

Appendix 4 Fauna Offset Strategy (Covalent Lithium 2022c)



Covalent Lithium

Earl Grey Lithium Project (Revised Proposal)

Fauna Offset Strategy

EPBC Act 2017/7950 Approval EP Act Statement 1118 Approval

	Earl Grey Lithium Project				
	Document Control				
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1. Executive Summary

1.1 Earl Grey Lithium Project – Approved Proposal

The Earl Grey Lithium Project (the Proposal) is located approximately 100 km south-south-east of Southern Cross, in the Shire of Yilgarn, Western Australia. The Proposal comprises 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 and/or to a lithium refinery in Kwinana. Within the Development Envelope of 2,347 hectares (ha), up to 386 ha of native vegetation clearing has been authorised for the Proposal, to be developed progressively over an approximately 40-year mining period. The location of the Development Envelope and the Indicative Site Layout for the Proposal is identified by Figure 1.1.

Covalent Lithium Pty Ltd (Covalent Lithium) is the Proponent for the Proposal. Covalent Lithium is a joint venture between Wesfarmers Lithium Pty Ltd (Wesfarmers) and Sociedad Química y Minera de Chile S.A. (SQM).

The Proposal is situated at the previously abandoned Mt Holland Mine Site, which was operated for gold mining between 1988 and 2001, and comprises existing land disturbance associated with open mine pits, an underground mine, processing plant, waste rock landforms, tailings storage facilities and other associated mine infrastructure. The abandoned Mt Holland Mine Site is largely unrehabilitated and is a liability of the State of Western Australia. The Proposal has been designed to maximise the use of existing disturbance areas (where practicable) in order to minimise the potential environmental effects of the Proposal.

The Proposal was referred for environmental assessment under Section 38 of the State Environmental Protection Act 1986 (WA) (EP Act) in May 2017. The State Environmental Protection Authority (EPA) determined the Proposal required an environmental assessment at the level of 'Public Environmental Review' (EPA 2019; Covalent Lithium 2019a, 2019b). In November 2019, following the completion of the environmental assessment by EPA, the Western Australian Minister for the Environment authorised the Proposal under the Statement 1118 approval (WA Minister for Environment 2019).

The Proposal was also referred for environmental assessment under Section 68 of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) in May 2017. The Commonwealth Department of Agriculture, Water and the Environment (DAWE) determined the Proposal required an environmental assessment as a 'Controlled Action', to be subject to an environmental assessment through an accredited assessment process through EPA. In February 2020, the DAWE authorised the Proposal under the EPBC 2017/7950 approval (DAWE 2020).

The Proposal as authorised under the Statement 1118 approval and the EPBC 2017/7950 approval is herein termed the 'Approved Proposal'.

1.2 Earl Grey Lithium Project – Revised Proposal

Covalent Lithium has proposed to amend the Approved Proposal to incorporate a number of operational and administrative changes (the 'Revised Proposal''). The proposed changes for the Revised Proposal include an additional 56 ha of native vegetation clearing, which will increase the total native vegetation clearing from 386 ha to 442 ha (a 15% increase).

The location of the additional 56 ha of native vegetation clearing for the Revised Proposal is also identified by Figure 1.1.

The Indicative Site Layout for the Proposal (Approved Proposal and Revised Proposal combined) will cover a total area of 825 ha, comprising 442 ha of native vegetation to be cleared and 383 ha of existing cleared/disturbed land associated with the abandoned Mt Holland Mine Site



The Revised Proposal was referred for environmental assessment under Section 38 of the EP Act in August 2021 (Covalent Lithium 2021a, 2021b). The EPA (2021) subsequently determined the Revised Proposal required an environmental assessment at the level of 'Referral Information'.

The Revised Proposal was additionally referred for environmental assessment under Section 143 of the under the EPBC Act in October 2021, for assessment as a variation to the conditions of the existing EPBC 2017/7950 approval.

The environmental assessments of the Revised Proposal under both the EP Act and the EPBC Act were in progress at the time of preparing this document.

1.3 Purpose of this Document

The environmental assessments undertaken by Covalent Lithium for the Proposal (Approved Proposal and Revised Proposal combined) have identified the clearing of native vegetation will affect fauna habitat of the following listed 'Threatened' fauna taxa protected under the EPBC Act and the State Biodiversity Conservation Act 2016 (WA) (BC Act):

- J Malleefowl Leipoa ocellata (EPBC-V, BC-V)
- J Chuditch Dasyurus geoffroii (EPBC-V, BC-V)

Both Malleefowl and Chuditch have been assessed as meeting the conservation threat assessment level of 'Vulnerable' in accordance with the conservation threat criteria outlined by IUCN (2012). The regional distribution of Malleefowl and Chuditch across Western Australia, and the location of the Proposal, is identified by Figure 1.2.

Condition 6 of the Statement 1118 approval and Condition 4 of the EPBC 2017/7950 approval for the Approved Proposal require the preparation and implementation of an environmental offset to counterbalance the environmental effect of the clearing of fauna habitat used by Malleefowl and Chuditch. The relevant conditions of the Statement 1118 approval and the EPBC 2017/7950 approval are described further in Section 1.4 Environmental Conditions – Fauna Offset Strategy.

A Fauna Offset Strategy has previously been prepared for the Approved Proposal to offset the environmental effect of the clearing of 386 ha of Malleefowl and Chuditch fauna habitat (Covalent Lithium 2021c). The Fauna Offset Strategy for the Approved Proposal has previously been subject to assessment and approval by DAWE (2021), and remains subject to assessment by EPA.

This Fauna Offset Strategy has been prepared as a result of the proposed additional 56 ha of clearing of Malleefowl and Chuditch fauna habitat for the Revised Proposal. As the Revised Proposal is anticipated to be subject to the environmental conditions applying to the Approved Proposal, this Fauna Offset Strategy has similarly been prepared to meet the requirements of Condition 6 of the Statement 1118 approval and Condition 4 of the EPBC 2017/7950 approval. This Fauna Offset Strategy therefore will represent the second Fauna Offset Strategy to be applicable to the Earl Grey Lithium Project under the environmental offsets framework.





Figure 1.1: Development Envelope and Indicative Site Layout





Figure 1.2: Regional Distribution of Malleefowl and Chuditch in Western Australia (Source: adapted from Atlas of Living Australia 2022)



1.4 Environmental Conditions – Fauna Offset Strategy

This Fauna Offset Strategy has been prepared for the Revised Proposal to meet the requirements of:

- / 'Threatened Fauna Land Acquisition Strategy' in accordance with Condition 8 of the Statement 1118 approval
- / 'Fauna Offset Management Plan' in accordance with Condition 4 of the EPBC 2017/7950 approval

To meet the requirements for the 'Threatened Fauna Land Acquisition Strategy' and the 'Fauna Offset Management Plan', the scope of this Fauna Offset Strategy is to provide the strategy and details for:

-) Offset land acquisition
- J Environmental management actions
- J Timelines and milestones
- J Environmental monitoring
- J Success criteria
- J Reporting

The objective of this Fauna Offset Strategy is to counterbalance the significant residual effect of the clearing of up to 56 ha of fauna habitat (foraging and breeding) for Malleefowl and Chuditch for the Revised Proposal.

