

**Covalent Lithium**

**Earl Grey Lithium Project  
Approved Project**

**Threatened Fauna Offset  
Strategy**

*Environment Protection and Biodiversity  
Conservation Act 1999 (Cth)  
Approval 2017/7950*

*Environmental Protection Act 1986 (WA)  
MS 1199*

## Covalent Lithium Project

### Document Control

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## Abbreviations

Term	Definition
CEO	Chief Executive Officer
Chuditch	<i>Dasyurus geoffroii</i>
Covalent	Covalent Lithium Pty Ltd
DCCEEW	Department of Climate Change, Energy, the Environment and Water (formerly (Department of Agriculture, Water and the Environment (DAWE))
DBCA	Department of Biodiversity, Conservation and Attractions
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986</i>
EPBC Act	<i>Environment Biodiversity Conservation Act 1999</i>
Malleefowl	<i>Leipoa ocellata</i>
MS1118	Ministerial Statement 1118
MS1167	Ministerial Statement 1167
MS1199	Ministerial Statement 1199
PER	Public Environmental Review
TFOMP	Threatened Fauna Offset Management Plan
TFOS	Threatened Fauna Offset Strategy (TFOS)

# 1 Introduction

## 1.1 Approved Project

Covalent Lithium Pty Ltd (Covalent, the Proponent), a joint venture between Wesfarmers Limited and Sociedad Química y Minera (SQM), are developing of the Earl Grey Lithium Project (the Project), located approximately 105 km south of Southern Cross. The Project includes open cut mining and processing of lithium ore, with transport of a lithium concentrate to an existing Western Australian port, for export to overseas markets, or the lithium refinery in Kwinana. The Project encompasses a 2,347 ha<sup>1</sup> Development Envelope within which up to (originally) 386 ha of native vegetation was authorised to be cleared, with the remaining infrastructure area requirement met through the use of existing cleared/disturbed land (Figure 3-1).

The Project was referred under s 38 of the WA *Environmental Protection Act 1986* (EP Act) and assessed by the WA Environmental Protection Authority (EPA) as requiring a Public Environmental Review (PER) level of assessment. Ministerial Statement 1118 (MS1118) was published on 21 November 2019.

A statement to change implementation conditions under Section 46 of the EP Act was issued 14 May 2021 under Ministerial Statement 1167 (MS1167) to add specific impacts to threatened flora.

A significant amendment was made to the proposal and the approval for an additional clearing under the proposal of 56 ha of native vegetation under Ministerial Statement 1199 (MS1199) on 23 November 2022. The conditions and procedures of MS1199 replaced and supersede all previous conditions and procedures of MS1118 and MS1167.

The Project was also referred to the Department of Agriculture, Water and the Environment (DAWE) (now Department of Climate Change, Energy, the Environment and Water (DCCEEW)) under the *Environment Protection and Biodiversity Conservation Act 1999 Act* (Cth) (EPBC Act) and received a 'Controlled Action' decision to be assessed by accredited assessment. Project approval under the EPBC Act was granted on 21 February 2020 (EPBC2017/7950). Under Conditions 4, 4A and 4B of the EPBC Act approval, Covalent were required to prepare and have approved a Fauna Offset Management Plan prior to commencement of the Action. This Plan (Threatened Fauna Offset Management Plan, Revision 9, 26 March 2021) was approved in writing on 31 March 2021. The TFOMP approves the use offset site, Site 10.

MS1199 requires additional offsets for threatened fauna species additional to those outlined in the "Covalent Lithium Earl Grey Lithium Project Threatened Fauna Offset Management Plan EPBC Act Approval 2017/7950 and EPA Ministerial Statement 1118".

The Project identified direct impacts to the following threatened fauna species:

- Malleefowl *Leipoa ocellata* (Vulnerable, EPBC Act) breeding and foraging habitat as per Figure 3-2.
- Chuditch / Western Quoll *Dasyurus geoffroii* (Vulnerable, EPBC Act) breeding and foraging habitat as per Figure 3-2.

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<sup>1</sup> The Development Envelope authorised by the Statement 1118 and 1199 approval under the EP Act is 2,347 ha. The Development Envelope authorised by the EPBC 2017/7950 approval under the EPBC Act is 1,984 ha.

## 1.2 Purpose of this Document

This document, Threatened Fauna Offset Strategy (TFOS), has been developed to meet the requirements of:

- MS1199 Condition 4-2 Threatened Fauna Land Acquisition Strategy; and
- EPBC2017/7950 Condition 4 Fauna Offset Management Plan.

The **scope** of this Plan is to provide details on offset acquisition, management actions, success criteria, timelines and milestones, monitoring and reporting requirements in accordance with MS1199 and EPBC 2017/7950.

Covalent is required to offset the residual significant impact due to the clearing of 442 ha of native vegetation, consisting of 436 ha Malleefowl foraging and breeding habitat and 442 ha Chuditch foraging and potential breeding habitat. To achieve this offset, Covalent have proposed two offset sites:

- Site 10 Offset Site (Figure 4-1); and
- Warralakin Offset Site (Figure 4-9)

The objective of this TFOS is to compensate for residual significant impacts to Chuditch and Malleefowl through the acquisition and management of these offset sites. To this end the TFOS will ensure:

- The continued presence of Chuditch at the 1,788 ha Site 10 offset site;
- The continued presence of Malleefowl at the 260 ha Warralakin offset site;
- Malleefowl recolonise and continuously forage and breed at the Site 10 offset site;
- Chuditch colonise and continuously forage and breed at the Warralakin offset site; and
- Vegetation condition maintained in 'very good' condition or higher, according to Keighery (1994).

This TFOS provides 100% of the Project's offset requirements which is sufficient to allow the approved Project impacts to 442 ha native vegetation comprising:

- 436 ha of foraging and breeding habitat for Malleefowl; and
- 442 ha of foraging and potential breeding habitat for Chuditch.

Implementation of this TFOS will commence within six (6) months of receiving notice in writing from both:

- the DWER CEO, on advice from DBCA, that the TFOS; satisfies MS1199 condition 4-1 and condition 4-2; and
- the Federal Minister for Environment that the at TFOS satisfies EPBC 2017/7950 condition 4.

## 1.3 Conditions of Approval

Table 1-1 details where the TFOS addresses Condition 4-2 of MS1199. Table 1-2 details where the TFOS addresses Condition 4 of EPBC 2017/7950. The plan also aligns with the relevant state and Commonwealth guidelines for offset and recovery plans, including the WA Environmental Offsets Guidelines (Government of Western Australia 2014).

**Table 1-1: MS1199 Condition Requirements**

Condition	Requirement	Document Reference
MS1199 4-2	In order to meet the requirements of conditions 4-1 (1) and 4-1(2), the proponent shall submit for approval, the Earl Grey Lithium Project Fauna Offset Strategy within six (6) months of the date of this Statement. This strategy shall:	Refer below:
MS1199 4-2(1)	1. identify an initially unprotected area, or areas, to be acquired and protected for conservation that contains malleefowl and chuditch foraging and breeding habitat, in consultation with the Department of Biodiversity, Conservation and Attractions;	Section 4.3 and Section 4.4 of this TFOS identify the unprotected offset sites to be acquired for conservation that contain Malleefowl and Chuditch foraging and breeding habitat.  Section 4.3.6 and Section 4.4.6 of this TFOS outline the consultation with DBCA in regard to the sites.
MS1199 4-2(2)	2. demonstrate how the proposed offset counterbalances the significant residual impact to 436 ha of foraging and breeding habitat for malleefowl, and 442 ha of foraging and potential breeding habitat for chuditch, as identified in condition 4-1, through application of the principles and completion of the WA Offsets Template, as described in the WA Environmental Offsets Guidelines 2014, and the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy Assessment Guide (October 2012), or any approved updates of these guidelines, to demonstrate how the proposed offset counterbalances the significant residual impact to malleefowl and chuditch, as identified in condition 4-1;	Section 4 outlines the proposed offsets to counterbalance the significant residual impact to for the 436 ha of foraging and breeding habitat for Malleefowl, and 442 ha of foraging and potential breeding habitat for Chuditch. Section 3.2.2 outline how the principles in the Offsets policy and guidelines have been applied.
MS1199 4-2(3)	3. demonstrate how the proposed offset aligns with the National Recovery Plan for Malleefowl ( <i>Leipoa ocellata</i> ) and the Chuditch ( <i>Dasyurus geoffroii</i> ) Recovery Plan, or any subsequent revisions of these plans;	Section 3.2.1 outlines how the proposed offset aligns with the National Recovery Plan for Malleefowl and the Chuditch Recovery Plan.
MS1199 4-2(4)	4. identify the environmental values of the offset area(s);	Section 4.3.3 and Section 4.4.3 of this TFOS identify the environmental values of the proposed offset areas.
MS1199 4-2(5)	5. identify and commit to a protection mechanism for any area(s) of land acquisition, being either the area(s) is ceded to the Crown for the purpose of management for conservation, or the area(s) is managed under other suitable mechanisms for the purpose of conservation as agreed by the CEO;	Section 4.3.6 and Section 4.4.6 outline the mechanisms for conservation reservation of the offset areas.
MS1199 4-2(6)	6. identify how the ongoing performance of the offset measures, and whether they are achieving the outcomes in conditions 4-1(1) and 4-1(2), will periodically be made publicly available;	Section 9.1 of this TFOS includes the requirement to publish annual compliance assessment reports (CARs) which include TFOS performance reporting on the Covalent website for the life of the project.

Condition	Requirement	Document Reference
MS1199 4-2(7)	<p>7. if any land is to be ceded to the Crown for the purpose of management for conservation, the proponent will identify:</p> <ul style="list-style-type: none"> <li>• the quantum of, and provide funds for, the upfront works associated with establishing the conservation area;</li> <li>• the quantum of, and provide a contribution of funds for, the management of this area for seven (7) years after completion of purchase; and</li> <li>• an appropriate management body for the ceded land;</li> </ul>	Section 5 of this TFOS outlines the funding arrangements to DBCA for the conservation management of the offset sites.
MS1199 4-2(8)	8. detail the monitoring, reporting and evaluation mechanisms for management and/or rehabilitation actions; and	Section 7 of this TFOS details the monitoring, reporting and evaluation mechanisms for management and/or rehabilitation actions.
MS1199 4-2(9)	9. define the role of the proponent and/or any relevant management authority.	Section 8 defines the roles and responsibilities of Covalent and DBCA for the management and activities associated with the offset sites.
MS1199 4-3	Within six (6) months of receiving notice in writing from the CEO, on advice of the Department of Biodiversity, Conservation and Attractions, that the Threatened Fauna Land Acquisition Strategy satisfies the requirements of conditions 4-1 and 4-2, the proponent shall implement the approved Threatened Fauna Land Acquisition Strategy.	Section 4.3.6 and Section 4.4.6 commit to implementing the TFOS within six months of CEO approval of the TFOS.
MS1199 4-4	The proponent: may review and revise the Threatened Fauna Land Acquisition Strategy; or shall review and revise the Threatened Fauna Land Acquisition Strategy as and when directed by the CEO.	Section 9.2 outlines provision for review of the TFOS.
MS1199 4-5	The proponent shall implement the latest version of the Threatened Fauna Land Acquisition Strategy, which the CEO has confirmed by notice in writing, satisfies the requirements of condition 4-2.	Section 10 contains Covalent's commitment to implementing the latest version of the TFOS in the Declaration of Accuracy.

**Table 1-2: EPBC 2017/7950 Condition Requirements**

Condition	Requirement	Document Reference
4	To compensate for residual significant impacts to the Malleefowl ( <i>Leipoa ocellata</i> ) and Chuditch ( <i>Dasyurus geoffroii</i> ), the approval holder must:	
a)	acquire, manage and protect for enduring conservation offset area(s) that comprise existing Malleefowl and Chuditch foraging and breeding habitat and that collectively offset the residual significant impacts to the Malleefowl ( <i>Leipoa ocellata</i> ) and Chuditch ( <i>Dasyurus geoffroii</i> ) of the action in accordance with the EPBC Act Environmental Offsets Policy;	Section 4 outlines the conservation areas that the proponent will acquire, manage and protect for enduring conservation that <i>comprise</i> existing Malleefowl and Chuditch foraging and breeding habitat and that collectively offset the residual significant impacts to the Malleefowl and Chuditch of the action in accordance with the EPBC Act Environmental Offsets Policy.
b)	submit for the Minister’s written approval a Fauna Offset Management Plan in respect of each offset area required to meet Condition 4(a); and	This TFOS is being submitted for the Minister’s written approval in respect to Offset Site Warralakin. Offset 10 approved via approval of the TFOMP, 31 March 2021.
c)	implement each approved Fauna Offset Management Plan(s) at least until the end date of the period of effect of the approval.	This TFOS will be implemented upon approval.
4A	Each Fauna Offset Management Plan required under Condition 4 must be prepared in accordance with the environmental management plan guidelines, and include the following:	This TFOS has been prepared in accordance with the environmental management plan guidelines and includes the following requirements in the Sections and Tables as follows:
a)	the residual significant impacts to the Malleefowl ( <i>Leipoa ocellata</i> ) and Chuditch ( <i>Dasyurus geoffroii</i> ) quantified as the area of clearing of native vegetation within the development envelope) that will be offset by implementing the plan;	Section 1.2 states the residual impacts quantified as the area of clearing that will be offset.
b)	the environmental values of the proposed offset area, including results from field validation surveys, quantifiable ecological data on habitat quality and how the offset area will provide habitat connectivity with adjacent vegetation communities and biodiversity corridors,	Section 4.3.3 and Section 4.4.4 contain details of the environmental values of the offset areas.
c)	the size of the offset area in hectares, and maps that define the location and boundaries of the offset area;	The size of the offset areas is stated in Section 1.2, 4.3.1 and 4.4.1. Maps of the offset areas are contained in Figure 4-1 and 4-9.
d)	measurable ecological outcomes for habitat quality, when these will be achieved and the period for which these will be maintained;	Measurable ecological outcomes for each offset site are included in Section 4.3.4 and 4.4.4.
e)	offset completion criteria to demonstrate attainment of the ecological outcomes and an explanation of how the proposed offset completion criteria will be achieved;	Completion criteria for each offset site are included in Sections 4.3.5 (Table 4-3) and Section 4.4.5 (Table 4-6).

Condition	Requirement	Document Reference
f)	management measures (including timing, frequency, duration and method of outcome measurement) that will be implemented to achieve the ecological outcomes for Malleefowl ( <i>Leipoa ocellata</i> ) and Chuditch ( <i>Dasyurus geoffroii</i> );	Management measures to be implemented to achieve ecological outcomes are included in Section 4.5.
g)	evidence that the management measures are consistent with relevant conservation advice, recovery plans and threat abatement plans;	Evidence that this TFOS is aligned with conservation advice, recovery plans and abatement plans is documented in Section 3.2
h)	an analysis of potential risks of the plan, if implemented, failing to attain and/or maintain the offset completion criteria;	An analysis of the risks of this TFOS failing to attain/maintain the offset completion criteria is included in Table 6-3.
i)	criteria for triggering corrective actions should risks be realised, and a monitoring program designed to detect the criteria and track progress against offset completion criteria;	The trigger criteria and monitoring program is included in Table 6-3.
j)	the activities and land use that will be prohibited in the offset area, including, for example, mining, exploration or grazing;	Prohibited activities and land uses on offset properties is documented in Section 4.3.6 and 4.4.6.
k)	a schedule for evaluating and reporting, at least annually, on the effectiveness of management measures and progress against offset completion criteria;	The offset reporting requirements in the ACR are included in Section 9.1.
l)	the nature and timing of the proposed legal mechanism for securing the offset area, and contingency measures if the specified legal mechanism is not established in a timely manner;	The details of securing the offset area are included in Section 4.3.6 and 4.4.6. The contingency measures if it is not established in a timely manner are included Table 6-3.
m)	an explanation of how the offset area and offset area management addresses the principles of the EPBC Act Environmental Offsets Policy; and	Section 3.2.2 explains how this TFOS addresses the principles of the offset policy.
n)	the role of the approval holder in controlling and managing the offset area and the identity and offset management role(s) of any other party.	Roles and responsibilities are documented in Section 8. Specific offset management roles of parties are included in land acquisition process Table 4-4 and 4-7 and funding arrangements Table 5-1.
	Each Fauna Offset Management Plan submitted in accordance with Condition 4(b) must be accompanied by shapefiles that define the location and boundaries of the offset area, the offset attributes (including physical address of the offset area(s), coordinates of the boundary points in decimal degrees, the EPBC Act Listed threatened species that the environmental offset area(s) compensate for, and the size of the offset area(s) in hectares.	To be submitted to DCCEEW separately

## 2 Stakeholder Consultation

Condition 4-2 of Statement 1199 requires the Threatened Fauna Offset Strategy to be prepared in consultation with DBCA and submitted to DWER CEO for assessment and approval.

Covalent Lithium has submitted the following revisions of the TFOS to DWER CEO at the following times:

- Revision 0 - April 2020;
- Revision 1 - March 2021;
- Revision 2 - January 2023;
- Revision 3 – August 2024;
- Revision 4 – October 2025;
- Revision 5 – December 2025; and
- Revision 5 version 2 - January 2026.

In June 2020, DWER requested amendments to the TFOS (Revision 0, April 2020). which were subsequently addressed within the revised TFOS (Revision 1, March 2021) submitted to DWER and DBCA for assessment / comment in January 2022.

In February 2022, DWER and DBCA provided comment on the TFOS (Revision 1, January 2022) which were addressed within the revised TFOS (Revision 2, July 2022) submitted to DWER for assessment and approval in January 2023.

In October 2023, DWER provided further comment on the TFOS (Revision 2, 17 January 2022), which were addressed within the revised TFOS (Rev 3, 13 August 2024) submitted to DWER for assessment and approval in August 2024.

In August 2025, DWER provided further comment on the TFOS (Revision 3, 13 August 2024) seeking clarification regarding the Warralakin site and the offset calculations/inputs. These have been considered by Covalent Lithium and appropriate clarifications provided within this revision. Consultation on this revision is currently in progress with DWER and where relevant DBCA. Consultation with DCCEE will also be undertaken regarding the Warralakin Site with respect to meeting offset requirements of the EPBC Act conditions EPBC2017/7950).

In December 2025, DWER advised that the 'rehabilitation credit' in the offset calculation for the proposed offset (Revision 4 – October 2025) was not consistent with the WA offset guidance and framework as the impact is not temporary and while biodiversity values will be returned to a sufficient quality, it will not be returned within a reasonable timeframe. On this advice, Covalent has reviewed the offset calculations for both sites (Appendix C and D) to remove the rehabilitation credit and submitted Revision 5 – December 2025 to DWER.

In January 2026, DWER requested Covalent amend Table 4-2 to correct the referenced impact areas and update the document with the ongoing management arrangements.

### 3 Objectives and Context of the Project

Covalent is required to implement measures to avoid, minimise and rehabilitate potential impacts to fauna including but not limited to trapping and relocation of Chuditch, applying a buffer of no vegetation clearing within 100 m of Malleefowl mounds and re-establishment of native vegetation and fauna habitats.

However, there remains a residual significant impact requiring an offset of 442 ha (MS1199; EPBC Act Approval 2017/7950), as shown in Figure 3-2, in the form of establishing and maintaining other suitable breeding and foraging habitat for both Chuditch and Malleefowl containing these species. The total area of Malleefowl and Chuditch habitat to be secured for conservation is 1,605.8 ha within offset sites of total area 2,016 ha, which provides 100% of the Project offset requirements (impacts to 442 ha Chuditch foraging and potential breeding habitat and 436 ha Malleefowl breeding and foraging habitat).

#### 3.1 Project Values

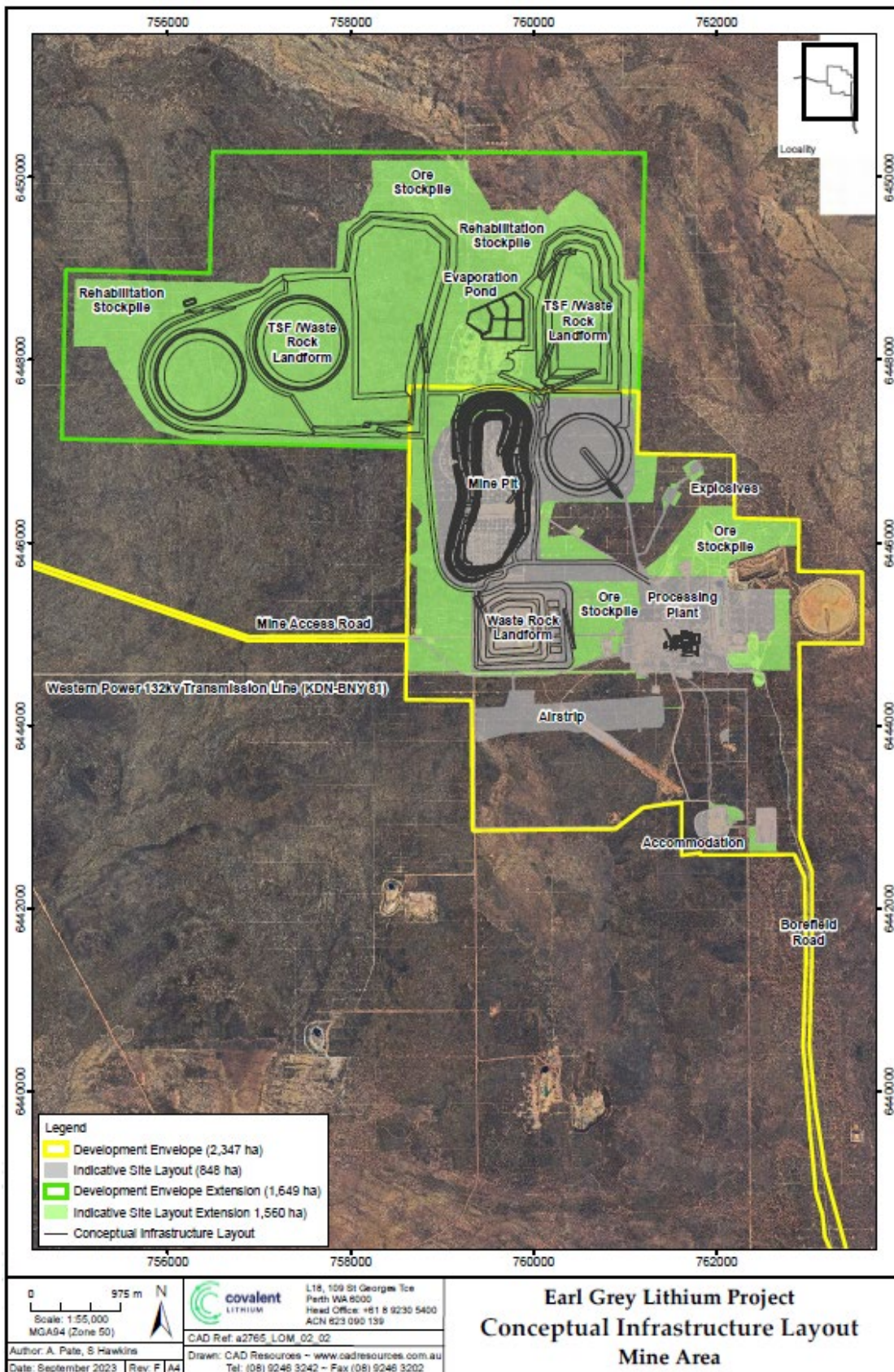
- Western Wildlife (2017) and Ecoscape (2020b, 2020c, 2020d) have undertaken various surveys of the Project impact site as detailed in Table 3-1.
- Three broad fauna habitats were defined by Western Wildlife (2017) and Ecoscape (2020a) in the Development Envelope, as shown in Figure 3-2:
- Shrubland - occurs on sandy-clay flats, gravelly sands and lateritic rises and vary in composition, but are usually dominated by species of *Allocasuarina*, *Hakea*, *Acacia*, *Banksia* and/or *Melaleuca*. Although sparse low mallee eucalypts may be present, this habitat lacks large trees and associated hollow trees. The dense structure of the vegetation provides shelter and nesting habitat for ground-dwelling birds. When in flower, shrubland habitats are likely to attract a suite of nectar-feeding bird species. Shrubland potentially supports significant fauna, including the Malleefowl and Chuditch, through the provision of foraging and breeding habitat.
- Salmon Gum woodland - are characterised by an open canopy of Salmon Gum (*Eucalyptus salmonophloia*), sometimes with Merrit (*Eucalyptus flocktoniae*), Sand Mallee (*Eucalyptus eremophila*), *Eucalyptus urna* or other eucalypts, over a sparse shrub understory on clay flats. Much of this habitat has recently burnt. Salmon Gum woodland is significant for the tall hollow-bearing trees and large fallen logs that provide shelter and nesting opportunities for a range of fauna. This habitat potentially supports Chuditch and Malleefowl, through the provision of foraging and breeding habitat.
- Mallee woodland – which has much variability in plant species composition and the density and composition of the shrubland understory, ranging from minimal understory to dense shrubland. As the mallee trees are relatively small in diameter, this habitat generally lacks tree hollows, though scattered hollow-bearing trees are present. Mallee woodland potentially supports significant fauna, including the Malleefowl and Chuditch, through the provision of foraging and breeding habitat.

