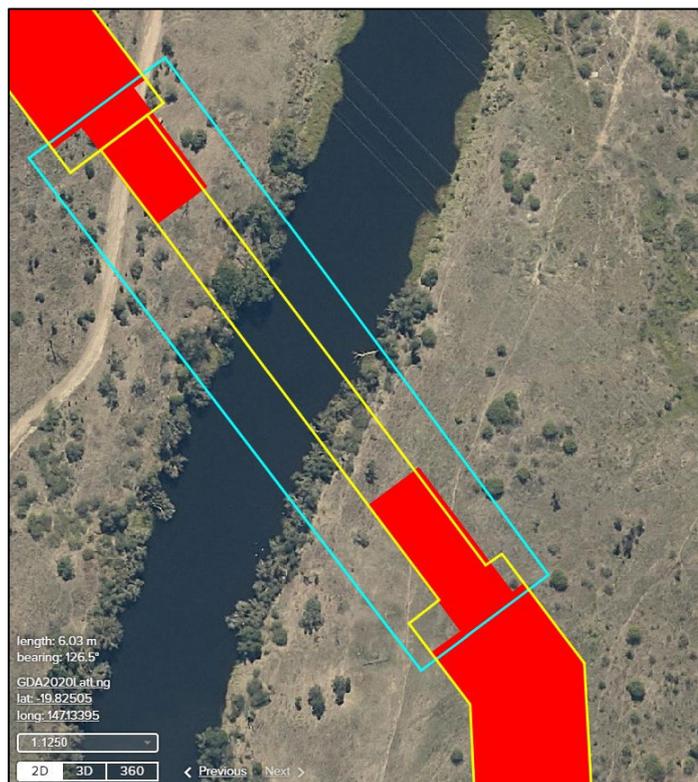
Yellow boundary: Clearing survey data extent



Total amount of approved Project Area not 'cleared': 0.008ha

Total amount of area 'cleared' outside of approved Project Area: 0.009ha

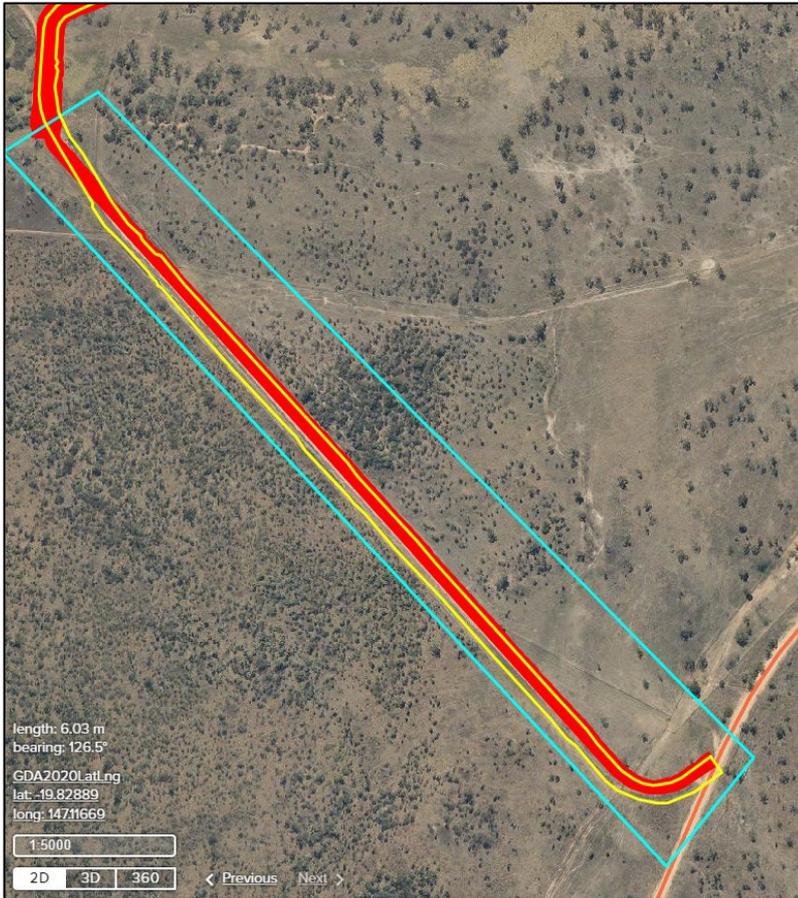
Map 2: Mapping Discrepancy Location (-19.84656, 147.14348)



Total amount of approved Project Area not 'cleared': 0.11ha

Total amount of area 'cleared' outside of approved Project Area: 0.287ha

Map 1: Mapping Discrepancy Location (-19.82396, 147.13449)



Total amount of approved Project Area not 'cleared': 0.556ha

Total amount of area 'cleared' outside of approved Project Area: 1.401ha

Map 3: Mapping Discrepancy Location (Ayr-Ravenswood Road Access Road -19.83328, 147.11955)