Covalent Lithium proposes to acquire and manage one or more potential offset site(s) containing native vegetation which provides existing suitable foraging and breeding habitat for Malleefowl and Chuditch. Implementation of this Fauna Offset Strategy will seek to provide for:

-) Secure the local availability of existing foraging and breeding habitat for Malleefowl and Chuditch within the proposed offset site(s)
-) Continued occurrence of Malleefowl and Chuditch within the proposed offset site(s) where they currently occur, or to allow for the recolonisation of Malleefowl and Chuditch where they do not currently occur
-) Fauna habitat (native vegetation) for Malleefowl and Chuditch within the proposed offset site(s) is maintained and/or restored to a 'Very Good' or higher condition (as per the scale of Keighery 1994)

The above objectives will meet the requirements for the 'Threatened Fauna Land Acquisition Strategy' under the Statement 1118 approval and the 'Fauna Offset Management Plan' under Condition 4 of the EPBC 2017/7950 approval.



2. Proposal Context

2.1 Fauna Habitat Values

Biological field surveys have been undertaken within the Development Envelope and surrounds for the Proposal since 2016, as outlined within Western Wildlife (2017) and Ecoscape (2020a, 2020b, 2020c, 2020d, 2021a). The biological field surveys identify the terrestrial fauna recorded and the fauna habitats present, including for Malleefowl and Chuditch. A summary of the biological field survey works undertaken are provided in Table 2.1.

Three broad fauna habitat types have been defined as occurring within the Development Envelope, as described below and presented in Figure 2.1 and Figure 2.2:

-) Shrubland occurs on sandy-clay flats, gravelly sands and lateritic rises and vary in composition, but are usually dominated by flora taxa 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 taxa. Shrubland is considered to support conservation-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 understorey on clay flats. Much of this habitat is 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 Malleefowl and Chuditch, through the provision of foraging and breeding habitat.
- Mallee Woodland which has much variability in plant taxa 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 is considered to supports conservation-significant fauna, including the Malleefowl and Chuditch, through the provision of foraging and breeding habitat.

2.2 Terrestrial Fauna Management

In implementation of the Proposal, Covalent Lithium is required to implement measures to avoid, minimise and rehabilitate the potential effects to terrestrial fauna and their habitat, including through the preparation and implementation of:

) 'Terrestrial Fauna Environmental Management Plan' (Covalent Lithium 2020)

in accordance with Condition 7 of the Statement 1118 approval, with the management actions including separation distances (nil native vegetation clearing) from recently active Malleefowl nest mounds, and the trapping and relocation of Chuditch (if necessary).

/ 'Mine Closure Plan' (Covalent Lithium 2021d)

in accordance with the State Mining Act 1978 (WA), with the management actions including the re-establishment of fauna habitat (native vegetation) following the completion of the mining operations.

The requirements for the Terrestrial Fauna Environmental Management Plan and the Mine Closure Plan are in addition to the environmental offset requirements for terrestrial fauna as outlined within this Fauna Offset Strategy.



Table 2.1: Biological Field Surveys

Date	Survey Type/Extent	Survey Outcomes
Oct 2016	Reconnaissance survey with targeted searches for Malleefowl and Chuditch in Development Envelope	 Chuditch: 12 baited camera traps established for 5 nights totalling 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 totalling 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 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	 Cage trapping at three grids within the Development Envelope (Impact) and three grids within Jilbadji Nature Reserve (Control). 120 trap nights completed at both Impact and Control sites. One capture of female Chuditch recorded at Impact site; no captures at Control site
Oct 2019	Ecoscape (2020c) Targeted search and monitoring by Ecoscape and WA National Malleefowl Recovery Group	 Monitoring of Malleefowl mounds undertaken in accordance with NMRT guidelines. Four additional mounds found, three inside the Development Envelope, though outside of the proposed layout, and one outside of the Development Envelope.
Jun 2020	Ecoscape (2020d) 2020 Mt Holland Chuditch Monitoring	 Cage trapping for 2020 Chuditch monitoring, specifically: Establish and monitor three control sites more than five kilometres outside of the development envelope Establish and monitor three Impact sites within the development envelope Undertake monitoring within the Chuditch breeding season (May to July). 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 (Notomys mitchelli) was also recorded from both the Control and Impact sites.
Oct 2020	Ecoscape (2021a) 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)





Figure 2.1: Fauna Habitats





Figure 2.2: Fauna Taxa Records



2.3 Alignment to Conditions, Plans, Policy and Guidelines

2.3.1 Environmental Conditions

This Fauna Offset Strategy has been prepared to meet the requirements of Condition 8 of the Statement 1118 approval and Condition 4 of the EPBC 2017/7950 approval.

Table 2.2 outlines how this Fauna Offset Strategy addresses the requirements of Condition 8 of the Statement 1118 approval. Table 2.3 outlines how this Fauna Offset Strategy addresses the requirements of Condition 4 of the EPBC 2017/7950 approval.

Table 2.2: Statement 1118 Approval Condition 8

Conc	Condition Reference			
8-1	 The proponent shall undertake offsets with the objective of counterbalancing the significant residual impact on the following environmental values: (1) 386 ha of foraging and breeding habitat for malleefowl (Leipoa ocellata) (2) 386 ha of foraging and potential breeding habitat for chuditch (Dasyurus geoffroii) 	Fauna Offset Strategy		
8-2	Within twelve (12) months of the publication of this Statement, the proponent shall prepare and submit a Threatened Fauna Land Acquisition Strategy to the requirements of the CEO.	Fauna Offset Strategy		
8-3	The Threatened Fauna Land Acquisition Strategy, as required by condition 8-2, shall:			
	(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 3.4 Proposed Offset Sites		
	(2) demonstrate how the proposed offset counterbalances the significant residual impact to 386 ha of foraging and breeding habitat for malleefowl, and 386 ha of foraging and potential breeding habitat for chuditch, as identified in condition 8-1, 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 malleefowl and chuditch, as identified in condition 8-1;	Fauna Offset Strategy		
	(3) demonstrate how the proposed offset aligns with the National Recovery Plan for Malleefowl Leipoa ocellata and the Chuditch (Dasyurus geoffroii) Recovery Plan, or any subsequent revisions of these plans;	Section 2.3 Alignment to Conditions, Plans, Policy and Guidelines		
	(4) identify the environmental values of the offset area(s);	Section 3.4 Proposed Offset Sites		
	(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 3.4.6 Land Acquisition Process		
	(6) if any land is to be ceded to the Crown for the purpose of management for conservation, the proponent will identify: (a) the quantum of, and provide funds for, the upfront works associated with establishing the conservation area; (b) the quantum of, and provide a contribution of funds for, the management of this area for seven (7) years after completion of purchase; and (c) an appropriate management body for the ceded land;	Section 3.4.7 Funding Agreement Section 3.4.8 Conservation Reservation		