**Table 3-1: EPBC 2017/7950 Condition Requirements**

Date	Survey Type and Extent	Survey Outcomes
Oct 2016	Reconnaissance survey with targeted searches for Malleefowl and Chuditch in the Earl Grey study area	Chuditch: 12 baited camera traps established for 5 nights totaling 60 trap nights within the Development Envelope. Malleefowl: 269 km of transects completed by 4 personnel at 10 m spacing within the Development Envelope.
Nov–Dec 2016	Detailed survey (trapping and targeted searches), encompassing four study areas, including Earl Grey	Chuditch: 45 baited camera traps for 4 or 5 trap nights totaling 189 trap nights covering both the Development Envelope and the Regional Survey Area. Malleefowl: 306 km of transects completed by six personnel at 10 m spacing. 97 km of transects within Development Envelope and 209 km of transects in Regional Survey Area.
Jan–Feb 2017	Regional Chuditch survey	Chuditch: 44 baited camera traps deployed for 13 to 24 nights resulting in 794 trap nights covering both the Development Envelope and the Regional Survey Area. Vegetation and habitat descriptions taken at camera trap locations. Malleefowl: Opportunistic only.
Sept 2017	Opportunistic Malleefowl survey and Chuditch survey	Chuditch: 20 baited camera traps deployed resulting in 350 trap nights covering the Regional Survey Area. Malleefowl: Opportunistic only.
Oct 2017	Level 2 (single season) fauna survey with targeted Malleefowl survey	Malleefowl: 801 km of transects completed by two to six personnel at 10 m spacing. 780 km of transects within Development Envelope and 21 km of transects in Regional Survey Area. Chuditch: 15 baited camera traps deployed for five nights resulting in 75 trap nights in the Development Envelope.
Nov 2017	Targeted Chuditch (cage trapping) survey	Cage trapping in the Regional Survey Area was timed to avoid the breeding season. Two transects of 50 cage traps were established, one to the north and one to the south of the Development Envelope.
Jul 2019	Ecoscape (2020b) 2019 Mt Holland Chuditch Monitoring Survey	<ul style="list-style-type: none"> <li>• Cage trapping at three grids within the Development Envelope (Impact) and three grids within Jilbadji Nature Reserve (Control).</li> <li>• 120 trap nights completed at both Impact and Control sites.</li> <li>• One capture of female Chuditch recorded at Impact site: no captures at Control site</li> </ul>
Oct 2019	Ecoscape (2020c). Targeted search and monitoring by Ecoscape and WA National Malleefowl Recovery Group	<ul style="list-style-type: none"> <li>• Monitoring of Malleefowl mounds undertaken in accordance with NMRT guidelines.</li> <li>• Four additional mounds found, three inside the Development Envelope, though outside of the proposed layout, and one outside of the Development Envelope.</li> </ul>

Date	Survey Type and Extent	Survey Outcomes
Jun 2020	Ecoscape (2020d) 2020 Mt Holland Chuditch Monitoring	Cage trapping for 2020 Chuditch monitoring, specifically: <ul style="list-style-type: none"> <li>• Establish and monitor three control sites more than five kilometres outside of the development envelope</li> <li>• Establish and monitor three impact sites within the development envelope</li> <li>• Undertake monitoring within the Chuditch breeding season (May to July).</li> <li>• 120 trap nights completed at both Impact and Control sites. One female Chuditch was recorded during the 2020 survey at control site 58. Mitchell's Hopping-mouse (<i>Notomys mitchelli</i>) was also recorded from both the control and impact sites.</li> </ul>
Oct 2020	Ecoscape (2021) 2020 Malleefowl Monitoring	Monitoring of Malleefowl nest mounds at Earl Grey Lithium Project in accordance with NMRT guidelines. Nest mounds from 2019 monitoring revisited, plus field validation of LiDAR for potential new nest mounds. 2 nest mounds recorded as 'Active' (mound building and egg laying recorded)
July 2022	Ecoscape (2022) 2022 Mt Holland Chuditch Monitoring	undertake and complete Chuditch monitoring, specifically: <ul style="list-style-type: none"> <li>• establish and monitor three control sites more than five kilometres outside of the development envelope</li> <li>• establish and monitor three impact sites within the development envelope</li> <li>• record all Chuditch captures in a monitoring database including morphometrics; location of capture; health</li> <li>• status and breeding status (e.g. number of pouch young; lactation)</li> <li>• undertake monitoring within the Chuditch breeding season (May to July).</li> <li>• One Chuditch (<i>Dasyurus geoffroii</i>), of unknown sex, was recorded on a trail camera in the control site during the 2022 monitoring period.</li> </ul>
Sep 21 - Jan 22	Ecoscape (2022) 2021 Malleefowl Monitoring	To provide Malleefowl population health and abundance data the following aspects are recommended to be monitored annually: <ul style="list-style-type: none"> <li>• trail camera monitoring during the egg incubation season (September to January) of all Malleefowl mounds that have been identified as annual, within and adjacent to the development envelope</li> <li>• maintain database of Malleefowl and other fauna species sightings within a fauna register and report annually on number and location of active mounds</li> <li>• collate image data and report on status of all monitored mounds</li> <li>• collate and report on records of sightings of feral predators captured on cameras at the monitored mounds</li> <li>• complete ground truthing of LiDAR data within the development envelope opportunistically.</li> </ul>

Date	Survey Type and Extent	Survey Outcomes
July 2023	Ecoscape (2024) 2023 Mt Holland Chuditch Monitoring	<p>Undertake and complete Chuditch (<i>Dasyurus geoffroii</i>) monitoring, specifically:</p> <ul style="list-style-type: none"> <li>• establish and monitor three control sites more than five kilometres outside of the development envelope</li> <li>• establish and monitor three impact sites within the development envelope</li> <li>• undertake monitoring within the Chuditch breeding season (May to July).</li> </ul> <p>one male Chuditch was captured in the control site during the 2023 monitoring period, four camera traps recorded Chuditch, two in the control and two in the impact site. Spot pattern comparison suggests two individuals, in addition to the trap capture, three male Chuditch were captured during routine introduced predator control activities in April of 2023, one of which was later captured on camera during July's monitoring</p>
Sep 22 - Jan 23	Ecoscape (2023) 2022 Malleefowl Monitoring	<p>Monitoring of Malleefowl nest mounds at Earl Grey Lithium Project in accordance with NMRT guidelines. The 2022-23 program recorded information on mounds which are monitored on an annual basis. Malleefowl population health and abundance data.</p>
2024	Ecoscape (2024) Offset Fauna Habitat Assessment	<p>The aims of the habitat assessment survey were to:</p> <ul style="list-style-type: none"> <li>• provide information to support the use of the survey area as a potential offset</li> <li>• provide information and discussion on habitat types, condition, and suitability of the survey area for the targeted conservation listed species</li> <li>• confirm presence/absence of the conservation listed species.</li> </ul> <p>Malleefowl was recorded within the survey area; an while no evidence of Chuditch presence was recorded, optimal breeding and foraging habitat suitable for the species was recorded.</p>



**Figure 3-1: Earl Grey Lithium Approved Project Development Envelope and Proposed Layout**

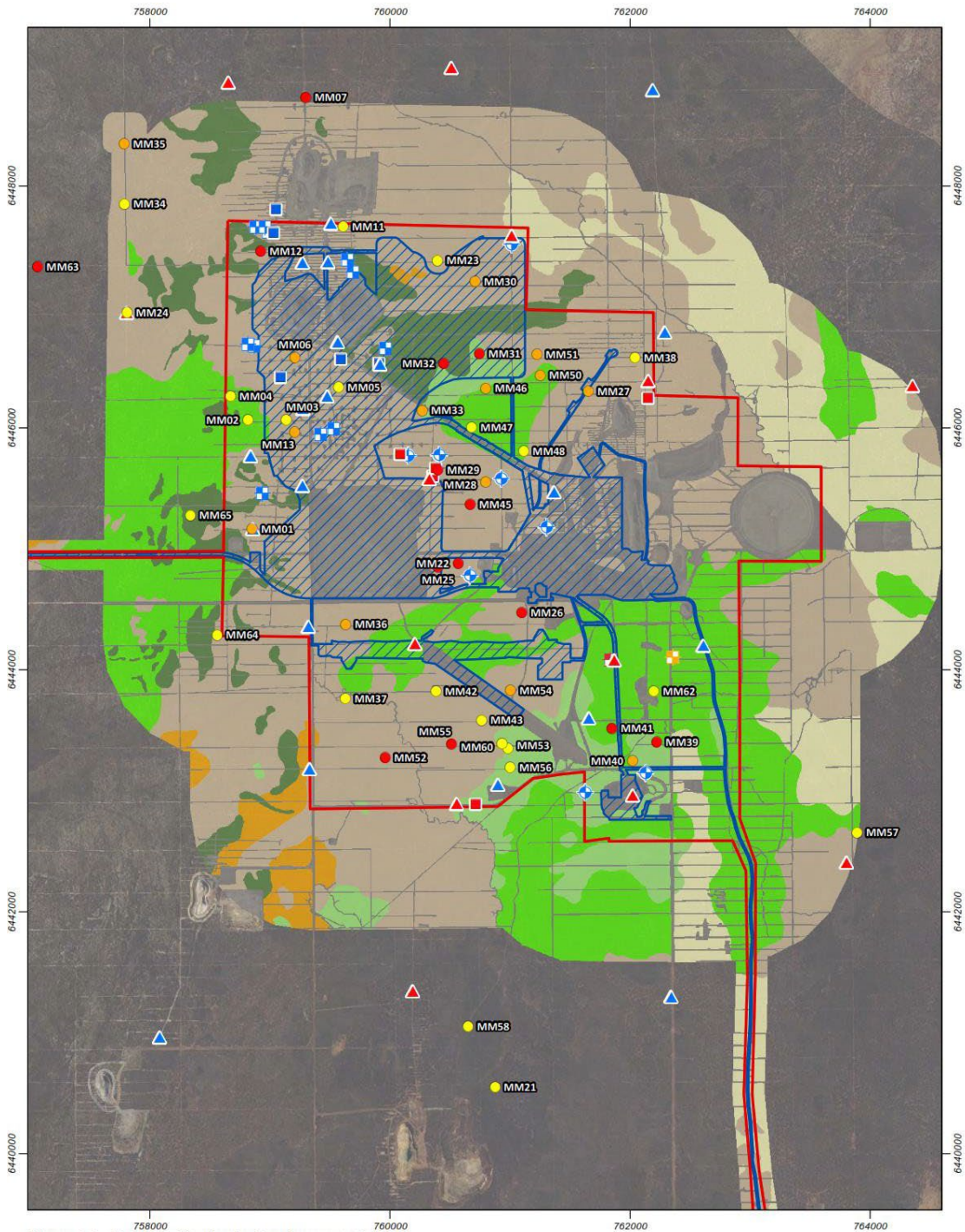


Figure 2.2: Fauna habitat in the Development Envelope



Figure 3-2: Fauna Habitat in the Development Envelope

## 3.2 Alignment of Offset Strategy with Policy and Guidelines

### 3.2.1 Recovery Plans

The TFOS has been developed to align with published guidelines, conservation advice, recovery plans and threat abatement plans as detailed in Table 3-2.

**Table 3-2: Offset Plan alignment with Threat Abatement Plans and Recovery Plans**

Priority	Priority Action	Offset Strategy
Chuditch ( <i>Dasyurus geoffroii</i> ) National Recovery Plan (DEC 2012).		
	Retain and improve habitat critical for survival	Land is proposed to be acquired and ultimately added to the conservation estate (DBCA for Site 10 and via Conservation Covenant for Warralakin) to be managed and protected (Section 4.3.6 and Section 4.4.6), improving and protecting habitat condition for Chuditch. The offset sites are located adjacent to areas of remnant vegetation which comprise part of the Great Western Woodlands (GWW) (Section 4.3.2 and Section .4.2).
	Continue, expand and improve baiting of foxes and feral cats	Monitoring will include surveying for the presence of feral predators. Site feral predator monitoring and controls, and contributions to regional feral predator control programmes will be undertaken if required (Table 4-8; Table 6-3), in consultation with DBCA and other relevant stakeholders (such as the Eastern Wheatbelt Biosecurity Group and adjacent landowners) to minimise predation impacts on and adjacent to the offset site.
National Recovery Plan for Malleefowl ( <i>Leipoa ocellata</i> ) (Benshemesh J 2007)		
Reduce permanent habitat loss	Retain areas that support Malleefowl and protect them from incremental clearing, and report annually on clearing	Land is proposed to be acquired and ultimately added to the conservation reserve system to be managed and protected (Section 4.3.6 and Section 4.4.6), improving and protecting habitat condition for Malleefowl and increasing habitat available for Malleefowl.
Reduce the threat of grazing pressure on Malleefowl populations	Erect adequate fencing to protect Malleefowl habitat	Land is proposed to be acquired and added to the conservation reserve system (Section 4.3.6 and Section 4.4.6), managed, protected and habitat condition improved for Malleefowl. This includes the removal of internal fencing and installation and management of boundary fencing (as appropriate) (Table 4-8; Table 6-3).
Reduce predation	Reduce fox numbers in small and isolated habitat remnants where Malleefowl densities have declined, and fox predation is a likely explanation for such declines	Monitoring will include surveying for the presence of feral predators. Site feral predator monitoring and controls, and contributions to regional feral predator control programmes will be undertaken if required (Table 4-8; Table 6-3), in consultation with DBCA and other relevant stakeholders (such as the Eastern Wheatbelt Biosecurity Group and adjacent landowners) to minimise predation impacts on and adjacent to the offset site.

Priority	Priority Action	Offset Strategy
Reduce isolation of fragmented populations	Maintain and/or revegetation strategic corridors to link patches	The offset sites are located adjacent to remnant vegetation consisting of the Great Western Woodlands, providing continuity of habitat (Section 4.3.2 and Section 4.4.2). The removal of internal fences will minimise any existing fragmentation. The protection and enhancement of Malleefowl habitat at the offset sites and return of Malleefowl to Site 10 from the GWW, will increase strategic corridors and genetic linkages to remaining remnant habitat in the eastern Wheatbelt (which contains historical and current records).
Red Fox Threat Abatement Plan (DAWE 2008)		
Undertake fox control activities	Identify priority areas for fox control based on: <ul style="list-style-type: none"> <li>• the significance of the population of the affected native species or of the ecological community</li> <li>• the degree of threat posed by foxes to species and ecological communities relative to other threats</li> <li>• the cost-effectiveness of maintaining fox populations below an identified 'damage threshold' in the region, and</li> <li>• the feasibility of effective remedial action.</li> </ul> Conduct and monitor regional fox control, through new or existing programs, in priority areas identified	Whilst the offset area is not currently considered a priority area, involvement in regional baiting programmes will be undertaken if required, to ensure the protection and where applicable, return, of Chuditch and Malleefowl at the offset sites (Table 6-3).
Feral Cat Threat Abatement Plan (DAWE 2015)		
Baiting of feral cats	Ensure broad-scale toxic baits targeting feral cats are developed, registered and available for use across all of Australia, including northern Australia.	Monitoring will include surveying for the presence of feral predators. Site feral predator monitoring and controls, and contributions to regional feral predator control programmes will be undertaken if required (Table 4-8; Table 6-3), in consultation with DBCA and other relevant stakeholders (such as the Eastern Wheatbelt Biosecurity Group and adjacent landowners) to minimise predation impacts on and adjacent to the offset site.

### 3.2.2 Offset Policy and Guidance

The TFOS demonstrates consideration of the six offsets principles defined in the WA Environmental Offset Policy and WA Environmental Offset Guidelines (Government of Western Australia 2011, 2014) as detailed in Table 3-3.

The eight principles defined in the Federal EPBC Act Environmental Offsets Policy are addressed in Table 3-4.

Consideration of the offsets with respect to the EPA's (2024) *Public Advice: Considering environmental offsets at a regional scale* are addressed in Table 3-5.

**Table 3-3: Assessment of Offset Strategy against EPA Offset Principles**

Offset Principle	Offset Strategy
1. Environmental offsets will only be considered after avoidance and mitigation options have been pursued.	<p>Fauna surveys of the site have been used in the design of proposed facilities to avoid direct impacts on Malleefowl active mounds.</p> <p>The Project has been designed to minimise clearing to the maximum extent practicable by utilising existing disturbed areas where possible and backfilling the mine pit as far as practicable. The Project will result in clearing of a relatively small area of 442 ha (0.003% of habitat within the Great Western Woodland) within a bioregion which is almost fully vegetated, with residual significant impacts on Chuditch and Malleefowl breeding and foraging habitat.</p>
2. Environmental offsets are not appropriate for all projects.	<p>Offsets have been deemed appropriate for this Project based on calculations determining Significant Residual Impacts (detailed within the Environmental Review Document and Response to Submissions (Covalent Lithium 2019a, 2019b), in liaison with DWER and the requirements of MS1199.</p>
3. Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.	<p>The quantum of offsets based on calculations by the DWER WA Offsets Calculator (Appendix C and D), and Commonwealth Offset Calculator (Appendix A and B) are proportionate to the significance of the environmental value being impacted.</p>
4. Environmental offsets will be based on sound environmental information and knowledge.	<p>Value and quality of offsets have been based on multiple surveys, which have been conducted by industry professionals with significant experience and in liaison with DBCA.</p>
5. Environmental offsets will be applied within a framework of adaptive management.	<p>Offsets will be monitored according to the indicative timeframes outlined in this TFOS (Section 7).</p> <p>Management actions (Table 4-8) for offsets will be reviewed based on data collected through the relevant monitoring programs and adapted if required (Table 6-3).</p>
6. Environmental offsets will be designed to be enduring, enforceable and deliver long term strategic outcomes.	<p>The Offset Sites will be:</p> <ul style="list-style-type: none"> <li>• acquired and transferred to the conservation reserve system or otherwise protected via conservation covenant;</li> <li>• managed by State government agency in perpetuity once State and Commonwealth approval condition required for actions by the proponent have been fulfilled; and</li> <li>• contribute data regarding species phenology, habitat, and distribution to the existing body of knowledge.</li> </ul>

**Table 3-4: Assessment of Offset Strategy against EPBC Act Offset Policy Principles**

Offset Principle	Offset Strategy
Suitable offsets must:	
<p>1. <i>Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action</i></p>	<p>The improvement of additional fauna habitat within the eastern Wheatbelt (which contains a high portion of clearing) on the border of the Great Western Woodland delivers additional continuity of habitat and an associated conservation outcome. The offsets secure habitat in perpetuity for the species and removes the risk that the offset area will be cleared for agriculture or other purposes.</p> <p>The improvement in habitat quality and vegetation condition, to be confirmed through species continued presence at the offset site and associated monitoring (Section 7), is expected through management measures (Table 4-8).</p> <p>Given suitable habitat for both species at the offsite locations and presence of Chuditch at Offset Site 10 and Malleefowl at Warralakin Offset Site. It is considered likely, with suitable management measures at the locality scale, that retention of Malleefowl and Chuditch and recolonisation by Chuditch at Warralakin will occur.</p>
<p>2. <i>Be built around direct offsets but may include other compensatory measures</i></p>	<p>The Site 10 and Warralakin offset proposals provides 100% of the direct offset requirements for Chuditch and Malleefowl.</p>
<p>3. <i>Be in proportion to the level of statutory protection that applies to the protected matter</i></p>	<p>Chuditch and Malleefowl are classified as Vulnerable under the EPBC Act. This listing classification was incorporated into determining the offset area.</p>
<p>4. <i>Be of a size and scale proportionate to the residual impacts on the protected matter</i></p>	<p>Chuditch and Malleefowl are classified as Vulnerable under the EPBC Act. This listing classification was incorporated into determining the offset areas.</p>
<p>5. <i>Effectively account for and manage the risks of the offset not succeeding</i></p>	<p>Section 6 of this plan addresses risks to the offset site and risks of not achieving each of the plan’s completion criteria. The risk matrix in Section 6 identifies triggers and details corrective measures to be taken, if required. Protection mechanisms, once established, will provide a higher level of certainty that the proposed offset sites will be conserved.</p> <p>The risk of completion criteria not being achieved is minimised through:</p> <ul style="list-style-type: none"> <li>• Presence of species indicates suitable habitat;</li> <li>• Management measures are considered adequate to improve, maintain and protect habitat quality and vegetation condition; and</li> <li>• Both offset sites adjoin large areas of fauna habitat with the Chiddarcooping Nature Reserve (5,262 ha) adjacent to Warralakin and &gt;45,000 ha UCL adjacent to Site 10.</li> </ul>
<p>6. <i>Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs (this does not preclude the recognition of state or territory offsets that may be suitable as offsets under the EPBC Act for the same action)</i></p>	<p>The proposed offset sites are additional to current conservation land in this region and at this stage are not covered by any conservation protective measures (i.e. conservation covenants). It is proposed that the offset sites will be protected in perpetuity by either conservation covenants or where possible, transfer to the DBCA conservation estate (subject to agreement with DBCA).</p>

Offset Principle	Offset Strategy
<p>7. <i>Be efficient, effective, timely, transparent, scientifically robust and reasonable</i></p>	<p>The proposed offsets are:</p> <ul style="list-style-type: none"> <li>- efficient, as they are entirely comprised of areas to address both Chuditch and Malleefowl conservation;</li> <li>- effective, as they will maintain Malleefowl at the offset sites and maintain Chuditch at Site 10 and ensure the recolonisation Chuditch at Warralakin;</li> <li>- timely, as the offsets will be immediately implemented and delivered over the foreseeable future;</li> <li>- transparent, as the offset plan will be published on Covalent’s website;</li> <li>- scientifically robust, as the offsets are based on ecological survey information for the impact and offset site, and relevant strategic plans and species advice; and</li> <li>- reasonable, as attainment and maintenance of the offset completion criteria is achievable.</li> </ul>
<p>8. <i>Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.</i></p>	<p>Section 4.3.6 and 4.4.6 detail the land acquisition process with monitoring, audit and evaluation detailed in Section 7. Covalent will seek to enter into a funding agreement (Memorandum of Understanding) with DBCA for the transfer and long-term management of the sites.</p> <p>DBCA will undertake conversion to conservation estate as per Conservation and Land Management Act 1984 and Land Administration Act 1997.</p> <p>Covalent will consult with DBCA regarding offset site transfer and short, medium and long-term management actions and arrangements, to be reported by Covalent in the annual Compliance Assessment Report and Annual Compliance Report.</p> <p>Where agreement is not reached with DBCA, Covalent will pursue protection of these sites in perpetuity via Conservation Covenant.</p>