Total amount of approved Project Area not 'cleared': 0.097ha

Total amount of area 'cleared' outside of approved Project Area: 0.098ha

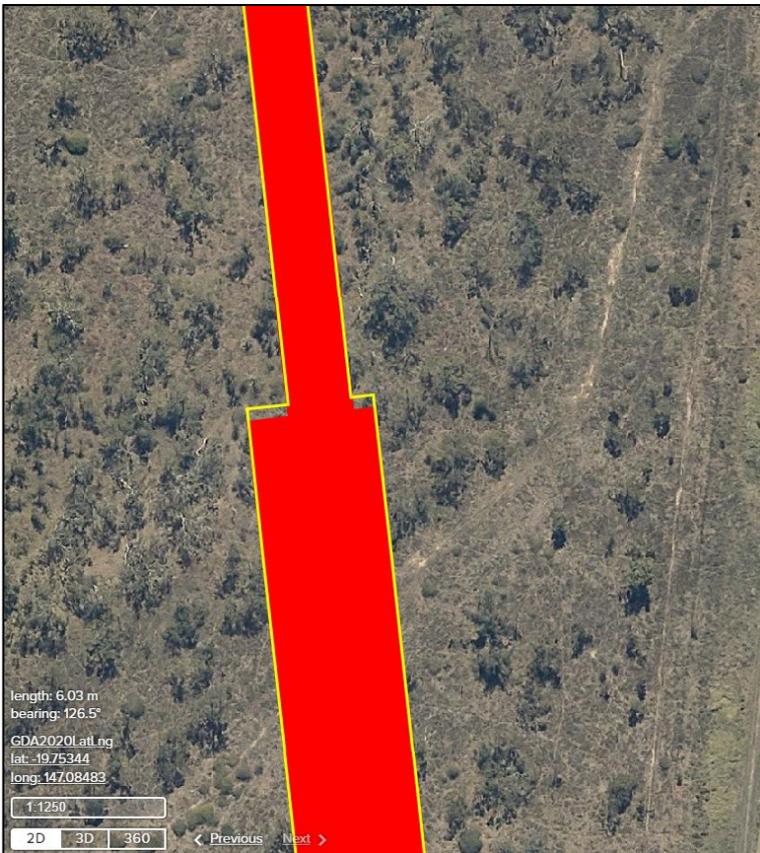
Map 4: Mapping Discrepancy Location (-19.80781, 147.12301)



Total amount of approved Project Area not 'cleared': Nil

Total amount of area 'cleared' outside of approved Project Area: 0.08ha

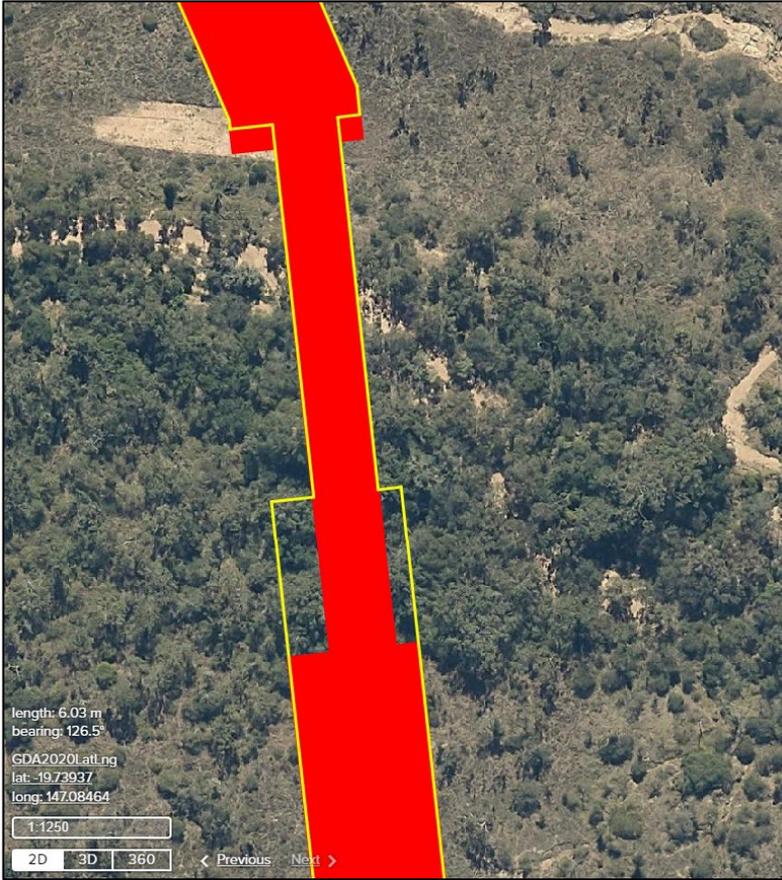
Map 5: Mapping Discrepancy Location (-19.80449, 147.12066)



Total amount of approved Project Area not 'cleared': Nil

Total amount of area 'cleared' outside of approved Project Area: 0.008ha

Map 6: Mapping Discrepancy Location (-19.75278, 147.08571)



Total amount of approved Project Area not 'cleared': 0.015ha

Total amount of area 'cleared' outside of approved Project Area: 0.096ha

Map 7: Mapping Discrepancy Location (-19.74073, 147.08430)