Cond	dition	Reference
	(7) detail the monitoring, reporting and evaluation mechanisms for management and/or rehabilitation actions; and	Section 3.5 Management Actions Section 4 Environmental Monitoring, Reporting and Evaluation
	(8) define the role of the proponent and/or any relevant management authority.	Section 3.5 Management Actions Section 6 Roles and Responsibilities
8-4	Within (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 8-2 and 8-3, the proponent shall implement the approved Threatened Fauna Land Acquisition Strategy.	Implementation of this Fauna Offset Strategy to commence following approval
8-5	 The proponent: (1) may review and revise the Threatened Fauna Land Acquisition Strategy; or (2) shall review and revise the Threatened Fauna Land Acquisition Strategy as and when directed by the CEO. 	Section 9 Adaptive Implementation
8-6	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 8-3.	Implementation of this Fauna Offset Strategy will commence following approval

Table 2.3: EPBC 2017/7950 Approval Condition 4

Con	dition	Reference
4	To compensate for residual significant impacts to the Malleefowl (Leipoa ocellata) and Chuditch (Dasyurus geoffroii), the approval holder must:	Fauna Offset Strategy
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 (Leipoa ocellata) and Chuditch (Dasyurus geoffroii) of the action in accordance with the EPBC Act Environmental Offsets Policy;	Section 2.3 Alignment to Conditions, Plans, Policy and Guidelines Section 3.4 Proposed Offset Sites Section 3.4.6 Land Acquisition Process Section 3.4.8 Conservation
		Reservation
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	Fauna Offset Strategy
c)	implement each approved Fauna Offset Management Plan(s) at least until the end date of the period of effect of the approval.	Implementation of this Fauna Offset Strategy will commence following approval



Con	Condition Reference		
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:	Section 2.3 Alignment to Conditions, Plans, Policy and Guidelines	
a)	the residual significant impacts to the Malleefowl (Leipoa ocellata) and Chuditch (Dasyurus geoffroii) quantified as the area of clearing of native vegetation within the development envelope) that will be offset by implementing the plan;	Section 2 Proposal Context	
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 3.4 Proposed Offset Sites	
c)	the size of the offset area in hectares, and maps that define the location and boundaries of the offset area;	Section 3.4 Proposed Offset Sites	
d)	measurable ecological outcomes for habitat quality, when these will be achieved and the period for which these will be maintained;	Section 3.5 Management Actions	
e)	offset completion criteria to demonstrate attainment of the ecological outcomes and an explanation of how the proposed offset completion criteria will be achieved;	Section 4 Environmental Monitoring, Reporting and	
f)	management measures (including timing, frequency, duration and method of outcome measurement) that will be implemented to achieve the ecological outcomes for Malleefowl (Leipoa ocellata) and Chuditch (Dasyurus geoffroii);	Evaluation Section 5 Completion Criteria	
g)	evidence that the management measures are consistent with relevant conservation advices, recovery plans and threat abatement plans;	Section 2.3 Alignment to Conditions, Plans, Policy and Guidelines	
h)	an analysis of potential risks of the plan, if implemented, failing to attain and/or maintain the offset completion criteria;	Section 7 Risk Assessment and Contingency Measures	
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;	Section 3.5 Management Actions Section 4 Environmental Monitoring, Reporting and Evaluation Section 7 Risk Assessment and Contingency Measures	
j)	the activities and land uses that will be prohibited in the offset area, including, for example, mining, exploration or grazing;	Section 3.5 Management Actions	
k)	a schedule for evaluating and reporting, at least annually, on the effectiveness of management measures and progress against offset completion criteria;	Section 4 Environmental Monitoring, Reporting and Evaluation Section 8 Reporting and Auditing	
I)	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;	Section 3.4.7 Funding Agreement Section 3.4.8 Conservation Reservation	



Con	dition	Reference
m)	an explanation of how the offset area and offset area management addresses the principles of the EPBC Act Environmental Offsets Policy; and	Section 2.3 Alignment to Conditions, Plans, Policy and Guidelines
n)	the role of the approval holder in controlling and managing the offset area and the identify and offset management role(s) of any other party.	Section 3.5 Management Actions Section 3.4.7 Funding Agreement Section 3.4.8 Conservation Reservation
	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.	GIS data for the proposed offset site(s) provided separately to DAWE



2.3.2 Environmental Offset Policy and Guidance

The preparation of this Fauna Offset Strategy has considered relevant State Government and Commonwealth Government policy and guidelines for environmental offsets.

Table 2.4 identifies how this Fauna Offset Strategy aligns with the principles outlined within the State WA Environmental Offset Policy and the WA Environmental Offset Guidelines (Government of Western Australia 2011, 2014). Table 2.5 identifies how this Fauna Offset Strategy aligns with the principles outlined within the Commonwealth Environmental Offsets Policy (DAWE 2012a).

Table 2.4: Alignment to State Offset Principles

Offset Principle	Offset Strategy
1. Environmental offsets will only be considered after avoidance and mitigation options have been pursued.	Fauna surveys have been undertaken within the Development Envelope, with the field survey results used to inform the avoidance and/or minimisation of the Revised Proposal effects to Malleefowl and Chuditch fauna habitats. The Revised Proposal has been designed to minimise the clearing of fauna habitats (native Vegetation) to the maximum extent practicable through utilising existing disturbed/cleared areas where practicable.
2. Environmental offsets are not appropriate for all projects.	Environmental offsets have been deemed appropriate for the Proposal as outlined by Condition 8 of the Statement 1118 approval (WA Minister for Environment 2019) and Condition 4 of the EPBC 2017/7950 approval (DAWE 2020).
3. Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.	The quantum of offsets for the Revised Proposal will be based on calculations using the DAWE (2012b) Offsets Assessment Guide (Offsets Calculator) to ensure the environmental offsets provided are proportionate to the significant residual environmental effect to fauna habitats used by Malleefowl and Chuditch.
4. Environmental offsets will be based on sound environmental information and knowledge.	Fauna surveys have been undertaken within the potential offset sites by suitably qualified and experienced environmental personnel in assessing Malleefowl and Chuditch. The results of the fauna surveys have been subject to review by relevant fauna technical experts within DBCA.
5. Environmental offsets will be applied within a framework of adaptive management.	The implementation of the environmental offsets outlined within this Fauna Offset Strategy will be monitored according to set timeframes. Management actions will be reviewed based on data collected through environmental monitoring, and adapted where appropriate in consultation with DAWE, EPA and DBCA.
6. Environmental offsets will be designed to be enduring, enforceable and deliver long term strategic outcomes.	 The proposed environmental offset site(s) will seek to be enduring, enforceable and deliver long-term strategic outcomes through: J Land acquisition and transfer to DBCA for long-term statutory protection of the fauna habitats J Land management by Covalent Lithium to meet the environmental offset obligations, and following, management by DBCA in perpetuity as part of the State's broader conservation reserve system J Provide habitat and habitat connectivity for 'Threatened' fauna taxa Malleefowl and Chuditch, to enable the persistence of these fauna taxa within the local area.