**Table 3-5: Assessment of Offset Strategy against guiding values for offsets at a regional scale**

Guiding value	Offset Strategy
<p><b>Restoration</b></p> <p>In addition to protecting existing high quality environmental values, offsets should identify achievable opportunities to enhance degraded and restore impacted environmental values to good to excellent quality consistent with science-based completion criteria. This could ensure nature positive outcomes are realised at a regional scale, especially if land acquisition alone offsets still result in a net loss of environmental values and ecosystem services within a region.</p>	<p>The proposed management measures (which include on-ground improvements) and ecological outcomes for Site 10 and Warralakin are to ensure the following outcomes (Section 4.3.4 and Section 4.4.4):</p> <ul style="list-style-type: none"> <li>• Vegetation progresses from an average of Good (Keighery scale) to Very Good or higher from 5 to 15 years, and maintain at this level to 20 years;</li> <li>• Suitable habitat is maintained for chuditch (as measured by records of suitable hollow fallen trees at baseline locations) at both sites such that chuditch presence is maintained at Site 10 and a population of chuditch is established at Warralakin over the 20-year timeframe; and</li> <li>• Suitable malleefowl habitat is maintained at both locations (as measured by sufficient leaf litter recorded at baseline locations, from 5 to 15 years and maintained to 20 years); such that malleefowl presence is maintained at both offset locations.</li> </ul>

Guiding value	Offset Strategy
<p><b>Regional scale management</b></p> <p>Environmental offsets should be consistent with new and emerging regional plans, reserve management plans, recovery plans, strategic programs and other regional level protection instruments. Environmental offsets should improve ecological linkages, provide environmental buffers and/or manage threatening processes, consistent with regional level management.</p>	<p>The offset strategy is consistent with the recovery plans for both the Chuditch and Malleefowl as described in Table 3-2; with both sites increasing linkages of regionally important remnant vegetation with local and regional conservation estate; and managing threatening processes (fire; predators) within the offset locations.</p>
<p><b>Resilient systems</b></p> <p>Environmental offsets should be designed in a way which builds and maintains resilience in ecological functions and ecosystem services</p>	<p>The on-ground management measures for both offset sites include predator control, as well as</p> <p>Whilst the offset area is not currently considered a priority area, involvement in regional baiting programmes will be undertaken if required, to ensure the protection and where applicable, return, of Chuditch and Malleefowl at the offset sites</p>
<p><b>Expanding scientific knowledge</b></p> <p>Environmental offsets should contribute to environmental knowledge of a region, for example through research into knowledge gaps which are likely to contribute to enhanced protection, or restoration trials. Periodic performance monitoring, evaluation and reporting of the environmental outcomes of offsets in a way which expands scientific knowledge should also be required. Results of research and performance monitoring should be made public</p>	<p>The results of all monitoring undertaken to support the offset sites will be made publicly available through the annual reports, which will be made available on Covalent’s website.</p>
<p><b>Like for like, and similar values</b></p> <p>Environmental offsets usually aim to replace an environmental value or ecosystem service with the same value or service as that being impacted (i.e. like-for-like). Restoration offsets which meet science-based completion criteria can also have an environmental benefit even where they may not fully replicate the impacted environment. Like-for-similar environmental offsets can be considered where a regional environmental need and benefit can be demonstrated.</p>	<p>The values of each site with respect to ‘like for like/similar values’ and connectedness are inter-related.</p> <p>The Project is located within the GWW, within a region with largely intact native vegetation, with &gt; 80,000 ha of native vegetation occurring within a 10 km radius of the mining area. The vegetation condition is largely classified as ‘very good’ or higher (Keighery 1994) within undisturbed areas. Much of the approved project occurs within areas previously disturbed for the previous Mt Holland mine site (abandoned).</p> <p>Site 10 is located within the eastern Wheatbelt region and is surrounded to the west by freehold land which is extensively cleared (Figure 4-1). The site is surrounded to the east by remnant vegetation (Unallocated Crown Land) which represents the extent of the GWW. The State Barrier Fence is located adjacent to Site 10 and provides a barrier to some feral animals into the Eastern Wheatbelt. The absence of habitat fragmentation (through infrastructure or existing</p>

Guiding value	Offset Strategy
<p><b>Connectedness</b></p> <p>Environmental offsets that demonstrate connectedness of the physical or ecological function values with those being impacted should be prioritised. For example, environmental offsets within the same region and habitat which support the same function (e.g. protecting or improving breeding habitat or inland water quality). Environmental offsets in a neighbouring region can be considered where it can be demonstrated there is beneficial connectivity of ecological functioning that should be improved or protected.</p>	<p>disturbance) within the GWW provides continuity of habitat and biodiversity corridors between GWW and Site 10. The State Barrier Fence is not considered a barrier to chuditch or malleefowl movement given the design of the fence.</p> <p>The Warralakin Offset Site (Figure 4-9) is located within the GWW, approximately 165 km northwest of the Proposal. The site is surrounded to the west by freehold land which has been substantially cleared. The existing 7,200 ha DBCA managed Chiddarcooping Nature Reserve lies to the east of the site, separated from the Reserve by approximately 70 m between the southeastern corner of the property and the closest portion of the Reserve. The land abutting the proposed offset property to the east is registered with the Bush Blocks Guardians Inc, for conservation. In effect the protection of this land in addition to the proposed offset property (Lot366) will provide a contiguous land parcel from the proposed offset property to the Reserve.</p>
<p><b>Co-benefits for social surroundings</b></p> <p>Environmental offsets which provide greater co-benefits for the same environmental outcome should be prioritised. For example, this may include the restoration of environmental values associated with heritage, cultural or social significance, or improved recreation opportunities in high value areas where this is consistent with conservation.</p>	<p>The management of both offset locations offers an opportunity for co-management with existing landholders (such as DBCA for nearby conservation estate) and engaging local businesses and Traditional Owner enterprises in on-ground management practices and requirements, such as fire management (e.g. utilizing Traditional Owner fire knowledge in the Great Western Woodlands), fencing, predator control, fauna monitoring (e.g. WA Malleefowl Recovery Group). Etc.</p>

## 4 Offset Plan

### 4.1 Objectives

This TFOS identifies two suitable sites (Site 10 and Warralakin) for acquisition, with appropriate conservation values to offset the residual significant impacts to Malleefowl and Chuditch. The sites are adjacent to remnant vegetation and are not subject to conservation title or covenants. The protection of the sites will:

- secure and improve suitable fauna habitat for the Chuditch and Malleefowl within the eastern Wheatbelt (a highly disturbed environment) adjacent to the western border of the Great Western Woodland;
- maintain Chuditch presence on Offset Site 10;
- maintain Malleefowl presence on Warralakin Offset Site;
- ensure Malleefowl recolonise and utilise the Offset Site 10; and
- ensure Chuditch recolonise and utilise the Warralakin Offset Site.

The objective of this TFOS is to compensate for residual significant impacts to Chuditch and Malleefowl. To this end the TFOS will ensure:

- The continued presence of Chuditch at the 1,788 ha Offset Site 10;
- Malleefowl recolonise and continuously forage and breed at the Offset Site 10;
- The continued presence of Malleefowl at the 260 ha Warralakin Offset Site;
- Chuditch recolonise and continuously forage and breed at the Warralakin Offset Site;
- The sites support the continued presence of Malleefowl and Chuditch, and
- Vegetation condition is classified as 'very good' or higher, according to Keighery (1994).

### 4.2 Offset Quantum

#### 4.2.1 EPBC Offset Calculator

The DCCEEW (2022a, 2022b) has developed "Habitat Quality Scoring Tools" for both Malleefowl and Chuditch to assist in determining the relative quality of fauna habitats. The Habitat Quality Scoring Tools consider the key attributes of 'Site Condition', 'Site Context' and the 'Species Stocking Rate' with a numerical 'score' assigned based on key descriptors. The scoring system results in an overall habitat quality score out of 10; which is compatible with the EPBC Act Offsets Assessment Guide (DCCEEW 2012b). The Site Condition (i.e. habitat quality), Site Context and Species Stocking Rate are considered when rating habitat quality.

The Habitat Quality Scoring Tools assess and assign scores for each attribute to the 'Impact Site' (i.e. the fauna habitat to be removed by the Project, refer to Appendix A), and to the Offset Site in the scenarios of its 'Start Quality' (current condition) and a prediction of the future quality both 'Without Offset' and 'With Offset'.

Appendix B contains the completed Habitat Quality Scoring Tool and Calculator for Malleefowl and Chuditch for Site 10 and Appendix C contains the completed Habitat Quality Scoring Tool and Calculator for Malleefowl and Chuditch for Warralakin.

#### 4.2.2 EPA Offset Calculator

The EPA has developed the WA Environmental Offsets Template to assist in offset calculation methodology. The process for offset calculation requires:

- Determining Conservation Significance;

- Calculating Residual Impact; and
- Calculating Offsets.

No rehabilitation has been applied in the calculation of the offset quantum.

Appendix D contains the completed Calculator and rationale for Site 10 and Appendix E contains the completed Calculator and rationale for Warralakin. The inputs have been determined in accordance with the DWER (2021) Environmental Offsets metric: Quantifying environmental offsets in Western Australia.

### 4.2.3 Summary of significant residual impact and offset requirements

The significant residual impacts (SRI) as defined within MS 1199 (Condition 8-1) were determined on the basis of loss of habitat, as a result of clearing of native vegetation for the project. The offset requirements for the Project as determined using the EPBC Act and EPA offset calculators are described in Table 4-1; and provide the minimum area required to achieve at least 100% offset requirement.

It should be noted that Site 10 was purchased to provide the offset requirements for the original SRI under MS 1118 and EPBC 2017/7950. This area was insufficient to support the offset requirements for the SRI's associated with an additional 56 ha of clearing for the approved project (under MS1199), so an additional offset property for land acquisition was required and is proposed via the Warralakin site. Given the different values associated with each offset location, the offset requirements have been calculated for each site, to address the related impact area, noting that worst case scenarios were used for each calculator, being the greater area of habitat loss (as the other input values in the calculators are otherwise the same for each species).

**Table 4-1: Significant residual impacts and associated offset requirements**

Fauna	SRI Original Proposal	Additional SRI Revised Proposal	Offset requirement using calculator WA		Offset requirement using calculator Commonwealth	
			Site 10	Warralakin	Site 10	Warralakin
			Malleefowl	386	50	1200
Chuditch	386	56	1200	155	1756	190

Sufficient land is available within each offset location to support the required offset areas shown in Table 4-1, as calculated to provide an adequate offset (Appendices A to D), with 1600 ha being available at Site 10 and 260 ha at Warralakin.

## 4.3 Offset Site 10

### 4.3.1 Site Details

The Site 10 offset area is within Lot 958 of Parcel 214324, located on Emu Fence Rd and Dunbar Rd in Skeleton Rock, Shire of Yilgarn in Western Australia (Figure 4-1). The entire land parcel is 2,766 ha, however a portion of the parcel, (1,788 ha) is the Offset Site. Site 10 consists of 1,645 ha of remnant vegetation, which consists of 1,510 ha of woodland and shrubland fauna habitat and 135 ha of granite habitat. The remaining 143 ha of area is cleared land which will be utilised for fencing and fire breaks. Following discussions with DBCA Covalent has completed the subdivision, fencing and purchase of this land parcel to meet offset requirements.

Lot 958 of Parcel 214324 (Site 10) is currently freehold land (owned by Covalent), with DBCA consultation underway regarding conversion of Site 10 into the conservation reserve system, as well as management arrangements to ensure the offset completion criteria (Table 4-3) are achieved and

maintained for the period of effect of EPBC Act approval for EPBC 2017/7950. This TFOS, and any revisions to this TFOS, will underpin those management arrangements for the period of EPBC Act approval and MS1199.

### **4.3.2 Bioregional Context**

Site 10 is located within the eastern Wheatbelt region and is surrounded to the west by freehold land which is extensively cleared (Figure 4-1). The site is surrounded to the east by remnant vegetation (Unallocated Crown Land) which represents the extent of the Great Western Woodlands (GWW), an area considered an ecological hotspot. The State Barrier Fence is located adjacent to Site 10 and provides a barrier to some feral animals into the Eastern Wheatbelt. The absence of habitat fragmentation (through infrastructure or existing disturbance) within the GWW provides continuity of habitat and biodiversity corridors between GWW and Site 10. The State Barrier Fence is not considered a barrier to Chuditch or Malleefowl movement given the design of the fence.

The GWW area is a 16 million ha area extending from the wheatbelt to the edge of the deserts and is the largest intact area of Mediterranean Woodland on Earth. The GWW includes open eucalypt woodlands (63%), mallee eucalypt woodlands, shrublands and grasslands (Fox et al. 2016). Less common habitats in the GWW include granite outcrops, banded ironstone formations, salt lakes and freshwater wetlands (Fox et al. 2016). The relative intactness of the GWW is recognised as a key value by Fox et al. (2016), in that it provides connectivity for birds in a landscape that varies both spatially and temporally. The south-western half of the GWW provides habitat for many birds that are locally extinct or have reduced populations in the adjacent and substantially cleared wheatbelt (Fox et al. 2016).

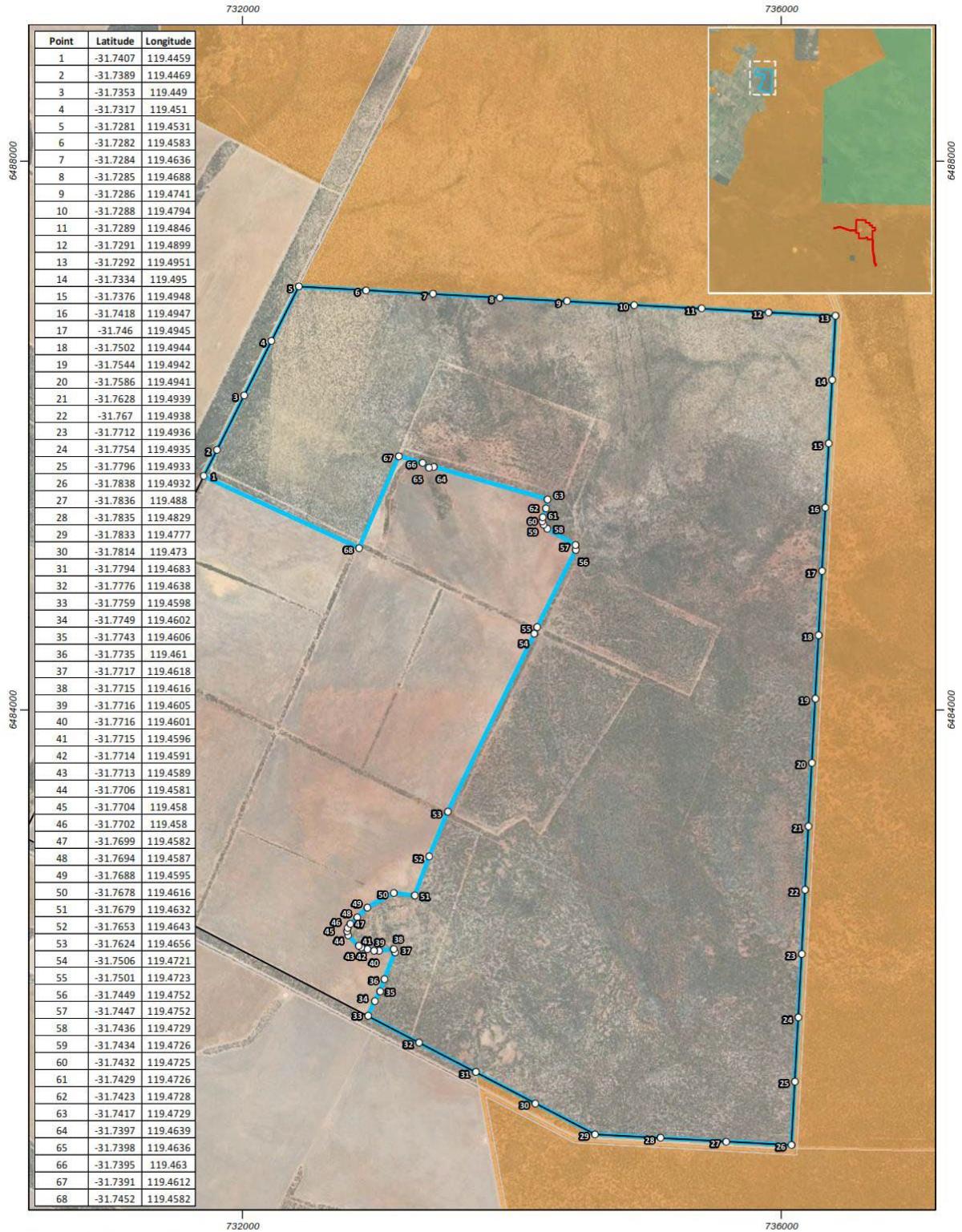
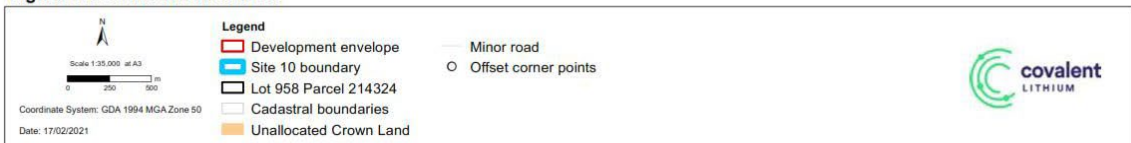


Figure 3.1 Fauna offsets site 10



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 © 2021. Whilst every care has been taken to prepare this map, Strategen (BS&G) & Covalent makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages or other costs (including interest or consequential damages) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.  
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Figure 4-1: Site 10 Location

### 4.3.3 Site 10 Values

Ecoscape (2020a) have undertaken various Habitat Assessment surveys of Site 10 as detailed in Table 4-2, which provide the baseline assessment for this Site. Site 10 contains a large block of contiguous native vegetation of approximately 1,645 ha that is within the larger uncleared land on the edge of the agricultural zone.

**Table 4-2: Site 10 Terrestrial Fauna and Habitat Surveys**

Date	Survey Type and Extent	Survey Outcomes
July 2019	Reconnaissance fauna habitat assessment	Potential habitat for Chuditch and Malleefowl was identified from the available access locations Reference: Ecoscape (2019) Offset Habitat Assessment – July 2019 for Covalent Lithium
January 2020	Offset Fauna habitat assessment	Camera traps were deployed and physical searches, resulting in fauna habitat mapping and the following identified two broad habitat units (Woodland and Shrubland) in excellent condition with little to no disturbance, good litter cover and fallen logs. The relatively good number and variety of small mammals, reptiles and birds captured by the camera traps indicate a good prey base for Chuditch. Furthermore, no feral cats or foxes were recorded by the cameras, although fox tracks were found on the boundary to the West and North. The relatively low number of feral fauna is most likely due to the existing Dogger Program of the Eastern Wheatbelt Biosecurity Group, which raises the protection for both Malleefowl and Chuditch. Reference: Ecoscape (2020) Offset Fauna Habitat Assessment – February 2020 for Covalent Lithium.
September 2020	Fauna habitat assessment and Targeted survey for Chuditch and Malleefowl	55 cameras were established and 20 habitat assessment points with the following results: <ul style="list-style-type: none"> <li>• Malleefowl – two inactive mounds were recorded</li> <li>• Chuditch – one camera sighting and track was recorded</li> <li>• Evidence of feral predator control was identified, which is undertaken by the Department of Primary Industries and Regional Development in the local area</li> <li>• Fire management practises consisted of a cleared fire break on the perimeter of cleared areas. No fire breaks were in place adjacent to remnant vegetation.</li> </ul> Reference: Ecoscape (2020) Offset Fauna Habitat Assessment – September 2020 for Covalent Lithium (Appendix F).

Site 10 is in close proximity to the State Barrier Fence which is routinely 1080 baited, trapped for dogs and foxes, and intermittently undergoes shooting for feral predators. The western and northern portions of the site (approximately 360 ha) are recovering from a fire event, approximately five years ago, with good regeneration of the Salmon Gum woodlands and sandplain shrublands.

Three fauna habitats were identified as shown in Figure 4-2:

- Shrubland (549 ha), as shown in Plate 1, consists of a mixture of open and closed Allocasuarina and Acacia shrubland with scattered mallee and Hakea on clay sand with; Scattered spinifex grasses. It included approximately 70% litter cover with a low level of fallen logs. Some fire evidence in the shrublands was evidenced (burnt in 2004), with fire age above five years. This habitat is considered suitable foraging and breeding habitat for Chuditch and Malleefowl.
- Woodland (961 ha), as shown in Plate 2, consists of Open woodland of Salmon Gum and mallee on clay loamy soils. There is minimal understory with 50% litter cover and a

moderate level of fallen logs. Some minor disturbance with the fire age above five years. This habitat is considered suitable foraging and breeding habitat for Chuditch and Malleefowl.

- Granite (135 ha), as shown in Plate 3, consists of Low open Herb land around granite outcrop. This habitat has no soil with <5% litter and no fallen logs. No evidence of disturbance with the fire age above five years. Herb land and the fringing shrubland provides suitable breeding and foraging habitat for Malleefowl, with an inactive mound identified in the Granite habitat. This habitat is considered suitable foraging habitat only for Chuditch. This habitat is not considered suitable for breeding, due to the absence of suitable denning hollows or crevices for Chuditch.

The remaining area (143 ha) consists of cleared areas to be utilised for fencing and fire management tracks.



**Plate 1: Shrubland Habitat Type**



**Plate 2: Woodland Habitat Type**



**Plate 3: Granite Habitat Type**

Two Malleefowl mounds (Plate 4; Plate 5) were recorded in Site 10 as shown in Figure 4-2. Both mounds appeared to have not been used for 5+ and 10+ years, however, their presence indicates Malleefowl have been present within the site and that the site supports mound construction. Numerous recent recordings are known from the Project (40 km southeast) and other surveys. For example, in 2010 numerous mounds and secondary evidence approximately 14 km northeast of Site 10 were recorded (Cazaly Resources Limited 2010). In more recent surveys (Phoenix Environmental Sciences 2020), additional secondary evidence and one active mound and six recently active mounds have been identified within 13 km northeast of the Offset Site.

Chuditch was recorded within the Offset Sites (Plate 6; Figure 4-2) both by track evidence and camera images.