Table 2.5: Alignment to Commonwealth Offset Principles

Offset Principle	Offset Strategy
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	The eastern Wheatbelt has been subject to a high proportion of native vegetation clearing; predominately associated with agriculture. The acquisition of fauna habitat within this agricultural area will seek to protect and maintain existing remnant areas of fauna habitat to enable the persistence of Malleefowl and Chuditch within the local area.
Be built around direct offsets but may include other compensatory measures	This Fauna Offset Strategy outlines environmental offsets comprising land acquisition of proposed offset site(s), with environmental management actions (e.g. fencing, control of threatening processes, environmental monitoring) to be implemented within the proposed environmental offset site(s). The combination of the proposed direct offset and compensatory measures is considered to align to the offset principle and provide an appropriate framework for the protection and management of fauna habitats for Malleefowl and Chuditch.
Be in proportion to the level of statutory protection that applies to the protected matter	Malleefowl and Chuditch have been assessed at the threat classification level of 'Vulnerable' under the EPBC Act in accordance with the criteria of IUCN (2012). This 'Vulnerable' classification has been incorporated into determining the offset area in accordance with the DAWE (2012b) Offsets Assessment Guide (EPBC Offsets Calculator).
Be of a size and scale proportionate to the residual impacts on the protected matter	The land acquisition environmental offset will be of a size and scale proportionate to the effect to Malleefowl and Chuditch fauna habitat, as determined in accordance with the DAWE (2012b) Offsets Assessment Guide (EPBC Offsets Calculator).
Effectively account for and manage the risks of the offset not succeeding	The potential risks to the offset site(s) and risks of not achieving the Fauna Offset Strategy completion criteria have been considered and accounted for through a risk assessment and the identification of contingency measures.
	The potential risk of not meeting the Fauna Offset Strategy objectives have been minimised through:
	J Biological field surveys have identified the potential offset site(s) provide suitable existing fauna habitat for Malleefowl and Chuditch
	J Management measures proposed are considered adequate to protect and maintain the fauna habitat quality (vegetation condition), and to protect Malleefowl and Chuditch through management measures targeting threatening processes (e.g. introduced fauna predation)
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)	The proposed offset site(s) are additional to land currently in the State conservation reserve system in the local area, and are not currently subject to any legal protective measures for conservation (e.g. conservation covenants).



Offset Principle	Offset Strategy
Be efficient, effective, timely, transparent, scientifically robust and reasonable	 The proposed offset site(s) are considered to be: <i>f</i> efficient, as the proposed offset site(s) provide existing fauna habitat suitable for both Malleefowl and Chuditch effective, as the proposed offset site(s) will protect and maintain fauna habitat for both Malleefowl and Chuditch timely, as the environmental offsets can be readily implemented, and readily managed into the future transparent, as the details of the environmental offsets will be publicly available (with details published as per the relevant environmental conditions of approval) scientifically robust, as the environmental offsets are based on biological field survey assessments of both the Development Envelope and the proposed offset sites, and in consideration of relevant policies and guidelines reasonable, as the proposed land acquisition, maintenance, and monitoring are achievable.
Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	Details associated with the land acquisition process have been considered, as well as the governance arrangements for biological monitoring, audit and evaluation. This Fauna Offset Strategy will be subject to review by DAWE, EPA and DBCA, with approval required from DAWE and EPA prior to implementation. Covalent Lithium will consult with DBCA regarding the transfer of the proposed offset site(s), as well as the short-term and medium-term management actions and arrangements. Covalent Lithium propose to enter into a funding agreement (Memorandum of Understanding) with DBCA for the transfer and long-term management of the proposed offset site(s), which will address the governance arrangements necessary under the State Conservation and Land Management Act 1984 (WA) and the State Land Administration Act 1997 (WA). Implementation of this Fauna Offset Strategy will be publicly reported through the annual Compliance Assessment Report under the conditions of approval for the Proposal.



2.3.3 Threatened Fauna National Recovery Plans

This Fauna Offset Strategy has been developed to align with the published guidelines, conservation advice and recovery plans relevant to Malleefowl and Chuditch.

Table 2.6 identifies how this Fauna Offset Strategy aligns with the principles outlined within the Chuditch (Dasyurus geoffroii) National Recovery Plan (DAWE 2012c) and the National Recovery Plan for Malleefowl (Leipoa ocellata) (DAWE 2007).

Offset Action	Alignment to Recovery Plan			
National Recovery Plan for M	alleefowl (Leipoa ocellata) (DAWE 2007)			
Land Acquisition of Proposed Offset Site(s)	Action 1.1 Retain areas that support Malleefowl, and those that support Malleefowl habitat, and protect them from incremental clearing.			
	Action 5.1 Develop strategic corridors of native vegetation to connect patches of habitat that are suitable for Malleefowl.			
Environmental Management	Action 9.2 Monitor and manage existing monitoring sites across Australia			
Threatening Processes (Introduced Fauna Control)	Action 2.3 Erect adequate fencing to protect Malleefowl habitat.			
	Action 4.2 Reduce fox numbers in small and isolated habitat remnants.			
	Action 4.3 Reduce fox numbers in large areas of native habitat where Malleefowl densities have declined and fox predation is a likely explanation for such declines.			
Biological Monitoring	Action 9.1 Analyse and review monitoring data. Recommend improvements and develop site-specific management plans for monitoring sites, consistent with a national adaptive management design.			
	Action 9.2 Monitor and manage existing monitoring sites across Australia.			
	Action 10.1 Detail the distribution of Malleefowl in remote areas of SA and WA by field surveys, and describe the habitats in which Malleefowl are found.			
Chuditch (Dasyurus geoffroii) National Recovery Plan (DAWE 2012c).			
Land Acquisition of Proposed	Action 1. Retain and improve habitat critical for survival			
Offset Site(s)	 Identify areas of remnant vegetation that can be protected or enhanced through re-vegetation. 			
	 New areas of suitable habitat acquired through land acquisition process. 			
	 Habitat identified through Environmental Impact Assessment and negotiated through off-set. 			
Threatening Processes	Action 4. Continue, expand and improve baiting of foxes and feral cats			
(Introduced Fauna Control)	 Encourage baiting programs on other land tenures. Effective baiting programs (e.g. Western Shield Program) for feral cats and foxes. 			
Biological Monitoring	Action 5. Determine population abundance and distribution of Chuditch populations • Identify, develop protocols and implement monitoring at 'key			
	populations'. Action 6. Establish reference sites for monitoring Chuditch population abundance to evaluate the effectiveness of fox and cat control			
	 Identify reference sites spread across the range of Chuditch which incorporate where fox and potentially cat control will take place. 			
	• Monitor Chuditch populations at reference sites to determine the effectiveness of fox and cat control.			



2.3.4 Threat Abatement Plans

This Fauna Offset Strategy has been developed to align with published threat abatement plans for where the introduced fauna (predator) taxa the Red Fox Vulpes vulpes and the Cat Felis catus may be present and predate upon Malleefowl and Chuditch.

Table 2.7 identifies how this Fauna Offset Strategy aligns with the Red Fox Threat Abatement Plan (DAWE 2008) and the Feral Cat Threat Abatement Plan (DAWE 2015).

Table 2.7:	Alignment to	Threat	Abatement	Plans

Threat Abatement Plan Action	Alignment to Threat Abatement Plan
Red Fox Threat Abatement Plan (DAWE 2008)	
 Undertake fox control activities – Identify priority areas for fox control based on: the significance of the population of the affected native species or of the ecological community the degree of threat posed by foxes to species and ecological communities relative to other threats the cost-effectiveness of maintaining fox populations below an identified 'damage threshold' in the region, and the feasibility of effective remedial action. Conduct and monitor regional fox control, through new or existing programs, in priority areas identified 	Monitoring for the Cat Felis catus will be undertaken within the offset site(s) to determine the occurrence of introduced fauna taxa which may predate upon Chuditch and/or Malleefowl. Where appropriate, introduced fauna baiting will be undertaken within the offset site(s) in conjunction with regional fauna control programs by DBCA, and in consultation with other stakeholders such as the Eastern Wheatbelt Biosecurity Group and adjacent landowners. The introduced fauna baiting will seek to ensure that Malleefowl and Chuditch are able to persist within the proposed offset site(s).
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 for the Red Fox Vulpes vulpes will be undertaken within the offset site(s) to determine the occurrence of introduced fauna taxa which may predate upon Chuditch and/or Malleefowl. Where appropriate, introduced fauna baiting will be undertaken within the offset site(s) in conjunction with regional fauna control programs by DBCA, and in consultation with other stakeholders such as the Eastern Wheatbelt Biosecurity Group and adjacent landowners. The introduced fauna baiting will seek to ensure that Malleefowl and Chuditch are able to persist within the proposed offset site(s).



3. Environmental Offset Strategy

3.1 Objectives

As outlined within Section 1.2 Earl Grey Lithium Project – Revised Proposal, the Revised Proposal includes the clearing of native vegetation which provides fauna habitat (foraging and breeding) for the following 'Threatened' fauna taxa listed and protected under the EPBC Act and the BC Act:

- J Malleefowl Leipoa ocellata (EPBC-V, BC-V)
- J Chuditch Dasyurus geoffroii (EPBC-V, BC-V)

The objective of this Fauna Offset Strategy is to compensate for significant residual effect of the clearing of fauna habitat (native vegetation) to Malleefowl and Chuditch by the Revised Proposal. Implementation of this Fauna Offset Strategy will seek to ensure:

- Secure the local availability of existing foraging and breeding habitat for Malleefowl and Chuditch within the proposed offset site(s)
-) Continued occurrence of Malleefowl and Chuditch within the proposed offset site(s) where they currently occur, or to allow for the recolonisation of Malleefowl and Chuditch where they do not currently occur
-) Fauna habitat (native vegetation) for Malleefowl and Chuditch within the proposed offset site(s) is maintained and/or restored to a 'Very Good' or higher condition (as per the scale of Keighery 1994)

To achieve the above objectives, Covalent Lithium proposes to acquire and manage one or more potential environmental offset site(s) to offset the significant residual effect of the clearing of fauna habitat by the Revised Proposal.

3.2 Biological Field Surveys

Ecoscape (2021b), on behalf of Covalent Lithium, undertook biological field surveys of native vegetation occurring within multiple large privately-owned (freehold) land holdings surrounding the Proposal (within < 150 km radius). The purpose of the biological field surveys was to identify and assess the fauna habitat values of the land holdings to determine the potential for land acquisition and management for conservation as an environmental offset for the Revised Proposal.

In assessment of the fauna habitat values, Ecoscape (2021b) identified the highest ranked land holdings (priority rank '1') as:

- J Site 5 (506 ha of native vegetation)
- J Site 8 (758 ha of native vegetation)
- J Site 12 (2,181 ha of native vegetation)
- J Site 13 (796 ha of native vegetation)

The land holdings surveys, the methodology, and the assessment of the fauna habitat values are detailed within the Ecoscape (2021b) report.

Covalent Lithium will seek to acquire 'core areas' of native vegetation within one or more of the proposed offset site(s) for use as environmental offset(s). For the purpose of this Fauna Offset Strategy, the 'core areas' of Sites 5, 8, 12 and 13 are collectively referred to as the 'proposed offset site(s)'.

The core areas have been defined by the larger areas of native vegetation that are generally connected to other native vegetation remnants (including existing conservation areas). It is intended these core areas of native vegetation will be subdivided from the larger landholdings (with the agricultural areas not forming part of the proposed offset sites).



3.3 Offset Banking

'Offset Banking' (which may also be termed 'Advanced Offsets' or 'Bio-Banking') is an approach whereby environmental offsets may be assessed and acquired in-advance of the environmental effects of a Proposal, with the offset value credited towards environmental offsets for future Proposal effects. Offset banking is an accepted and established approach for the identification, management and accounting for land acquisition environmental offsets.

As outlined above, Covalent Lithium will seek to acquire land containing native vegetation within one or more of the proposed offset site(s) for use as environmental offset for the Revised Proposal. Noting the relatively large size of the proposed offset site(s), it is anticipated that the land acquisition(s) are likely to exceed Covalent Lithium's immediate environmental offset requirement, and accordingly, the excess offset value will be 'banked' (credited) towards any future environmental offset requirement. Alternatively, if the banked offset value is not required by Covalent Lithium in the future, the banked offset value may be on-sold to third-parties (e.g. other mining companies) to meet their environmental offset requirements.

The key advantages of an 'offset banking' approach are to:

-) Allow for early management of a larger offset area in advance of the full offset value being required (conservation benefit).
-) Allow for the targeting and acquisition of potentially larger land areas containing native vegetation (which is preferable to seeking smaller land areas which meet only the minimum land offset requirement)

3.4 Proposed Offset Sites

The assessment of the fauna habitat values for each of the proposed offset site(s) is detailed within the Ecoscape (2021b) report. A summary of the fauna habitat values for each of the proposed offset site(s) as outlined by Ecoscape (2021b) is provided below.