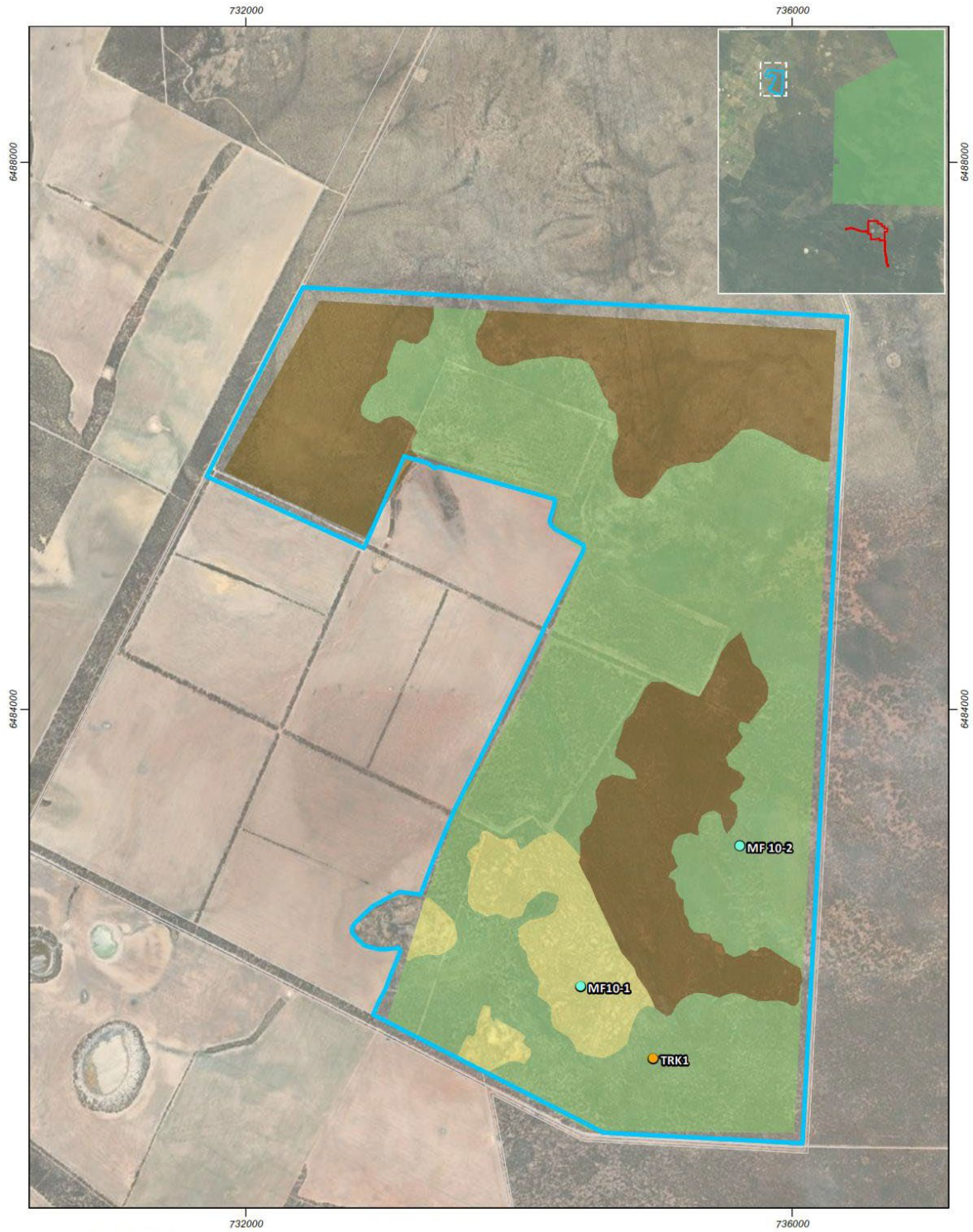
**Plate 4: 5+ Year old Malleefowl Mound in Site 10**



**Plate 5: 10+ Year old Malleefowl Mound in Site 10**



**Plate 6: Chuditch in Site 10**



**Figure 3.8: Site 10 fauna habitat and records**



**Figure 4-2: Site 10 Fauna Habitat and Records**

#### **4.3.4 Measurable ecological outcomes**

The measurable ecological outcomes for Site 10 habitat quality, estimates for achievement and the period for which these will be maintained are as follows:

- Vegetation condition is averaged as Good (Keighery scale) across all baseline assessment locations within 5 years, and vegetation condition is classified as Very Good or higher across all baseline assessment locations from 5 to 15 years and maintained as Very Good or higher to 20 years.
- Suitable hollow fallen trees recorded at greater than four baseline habitat assessment locations within 5 years and Suitable hollow fallen trees recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.
- Sufficient leaf litter to build a mound recorded at greater than four habitat assessment locations within 5 years and Sufficient leaf litter to build a mound recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.
- Malleefowl foraging resources recorded at greater than six baseline habitat assessment locations within 5 years and Malleefowl foraging resources recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.

#### **4.3.5 Completion Criteria**

Site 10 offset completion criteria for Offset site condition, context and species stocking rate, are detailed in Table 4-3. The completion criteria meet the TFOS objective (refer to Section 4.1).

The completion criteria have been established based on the intent to achieve the measurable ecological outcomes for the site and the maintenance of a Chuditch population and establishment of a Malleefowl population.

All the completion criteria detailed in Table 4-3, will be completed within 20 years from the approval of this TFOS. If one or more completion criteria are not met within 20 years, following the approval of this plan, remedial action(s) will be triggered and undertaken. If one or more completion criterion are met, then further monitoring identifies that the criterion is no longer met, remedial action(s) will be triggered and undertaken. Threshold criteria for 5, 10 and 15 years are detailed in Table 4-3: with contingency measures and triggers detailed in Table 6-3.

If attainment of any completion criterion is delayed, additional offsets may be required by the DCCEEW and DWER, and if any completion criterion is not met or is unable to be met, an alternative offset proposal may be determined by DCCEEW and DWER, in consultation with Covalent, and will be implemented following approval.

**Table 4-3: Site 10 Threshold and Completion Criteria**

Ecological Outcome	Item	Completion Criteria (20yrs)	Threshold Criteria			Monitoring Activity
			0 – 5 years	5 - 10 years	10 - 15 years	
Provide a conservation gain for Chuditch and Malleefowl	Species Presence	Chuditch detected onsite, between May and July, each year over three consecutive years.	Chuditch detected onsite, between May and July, during two annual monitoring events	Chuditch detected onsite during two consecutive monitoring events	Chuditch detected onsite during three consecutive monitoring events	Fauna presence monitoring – onsite
				Chuditch detected onsite, between May and July, during at least two monitoring events conducted within the respective five-year period		Fauna presence monitoring – onsite
		Malleefowl detected onsite each year over three consecutive years	Malleefowl detected onsite in two annual monitoring events	Malleefowl detected onsite during two consecutive monitoring events	Malleefowl detected onsite during three consecutive monitoring events	Fauna presence monitoring – onsite
		A recently active (1 – 2 years) Malleefowl mound is detected onsite	A recently active (1 – 2 years) Malleefowl mound is detected on site	A recently active (1 – 2 years) Malleefowl mound is detected onsite during at least two monitoring events during each five-year period		Malleefowl presence monitoring (mound monitoring) – onsite
		Chuditch and Malleefowl are detected within 5 km surrounding Site 10	Chuditch and Malleefowl are detected within 5 km, surrounding Site 10, during each five-year period			Fauna presence monitoring – offsite
	Habitat Quality	Vegetation condition is classified as Very Good or higher (Keighery scale)	Vegetation condition is averaged as Good (Keighery scale) across all baseline assessment locations	Vegetation condition is averaged as Very Good or higher (Keighery scale, Appendix E) across all baseline assessment locations		Vegetation condition assessment
		Chuditch habitat records numerous hollows fallen trees	Suitable hollow fallen trees recorded at greater than four baseline habitat assessment locations	Suitable hollow fallen trees (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		Fauna habitat assessment (Chuditch habitat quality)

Ecological Outcome	Item	Completion Criteria (20yrs)	Threshold Criteria			Monitoring Activity
			0 – 5 years	5 - 10 years	10 - 15 years	
		Chuditch habitat records some evidence of prey species	A variety of Chuditch prey species recorded at greater than six baseline habitat assessment locations	A variety of Chuditch prey species (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		
		Malleefowl habitat records sufficient leaf litter	Sufficient leaf litter to build a mound recorded at greater than four baseline habitat assessment locations	Sufficient leaf litter to build a mound (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations	Fauna habitat assessment (Malleefowl habitat quality)	
		Malleefowl habitat records evidence of foraging resources	Malleefowl foraging resources recorded at greater than six baseline habitat assessment locations	Malleefowl foraging resources (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		

#### **4.3.6 Land Acquisition Process**

An overview of the land acquisition process is presented in Table 4-4. Appendix H provides confirmation from DBCA regarding the suitability of Site 10 for offset purposes.

Following agreement by the DBCA on the sale process through a Memorandum of Understanding (to be developed), Covalent has undertaken the purchase of the site, and coordinated the sub-division and will provide support for site management. Covalent will transfer the site to DBCA.

A File Notation Area (FNA 15602) has been accepted by DEMIRS for a Proposed Conservation Offset. The Director General of DBCA has provided written confirmation (correspondence received 22 February 2021) that the site is suitable for inclusion in the conservation reserve system. Consultation is currently underway regarding conversion of the site to conservation reserve, with Class A reserve proposed. Surface exploration, mining and agricultural activities will be excluded from the site upon conversion to conservation reserve system. However, sub-surface (below 30 m) development for mining may occur. The potential for impacts to the offset site would be subject to environmental assessment at that time and managed to prevent indirect impacts to Malleefowl and Chuditch on and off-site.

Contingency measures will be implemented if the conservation offset is not established in a timely manner. These measures may include revising the TFOS, selecting alternative offset locations or arranging for alternate conservation management arrangements for the offsets.

**Table 4-4: Land Acquisition Process – Site 10**

Step	Role		Action	Responsible	Status
	Covalent	DBCA		Party	
Land identification	Lead	Review	Identify suitable land parcels	Covalent	Complete
Land evaluation	Lead	Consultation	Undertake fauna habitat assessments Undertake EBPC Offset calculations	Covalent	Complete – DBCA, DWER and DCCEEW have confirmed offset suitability
			Undertake site inspection	DBCA	Complete on 27 January 2021
			Provide confirmation on the suitability of Site 10 for offsets	DWER & DCCEEW	Complete – DBCA, DWER and DCCEEW have confirmed offset suitability
Landowner negotiation	Lead	Consultation	Agreement by the DBCA on the sale process Undertake landowner negotiations regarding subdivision and purchase Finalise site purchase price and associated costs (for example sub-division)	Covalent	Complete
DBCA agreement for receipt of land into conservation reserve system	Lead	Approve	Approval of File Notation Area under Section 16(3) of the <i>Mining Act 1978</i> (approval of the Minister for Mines) for Proposed Conservation Offset	DEMIRS	Complete
			Director General of DBCA confirm potential inclusion of the site in conservation reserve system	Covalent	Complete – letter received 21/02/21
Funding agreement as per Memorandum of Understanding	Lead	Review / approve / sign	Coordinate a funding agreement with DBCA regarding land acquisition and management funding requirements (refer to Section 5)	Covalent	In progress
	Lead	Consultation	Provide funds for land acquisition to DBCA in the form and manner specified in the Funding Agreement	Covalent	Not commenced
Land sub-division	Lead	Consultation	Coordinate sub-division of site	Covalent	In progress

Step	Role		Action	Responsible	Status
	Covalent	DBCA		Party	
Land purchase	Lead to be confirmed	Lead to be confirmed	Purchase site	DBCA / Covalent	Complete
Land tenure transfer	Lead	Consultation	Arrange for the purchased land parcel and transfer to the State with the intent to incorporate into the conservation reserve system and confirm conservation reserve category	Covalent	Not commenced
	Consultation	Lead	Transfer of land tenure from freehold to the conservation reserve system to be vested in the Conservation and Parks Commission, as required under the <i>Land Administration Act 1997</i> and <i>Conservation and Land Management Act 1984</i> Confirm conservation reserve category	DBCA	Not commenced

## 4.4 Offset Site Warralakin

### 4.4.1 Site Details

The proposed Warralakin Offset Site is within Lot 366 of Parcel 203231, located on Echo Valley Rd in Warralakin, Shire of Westonia in Western Australia (Figure 4-9). The entire land parcel is 1,735 ha; however, subdivision will result in 260 ha being the Offset Site.

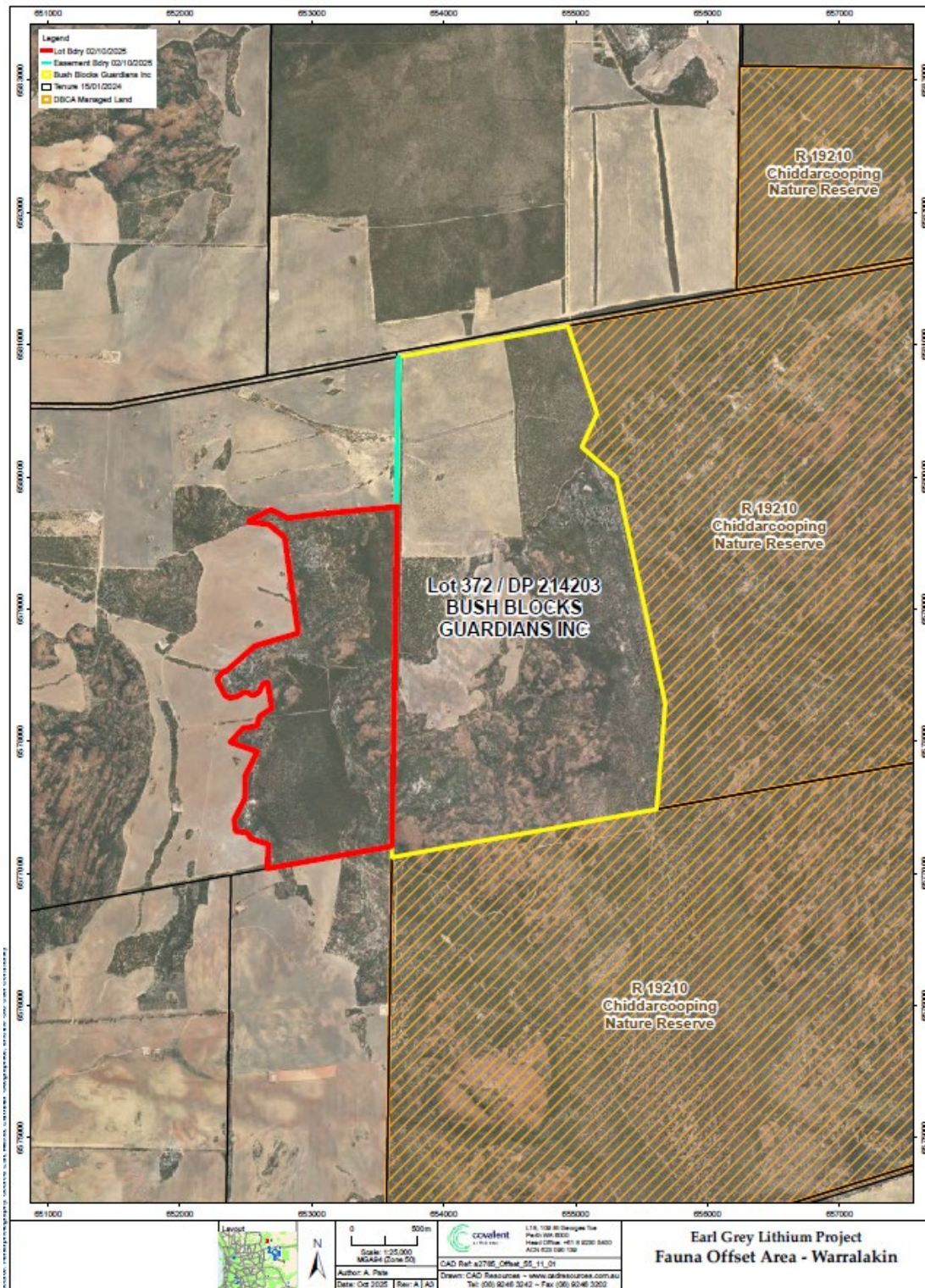
A portion of this site has recently been proposed as an offset for direct loss of 0.40 ha of WA Wheatbelt Woodlands Community Priority Ecological Community (PEC) and Threatened Ecological Community (TEC) associated with clearing of native vegetation under clearing permit CPS 10544/1. Of the 11.8 ha of mapped TEC available, 4.56 ha is required for the offset of the impacts to the PEC/TEC. The clearing permit application relates to the upgrade of the Parkers Range Road and Marvel Loch-Forresteria Road, used by Covalent Lithium for access to the mine site.

The proposed use of this site is not inconsistent with the use of a portion of the site as an offset for TEC values for CPS 10544/1.

### 4.4.2 Bioregional Context

Warralakin Offset Site (Figure 4-10) is located within the Avon Wheatbelt IBRA Bioregion, occurring in the GWW, approximately 165 km northwest of the Project. The site is surrounded to the west by freehold land which has been substantially cleared.

The existing 7,200 ha DBCA managed Chiddarcooping Nature Reserve lies to the east of the site, separated from the Reserve by approximately 70 m between the southeastern corner of the property and the closest portion of the Reserve. The land abutting the proposed offset property to the east (Lot 372 on Deposited Plan 214203, Yilgarn Location; Plate 1) is registered with the Bush Blocks Guardians Inc., the objectives of which are to buy and manage land in WA, initially in the Wheatbelt, to conserve and restore the natural environment. In effect the protection of this land (Lot 372) in addition to the proposed offset property (Lot 366) will provide a contiguous land parcel from the proposed offset property to the Reserve.



**Figure 4-3: Lot 372 on Deposited Plan 214203, Yilgarn**

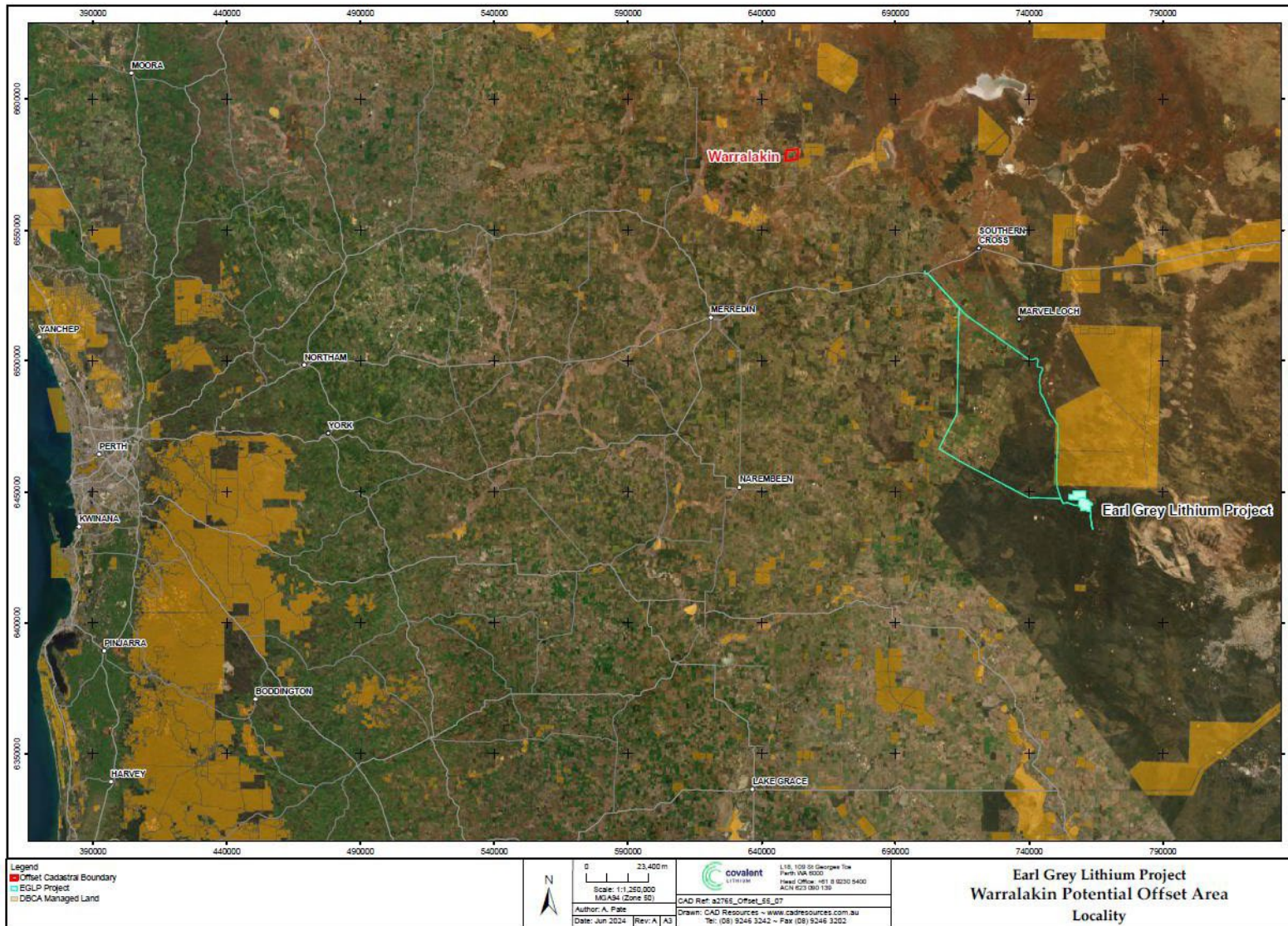


Figure 4-4: Warralakin Location

### 4.4.3 Offset Site Values

Ecoscope (2024) have undertaken a Habitat Assessment of the Warralakin Offset Site as detailed in Table 4-5, which provides the baseline conditions for measuring progress against completion criteria (Table 4-6).

**Table 4-5: Warralakin Offset Site Fauna Habitat Assessment**

Date	Survey Type and Extent	Survey Outcomes
January 2024	Targeted fauna habitat assessment	<p>The assessment was undertaken in accordance with techniques as described in EPA Technical Guidance and Commonwealth survey guidelines to record fauna habitat values.</p> <p>The basic fauna survey incorporated a number of survey techniques as per the Terrestrial Fauna Technical Guidance (EPA 2020) including habitat assessment, active searches (daytime), searches for secondary evidence such as scats and tracks, as well as opportunistic observations.</p> <p>Fauna habitat for Chuditch and Malleefowl (targeted species) was recorded across the Warralakin Offset Site (260 ha).</p>

Three fauna habitats were identified across the 260 ha Warralakin Offset Site as shown in Figure 4-11:

- Shrubland (123.34 ha), as shown in Plate 7, varies from open to closed shrubland dominated by *Allocasuarina campestris*, *Melaleuca uncinata* and mixed *Acacia* species on sandy soils. The dense vegetation, sandy soils, and high litter cover provides shelter, foraging, and breeding habitat for Malleefowl. Chuditch will use this habitat for foraging on fossorial reptiles and bird eggs in nests close to the ground.
- Woodland (78.12 ha), as shown in Plate 8, is dominated by tall open woodlands of *Eucalyptus* species (Salmon Gum; Wandoo) and/or low open woodlands of Mallee over shrubs on clayey sand to clay soils. Fallen logs are an important feature in the eucalypt woodlands providing breeding habitat suitable for Chuditch. The Mallee woodlands also occur on sandy soils and have higher litter cover than the eucalypt woodlands making this habitat type suitable for Malleefowl breeding.
- Rock Outcrop (59.06 ha), as shown in Plate 9 comprises a mosaic or bare open granite sheets mixed with shrub and herbs on skeletal rocky soils. The habitat provides foraging resources for both Malleefowl and Chuditch with the breakaway areas offering shelter resource for Chuditch.

Habitat quality was assessed as being in good quality providing both shelter and forage values for the targeted species.



**Plate 7: Shrubland Habitat Type**



**Plate 8: Woodland Habitat Type**



**Plate 9: Rock Outcrop**

A historical Malleefowl mound (Plate 10) was recorded at the Warralakin Offset Site as shown in Figure 4-5. A recently used mound (Plate 11) was recorded in the adjacent Chiddarcooping Nature Reserve (1.5 km SE).



**Plate 10: Historical Malleefowl Mound in Warralakin Offset Site**



**Plate 11: Recent Malleefowl Mound in Chiddarcooping NR**

No evidence of Chuditch presence was recorded during the survey. However, optimal breeding and foraging habitat suitable for Chuditch was recorded, in particular the Woodland habitat exhibits all of the values considered optimal for Chuditch breeding and foraging (Plate 12).



**Plate 12: Optimal Chuditch Habitat Recorded**

The Warralakin offset site was ranked at a high priority for potential offset value due to the extent of habitats, connection to adjacent Nature Reserves, evidence of Malleefowl presence, proximity to recent DBCA Malleefowl records, and connectivity to other large areas of native vegetation already under conservation covenant.

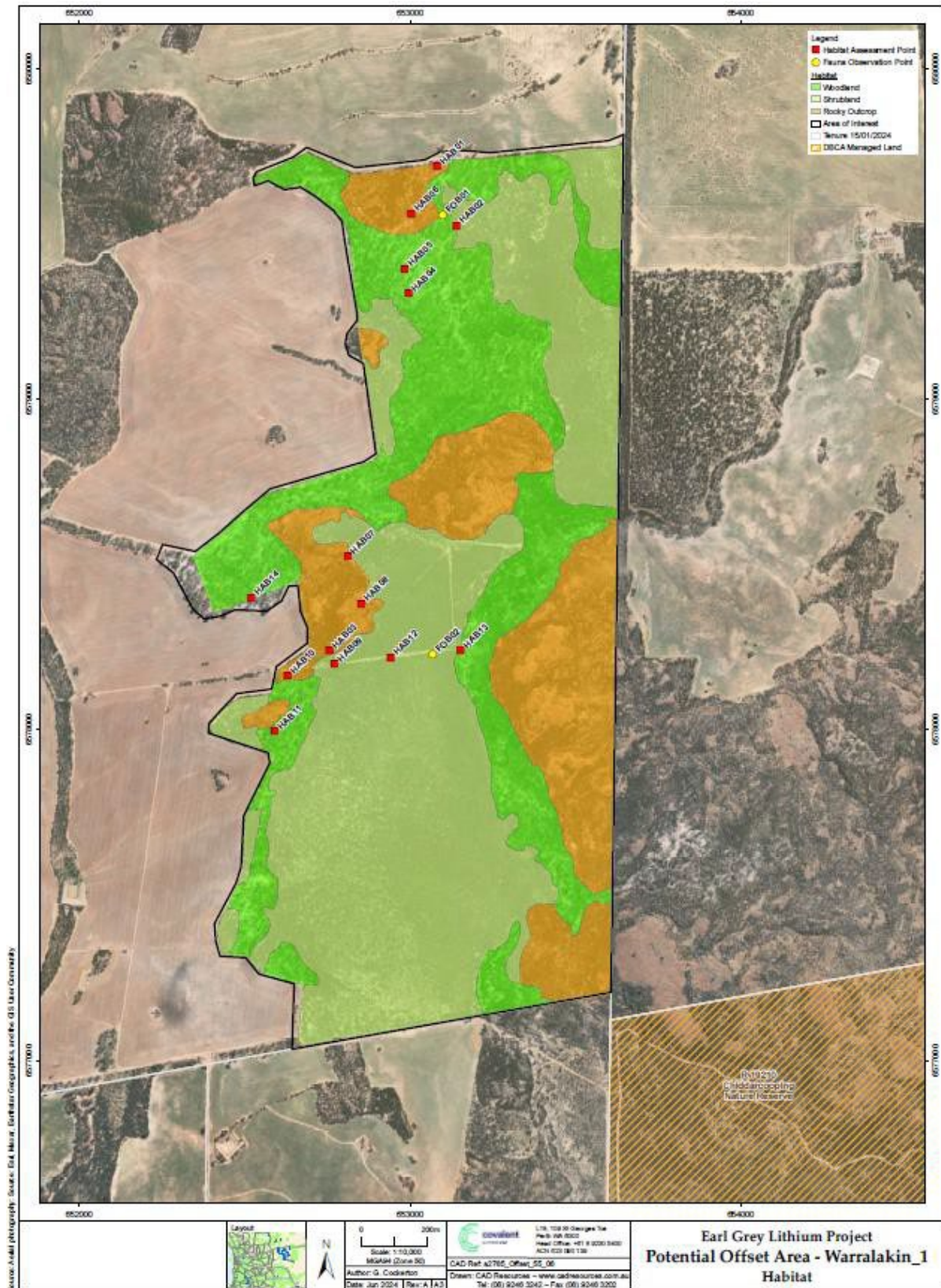


Figure 4-5: Warralakin Fauna Habitat and Records

#### 4.4.4 Measurable ecological outcomes

The measurable ecological outcomes for Warralakin habitat quality, estimates for achievement and the period for which these will be maintained are as follows:

- Vegetation condition is averaged as Good (Keighery scale) across all baseline assessment locations within 5 years, and vegetation condition is classified as Very Good or higher across all baseline assessment locations from 5 to 15 years and maintained as Very Good or higher to 20 years.
- Suitable hollow fallen trees recorded at greater than four baseline habitat assessment locations within 5 years and Suitable hollow fallen trees recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.
- Sufficient leaf litter to build a mound recorded at greater than four baseline habitat assessment locations within 5 years and sufficient leaf litter to build a mound recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.
- Malleefowl foraging resources recorded at greater than six baseline habitat assessment locations within 5 years and Malleefowl foraging resources recorded at greater than eight baseline habitat assessment locations from 5 to 15 years and maintained to 20 years.

#### 4.4.5 Completion Criteria

Warralakin offset completion criteria for Offset site condition, context and species stocking rate, are detailed in Table 4-6. The completion criteria meet the TFOS objective (refer to Section 4.1).

The completion criteria have been established based on the intent to achieve the measurable ecological outcomes for the site and the maintenance of a Malleefowl population and establishment of a Chuditch population.

All the completion criteria detailed in Table 4-6, will be completed within 20 years from the approval of this TFOS. If one of more completion criteria are not met within this timeframe remedial action(s) will be triggered and undertaken. If one or more completion criterion is met, then further monitoring identifies that the criterion is no longer met, remedial action(s) will be triggered and undertaken. Threshold Criteria for 5, 10 and 15 years are detailed in Table 4-6 with contingency measures and triggers detailed in Table 6-3.

If attainment of any completion criterion is delayed, additional offsets may be required by the DCCEEW and DWER, and if any completion criterion is not met or is unable to be met, an alternative offset proposal may be determined by DCCEEW and DWER, in consultation with Covalent, and will be implemented following approval.

**Table 4-6: Warralakin Threshold and Completion Criteria**

Ecological Outcome	Item	Completion Criteria (20yrs)	Threshold Criteria			Monitoring Activity
			0 – 5 years	5 - 10 years	10 - 15 years	
Provide a conservation gain for Chuditch and Malleefowl	Species Presence	Malleefowl detected onsite each year over three consecutive years	Malleefowl detected onsite in two annual monitoring events	Malleefowl detected onsite during two consecutive annual monitoring events	Malleefowl detected onsite during three consecutive annual monitoring events	Fauna presence monitoring – onsite
		A recently active (1 – 2 years) Malleefowl mound is detected onsite	A recently active (1 – 2 years) Malleefowl mound is detected on site	A recently active (1 – 2 years) Malleefowl mound is detected onsite during at least two monitoring events during each five-year period		Malleefowl presence monitoring (mound monitoring) – onsite
		Chuditch and Malleefowl are detected within 5 km surrounding Warralakin	Chuditch and Malleefowl are detected within 5 km, surrounding Warralakin, during each five-year period			Fauna presence monitoring – offsite
	Habitat Quality	Vegetation condition is classified as Very Good or higher (Keighery scale)	Vegetation condition is averaged as Good (Keighery scale) across all baseline assessment locations	Vegetation condition is averaged as Very Good or higher (Keighery scale) across all baseline assessment locations		Vegetation condition assessment
		Chuditch habitat records numerous hollow fallen trees	Suitable hollow fallen trees recorded at greater than four baseline habitat assessment locations	Suitable hollow fallen trees (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		Fauna habitat assessment (Chuditch habitat quality)
		Chuditch habitat records some evidence of prey species	A variety of Chuditch prey species recorded at greater than six baseline habitat assessment locations	A variety of Chuditch prey species (as per Section 7.3) recorded at greater than eight habitat assessment locations		
		Malleefowl habitat records sufficient leaf litter	Sufficient leaf litter to build a mound recorded at greater than four habitat assessment locations	Sufficient leaf litter to build a mound (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		Fauna habitat assessment (Malleefowl habitat quality)

Ecological Outcome	Item	Completion Criteria (20yrs)	Threshold Criteria			Monitoring Activity
			0 – 5 years	5 - 10 years	10 - 15 years	
		Malleefowl habitat records evidence of foraging resources	Malleefowl foraging resources recorded at greater than six baseline habitat assessment locations	Malleefowl foraging resources (as per Section 7.3) recorded at greater than eight baseline habitat assessment locations		

#### **4.4.6 Land Acquisition Process**

An overview of the land acquisition process is presented in Table 4-7.

Negotiations have commenced to secure this property for offset values for offsets for conservation significant fauna habitat (Malleefowl and Chuditch) as well as the road widening works associated with the Project. Consultation with the landowner to date has indicated they are receptive to selling Warralakin with a letter of exclusivity with the landowner in place.

- Covalent is committed to the land acquisition and its protection in perpetuity via a Conservation Covenant and is currently undertaking to purchase the site and coordinate sub-division and site management.

It is anticipated that this process will be completed over the next 12 to 18 months and it is estimated that the timeline for completion of transfer of this property to conservation estate (via conservation covenant) will be in the order of 1 to 2 years from purchase.

**Table 4-7: Land Acquisition Process - Warralakin**

Step	Role		Action	Responsible	Status
	Covalent	DBCA		Party	
Land identification	Lead	Review	Identify suitable land parcels	Covalent	Complete
Land evaluation	Lead	Consultation	Undertake fauna habitat assessments Undertake EBPC Offset calculations	Covalent	Complete
			Discuss site suitability and proposed management measures and outcomes (noting site will be privately owned and managed by Covalent)	DBCA/DWER	In progress
Landowner negotiation	Lead	Consultation	Undertake landowner negotiations regarding subdivision and purchase Finalise site purchase price and associated costs (for example sub-division)	Covalent	In progress - purchase agreement is in place with landowner
Land sub-division and purchase	Lead	N/A	Coordinate sub-division of site Purchase site	Covalent	In progress
Land tenure	Lead	N/A	Arrange for purchased land parcel to be placed into Conservation Covenant	Covalent	Not commenced

## 4.5 Management Measures

Management measures have been proposed following DBCA consultation to maintain and improve the offset sites fauna habitat quality, protect Chuditch on site, and recolonise with Malleefowl. Covalent will coordinate the management activities for the first five years following acquisition.

The proposed management measures include the following:

- Fencing;
- Fire breaks;
- Weed control;
- Prescribed burning, in consultation with DBCA and other relevant stakeholders, if required; and
- Feral predator control, in consultation with DBCA and other relevant stakeholders, if required.

Further details of management measures are detailed in the section below with a summary provided in Table 4-8.

**Table 4-8: Management Measures**

Management Measure	Responsible Party (Short Term)	Responsible Party (Medium Term)	Responsible Party (Long Term)	Timing	Frequency	Duration	Method of Outcome measurement	
Installation of fire breaks	Covalent	Not applicable	Not applicable	Not applicable	Once off	Once off	5 <sup>th</sup> year inspection confirms fire break establishment	
Installation of boundary fence to prevent stock and inappropriate vehicle entry							5 <sup>th</sup> year inspection confirms fence establishment	
Removal of waste and unwanted infrastructure (e.g. internal fences)							5 <sup>th</sup> year inspection confirms unwanted infrastructure removal	
Maintenance of fencing		Covalent	Covalent	Covalent	Activities to be completed within 12 months of purchase	As required	For the life of the Project approval	Annual inspection of fencing confirms integrity
Maintenance of fire breaks								Annual inspection of fire break confirms good condition and easily accessible
Prescribed burning programs to minimise likelihood of uncontrolled wildfire impacting on conservation values, if required and feasible								Records of prescribed burn activities confirms prescribed burns completed as required
Weed control programs, if required								Records of undertaken weed control programmes have been completed if required
Contribution to regional feral animal control programs, if required	Records of feral animal control programmes have been completed if required.							

#### 4.5.1 Feral Predator Control Programmes

Effective feral predator control requires local and regional coordination. Currently, surrounding landowners and stakeholders such as State government agencies / departments, Landcare groups, industry and other partners contribute to feral predator control programs.

Given limited evidence of feral predators at Site 10, the requirement for feral predator control will be initiated following monitoring evidence (Section 7) indicating a potential increase in feral predator numbers which could impact on Malleefowl and Chuditch. Feral predator control (via contribution to DBCA programs) may be triggered by Threshold Criteria not being met (Table 6-3). Following consultation with DBCA, it was determined that feral predator control contribution will occur if required, in consultation with DBCA and other key stakeholders. If feral predator control programmes are required, the scale, frequency and location will be confirmed through a review of monitoring evidence and stakeholder consultation. A feral predator control programme would seek to control feral predators within the Development Envelope and within a surrounding 3 km radius (consistent with Condition 3-1(4) of MS1199)

It should be noted that the registration of Eradicate® in Western Australia restricts its use to fauna conservation programs on lands managed by or in agreement with DBCA. Additionally, a valid 1080 baiting application, risk assessment and approval will need to be in place prior to baiting as required under the Code of Practice for the Safe Use and Management of Registered Pesticides containing 1080, PAPP and Strychnine for vertebrate pest management in Western Australia (April 2018).

#### 4.5.2 Fencing

Installation and maintenance of perimeter fencing will be undertaken to help protect and improve the area for Malleefowl and Chuditch. Perimeter fencing will be designed and maintained to exclude grazing activities. Removal of internal fencing will be undertaken, in consultation with DBCA, to allow movement of fauna within the remnant vegetation.

#### 4.5.3 Fire Management

Following consultation with DBCA, fire breaks will be installed and maintained in addition to prescribed burns undertaken by DBCA as part of regional fire management programmes. Prescribed burns may be required in areas where fuel load is considered a high risk of supporting high intensity fires. Consultation with DBCA and stakeholders (Department of Fire and Emergency Services (DFES) and Shire of Yilgarn) will occur to ensure adequate controls are in place to minimise risk to species breeding habitat (hollow logs and leaf litter). Consideration will be given to low intensity, and mosaic burns to minimise impacts to species breeding habitat and the monitoring programme will be appropriately amended.

#### 4.5.4 Weed Control

If aggressive or invasive weeds are identified, weed control programmes will be undertaken. Weed control methodology will be developed in consultation with DBCA and will be dependent upon the species identified and observed extent, and for the purpose of improving habitat condition to 'Very Good'.

## 5 Funding Agreement

Covalent will fund land acquisition, transfer and implementation of this TFOS, to attain and maintain completion criteria, for the period of effect of EPBC Act approval for this project.

### 5.1 Funding arrangements – Site 10

A formal Memorandum of Understanding (MOU) with DBCA will be developed to confirm the funding arrangement to be specified in a funding agreement with DBCA to achieve the plan’s objectives and maintain the completion criteria with respect to Site 10. The expected funding arrangement items and timeframe are detailed in Table 5-1.

**Table 5-1: Funding Arrangement – Site 10**

Item	Funding Item	Relevant Parties	Timeframe
Land sub-division	Sub-division costs	Covalent	As required
Land acquisition	Transfer of land acquisition payment to Landowner	Covalent / DBCA	Upon land acquisition settlement
Land sub-division	Fencing	Covalent	Within six months of land acquisition
Management measures	Short-term and medium-term management measures including: Removal of waste and unwanted infrastructure (e.g. internal fences), and replacement and maintenance of fencing Maintenance of fencing, fire breaks, prescribed burns, regional feral animal and weed control programmes (if required)	Covalent / DBCA	For the period of EPBC Act approval and MS1199 approval
	Long -term management measures including: Maintenance of fencing, fire breaks, prescribed burns, regional feral animal and weed control programmes (if required)	DBCA	For the period of EPBC Act approval and MS1199 approval
Inspections	Annual inspections	Covalent	For the period of EPBC Act approval and MS1199 approval
Monitoring	Annual fauna monitoring	Covalent	For the period of EPBC Act approval and MS1199 approval

### 5.2 Funding arrangements – Warralakin

Covalent will undertake the funding for all aspects of the purchase and management of the Warralakin offset site, including but not limited to the subdivision, purchase, transfer to Conservation Covenant and ongoing management measures (including but not limited to annual inspections and annual faun monitoring) in the short and long term, for the life of the Project.

## 6 Risks and Contingency Measures

Risks and contingencies relating to achieving TFOS objectives are described in Table 6-3. Risk assessment is completed in accordance with Environmental Management Plan Guidelines (DAWE 2014) using the matrix shown in Table 6-1 and Table 6-2. Should contingency measures be required, Covalent will review and revise this strategy as per condition 4-4(1) or 4-4(2) of MS1199.

**Table 6-1: Likelihood and Consequence**

Qualitative measure of likelihood (how likely is it that this event/circumstances will occur after management actions have been put in place/are being implemented)	
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the project
Possible	Might occur during the life of the project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances
Qualitative measure of consequences (what will be the consequence/result if the issue does occur)	
Minor	Minor risk of failure to achieve the plan’s objectives. Results in short term delays to achieving plan objectives, implementing low cost, well characterised corrective actions.
Moderate	Moderate risk of failure to achieve the plan’s objectives. Results in short term delays to achieving plan objectives, implementing well characterised, high cost/effort corrective actions.
High	High risk of failure to achieve the plan’s objectives. Results in medium-long term delays to achieving plan objectives, implementing uncertain, high cost/effort corrective actions.
Major	The plan’s objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies.
Critical	The plan’s objectives are unable to be achieved, with no evidenced mitigation strategies.

**Table 6-2: Risk Matrix**

		Consequence				
		Minor	Moderate	High	Major	Critical
Likelihood	Highly Likely	Medium	High	High	Severe	Severe
	Likely	Low	Medium	High	High	Severe
	Possible	Low	Medium	Medium	High	Severe
	Unlikely	Low	Low	Medium	High	High
	Rare	Low	Low	Low	Medium	High

**Table 6-3: Offset Site Risks and Contingencies**

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
Chuditch detected onsite, between May and July, each year over three consecutive years.	Presence of species is not confirmed during monitoring activities	Possible	Critical	Severe	0 - 5 Year Threshold Criteria not met as per Table 4-3 and Table 4-6	Review monitoring (habitat quality) and management measures (for example feral predator control) to determine any potential contributions to absence of species and amend plan as required, which may include: Feral cat trapping as determined by monitoring results Fox baiting as determined by monitoring results Additional habitat quality improvement through weed control, fire management or improved fencing Assess if increase in monitoring effort is required Undertake research programmes to improve likelihood of species presence	Fauna presence monitoring – onsite
Malleefowl detected onsite each year over three consecutive years					5 - 10 Year Threshold Criteria not met as per Table 4-3 and Table 4-6	As per 5 Year Threshold Criteria Investigate requirements for additional or alternative offset site through consultation with DCCEE and DWER Provide additional or alternative offset, as required by DCCEE and DWER, and revise and submit TFOS for approval	
					10 - 15 Year Threshold Criteria not met as per Table 4-3 and Table 4-6	As per 10 Year Threshold Criteria Investigate feasibility of translocation or reintroduction programmes in consultation with DBCA and specialist groups (National Malleefowl Recovery Team, Perth Zoo)	

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
	Presence of foxes and cats increasing risk of predation	Likely	High	High	Monitoring identifies an increase in feral animal records from previous monitoring period	Review of impacts on species presence as determined through monitoring Feral predator management controls (involvement in site or regional feral predator programmes) are implemented, in consultation with DBCA and relevant stakeholders (Eastern Wheatbelt Biosecurity Group and adjacent landowners)	Fauna presence monitoring – onsite and offsite
	Offsite development activities displace species	Unlikely	Moderate	Low	Offsite development approval within 1 km of Offset Site	Review adjacent development activities and consult with proponent to minimise species displacement Review monitoring programme to detect any potential population changes Investigate and implement requirement for additional management measures, such as noise barriers, improved fencing or feral predator management controls	Fauna presence monitoring – offsite
Chuditch detected onsite, between May and July, each year over three consecutive years.	Presence of Chuditch during breeding season is not confirmed during monitoring activities	Unlikely	High	Medium	5 Year Threshold Criteria not met as per Table 4-3 and Table 4-6	Review monitoring (habitat quality) and management measures (for example feral predator control) to determine any potential contributions to absence of species and amend as required, which may include: Feral cat trapping as determined by monitoring results Fox baiting as determined by monitoring results Additional habitat quality improvement through weed control, fire management or improved fencing Assess if increase in monitoring effort is required Undertake research programmes to improve likelihood of species presence and breeding habitat (for example artificial den creation)	Chuditch presence monitoring - onsite

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
					<p>5 - 10 and 10 - 15 Year Threshold Criteria not met as per Table 4-3 and Table 4-6</p>	<p>As per 5 Year Threshold Criteria</p> <p>Investigate feasibility of translocation or reintroduction programmes in consultation with DBCA and specialist groups (Perth Zoo)</p> <p>Investigate requirements for additional or alternative offset site through consultation with DCCEE and DWER</p> <p>Provide additional or alternative offset, as required by DCCEE and DWER, and revise and submit TFOS for approval</p>	
A recently active (1 – 2 years) Malleefowl mound is detected onsite	Presence of recently active Malleefowl mounds is not confirmed during monitoring activities	Unlikely	High	Medium	<p>5 Year Threshold Criteria not met as per Table 4-3 and Table 4-6</p>	<p>Review of monitoring (habitat quality) and management measures (for example feral predator control) to determine any potential contributions to absence of species and amend as required, which may include:</p> <ul style="list-style-type: none"> <li>Feral cat trapping as determined by monitoring results</li> <li>Fox baiting as determined by monitoring results</li> <li>Additional habitat quality improvement through weed control, fire management or improved fencing</li> <li>Continue annual monitoring</li> <li>Assess if increase in monitoring effort is required</li> <li>Undertake research programmes to improve likelihood of species presence and breeding habitat (for example artificial mound creation)</li> </ul>	Malleefowl presence monitoring (mound monitoring) – onsite
					<p>5 - 10 and 10 - 15 Year Threshold Criteria not met as per Table 4-3 and Table 4-6</p>	<p>As per 5 Year Threshold Criteria</p> <p>Investigate feasibility of translocation or reintroduction programmes in consultation with DBCA and specialist groups (National Malleefowl Recovery Team)</p> <p>Investigate requirements for additional or alternative offset site through consultation with DCCEE and DWER</p>	

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
						Provide additional or alternative offset, as required by DCCEEW and DWER, and revise and submit TFOS for approval	
Chuditch and Malleefowl are detected within 5 km surrounding Site 10	Presence of species surrounding Site 10 is not confirmed during monitoring activities	Unlikely	High	Medium	Threshold Criteria not met as per Table 4-3 and Table 4-6	<p>Review of monitoring and management measures (for example feral predator control) to determine any potential contributions to absence of species and amend as required, which may include:</p> <ul style="list-style-type: none"> <li>Feral cat trapping as determined by monitoring results</li> <li>Fox baiting as determined by monitoring results</li> <li>Additional habitat quality improvement through fire management</li> <li>Continue monitoring at current frequency</li> <li>Assess if increase in monitoring effort is required</li> <li>Undertake research programmes to improve likelihood of species presence and breeding habitat (for example artificial mound creation)</li> </ul>	Fauna presence monitoring – offsite
Chuditch habitat records some evidence of prey species  Malleefowl habitat records evidence of	Evidence of Chuditch prey species or Malleefowl foraging resources is not confirmed	Unlikely	Moderate	Low	5-year Threshold Criteria not met as per Table 4-3 and Table 4-6	<p>Review of monitoring (habitat quality) and management measures (for example feral predator control) to determine any potential contributions and amend as required, which may include:</p> <ul style="list-style-type: none"> <li>Feral cat trapping as determined by monitoring results</li> <li>Additional habitat quality improvement through weed control, fire management or improved fencing</li> <li>Continue annual monitoring</li> <li>Assess if increase in monitoring effort is required</li> </ul>	<p>Fauna habitat assessment (Chuditch habitat quality)</p> <p>Fauna habitat assessment (Malleefowl habitat quality)</p>