3.4.1 Bioregional Context

All proposed offset site(s) are located within the eastern Wheatbelt agricultural region which has been extensively cleared, with the surrounding remnant areas of native vegetation fragmented. As identified by Ecoscape (2021b), database records held by DBCA confirm Malleefowl persist within many of the remaining native vegetation areas, however, local records for Chuditch are few (however Chuditch may occur in low density within available habitat). All proposed offset site(s) occur within the regional distributions of both Malleefowl and Chuditch (Figure 1.2).

3.4.2 Proposed Offset Site 5

Site 5 as surveyed by Ecoscape (2021) contains a total of 506 ha of native vegetation, comprising both Woodland and Shrubland habitat. Site 5 comprises 5 separate land holdings, totalling 1,725 ha. The remaining 1,218 ha area within these land holdings has been historically cleared for agriculture.

The Woodland habitat provides suitable existing foraging and breeding habitat for both Malleefowl and Chuditch, whilst the Shrubland habitat provides suitable existing foraging and breeding habitat for Malleefowl and foraging habitat for Chuditch.

Malleefowl and Chuditch were not recorded within Site 5 by the biological field surveys. Whilst noting this, database records held by DBCA confirm the presence of Malleefowl within the local area (within 5 km). No records of Chuditch occur within the local area.

Vegetation was in a generally 'Very Good' condition (as per the scale of Keighery 1994) with only minor existing disturbance noted, and with connectivity to the native vegetation for the adjoining 'Class A' **Constant of Scale** Nature Reserve **Constant** (**Constant of Scale**) ha) to the east, which is similarly expected to provide suitable fauna habitat for Malleefowl and Chuditch.



Two core areas within Site 5 comprised predominantly of native vegetation have been identified as potential offset sites, totalling 622 ha in area.

The location of Site 5, and the biological field survey effort by Ecoscape (2021b), is identified by Figure 3.1. Representative images of the Woodland and Shrubland fauna habitat within Site 5 are identified by Figure 3.2 and Figure 3.3.

3.4.3 Proposed Offset Site 8

Site 8 as surveyed by Ecoscape (2021) contains a total 758 ha of native vegetation, comprising both Woodland and Shrubland habitat. Site 8 comprises 2 separate land holdings, totalling 2,098 ha. The additional 1,341 ha area within these land holdings has been historically cleared for agriculture.

The Woodland habitat provides suitable existing foraging and breeding habitat for both Malleefowl and Chuditch, whilst the Shrubland habitat provides suitable existing foraging and breeding habitat for Malleefowl and foraging habitat for Chuditch.

Malleefowl and Chuditch were not recorded within Site 8 by the biological field surveys. Whilst noting this, database records held by DBCA confirm the presence of Malleefowl both within Site 8 and immediately adjacent to Site 8 (within 1 km). No records of Chuditch occur within the local area.

Vegetation was in a generally 'Good' condition with only 'Minor' existing disturbance noted, and with connectivity to native vegetation to the west and south, including 'Class A' Reserve (Internet ha) and 'Class A' Nature Reserve (Internet ha), similarly with this native vegetation expected to provide suitable fauna habitat for Malleefowl and Chuditch.

Two core areas within Site 8 comprised predominantly of native vegetation have been identified as potential offset sites, totalling 787 ha in area.

The location of Site 8, and the biological field survey effort by Ecoscape (2021b), is identified by Figure 3.4. A representative image of the Woodland/Shrubland fauna habitat (intersection) within Site 8 is identified by Figure 3.5.

3.4.4 Proposed Offset Site 12

Site 12 as surveyed by Ecoscape (2021) contains 2,181 ha of native vegetation, comprising both Woodland and Shrubland habitat. Site 12 comprises 6 separate land holdings, totalling 5,858 ha. The additional 3,677 ha area within these land holdings has been historically cleared for agriculture.

The Woodland habitat provides suitable existing foraging and breeding habitat for both Malleefowl and Chuditch, whilst the Shrubland habitat provides suitable existing foraging and breeding habitat for Malleefowl and foraging habitat for Chuditch.

Malleefowl and Chuditch were not recorded within Site 12 by the biological field surveys. Whilst noting this, database records held by DBCA confirm the presence of Malleefowl both within Site 12 (along roadside vegetation) and immediately adjacent to Site 12 (within 2 km). No records of Chuditch occur within the local area.

Vegetation was in a generally 'Good' condition with 'Moderate' existing disturbance noted, and with connectivity to large adjoining areas of native vegetation to the south, including 'Class A' Nature Reserve **Mathematical Constant**, which is similarly expected to provide suitable fauna habitat for Malleefowl and Chuditch.

Five core areas within Site 12 comprised predominantly of native vegetation have been identified as potential offset sites, totalling 2,116 ha in area.

The location of Site 12, and the biological field survey effort by Ecoscape (2021b), is identified by Figure 3.6. Representative images of the Woodland and Shrubland fauna habitat within Site 12 are identified by Figure 3.7 and Figure 3.8.



3.4.5 Proposed Offset Site 13

Site 13 as surveyed by Ecoscape (2021) contains 795 ha of native vegetation, comprising both Woodland and Shrubland habitat. Site 13 comprises 1 land holding, totalling 5,858 ha. The additional 3,677 ha area within this land holding has been historically cleared for agriculture.

The Woodland habitat provides suitable existing foraging and breeding habitat for both Malleefowl and Chuditch, whilst the Shrubland habitat provides suitable existing foraging and breeding habitat for Malleefowl and foraging habitat for Chuditch.

Malleefowl and Chuditch were not recorded within Site 13 by the biological field surveys. Whilst noting this, database records held by DBCA confirm the presence of Malleefowl within the local area (within 5 km). No records of Chuditch occur within the local area.

Vegetation was in a generally 'Very Good' condition with 'Minor' existing disturbance noted, and with connectivity to large adjoining areas of native vegetation to the south and west, including 'Class A' Nature Reserve **Constant** (**Constant**), which is similarly expected to provide suitable fauna habitat for Malleefowl and Chuditch.

Three core areas within Site 13 comprised predominantly of native vegetation have been identified as potential offset sites, totalling 796 ha in area.

The location of Site 13, and the biological field survey effort by Ecoscape (2021b), is identified by Figure 3.9. Representative images of the Woodland and Shrubland fauna habitat within Site 13 are identified by Figure 3.10 and Figure 3.11.

Figure 3.1: Site 5 Location









Figure 3.2: Site 5 Woodland Habitat Source: Ecoscape (2021b)



Figure 3.3: Site 5 Shrubland Habitat Source: Ecoscape (2021b)



Figure 3.4: Site 8 Location









Figure 3.5: Site 8 Shrubland/Woodland Habitat Source: Ecoscape (2021b)



Figure 3.6: Site 12 Location









Figure 3.7: Site 12 Woodland Habitat Source: Ecoscape (2021b)



Figure 3.8: Site 12 Shrubland Habitat Source: Ecoscape (2021b)



Figure 3.9: Site 13 Location









Figure 3.10: Site 13 Woodland Habitat Source: Ecoscape (2021b)



Figure 3.11: Site 13 Shrubland Habitat Source: Ecoscape (2021b)



3.4.6 Land Acquisition Process

An overview of the land acquisition process is presented in Table 3.1.

Consultation by Covalent Lithium with DAWE, EPA and DBCA will be necessary to agree on the acceptability of the proposed offset site(s) to be used as environmental offsets for the Revised Proposal. Following, consultation with the relevant Landowners by Covalent Lithium will be necessary to determine the potential ability to acquire the proposed offset site(s).

Agreement between Covalent Lithium and DBCA on the acquisition and transfer of the proposed offset site(s) will be established through a Memorandum of Understanding (to be developed), with Covalent Lithium or DBCA to then acquire one or more of the proposed offset site(s) by:

-) Covalent Lithium to undertake the land purchase and coordinate sub-division, with Covalent Lithium to subsequently transfer title of the land to DBCA, or
- **)** DBCA to undertake the land purchase, with Covalent Lithium to pay the purchase fee for the land on behalf of the DBCA including the coordination of sub-division

3.4.7 Funding Agreement

Covalent Lithium will provide the financial contributions necessary for the land acquisition, subdivision, land transfer, and the implementation of this Fauna Offset Strategy. The proposed Memorandum of Understanding between Covalent Lithium and DBCA (as outlined above) will confirm the specific details of the funding agreement. The general funding agreement items and timeframes are detailed in Table 3.2.

3.4.8 Conservation Reservation

It is anticipated the DBCA may seek to additionally protect the proposed offset site(s) (following land acquisition) through a combination of statutory protection mechanisms, which for example, may include:

-) Conservation reservation (e.g. Nature Reserve) under the State Conservation and Land Management Act 1984 (WA) by DBCA
-) Nature Conservation Covenant, being a legally binding document negotiated between DBCA and the Landowner which aims to maintain conservation values.
- *)* File Notation Area (FNA) under the State Mining Act 1978 (WA) through the State Department of Mines, Industry Regulation and Safety (DMIRS)

These statutory protection mechanisms, if appropriate, will be coordinated by DBCA. Whilst Covalent Lithium does not have any formal role in such statutory protection mechanisms, Covalent Lithium will seek to assist DBCA where possible.


Table 3.1: Land Acquisition Process

Step	R	ole	Action	Responsible	Status
	Covalent Lithium	DBCA		Parties	
Land Identification	Lead	Review	J Identify proposed offset site(s)	Covalent Lithium	Complete
Land Evaluation	Lead	Consultation	 Undertake fauna habitat assessments Undertake EBPC Offset calculations 	Covalent Lithium	Complete
			J Undertake site inspection	DBCA	Not commenced
			<pre>/ Provide confirmation on the suitability of proposed offset site(s)</pre>	DAWE, EPA, DBCA	Not commenced
Landowner Negotiation	Lead	Review / Approve	 Agreement between Covalent Lithium and DBCA on the sale process Agreement between Landowner(s) and Covalent Lithium regarding land acquisition (and subdivision if required) Finalise land purchase and associated costs (e.g. sub-division) 	Covalent Lithium, Landowners, DBCA	Not commenced
Conservation Reservation	Consultation	Lead	 DBCA Director General to confirm potential inclusion of the site in conservation reserve system under State Conservation and Land Management Act 1984 (WA) 	DBCA	Not commenced
			J DBCA Director General to establish Nature Conservation Covenant	DBCA	Not commenced
			J DMIRS Director General to approve File Notation Area under Section 16(3) of the State Mining Act 1978 (WA)	DBCA, DMIRS	Not commenced
Funding Agreement as per MoU	Lead	Review / Approve	J Funding Agreement prepared and established between Covalent Lithium and DBCA regarding land acquisition and management funding requirements	Covalent Lithium	Not commenced
	Lead	Consultation	Covalent Lithium to provide funding for land acquisition to DBCA in the form and manner specified in the Funding Agreement	Covalent Lithium	Not commenced
Land Subdivision (if required)	Lead	Consultation) Coordinate sub-division of the proposed offset site(s)	Covalent Lithium	Not commenced
Land Purchase	Lead	Consultation	<pre>/ Purchase of the proposed offset site(s)</pre>	Covalent Lithium DBCA,	Not commenced
Land Tenure	Lead	Consultation	J Arrange transfer of the acquired offset site(s) to DBCA	Covalent Lithium	Not commenced
Transfer	Consultation	Lead	J Transfer of land tenure type from 'Freehold' to a conservation reservation classification (e.g. 'Nature Reserve') vested in the Conservation and Parks Commission (CPC) in accordance with the State Land Administration Act 1997 (WA) and the State Conservation and Land Management Act 1984 (WA)	DBCA	Not commenced



Item	Funding Item	Relevant Parties	Timeframe
Land Acquisition	Transfer of land acquisition payment to Landowner	Covalent Lithium / DBCA	Within 12 months of land acquisition
Land Subdivision	Subdivision costs Fencing	Covalent Lithium	Within 12 months of land acquisition
Management Actions	 Short/medium-term management: Removal of waste and unwanted infrastructure (e.g. internal fences), and replacement and/or maintenance of fencing (as appropriate) Maintenance of fencing, fire breaks, prescribed burns (if required), introduced fauna and introduced flora control programmes (if required) 	Covalent Lithium	Up to 20 years
	Long-term management:	Covalent Lithium	Up to 20 years
	 Maintenance of fencing, fire breaks, prescribed burns (if required), introduced fauna and introduced flora control programmes (if required) 	DBCA	As required, in accordance with the State Conservation and Land Administration Act 1984 (WA)
Inspections	General inspections	Covalent Lithium	Up to 20 years
		DBCA	As required, in accordance with the State Conservation and Land Administration Act 1984 (WA)
Monitoring	Fauna monitoring	Covalent Lithium	Up to 20 years
		DBCA	As required, in accordance with the State Conservation and Land Administration Act 1984 (WA)

Table 3.2: Funding Arrangement

3.5 Management Actions

Management actions have been developed which seek to maintain and/or improve fauna habitat quality, which seek to assist Malleefowl and Chuditch to persist within and/or recolonise into the proposed offset site(s).

Covalent Lithium will coordinate the majority of these management actions within the first five years following the land acquisition, and following, Covalent Lithium will continue to undertake inspections and environmental monitoring with other management activities will be completed by Covalent Lithium and/or DBCA (as appropriate).

Management actions, funding and implementation have been established based on the following periods:

) Short-term 0-5 years –

Management to occur following land acquisition, including funding, coordination and implementation of management actions by Covalent Lithium.

) Medium-term 5-20 years –

Maintenance of fire management, introduced flora and introduced fauna control programmes will be funded by Covalent Lithium, however, some management actions (e.g. introduced fauna control) may be implemented in conjunction with DBCA regional activities, if appropriate.