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
foraging resources	during monitoring activities					Investigate rehabilitation practises which may improve habitat quality, such as seeding programmes and implement if required	
					10- and 15-year Threshold Criteria not met as per Table 4-3 and Table 4-6	As per 5 Year Threshold Criteria Investigate requirements for additional or alternative offset site through consultation with DCCEE and DWER Provide additional or alternative offset, as required by DCCEE and DWER, and revise and submit TFOS for approval	
Chuditch habitat records numerous hollows fallen trees  Malleefowl habitat records sufficient leaf litter	Evidence of numerous hollow fallen trees and sufficient leaf litter is not confirmed during monitoring activities	Unlikely	Moderate	Low	5-year Threshold Criteria not met as per Table 4-3 and Table 4-6	Review of monitoring (habitat quality) and management measures to determine any potential contributions and amend as required, which may include: Additional habitat quality improvement through weed control, fire management or improved fencing Continue annual monitoring Assess if increase in monitoring effort is required Undertake research programmes to improve quality of breeding habitat (for example artificial den or mound creation)	Fauna habitat assessment (Chuditch habitat quality)  Fauna habitat assessment (Malleefowl habitat quality)
					10- and 15-year Threshold Criteria not met as per Table 4-3 and Table 4-6	As per 5 Year Threshold Criteria Investigate requirements for additional or alternative offset site through consultation with DAWE and DWER Provide additional or alternative offset, as required by DCCEE and DWER, and revise and submit TFOS for approval	

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
Vegetation condition is classified as Very Good or higher (Keighery scale)	Vegetation condition is not classified as Very Good during monitoring activities	Unlikely	Moderate	Low	<p>5-year Threshold Criteria not met - Vegetation condition is averaged as Good (Keighery scale) across all assessment locations</p> <p>Review of monitoring and management measures to determine any potential contributions and amend as required, which may include: Additional habitat quality improvement through weed control, fire management or improved fencing Continue annual monitoring Assess if increase in monitoring effort is required Investigate rehabilitation practises which may improve habitat quality, such as seeding programmes and implement if required</p>	Vegetation condition assessment	
				Low	<p>10- and 15-year Threshold Criteria not met - Vegetation condition is averaged as Very Good (Keighery scale) across all assessment locations</p> <p>As per 5 Year Threshold Criteria Investigate requirements for additional or alternative offset site through consultation with DCCEEW and DWER Provide additional or alternative offset, as required by DCCEEW and DWER, and revise and submit TFOS for approval</p>		
Vegetation condition is classified as Very Good or higher (Keighery scale)	Unplanned fires result in vegetation condition and breeding habitat declines	Possible	Minor	Low	<p>Unplanned fire identified</p> <p>Review of monitoring and management measures to determine any improvement and amend as required, which may include: Maintenance or improvement to fire management tracks Prescribed burns Weed control Involvement in regional fire management measures with local shire, DFES and DBCA to prevent recurrence Review vegetation condition monitoring programme to determine if amendments are required</p>	<p>Site Inspection</p> <p>Vegetation condition assessment</p>	

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
	Prescribed burns detrimentally impact vegetation condition and breeding habitat decline	Possible	Minor	Low	Prescribed burn considered necessary	<p>Undertake consultation with DBCA and other relevant stakeholders (for example Shire of Yilgarn and DFES) to ensure appropriate controls in place for prescribed burn activities</p> <p>Ensure mosaic burns or only high-risk portions of site are burnt, to ensure hollow logs and leaf litter is retained to maintain species breeding habitat</p> <p>Review Fauna habitat assessment monitoring programme to determine if amendments are required</p>	<p>Site Inspection</p> <p>Fauna habitat assessment</p>
	Unauthorised site access or grazing result in vegetation condition and breeding habitat decline	Possible	Minor	Low	Evidence of unauthorised access or stock grazing is identified	<p>Review of monitoring and management measures to determine any improvement and amend as required, which may include:</p> <p>Repair, maintenance or improvement to perimeter fencing and gates</p> <p>Consultation with adjacent landowners to exclude stock</p> <p>Review vegetation condition monitoring programme to determine if amendments are required</p>	<p>Site Inspection</p> <p>Vegetation condition assessment</p>
Vegetation condition is classified as Very Good or higher (Keighery scale)	Increase in weed invasion result in vegetation condition and breeding	Possible	Minor	Low	Vegetation condition monitoring identifies an increase in weed species and cover	<p>Review of monitoring and management measures to determine any improvement and amend as required, which may include:</p> <p>Weed spraying programmes</p> <p>Targeted weed controls programmes</p> <p>Review and improvement of vehicle entry and hygiene procedures</p> <p>Review vegetation condition monitoring programme to determine if amendments are required</p>	<p>Site Inspection</p> <p>Vegetation condition assessment</p>

Relevant Completion Criteria	Event	Residual Risk			Trigger / Threshold Criteria	Contingency Action / Response	Monitoring
		Likelihood	Consequence	Risk Level			
	habitat decline						
Not applicable	Land unavailable for purchase	Unlikely	Moderate	Low	Land unavailable for purchase	<p>If acquisition is delayed, revised timeframes will be confirmed with DCCEEW and DWER.</p> <p>If acquisition is unsuccessful, alternative offset sites will be proposed and revised TFOS submitted</p>	Quarterly consultation with DBCA to review land acquisition process.
Not applicable	Conversion to conservation estate is unsuccessful	Unlikely	Moderate	Low	Conversion to conservation reserve does not occur within five years following site acquisition	<p>If conservation reserve creation is delayed, revised timeframes will be confirmed with DCCEEW and DWERs.</p> <p>If conservation reserve creation is unsuccessful for Site 10, protection via a conservation covenant will be undertaken.</p>	Quarterly consultation with DBCA to review land conversion process.

## 7 Monitoring, Reporting and Evaluation

Monitoring activities are summarised in Table 7-2, with further details provided below. Inspections and fauna and vegetation monitoring of Site 10 will be conducted by Covalent for the life of the approval, until 31 December 2069.

The results of monitoring, to track the offset against completion criteria, will be included in compliance reports which will be submitted to DCCEEW and DWER annually, as detailed in Section 9.

Locations and baseline data for each monitoring location will be established in the first monitoring period within one year following acquisition. Following collation of this baseline data, further quantitative threshold and trigger criteria may be established. Establishment of any additional threshold or trigger will be based on parameters identified during monitoring not quantified in the existing criteria.

A review of monitoring data will be completed annually. Baseline monitoring locations may be replaced if an unplanned event occurs, as detailed in Table 6-3.

### 7.1 Inspections

Covalent will coordinate annual inspections of each offset site to recommend proposed management activities for the following calendar year. Covalent will engage with stakeholders on the inspections and proposed management activities.

Inspections of offset sites will be conducted by Covalent and will include visual observations of:

- fencing to ensure integrity and identify any repairs required
- fire breaks to ensure access is available and identify any maintenance required
- any unplanned fires
- any changes in weed occurrence
- any changes in feral animal occurrence
- any grazing or unauthorised entry into the site

The inspection will include liaison with stakeholders including DBCA and neighbouring properties. A plan for management actions for the following calendar year will be put in place. The inspections are in addition to the formal environmental monitoring outlined within Section 7.2 (Vegetation Monitoring), Section 7.3 (Fauna Habitat Assessments) and Section 7.4 (Fauna Presence Monitoring).

### 7.2 Vegetation Monitoring

Vegetation monitoring will consist of a minimum of three quadrats per fauna habitat type with quadrats of size 25 m by 25 m. Quadrats will be located a minimum 50 to 100 m from boundary of property to negate edge effects (Casson et al., 2009). The following data will be recorded:

- GPS coordinates from the NW corner;
- Photographs outside the quadrat located approximately 3 m to the north-west, south and east of the northwest corner;
- Dominant 3 vascular flora species in each stratum;
- % cover of each stratum;
- Health of each stratum;
- Other comments;
- Total weed cover and taxa;
- Disturbance;

- Type;
- Estimated occurrence and or frequency;
- % Bare ground;
- % litter; and
- Composition.

Based on data recorded, each vegetation monitoring site will have a Vegetation Score assigned as per Keighery (1994) as detailed in Table 7-1. An average score for the site will be determined.

**Table 7-1: Vegetation Condition Score (Keighery 1994)**

Vegetation Condition	South-west and Interzone Botanical Provinces
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	The structure of the vegetation is no longer intact, and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.
Cleared	No native vegetation present

### 7.3 Fauna Habitat Assessments

Fauna habitat monitoring will consist of habitat assessments for habitat quality and presence monitoring.

- Habitat assessments will consist of a minimum of two locations per fauna habitat type onsite (EPA 2020). Each monitoring location will consist of a minimum of three 10 m by 10 m quadrats. Locations will be previously identified breeding sites (mounds or denning areas), in sandy substrates and Woodland fauna habitat in areas with hollow logs. The monitoring locations have been established based on previous fauna records and may be revised following the initial and subsequent monitoring periods. The following data will be recorded:
- Leaf and vegetation litter, specifically with reference to suitability for Malleefowl. Suitable leaf litter is considered to be a minimum of 50% litter cover (averaged from three 10 m by 10 m quadrats per monitoring site)
- Presence of hollow logs or denning areas, specifically with reference to suitability for Chuditch. Suitable hollow logs (fallen or standing) are those considered to have a minimum

internal diameter of 100 mm and a minimum of 5 logs/hectare. This metric has been determined by surveys at the impact site transects.

- Foraging and/or prey availability relevant to both Chuditch and Malleefowl.

Malleefowl foraging evidence is considered to be the presence of seedbearing (see note 2 below) vegetation. As noted in the National Malleefowl Recovery Plan (Benshemesh J 2007), Malleefowl are generalist feeders. Various anecdotal reports and studies have described the diet of Malleefowl as consisting of the seeds, flowers and fruits of shrubs (especially legumes), herbs, invertebrates, tubers and fungi.

Chuditch prey species is considered to be the presence of any or all of small mammals, reptiles, birds and invertebrates.

## 7.4 Fauna Presence Monitoring

Onsite fauna presence monitoring will consist of the following:

### Chuditch

- Monitoring to occur in breeding season from May to July.
- Monitoring to consist of cameras at static locations with a minimum of two arrays of 20 cameras with 200 m between cameras (Rayner et al. 2011). Cameras will also record any feral predators.
- Opportunistic records will be recorded including scats, tracks, scratchings or sightings of Chuditch or feral predator evidence.

### Malleefowl

- Monitoring will occur in mound building season from September to December
- Monitoring will consist of Lidar imagery to identify potential mounds with field verification or field verification of previously identified mounds
- Monitoring of Malleefowl will align with the National Malleefowl Monitoring Manual (NMRT 2019) and will include mound activity status
- Opportunistic records will be recorded including additional mounds, scats, feathers, tracks, scratchings, or sightings of Malleefowl or feral predator evidence.
- A cybertracker software program will be used in the monitoring. Monitoring data will be submitted to the National Malleefowl Monitoring Database. This data will contribute directly to the long-term Malleefowl population trend analysis, as well as the National Malleefowl Recovery Plan.
- Offsite fauna presence monitoring will use a similar methodology for onsite fauna presence monitoring, with the following exceptions:
- Chuditch cameras will consist of one array of 20 cameras located within remnant vegetation within 2 km of the offset site. Consultation with DBCA regarding camera positions will occur.
- Malleefowl mound monitoring will consist of Lidar imagery with field verification of remnant vegetation within 2 km of the offset site. If Threshold Criteria are not met (Table 4-3 or Table 4-6), monitoring radius from site will increase to 4 km and onwards.

Records for introduced fauna taxa (e.g. sightings, scats, tracks) will be collected whilst undertaking the targeted monitoring for Malleefowl and Chuditch (i.e. opportunistic recording rather than targeted field surveys). The records of introduced fauna taxa will be used to indicate the presence and population density of introduced fauna taxa.

An estimate of local population numbers for Chuditch, Malleefowl and feral predators will be made based on evidence collated and temporal analysis (where possible). This will establish population

trends over consecutive years. ANOVA analysis will provide statistical evidence if survey results are significant between monitoring events.

**Table 7-2: Monitoring Activity Summary**

Monitoring Activity	Timing	Frequency			Associated Completion Criteria
		Years 0 – 5	Years 5-10	Year 10 onwards	
Site inspections	May to December	Annually	Every two years	Every five years	Not applicable – monitoring associated with management measures
Chuditch presence monitoring - onsite	May to June	Annually	If Threshold Criteria met, decrease to every two years	If Threshold Criteria met, decrease to every five years	Presence of species onsite confirmed
			If Threshold Criteria not met - annually	If Threshold Criteria not met - annually	Onsite presence of Chuditch during breeding season is recorded
Malleefowl presence monitoring - onsite	September to December	Annually	If Threshold Criteria met, decrease to every three years	If Threshold Criteria met, decrease to every five years	Presence of species onsite confirmed
			If Threshold Criteria not met - annually	If Threshold Criteria not met - annually	Recently active (1 – 2 years) Malleefowl mounds identified
Fauna habitat assessments  Vegetation condition assessment	May to December	Annually	If Threshold Criteria met, decrease to every three years  If Threshold Criteria not met - annually	If Threshold Criteria met, decrease to every five years  If Threshold Criteria not met - annually	Vegetation condition is classified as Very Good or higher (Keighery scale)
					Chuditch habitat records numerous hollow fallen trees
					Chuditch habitat records some evidence of prey species
					Malleefowl habitat records sufficient leaf litter
					Malleefowl habitat records evidence of foraging resources

Monitoring Activity	Timing	Frequency			Associated Completion Criteria
		Years 0 – 5	Years 5-10	Year 10 onwards	
Chuditch presence monitoring - offsite	May to June	Annually	If Threshold Criteria met, decrease to every two years If Threshold Criteria not met - annually	If Threshold Criteria met, decrease to every five years If Threshold Criteria not met - annually	Species distribution is known surrounding Site 10 (within 2 – 5 km)
Malleefowl presence monitoring - offsite	September to December	Annually	If Threshold Criteria met, decrease to every three years If Threshold Criteria not met - annually	If Threshold Criteria met, decrease to every five years If Threshold Criteria not met - annually	Species distribution is known surrounding Site 10 (within 2 – 5 km)

## 8 Roles and Responsibilities

Covalent will implement this TFOS following its approval as per condition 4-5 of MS1199 and 4-4C of EPBC Act approval 2017/7950. Implementation of this TFOS will be coordinated by the Manager Environment and Approvals, with support of the site-based Environmental Officers, as detailed in Table 8-1.

The implementation of the TFOS will be assisted through an Environmental Management System that will incorporate systems, processes, procedures and work instructions relating to the management, monitoring and reporting components of the TFOS.

**Table 8-1: Summary of Roles and Responsibilities**

Role	Responsibility
Covalent	<ul style="list-style-type: none"> <li>• Covalent have the overall responsibility for the implementation of this TFOS if any roles are delegated to a contractor or consultant, Covalent has the responsibility to audit compliance and ensure any contingency actions are implemented.</li> </ul>
Covalent Environmental Manager	<ul style="list-style-type: none"> <li>• overall accountability for auditing and compliance assessment with this TFOS during operation to ensure it is maintained and meets objectives and targets</li> <li>• provide technical support to all Project personnel to ensure this TFOS is implemented correctly and complied with</li> <li>• implement and maintain this TFOS, review its effectiveness and review the implementation as required</li> <li>• obtain relevant approvals for disturbance as required</li> <li>• ensure all personnel undertaking work at the offset sites are inducted and will adhere to TFOS requirements</li> <li>• undertaking ongoing monitoring and documenting monitoring results</li> <li>• liaise with stakeholders and technical advisors for advice and resolution of management aspects/objectives as required</li> <li>• review and close out any contingency actions</li> <li>• report as required to regulating authorities</li> <li>• may delegate all or part responsibility to an appropriately qualified person</li> </ul>
Site workers (Covalent employees, Contractors and Consultants)	<ul style="list-style-type: none"> <li>• must receive induction prior to commencement of work on offset sites</li> <li>• comply with all legal requirements and directions of Covalent Environmental Manager</li> </ul>

## 9 Administration

### 9.1 Reporting

Covalent will assess compliance and report annually, for the life of the approval, against implementation of this plan within the Compliance Assessment Report (CAR) and Annual Compliance Report (ACR), following its approval as per condition 8-3 of MS1199 and condition 12 of EPBC2017/7950 respectively.

The CAR (MS1199) will include:

- Progress against land acquisition;
- Progress against the transfer of Site 10 to a conservation reserve system for management by DBCA;
- Progress of the transfer of Warralakin into Conservation Covenant;
- Implementation status of the management actions;
- Progress against Threshold and Completion Criteria as detailed in Table 4-3 and Table 4-6;
- Monitoring results;
- Implementation and outcomes of corrective actions (if triggered); and
- Ongoing performance of offset measures and whether they are achieving the outcomes of MS1199 condition 4-1(1) and 4-1(2).

The ACR (EPBC2017/7950) will include:

- Progress against land acquisition;
- Progress against the transfer of Site 10 to a conservation reserve system for management by DBCA;
- Progress of the transfer of Warralakin into Conservation Covenant;
- Evaluation on the effectiveness of management measures;
- Progress against completion criteria; and
- Monitoring data.

Any non-compliances will be reported:

- To DWER within seven (7) days of that non-compliance being known as required under Condition 8-5 MS1199; and
- To DCCEEW within two business days, with further details provided within 10 business days as required under Condition 14 EPBC 2017/7950 approval.

### 9.2 Adaptive Implementation

Section 6 includes the current risks to achieving the Objectives and Completion Criteria of this TFOS and details corrective actions.

Monitoring as per Section 7 will include fauna and vegetation monitoring, in addition to inspections. Monitoring will be compared against the Threshold and Completion Criteria detailed in the TFOS, to determine if these have been met and/or are likely to be met.

Ongoing monitoring will provide an indication if performance is on an appropriate trajectory and will be reviewed against completion criteria. If any monitoring indicates that threshold criteria will not be met within the expected timeframe, the management measures will be reviewed and amended

accordingly. In the event significant changes are required to management measures, a revised version will be developed and submitted to DCCEEW and DWER for review and approval.

If monitoring by Covalent identifies the requirement for further refinement of the Completion Criteria or Threshold Criteria, the TFOS will be revised and submitted to regulators (DWER and DCCEEW) for approval.

If attainment of one or more Threshold and/or Completion Criteria is:

- Delayed, Covalent will advise DWER via [compliance@dwer.wa.gov.au](mailto:compliance@dwer.wa.gov.au). The DWER may then, in consultation with DCCEEW and Covalent, determine additional offset requirements and Covalent will submit a revised TFOS to DWER and DCCEEW for approval in accordance with the timeframe specified by DWER and DCCEEW; or
- Unlikely to be attained and/or maintained, Covalent will advise DWER via [compliance@dwer.wa.gov.au](mailto:compliance@dwer.wa.gov.au). The DWER may then, in consultation with DCCEEW and Covalent, determine additional or alternative offset requirements for Covalent to submit a revised TFOS to DWER and DCCEEW for approval in accordance with the timeframe specified by DWER and DCCEEW.

This TFOS is to be reviewed by Covalent:

- When the need for adaptive management not covered in this TFOS is recognised;
- As and when directed by the DWER CEO; and
- Covalent shall implement the latest version of this plan, which the DWER CEO has confirmed by notice in writing, satisfies the requirements of Ministerial Statement 1199.

### **9.3 Public Availability**

Once approved, this Threatened Fauna Offset Strategy (or an approved revision) will be made publicly available on the Covalent website for the life of the approval.

## 10 Declaration of Accuracy

I declare that:

To the best of my knowledge, all the information contained in, or accompanying the Earl Grey Lithium Project Threatened Fauna Offset Strategy (Revision 3) is complete, current and correct.

I am duly authorised to sign this declaration on behalf of the approval holder. I am aware that:

- a. Section 490 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence for an approval holder to provide information in response to an approval condition where the person is reckless as to whether the information is false or misleading.
- b. Section 491 of the EPBC Act makes it an offence for a person to provide information or documents to specified persons who are known by the person to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth) where the person knows the information or document is false or misleading.
- c. The above offences are punishable on conviction by imprisonment, a fine or both.

Covalent shall implement the latest version of the TFOS.

Signed

Full Name: Anthea Pate

Position: Manager Environment and Approvals

Organisation: Covalent Lithium Pty Ltd

Date: 20/10/25

## 11 References

- Benshemesh J (2007) National Recovery Plan for Malleefowl *Leipoa ocellata*. Department of Environment and Heritage, South Australia.
- Casson, N., Downes, S., & Harris, A. (2009) Native Vegetation Condition Assessment and Monitoring Manual for Western Australia. Department of Environment and Conservation.
- Cazaly Resources Limited (2010). Parker Range Iron Ore Mine Project Mt Caudan Deposit Public Environmental Review.
- Covalent Lithium Pty Ltd (2019a) Covalent Lithium Earl Grey Lithium Project Environmental Review Document. Prepared by Strategen-JBS&G (formerly as Strategen Environmental Consultants Pty Ltd) for Covalent Lithium Pty Ltd. January 2019.
- Covalent Lithium Pty Ltd (2019b) Covalent Earl Grey Lithium Project Response to Submissions. Version
1. Prepared by Strategen-JBS&G (formerly as Strategen Environmental Consultants Pty Ltd) for Covalent Lithium Pty Ltd. August 2019.
- Department of Agriculture, Water and the Environment (2008) Threat Abatement Plan for Predation by the European Red Fox. Prepared by the Department of Agriculture, Water and the Environment (formerly as the Department of the Environment, Water, Heritage and the Arts).
- Department of Agriculture, Water and the Environment (2014). Environmental Management Plan Guidelines. Prepared by the Department of Agriculture, Water and the Environment (formerly as the Department of the Environment).
- Department of Agriculture, Water and the Environment (2015) Threat Abatement Plan for Predation by Feral Cats. Prepared by the Department of Agriculture, Water and the Environment (formerly as the Department of the Environment).
- Department of Environment and Conservation (2012) Chuditch (*Dasyurus geoffroii*) National Recovery Plan. Wildlife Management Program No. 54, DEC, Kensington. Available from: <https://www.environment.gov.au/system/files/resources/12630bb4-2c10-4c8e-815f-2d7862bf87e7/files/offsets-how-use.pdf>
- Department of Water Environmental Regulation (2021) Environmental Offsets metric: Quantifying environmental offsets in Western Australia. Available from:
- [https://www.wa.gov.au/system/files/2021-10/DWER\\_Environmental\\_offsets\\_metric\\_Quantifying\\_environmental\\_offsets\\_in\\_WA.pdf](https://www.wa.gov.au/system/files/2021-10/DWER_Environmental_offsets_metric_Quantifying_environmental_offsets_in_WA.pdf)
- Ecoscape (2020a). Offset Fauna Habitat Assessment February 2020. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd (Site 10).
- Ecoscape (2020b). 2019 Mt Holland Chuditch Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd.
- Ecoscape (2020c). 2019 Mt Holland Malleefowl Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd.
- Ecoscape (2020d). 2020 Mt Holland Chuditch Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd.
- Ecoscape (2021) 2020 Malleefowl Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd. Final. Revision 1. November 2021.
- Ecoscape (2021). 2021 Mt Holland Chuditch Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd.
- Ecoscape (2022) 2021 Malleefowl Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd. Final. June 2022.

- Ecoscape (2023). 2022 Mt Holland Chuditch Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd.
- Ecoscape (2023) 2022 Malleefowl Monitoring. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd. Final. July 2023.
- Ecoscape (2024). Offset Fauna Habitat Assessment January 2024. Prepared for Covalent Lithium by Ecoscape (Australia) Pty Ltd (Warralakin Offset Site).
- Environmental Protection Authority (2016) Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment
- Environmental Protection Authority (2020) Technical Guidance Terrestrial vertebrate fauna surveys for environmental impact assessment.
- Fox E, McNee S and Douglas T (2016) Birds of the Great Western Woodlands. Report for The Nature Conservancy. Birdlife Australia, Melbourne.
- Government of Western Australia (2011) WA Environmental Offsets Policy. September 2011.
- Government of Western Australia (2014) WA Environmental Offsets Guidelines. August 2014.
- Keighery, B (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of Western Australia (Inc.)
- National Malleefowl Recovery Team (2019) National Malleefowl Monitoring Manual: Edition 2019\_1.
- Rayner, K., Chambers, B., Johnson, B., Morris, K., & Mills, H.R. (2011) Spatial and Dietary Requirements of the Chuditch (*Dasyurus geoffroii*) in a Semiarid Climatic Zone. Australian Mammalogy.
- Western Wildlife (2017) Earl Grey Lithium Project: Level 2 Vertebrate Fauna Survey with Targeted Chuditch and Malleefowl Surveys, 2016 - 2017.

## Appendix A Offset Site 10 Commonwealth Offset Habitat Quality Scoring Tool & Calculations

INDICATOR	SCORE	DETAIL	ASSESSMENT				
			IMPACT SITE	OFFSET SITE		JUSTIFICATION	
				START	WITHOUT OFFSET		WITH OFFSET
SITE CONDITION							
Vegetation condition and structure. Diversity of habitat species present. Habitat features	3	<b>Keighery:</b> Pristine or Excellent. <b>Habitat quality:</b> Very High – Sandy substrate with leaf litter, intact habitat structure (groundcover, mid-storey, trees for roosting), no habitat damage by herbivores, no fire for at least 20 years		3		3	<p>OFFSET SITE 10 (3, 3)</p> <p>The Offset Site (totalling 1,756 ha) comprises 1200 ha of fauna habitat assessed as being suitable for Malleefowl and Chuditch habitat.</p> <p>The majority of the fauna habitat (vegetation condition) within the Offset Site is in a 'Excellent' condition (key criterion) with an intact habitat structure.</p> <p>The Offset Site is currently unmanaged for fire. The majority of the Offset Site does not indicate recent fire.</p> <p>Fire presents a risk to the fauna habitat present. The risk of fire in native vegetation in the Wheatbelt region is anticipated to increase as a result of climate change (CPC &amp; DBCA 2021). Management and control of fire within the Offset Site can be expected to minimise the potential impact of fire to fauna habitat through reducing the occurrence, extent, and severity of fire.</p> <p>Little damage of fauna habitat (vegetation) by introduced herbivores has been recorded within the Offset Site.</p> <p>The proposed environmental offset comprises:</p> <p>Acquisition of the Offset Site from 'freehold' land tenure, and transfer of the Offset Site to DBCA to be managed for conservation purposes.</p> <p>Management of the Offset Site by:</p> <p>Introduced (predator) fauna control – baiting/trapping/culling of introduced predator fauna (fox, cat, dog) to reduce the risk of predation on Malleefowl and Chuditch.</p> <p>Fire management – installation and maintenance of fire breaks and low- intensity fuel reduction burns to reduce the risk of large high- intensity fires to protect Malleefowl and Chuditch habitat.</p> <p>Fencing – Installation and maintenance of exclusion fencing to prevent human and large herbivore access to protect Malleefowl habitat.</p> <p>Environmental Monitoring within the Offset Site to inter alia:</p> <p>Monitor for the presence and abundance of Malleefowl and Chuditch.</p> <p>Identify the occurrence of any Malleefowl and Chuditch breeding.</p> <p>Record the quality of the Malleefowl and Chuditch habitat, and any causes of change to the Malleefowl and Chuditch habitat (e.g. change in vegetation condition or structure, introduced flora).</p> <p>Management and monitoring within the Offset Site will be undertaken in consultation with DBCA.</p> <p>Introduced (predator) fauna control as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site through a shift to a low predator abundance.</p> <p>Fire management as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site by reducing the occurrence, extent, and severity of fire within the fauna habitat.</p>

INDICATOR	SCORE	DETAIL	ASSESSMENT			
			IMPACT SITE	OFFSET SITE		JUSTIFICATION
				START	WITHOUT OFFSET	
						<p>Fencing as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site by excluding human and large herbivore access which may degrade fauna habitat.</p> <p>Subject to the implementation of the proposed management actions (e.g. fire management) outlined within the Threatened Fauna Offset MP, it is anticipated the 'Site Condition' (i.e. fauna habitat quality) within the Offset Site can be maintained (i.e. Offset Site start Score 3 to be maintained).</p> <p>(Data source: Ecoscape 2019)</p>
	2.5	<p><b>Keighery:</b> Very Good. <b>Habitat quality:</b> High – Sandy substrate with leaf litter, largely intact habitat structure (groundcover, mid-storey, trees for roosting), foraging available (seeds, insects), little evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), no fire for at least 15 years</p>				
	2	<p><b>Keighery:</b> Good. <b>Habitat quality:</b> Medium – Sandy substrate with leaf litter, largely intact habitat structure (groundcover, mid-story, trees for roosting), some evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), no fire for at least 10 years</p>	2			<p>IMPACT SITE (2)</p> <p>The Impact Site comprises 442 ha vegetation which will be cleared in an area surrounded by &gt;70,000 ha of native vegetation in a 10km radius. The vegetation has been assessed as being suitable for foraging and/or breeding habitat for Malleefowl (436 ha) and Chuditch (442 ha). Up to 442 ha of Malleefowl / Chuditch foraging and/or breeding habitat will be removed by clearing for the Project.</p> <p>The spatial distribution of the Malleefowl and the Chuditch is recorded to be &gt;1,500 km.</p> <p>Fauna habitat (vegetation condition) within the greater project site (825 ha) varied ranged from 'Pristine' (&gt; 54 % of project area) to 'Completely Degraded' (existing mine) – average condition of 'Very Good' assigned (key criterion). Habitat structure was largely intact where native vegetation was present.</p> <p>Little damage of fauna habitat (vegetation) by introduced herbivores has been recorded within the Impact Site.</p> <p>(Data source: Strategen-JBS&amp;G 2022)</p>
	1.5	<p><b>Keighery:</b> Poor. <b>Habitat quality:</b> Low – little leaf litter, some gaps in habitat structure (groundcover, mid- story, trees for roosting), evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 10 years</p>				
	1.0	<p><b>Keighery:</b> Very poor. <b>Habitat quality:</b> Very Low – little leaf litter, large gaps in habitat structure (groundcover, mid-story, trees for roosting), considerable habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 5 years</p>				
	0.5	<p><b>Keighery:</b> Degraded <b>Habitat quality:</b> Marginal – no leaf litter, missing habitat structure (groundcover, mid- story, and trees for roosting), severe habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 5 years</p>				

INDICATOR	SCORE	DETAIL	ASSESSMENT				
			IMPACT SITE	OFFSET SITE		JUSTIFICATION	
				START	WITHOUT OFFSET		WITH OFFSET
	0	<b>Keighery:</b> Completely degraded <b>Habitat quality:</b> Absent, no vegetation and/or suitable habitat on site – no leaf litter, no habitat structure					
SITE CONTEXT							
Movement patterns of the species. Proximity of the site in relation to other areas of suitable habitat. Overall population or extent of a species.	3	Site is connected by suitable vegetation for dispersal <sup>2</sup> to more than one area of contiguous suitable habitat. Records on the site for species within last 12 months; site is within known distribution of species.					
	2.5	The site is connected by suitable vegetation for dispersal to at least one area of contiguous suitable habitat. Records on site for species within the last 2 years. Site is within known distribution of species.					
	2	The site is connected by suitable vegetation for dispersal to more than one patch of suitable habitat. Records on site or adjacent (within 2 km) to site within the last 3 years. Site is within known distribution of species.		2		2	IMPACT SITE (2) Impact Site has been assessed to contain suitable connected habitat for Malleefowl and Chuditch, with individuals recorded in adjacent areas (nil within the Impact Site) to confirm the habitat suitability. Impact Site occurs within known Malleefowl and Chuditch distribution. Malleefowl recorded by surveys within the previous 2 years comprising sightings and tracks recorded over multiple field trips outside proposed project footprint. (Data source: ecoscape 2023) OFFSET SITE 10 (2.0) Offset Site 10 forms part of a contiguous area of fauna habitat, extending an existing fauna habitat land parcel of >45,000 ha unallocated crown land (UCL). Offset Site 10 has been assessed to contain suitable connected habitat for Malleefowl and Chuditch. Offset Site 10 occurs within known Malleefowl and Chuditch distribution. Malleefowl are likely to move (disperse) between the Offset Site and the UCL. The environmental offset will improve the Site Context by securing/protecting the fauna habitat of the Offset Site as part of the State’s conservation reserve system. (Data source: Ecoscape 2019)
	1	Site is separated from other known suitable habitat by cleared areas of up to 5 km. Records on site or adjacent (within 5 km) within last 10 years and species are capable of migrating to site. Site is located within known distribution of species.					

<sup>2</sup> Dispersal habitat is usually thick vegetation, for example, along roadsides, to enable movement from one habitat patch to another.

INDICATOR	SCORE	DETAIL	ASSESSMENT			
			IMPACT SITE	OFFSET SITE		JUSTIFICATION
				START	WITHOUT OFFSET	
	0.5	A site is separated from other suitable habitat by cleared areas of up to 10 km. Records on site or in region (within 10 km) within last 10 years and species may be capable of migrating to site. Site is not located within known distribution of species.				
	0	Site is separated from other suitable habitat by cleared areas of more than 10 km. No records on site or in region (within 10 km) within last 10 years and species unlikely to migrate to site.				
<b>SPECIES STOCKING RATE</b>						
Usage and/or density of a species. Role of the site population in regard to overall species population viability.	4	Record of species presence on site in last 12 months (Malleefowl / Chuditch observed on site in last 12 months; evidence of currently active mounds); site is adjacent to verified/published records in last 12 months	4			IMPACT SITE Impact Site has not recorded Malleefowl nest mounds (recently active and inactive) within the Impact Site (as confirmed by LiDAR survey and ground- truthing surveys) (key criterion). Impact Site has recorded Chuditch in the last 12 months confirmed by on ground trapping. Malleefowl presence has been recorded within the Development Envelope by nest mounds, sightings, and tracks. (Data source: Strategen-JBS&G 2022)
	3	Record of species presence on site in last 2 years (Malleefowl/Chuditch observed on site in last 2 years; evidence of mounds active in last 2 years); site is within 2-5 km of verified/published records up to 2 years		3	2	3 OFFSET SITE 10 (1) The presence of Chuditch was recorded during ground survey verified by tracks and scats. Old Malleefowl nesting mounds observed present on site. Predation by introduced fauna is a significant risk for Malleefowl and Chuditch, with their naturally low abundance making local populations particularly sensitive to change. Introduced predator fauna have been confirmed as present within the Offset Site (dogs and foxes) with abundance confirming a risk of predation on Malleefowl and Chuditch. In the absence of the proposed management actions (i.e. introduced predator fauna control) outlined within the Threatened Fauna Offset MP, notable risk exists for the 'Species Stocking Rate' within the Offset Site and the adjoining Conservation Reserve to be reduced (reduced from current Score 3, to Score 1). The potential for a reduction for the Offset Site is based upon: The Offset Site is currently in 'freehold' land tenure, surrounded by the largely cleared agricultural landscape of the Eastern Wheatbelt Region. Potentially the Offset Site may be at risk from clearing for agriculture if retained in its 'freehold' land tenure. Key threatening processes for Malleefowl and Chuditch, as outlined by the DCCEE (2012) document National Recovery Plan for Malleefowl <i>Leipoa ocellata</i> and Chuditch ( <i>Dasyurus geoffroii</i> ) National Recovery Plan (DEC 2012), are currently unmanaged within the Offset Site. These key threatening processes include: Habitat loss through clearing Predation by introduced fauna, Habitat loss/quality reduction from fire. These key threatening processes have been documented as key contributors to a decline in the distribution and abundance of Malleefowl and Chuditch across Australia, including within the Wheatbelt region of Western Australia. In the absence of the proposed acquisition/transfer and the Management Measures as outlined within the Threatened Fauna Offset MP, the habitat (and individuals of Malleefowl and

INDICATOR	SCORE	DETAIL	ASSESSMENT			
			IMPACT SITE	OFFSET SITE		JUSTIFICATION
				START	WITHOUT OFFSET	
						Chuditch) occurring within the Offset Site would remain at risk from these key threatening processes. The risk of clearing by agriculture is verified by the existing and extensive agricultural clearing surrounding the Offset Site. The risk of predation is verified by the multiple records of introduced predator fauna taxa recorded within the Offset Site by the biological surveys. The risk of fire is verified by the recent fire (within 5 years). The key threatening processes are present, with the risk assessed to be likely/high. A 1-step score reduction (reduced from current Score 3, to Score 2) is conservative; noting that predation of the limited number of Malleefowl and Chuditch individuals within the Offset Site (due to naturally low abundance) may potentially result in a complete loss of Malleefowl and Chuditch from within the Offset Site (a reduction down to Score 0 if no Malleefowl or Chuditch remain).
	1	Record of species presence on site in previous 5 years (Malleefowl/Chuditch observed on site in last 5 years; evidence of mounds active in last 5 years); site is within 5 km of verified/published records up to 5 years (minimum required to be considered a suitable offset site for Malleefowl)				
	0	No record of species presence on site, or within 5 km in the last 5 years (5 km is estimated home range for Malleefowl)				
<b>TOTALS</b>			8	8	7	8

LEGEND	
	If the site scores between 0-0.5 for site condition, 0-0.5 for the site context score, or 0 for species stocking rate, it is extremely unlikely to be considered as suitable habitat. This would not be appropriate to use as an offset site.

NOTES

- The Habitat Quality Scoring Tools assess and assign a score for each attribute to the 'Impact Site' (i.e. the fauna habitat to be removed by the Haul Road), and to the Offset Site in the scenarios of its 'Start Quality' (current condition) and a prediction of the future quality 'Without Offset' and 'With Offset'. The 'Justification' column seeks to provide evidence to support the assessment of the start quality, and a rationale to support the prediction of the future quality.
- For some attributes, the 'Detail' column identifies a number of criteria upon which to assess and assign a score. The assessment process seeks to identify a 'best fit' whereby key criterion are met; however, it is accepted that not all criteria will be met.
- Success of implementation of the environmental offset will be measured against (a) acquisition of the Offset Site and transfer to DBCA for protection and conservation, (b) management of the Offset Site (introduced predator fauna control, fire management, installation/maintenance of exclusion fencing, and (c) implementation of annual monitoring within the Offset Site. These implementation actions are considered readily achievable by Covalent Lithium and implementation can commence following approval of the Fauna Offset EMP. To clarify, whilst presence and abundance of Malleefowl within the Offset Site will be monitored annually, the presence or abundance output values from the annual monitoring are not applied as a measure of success for the Offset Site.

Accordingly, for calculation inputs for the Offsets Assessment Guide are to have the following values applied:

- "Confidence in result (%)" to be set at a conservative value of 78 %. Confidence in implementing the acquisition/transfer, management and monitoring actions is high (and potentially a > 90% confidence may be applied).
- "Time until ecological benefit" to be set at a conservative value of 5 years value. Whilst the ecological benefit from implementation of the Management Measures will be achieved within a relatively short time period (and potentially a 2- year value could be applied), a more conservative 5-year value has been applied to allow a longer time period for which the environmental monitoring can demonstrate the long -term ecological benefit.

4. As the success of implementation of the environmental offset will be measured against acquisition/transfer, management and monitoring (refer Note 3, above) which are readily achievable, no 'contingency measures' (e.g. actions in lieu of the acquisition/transfer, management or monitoring) are not considered necessary or proposed.
5. The extent of Malleefowl breeding and foraging habitat within the Offset Site has been reduced from 878 ha to 870 ha (reduction of 8 ha) to exclude areas of granite geology outcropping that is devoid of native vegetation (unsuitable for Malleefowl breeding or foraging).
6. Malleefowl naturally occur in low abundance, with a short lifespan of ~15 years; such that a limited number of breeding pairs are anticipated to occur within the Offset Site at any time (likely < 10 individuals as breeding pairs). Whilst annual monitoring of Malleefowl presence and abundance will be undertaken, any changes in presence or abundance over time as indicated by the monitoring will not provide a statistically valid measure of change due to the small sample size (typically a minimum sample size of 30 is required to produce a statistically significant result) and known other environmental factors which may affect survival and breeding (e.g. rainfall/drought). Accordingly, the presence and abundance results for Malleefowl have not been proposed as a measure of success/failure of the environmental offset.
7. Conservation Covenants are typically applied to land areas in which an agreement is reached with a landowner to not clear native vegetation, in which the land ownership is retained by the landowner. Conservation Covenants have the effect of a legally binding agreement that prevents the landowner from clearing the native vegetation. As the Offset Site is proposed to be transferred in 'freehold' land tenure to State DBCA to be managed for conservation purposes (i.e. land ownership not retained by Covalent Lithium), the placement of a Conservation Covenant does not appear a necessary additional protection mechanism for the Offset Site. Further, a Conservation Covenant may restrict future actions by DBCA to incorporate the Offset Site into the State's Conservation Reserve System.



### Appendix B Warralakin Offset Site Commonwealth Habitat Quality Table & Calculations

INDICATOR	SCORE	DETAIL	ASSESSMENT			
			IMPACT SITE	OFFSET SITE		JUSTIFICATION
				START	WITHOUT OFFSET	
SITE CONDITION						
Vegetation condition and structure. Diversity of habitat species present. Habitat features	3	<b>Keighery:</b> Pristine or Excellent. <b>Habitat quality:</b> Very High – Sandy substrate with leaf litter, intact habitat structure (groundcover, mid-storey, trees for roosting), no habitat damage by herbivores, no fire for at least 20 years	3	2	3	<p>WARRALAKIN OFFSET SITE (3, 3)</p> <p>The Offset Site (totalling 260 ha) comprises 201 ha of fauna habitat assessed as being suitable for Malleefowl and Chuditch habitat.</p> <p>The fauna habitat within the Offset Site was assessed as being in good condition with an intact habitat structure suitable for both Malleefowl and Chuditch.</p> <p>The Offset Site is currently unmanaged for fire. The majority of the Offset Site does not indicate recent fire.</p> <p>Fire presents a risk to the fauna habitat present. The risk of fire in native vegetation in the Wheatbelt region is anticipated to increase as a result of climate change (CPC &amp; DBCA 2021). Management and control of fire within the Offset Site can be expected to minimise the potential impact of fire to fauna habitat through reducing the occurrence, extent, and severity of fire.</p> <p>Little damage of fauna habitat (vegetation) by introduced herbivores has been recorded within the Offset Site.</p> <p>The Offset Site is contiguous with the Chiddarcooping Nature Reserve managed by DBCA.</p> <p>The proposed environmental offset comprises:</p> <p>Acquisition of the Offset Site from 'freehold' land tenure, and transfer of the Offset Site to DBCA to be managed as conservation estate for conservation purposes consistent with the contiguous Chiddarcooping Nature Reserve.</p> <p>Management of the Offset Site by:</p> <p>Introduced (predator) fauna control – baiting/trapping/culling of introduced predator fauna (fox, cat, dog) to reduce the risk of predation on Malleefowl and Chuditch.</p> <p>Fire management – installation and maintenance of fire breaks and low- intensity fuel reduction burns to reduce the risk of large high- intensity fires to protect Malleefowl and Chuditch habitat.</p> <p>Fencing – Installation and maintenance of exclusion fencing to prevent human and large herbivore access to protect Malleefowl habitat.</p> <p>Environmental Monitoring within the Offset Site to inter alia:</p> <p>Monitor for the presence and abundance of Malleefowl and Chuditch.</p> <p>Identify the occurrence of any Malleefowl and Chuditch breeding.</p> <p>Record the quality of the Malleefowl and Chuditch habitat, and any causes of change to the Malleefowl and Chuditch habitat (e.g. change in vegetation condition or structure, introduced flora).</p> <p>Management and monitoring within the Offset Site will be undertaken in consultation with DBCA.</p> <p>Introduced (predator) fauna control as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site through a shift to a low predator abundance.</p>

						<p>Fire management as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site by reducing the occurrence, extent, and severity of fire within the fauna habitat.</p> <p>Fencing as outlined within the Threatened Fauna Offset MP will improve habitat quality within the Offset Site by excluding human and large herbivore access which may degrade fauna habitat.</p> <p>Subject to the implementation of the proposed management actions (e.g. fire management) outlined within the Threatened Fauna Offset MP, it is anticipated the 'Site Condition' (i.e. fauna habitat quality) within the Offset Site can be maintained (i.e. Offset Site start Score 3 to be maintained).</p> <p>(Data source: Ecoscape 2024)</p>
	2.5	<p><b>Keighery:</b> Very Good. <b>Habitat quality:</b> High – Sandy substrate with leaf litter, largely intact habitat structure (groundcover, mid-storey, trees for roosting), foraging available (seeds, insects), little evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), no fire for at least 15 years</p>				
	2	<p><b>Keighery:</b> Good. <b>Habitat quality:</b> Medium – Sandy substrate with leaf litter, largely intact habitat structure (groundcover, mid-story, trees for roosting), some evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), no fire for at least 10 years</p>	2			<p>IMPACT SITE (2)</p> <p>The Impact Site comprises 442 ha vegetation which will be cleared in an area surrounded by &gt;70,000 ha of native vegetation in a 10km radius. The vegetation has been assessed as being suitable for foraging and/or breeding habitat for Malleefowl (436 ha) and Chuditch (442 ha). Up to 442 ha of Malleefowl / Chuditch foraging and/or breeding habitat will be removed by clearing for the Project.</p> <p>The spatial distribution of the Malleefowl and the Chuditch is recorded to be &gt;1,500 km.</p> <p>Fauna habitat (vegetation condition) within the greater project site (825 ha) varied ranged from 'Pristine' (&gt; 54 % of project area) to 'Completely Degraded' (existing mine) – average condition of 'Very Good' assigned (key criterion). Habitat structure was largely intact where native vegetation was present.</p> <p>Little damage of fauna habitat (vegetation) by introduced herbivores has been recorded within the Impact Site.</p> <p>(Data source: Strategen-JBS&amp;G 2022)</p>
	1.5	<p><b>Keighery:</b> Poor. <b>Habitat quality:</b> Low – little leaf litter, some gaps in habitat structure (groundcover, mid- story, trees for roosting), evidence of habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 10 years</p>				
	1.0	<p><b>Keighery:</b> Very poor. <b>Habitat quality:</b> Very Low – little leaf litter, large gaps in habitat structure (groundcover, mid-story, trees for roosting), considerable habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 5 years</p>				
	0.5	<p><b>Keighery:</b> Degraded <b>Habitat quality:</b> Marginal – no leaf litter, missing habitat structure (groundcover, mid- story, and trees for roosting), severe habitat damage by herbivores (e.g. rabbits, goats, stock), fire within last 5 years</p>				
	0	<p><b>Keighery:</b> Completely degraded <b>Habitat quality:</b> Absent, no vegetation and/or suitable habitat on site – no leaf litter, no habitat structure</p>				

SITE CONTEXT							
Movement patterns of the species. Proximity of the site in relation to other areas of suitable habitat. Overall population or extent of a species.	3	Site is connected by suitable vegetation for dispersal to more than one area of contiguous suitable habitat. Records on the site for species within last 12 months; site is within known distribution of species.					
	2.5	The site is connected by suitable vegetation for dispersal to at least one area of contiguous suitable habitat. Records on site for species within the last 2 years. Site is within known distribution of species.					
	2	The site is connected by suitable vegetation for dispersal to more than one patch of suitable habitat. Records on site or adjacent (within 2 km) to site within the last 3 years. Site is within known distribution of species.	2	2	2	2	<p><b>IMPACT SITE (2)</b> Impact Site has been assessed to contain suitable connected habitat for Malleefowl and Chuditch, with individuals recorded in adjacent areas (nil within the Impact Site) to confirm the habitat suitability. Impact Site occurs within known Malleefowl and Chuditch distribution. Malleefowl recorded by surveys within the previous 2 years comprising sightings and tracks recorded over multiple field trips outside proposed project footprint. (Data source: ecoscape 2023)</p> <p><b>WARRALAKIN OFFSET SITE (2)</b> Warralakin Offset Site forms part of a contiguous area of fauna habitat, extending the existing Chiddarcooping Nature Reserve covering 5,262 ha. The Offset Site has been assessed to contain suitable connected habitat for Malleefowl and Chuditch. The Offset Site occurs within known Malleefowl and Chuditch distribution and a Malleefowl nesting mound was observed on the site. Malleefowl and Chuditch are likely to move (disperse) between the Offset Site and the Nature Reserve. The environmental offset will improve the Site Context by securing/protecting the fauna habitat of the Offset Site as part of the State's conservation reserve system. (Data source: Ecoscape 2019)</p>
	1.5	Site is separated from other known suitable habitat by cleared areas of up to 5 km. Records on site or adjacent (within 5 km) within last 10 years and species are capable of migrating to site. Site is located within known distribution of species.					
	1	A site is separated from other suitable habitat by cleared areas of up to 10 km. Records on site or in region (within 10 km) within last 10 years and species may be capable of migrating to site. Site is not located within known distribution of species.					
	0.5	Site is separated from other suitable habitat by cleared areas of more than 10 km. No records on site or in region					

		(within 10 km) within last 10 years and species unlikely to migrate to site.					
	0						
SPECIES STOCKING RATE							
Usage and/or density of a species. Role of the site population in regard to overall species population viability.	4	Record of species presence on site in last 2 years (Malleefowl/Chuditch observed on site in last 2 years; evidence of mounds active in last 2 years); site is within 2-5 km of verified/published records up to 2 years	4				IMPACT SITE Impact Site has not recorded Malleefowl nest mounds (recently active and inactive) within the Impact Site (as confirmed by LiDAR survey and ground- truthing surveys) (key criterion). Impact Site has recorded Chuditch in the last 12 months confirmed by on ground trapping. Malleefowl presence has been recorded within the Development Envelope by nest mounds, sightings, and tracks. (Data source: Strategen-JBS&G 2022)
	3	Record of species presence on site in previous 5 years (Malleefowl/Chuditch observed on site in last 5 years; evidence of mounds active in last 5 years); site is within 5 km of verified/published records up to 5 years (minimum required to be considered a suitable offset site for Malleefowl)		3	2	3	WARRALAKIN OFFSET SITE (2, 2) Malleefowl recorded within the Offset Site with recently active nest mound as recorded in September 2024 (Ecoscape 2024); being within prior 2 years. Chuditch habitat was recorded however no evidence of Chuditch presence was observed. Predation by introduced fauna is a significant risk for Malleefowl and Chuditch, with their naturally low abundance making local populations particularly sensitive to change. Introduced predator fauna have been confirmed as present within the Offset Site (cats and foxes) with abundance confirming a risk of predation on Malleefowl and Chuditch. In the absence of the proposed management actions (i.e. introduced predator fauna control) outlined within the Threatened Fauna Offset MP, notable risk exists for the 'Species Stocking Rate' within the Offset Site and the adjoining Conservation Reserve to be reduced (reduced from current Score 3, to Score 2). The potential for a reduction for the Offset Site is based upon: The Offset Site is currently in 'freehold' land tenure, surrounded by the largely cleared agricultural landscape of the Eastern Wheatbelt Region. Potentially the Offset Site may be at risk from clearing for agriculture if retained in its 'freehold' land tenure. Key threatening processes for Malleefowl and Chuditch, as outlined by the DCCEE (2012) document National Recovery Plan for Malleefowl <i>Leipoa ocellata</i> and Chuditch ( <i>Dasyurus geoffroii</i> ) National Recovery Plan (DEC 2012), are currently unmanaged within the Offset Site. These key threatening processes include: Habitat loss through clearing Predation by introduced fauna, Habitat loss/quality reduction from fire. These key threatening processes have been documented as key contributors to a decline in the distribution and abundance of Malleefowl and Chuditch across Australia, including within the Wheatbelt region of Western Australia. In the absence of the proposed acquisition/transfer and the Management Measures as outlined within the Threatened Fauna Offset MP, the habitat (and individuals of Malleefowl and Chuditch) occurring within the Offset Site would remain at risk from these key threatening processes. The risk of clearing by agriculture is verified by the existing and extensive agricultural clearing surrounding the Offset Site. The risk of predation is verified by the records of introduced predator fauna taxa recorded within the Offset Site by the biological survey. The key threatening processes are present, with the risk assessed to be likely/high. (Data source: Ecoscape 2024) A 1-step score reduction (reduced from current Score 3, to Score 2) is conservative; noting that predation of the limited number of Malleefowl and Chuditch individuals within the Offset

							Site (due to naturally low abundance) may potentially result in a complete loss of Malleefowl and Chuditch from within the Offset Site (a reduction down to Score 0 if no Malleefowl or Chuditch remain).
	2	No record of species presence on site, or within 5 km in the last 5 years (5 km is estimated home range for Malleefowl)					
	1	Record of species presence on site in previous 5 years (Birds observed on site in last 5 years; evidence of mounds active in last 5 years); site is within 5 km of verified/published records up to 5 years (minimum required to be considered a suitable offset site for Malleefowl)					
	0	No record of species presence on site, or within 5 km in the last 5 years (5 km is estimated home range for Malleefowl)					
TOTALS			8	8	6	8	

LEGEND	
	If the site scores between 0-0.5 for site condition, 0-0.5 for the site context score, or 0 for species stocking rate, it is extremely unlikely to be considered as suitable habitat. This would not be appropriate to use as an offset site.

NOTES

- The Habitat Quality Scoring Tools assess and assign a score for each attribute to the 'Impact Site' (i.e. the fauna habitat to be removed by the Haul Road), and to the Offset Site in the scenarios of its 'Start Quality' (current condition) and a prediction of the future quality 'Without Offset' and 'With Offset'. The 'Justification' column seeks to provide evidence to support the assessment of the start quality, and a rationale to support the prediction of the future quality.
- For some attributes, the 'Detail' column identifies a number of criteria upon which to assess and assign a score. The assessment process seeks to identify a 'best fit' whereby key criterion are met; however, it is accepted that not all criteria will be met.
- Success of implementation of the environmental offset will be measured against (a) acquisition of the Offset Site and transfer to DBCA for protection and conservation, (b) management of the Offset Site (introduced predator fauna control, fire management, installation/maintenance of exclusion fencing, and (c) implementation of annual monitoring within the Offset Site. These implementation actions are considered readily achievable by Covalent Lithium and implementation can commence following approval of the Fauna Offset EMP. To clarify, whilst presence and abundance of Malleefowl within the Offset Site will be monitored annually, the presence or abundance output values from the annual monitoring are not applied as a measure of success for the Offset Site.

Accordingly, for calculation inputs for the Offsets Assessment Guide are to have the following values applied:

- "Confidence in result (%)" to be set at a conservative value of 78 %. Confidence in implementing the acquisition/transfer, management and monitoring actions is high (and potentially a > 90% confidence may be applied).
  - "Time until ecological benefit" to be set at a conservative value of 5 years value. Whilst the ecological benefit from implementation of the Management Measures will be achieved within a relatively short time period (and potentially a 2- year value could be applied), a more conservative 5-year value has been applied to allow a longer time period for which the environmental monitoring can demonstrate the long -term ecological benefit.
- As the success of implementation of the environmental offset will be measured against acquisition/transfer, management and monitoring (refer Note 3, above) which are readily achievable, no 'contingency measures' (e.g. actions in lieu of the acquisition/transfer, management or monitoring) are not considered necessary or proposed.
  - The extent of Malleefowl breeding and foraging habitat within the Offset Site has been reduced from 878 ha to 870 ha (reduction of 8 ha) to exclude areas of granite geology outcropping that is devoid of native vegetation (unsuitable for Malleefowl breeding or foraging).
  - Malleefowl naturally occur in low abundance, with a short lifespan of ~15 years; such that a limited number of breeding pairs are anticipated to occur within the Offset Site at any time ( likely < 10 individuals as breeding pairs). Whilst annual monitoring of Malleefowl presence and abundance will be undertaken, any changes in presence or abundance over time as indicated by the monitoring will not provide a statistically valid measure of change due to the small sample size (typically a minimum sample size of 30 is required to produce a statistically significant result) and known other environmental factors which may affect survival and breeding (e.g. rainfall/drought). Accordingly, the presence and abundance results for Malleefowl have not been proposed as a measure of success/failure of the environmental offset.
  - Conservation Covenants are typically applied to land areas in which an agreement is reached with a landowner to not clear native vegetation, in which the land ownership is retained by the landowner. Conservation Covenants have the effect of a legally binding agreement that prevents the landowner from clearing the native vegetation. As the Offset Site is proposed to be transferred in 'freehold' land tenure to State DBCA to be managed for conservation purposes (i.e. land ownership not retained by Covalent Lithium), the placement of a Conservation Covenant does not appear a necessary additional protection mechanism for the Offset Site. Further, a Conservation Covenant may restrict future actions by DBCA to incorporate the Offset Site into the State's Conservation Reserve System.

**Offsets Assessment Guide**  
For use in determining offsets under the Environment Protection and Biodiversity Conservation Act 1999  
2 October 2012  
This guide relies on Macro being enabled in your browser.

Matter of National Environmental Significance	
Name	MALLEEFOWL AND CHUDITCH
EPBC Act status	Valuable
Annual probability of extinction (based on IUCN category definitions)	0.2%

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator					
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Information source
<i>Ecological communities</i>					
Area of community	No		Area		
			Quality		
			Total quantum of impact	0.00	
<i>Threatened species habitat</i>					
Area of habitat	Yes	MALLEEFOWL CHUDITCH	Area	56 Hectares	
			Quality	8 Scale 0-10	
			Total quantum of impact	44.80 Adjusted hectares	
<i>Threatened species</i>					
<b>Protected matter attributes</b>					
<i>Number of features</i> e.g. Nest hollows, habitat trees					
<i>Condition of habitat</i> Change in habitat condition, but no change in extent					
<i>Birth rate</i> e.g. Change in nest success					
<i>Mortality rate</i> e.g. Change in number of road kills per year					
<i>Number of individuals</i> e.g. Individual plants/animals					

Offset calculator																					
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source	
<i>Ecological Communities</i>																					
Area of community	No					Risk-related time horizon (max. 20 years)	Start area (hectares)	Risk of loss (%) without offset	Risk of loss (%) with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source				
								Future area without offset (adjusted hectares)	0.0									Future area with offset (adjusted hectares)	0.0		
								Time until ecological benefit	Start quality (scale of 0-10)									Future quality without offset (scale of 0-10)	Future quality with offset (scale of 0-10)		
<i>Threatened species habitat</i>																					
Area of habitat	Yes	44.80	Adjusted hectares			Time over which loss is averted (max. 20 years)	20	Start area (hectares)	190	Risk of loss (%) without offset	20%	Risk of loss (%) with offset	5%	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
										Future area without offset (adjusted hectares)	152.0	Future area with offset (adjusted hectares)	180.5								
										Time until ecological benefit	1	Start quality (scale of 0-10)	8								
<i>Threatened species</i>																					
<b>Protected matter attributes</b>																					
<i>Number of features</i> e.g. Nest hollows, habitat trees																					
<i>Condition of habitat</i> Change in habitat condition, but no change in extent																					
<i>Birth rate</i> e.g. Change in nest success																					
<i>Mortality rate</i> e.g. Change in number of road kills per year																					
<i>Number of individuals</i> e.g. Individual plants/animals																					

## Appendix C Offset Site 10 WA State Offset Calculations

Revised 16/12/2025

### WA Environmental Offsets Calculator

## Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores (Or, if appropriate, manual data entry permitted)

Area / feature (Impact site)

Conservation significance determination for the environmental value impacted									
Conservation significance	<table border="1"> <tr> <td style="background-color: #d3d3d3;">Description</td> <td>Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1199)</td> </tr> <tr> <td style="background-color: #d3d3d3;">Type of environmental value</td> <td>Species (flora/fauna)</td> </tr> <tr> <td style="background-color: #d3d3d3;">Conservation significance of environmental value</td> <td>Rare/threatened Species - vulnerable</td> </tr> <tr> <td style="background-color: #d3d3d3;">Conservation significance score</td> <td>0.2%</td> </tr> </table>	Description	Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1199)	Type of environmental value	Species (flora/fauna)	Conservation significance of environmental value	Rare/threatened Species - vulnerable	Conservation significance score	0.2%
Description	Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1199)								
Type of environmental value	Species (flora/fauna)								
Conservation significance of environmental value	Rare/threatened Species - vulnerable								
Conservation significance score	0.2%								

Please select area or feature for the calculations	Area
--	------

WA Environmental Offsets Calculator

Step 2: Calculating significant residual impact

Key:  
 Data to be entered  
 Drop-down selection  
 Automatically-generated scores

Environmental value (step 1)	Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1199)
------------------------------	---

Area (impact site)

Part A: Significant impact calculation Area				
Significant impact	Description	Quantum of impact		
	Clearing of Malleefowl and Chuditch habitat	Significant impact (hectares)	386.00	
		Quality (scale)	8.00	
		Total quantum of impact		308.80

Part B: Rehabilitation credit calculation Area (onsite)						
Rehabilitation Credit	Description	Proposed rehabilitation (area in hectares)	0.00	Time until ecological benefit (years)	0.00	
	No rehab credit	Current quality of rehabilitation site (scale)	0.00		Confidence in rehabilitation result (%)	0.0%
		Future quality WITHOUT rehabilitation (scale)	0.00	Rehabilitation credit	0.00	
		Future quality WITH rehabilitation (scale)	0.00			

Part C: Significant residual impact calculation Area		
Significant residual impact	Total quantum of impact	308.80
	Rehabilitation credit	0.00
	Significant residual impact	308.80

### WA Environmental Offsets Calculator

## Step 3: Calculating offsets

**Key:**

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1199)	Significant impact (step 2, part A)	386.00
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	308.80

#### Area (offset site)

Offset calculation Area							
Offsets calculation	Description	Proposed offset (area in hectares)	1200.00	Duration of offset implementation (maximum 20 years)	20.00	Offset value	316.17
	Site 10	Current quality of offset site (scale)	8.00	Time until offset site secured (years)	1.00		102.4%
		Future quality WITHOUT offset (scale)	6.00	Risk of future loss WITHOUT offset (%)	20.0%		
		Future quality WITH offset (scale)	8.00	Risk of future loss WITH offset (%)	5.0%		
		Time until ecological benefit (years)	1.00				
	Confidence in offset result (%)	90.0%				<b>OFFSET ADEQUATE?</b>	<b>YES</b>

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset		
Calculation	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	Clearing of Malleefowl and Chuditch habitat for original and revised proposal (MS 1189)	Offset site 10 is proposed to offset the SRI clearing 388 ha of Malleefowl and Chuditch habitat for the Revised project (MS 1189)
Type of environmental value	Species (flora/fauna)	Malleefowl and Chuditch
Conservation significance of environmental value	Rare/threatened Species - vulnerable	Both listed as Vulnerable
Landscape-level value impacted	yes/no	No, landscape-scale value not defined as SRI within the assessment
<b>Significant impact</b>		
Description	Clearing of Malleefowl and Chuditch habitat	
Significant impact (hectares) / Type of feature	388.00	Area in ha = 388 ha
Quality (scale) / Number	8.00	Habitat quality defined pre-impact in ERD based on survey effort on-site
<b>Rehabilitation credit</b>		
Description	No rehab credit	While the DE will be rehabilitated to adequate quality post-mining, DWER has advised that the clearing is not considered temporary and the quality will not be returned within an acceptable time period.
Proposed rehabilitation (area in hectares)	0.00	
Current quality of rehabilitation site / Start number (of type of feature)	0.00	
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00	
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00	
Time until ecological benefit (years)	0.00	
Confidence in rehabilitation result (%)	0	
<b>Offset</b>		
Description	Site 10	Fauna Offset Strategy Rev5 provides a detailed description of the purchased site 10 offset site.
Proposed offset (area in hectares)	1200.00	Area calculated to achieve at least 100 % offset (102.4%)
Current quality of offset site / Start number (of type of feature)	8.00	Excellent condition, mostly long unburnt. Majority granite outcrops
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	6.00	Has regard for a reduced quality if current threatening processes are not managed, for example, dieback; clearing & fragmentation; removal of large trees, predators, fire, weeds
Future quality WITH offset (scale) / Future number WITH offset	8.00	Offset selected to match similar type, extending protection to an otherwise unprotected site. Will manage & protect offset sites in perpetuity; increase area/ ecological function; reveg degraded patches; weed & feral animal management
Time until ecological benefit (years)	1.00	Site purchased and subdivided
Confidence in offset result (%)	0.9	Site already purchased, proponent awaiting approval to commence ongoing management.
Duration of offset implementation (maximum 20 years)	20.00	Maximum selected as site will be protected by transferring to conservation tenure, in perpetuity.
Time until offset site secured (years)	1.00	Already secured, awaiting approval and finalisation of conservation tenure
Risk of future loss WITHOUT offset (%)	20.0%	Site may be subject to degradation without active management (fire, weeds, predators).
Risk of future loss WITH offset (%)	5.0%	Low risk as site will be absorbed into conservation estate with DBCA responsible for active management.
Offset ratio (Conservation area only)	N/A	

## Appendix D Warralakin Offset Site WA State Offset Calculations

Revised 16/12/2025

### WA Environmental Offsets Calculator

## Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores (Or, if appropriate, manual data entry permitted)

Area / feature (Impact site)

Conservation significance determination for the environmental value impacted	
Conservation significance	Description Clearing of Malleefowl and Chuditch habitat for revised proposal (MS 1199)
	Type of environmental value Species (flora/fauna)
	Conservation significance of environmental value Rare/threatened Species - vulnerable
	Conservation significance score 0.2%

Please select area or feature for the calculations	Area
--	------

WA Environmental Offsets Calculator

**Step 2: Calculating significant residual impact**

**Key:**  
 Data to be entered  
 Drop-down selection  
 Automatically-generated scores

Environmental value (step 1)	Clearing of Malleefowl and Chuditch habitat for revised proposal (MS 1199)
------------------------------	--

**Area (impact site)**

Part A: Significant impact calculation Area			
		Description	Quantum of impact
Significant impact	Clearing of Malleefowl and Chuditch habitat	Significant impact (hectares)	56.00
		Quality (scale)	8.00
		Total quantum of impact	44.80

Part B: Rehabilitation credit calculation Area (onsite)					
		Description	Proposed rehabilitation (area in hectares)	Time until ecological benefit (years)	
Rehabilitation Credit	Warralakin	Current quality of rehabilitation site (scale)		Confidence in rehabilitation result (%)	
		Future quality WITHOUT rehabilitation (scale)		Rehabilitation credit	0.00
		Future quality WITH rehabilitation (scale)			

Part C: Significant residual impact calculation Area		
		Significant residual impact
Significant residual impact	Total quantum of impact	44.80
	Rehabilitation credit	0.00
	Significant residual impact	44.80

WA Environmental Offsets Calculator

Step 3: Calculating offsets

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Clearing of Malleefowl and Chuditch habitat for revised proposal (MS 1199)	Significant impact (step 2, part A)	56.00
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	44.80

Area (offset site)

Offset calculation Area							
Offsets calculation	Description	Proposed offset (area in hectares)	175.00	Duration of offset implementation (maximum 20 years)	20.00	Offset value	46.11
		Current quality of offset site (scale)	8.00	Time until offset site secured (years)	1.00		102.9%
		Future quality WITHOUT offset (scale)	6.00	Risk of future loss WITHOUT offset (%)	20.0%		
		Future quality WITH offset (scale)	8.00	Risk of future loss WITH offset (%)	5.0%		
		Time until ecological benefit (years)	1.00				
		Confidence in offset result (%)	90.0%	<b>OFFSET ADEQUATE?</b> <b>YES</b>			

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset		
Calculation	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	Clearing of Malleefowl and Chuditch habitat for revised proposal (MS 1199)	Warralakin site proposed to offset the SRI of 56 ha loss of habitat for malleefowl and (50 ha for chuditch) for the Revised Project (MS1199). Given the values are the same, the greater of the impact areas has been used.
Type of environmental value	Species (flora/fauna)	Malleefowl, Chuditch
Conservation significance of environmental value	Rare/threatened Species - vulnerable	Both species listed as Vulnerable
Landscape-level value impacted	yes/no	No - landscape-scale value not defined as SRI within the assessment
<b>Significant impact</b>		
Description	Clearing of Malleefowl and Chuditch habitat	
Significant impact (hectares) / Type of feature	56.00	Area in ha = 56 ha
Quality (scale) / Number	8.00	Habitat quality defined pre-impact in ERD based on survey effort on-site
<b>Rehabilitation credit</b>		
Description	Warralakin	
Proposed rehabilitation (area in hectares)	0.00	
Current quality of rehabilitation site / Start number (of type of feature)	0.00	
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00	
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00	
Time until ecological benefit (years)	0.00	
Confidence in rehabilitation result (%)	0	
<b>Offset</b>		
Description	0	Fauna Offset Strategy Rev5 provides a detailed description of the purchased site 10 offset site. Fauna survey confirmed presence of Malleefowl and Chuditch breeding and foraging habitat.
Proposed offset (area in hectares)	175.00	Area calculated to achieve at least 100 % offset (102.9%)
Current quality of offset site / Start number (of type of feature)	8.00	Excellent condition, mostly long unburnt.
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	6.00	Has regard for a reduced quality if current threatening processes are not managed, for example, dieback; clearing & fragmentation; removal of large trees, predators, fire, weeds
Future quality WITH offset (scale) / Future number WITH offset	8.00	Offset selected to match similar type, extending protection to an otherwise unprotected site. Will manage & protect offset sites in perpetuity; increase area/ ecological function; reveg degraded patches; weed & feral animal management
Time until ecological benefit (years)	1.00	Site purchased and subdivided
Confidence in offset result (%)	0.9	Site already purchased, proponent awaiting approval to commence ongoing management.
Duration of offset implementation (maximum 20 years)	20.00	Maximum selected as site will be protected by transferring to conservation tenure, in perpetuity.
Time until offset site secured (years)	1.00	Already secured, awaiting approval and finalisation of conservation tenure
Risk of future loss WITHOUT offset (%)	20.0%	Site may be subject to degradation without active management (fire, weeds, predators).
Risk of future loss WITH offset (%)	5.0%	Low risk as site will be absorbed into conservation estate with DBCA responsible for active management.
Offset ratio (Conservation area only)	N/A	

## Appendix E Vegetation Condition Scale

Vegetation Condition	South West and Interzone Botanical Provinces	Eremaean and Northern Botanical Provinces
<b>Pristine</b>	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.	
<b>Excellent</b>	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
<b>Very Good</b>	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
<b>Good</b>	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
<b>Poor</b>		Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
<b>Degraded</b>	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
<b>Completely Degraded</b>	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

## **Appendix F Fauna Offset Habitat Assessment (Selection of Site 10)**

## **Appendix G Fauna Offset Habitat Assessment Warralakin Site**

## **Appendix H DBCA correspondence advising suitability of Site 10**