J Long-term 20+ years

Management by DBCA as part of the broader conservation reserve system in accordance with the State Conservation and Land Management Act 1984 (WA).

The management actions generally include:

-) Fencing
- J Introduced flora (weed) control
-) Introduced fauna control, in consultation with DBCA and other relevant stakeholders (as appropriate)
-) Fire breaks, including fuel reduction (prescribed burning), in consultation with DBCA and other relevant stakeholders (as appropriate)

Further detail of the management actions are summarised in Table 3.3.



Table 3.3: Management Actions

Management Measure	F	Responsible Party		Timing	Frequency	Duration	Method of Outcome
	Short Term 0-5 years	Medium Term 5-20 years	Long Term 20+ years				measurement
Installation of fire breaks	Covalent Lithium	-	-	Completed within	Once off	Once off	Inspection confirms fire break establishment
Installation of boundary fencing to prevent stock access and/or control vehicle/personnel entry			12 months of land acquisition			Inspection confirms fence establishment	
Removal of waste and/or infrastructure (e.g. internal fences)							Inspection confirms waste and internal fence removal
Maintenance of boundary fencing			DBCA	Completed within	As required	As required	Periodic inspection of fencing confirms integrity
Maintenance of fire breaks		(in collaboration with DBCA)		12 months of identification			Periodic inspection of fire break confirms good condition and easily accessible
Prescribed burning programs to minimise likelihood of uncontrolled wildfire impacting on fauna habitat	_						Periodic inspection confirms prescribed burns completed as required
Introduced fauna (predator) control						Periodic inspection confirms introduced fauna (predators) not abundant and/or increasing	
Introduced flora (weed) control							Periodic inspection confirms introduced flora (weeds) not establishing and/or spreading



3.5.1 Fencing

Installation and maintenance of boundary (perimeter) fencing will be undertaken to protect fauna habitat by controlling vehicle/personnel entry and excluding agricultural grazing (e.g. cattle, sheep).

Subject to consultation and agreement with DBCA, where the native vegetation is contiguous with adjacent conservation areas, internal fencing will be removed to allow for fauna movement between the areas of native vegetation.

3.5.2 Fire Management

Following consultation with DBCA, Covalent Lithium will install and maintain fire breaks along the outer boundaries (perimeter) of the proposed offset site(s).

Prescribed burns to reduce fuel loads may be undertaken by DBCA in consultation with relevant stakeholders (adjacent Landowners, Department of Fire and Emergency Services (DFES), Shire of Yilgarn) with consideration given to low intensity / mosaic burns to minimise the potential effect to fauna breeding habitat (hollow logs and leaf litter), as well as any potential implications to environmental monitoring locations.

3.5.3 Introduced Fauna (Predator) Control

Effective introduced fauna (predator) control requires a landscape-scale approach (rather than an individual site approach). Currently, landowners and stakeholders (e.g. Government agencies, landcare groups, industry partners) collectively contribute towards introduced fauna control programs.

The requirement for introduced fauna control within the proposed offset site(s) will be initiated following environmental monitoring which may indicate an abundance or an increase in introduced fauna that may predate upon Malleefowl or Chuditch. Following consultation with DBCA and stakeholders, if it is determined introduced fauna control is required, an introduced fauna control programme will be implemented within the proposed offset site(s) and adjoining lands (nominally within a 3 km radius).

3.5.4 Introduced Flora (Weed) Control

If introduced flora (weeds) are identified as abundant or as spreading within the proposed offset site(s) to an extent that the fauna habitat quality is detrimentally affected, an introduced flora control programme will be implemented. The control methodology will be developed in consultation with DBCA and will be dependent upon the introduced flora taxa identified and its observed extent, and for the purpose of maintaining and/or improving the native vegetation (fauna habitat) condition to 'Very Good'.



4. Environmental Monitoring, Reporting and Evaluation

Environmental monitoring of the proposed offset site(s) will be periodically undertaken by Covalent Lithium for a period of up to 20 years. The results of monitoring will track the progress of implementation of this Fauna Offset Strategy, with the results of the monitoring included in annual reports submitted to DAWE and EPA, as detailed in Section 8 Reporting and Auditing.

Locations and baseline data for each monitoring location will be established during the first monitoring period (within 12 months following land acquisition). A review of monitoring data will be completed annually following the second monitoring period. Baseline monitoring locations may be replaced if unplanned events occurs (e.g. fire) which may affect the monitoring results.

4.1 General Inspections

Periodic general inspections of the proposed offset site(s) will be undertaken by Covalent Lithium for a period of up to 20 years, and will include:

- J Inspections of fencing to ensure integrity and identify any repairs required
-) Inspections of fire breaks to identify any maintenance required, and visual observation of any fires
- J Visual observation to identify changes in introduced flora (weed) occurrence
- J Visual observation to identify changes in introduced fauna (predator) occurrence
- J Visual observation of any unauthorised entry or agricultural stock grazing

Table 4.1 identifies the frequency and timing of general inspections. General inspections will be undertaken annually. Annual inspections are considered a minimum time period for landholders to identify and meet general land management requirements.

4.2 Fauna Monitoring

Onsite fauna presence monitoring will consist of the following:

Chuditch -

- *J* Monitoring to occur in breeding season during Winter (nominally May to July)
-) Monitoring to consist of cameras at static locations with a minimum of two arrays of up to 20 cameras with nominally 200 m between cameras (consistent with Rayner et al. 2011).
-) Opportunistic observations will be recorded of scats, tracks, scratchings or sightings of Chuditch

Malleefowl -

-) Monitoring will occur during the nest mound building season in Spring (September to December)
-) Monitoring will consist of LiDAR imagery to identify potential nest mounds with field verification, and field verification of any previously identified nest mounds. Monitoring will align with the National Malleefowl Monitoring Manual (NMRT 2019) and will include mound activity status.
-) Opportunistic observations will be recorded of additional nest mounds, scats, feathers, tracks, scratchings, or sightings of Malleefowl.
- A cybertracker software program will be used to record the annual monitoring results, with the monitoring data 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.



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 through the established camera network as well as opportunistic field observations, rather than targeted field surveys for introduced fauna). 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 introduced fauna will be made based on evidence collated and temporal analysis (where possible). This will establish population trends between monitoring events. Statistical analysis by ANOVA will indicate if survey results are statistically significant between monitoring events.

Table 4.1 identifies the frequency and timing of fauna monitoring. Fauna monitoring will be undertaken during Year 1 (baseline), then periodically each 5 years. Periodic monitoring at 5 year intervals is considered appropriate for the identification of medium-term changes or patterns in fauna taxa populations over large conservation areas. The periodic monitoring frequency may increase (short-tern, up to annually) if the fauna monitoring identifies matters which indicate a need for management intervention (e.g. substantial changes in introduced fauna).

4.3 Fauna Habitat Assessment

Fauna habitat assessments will be undertaken at a minimum of 2 locations per fauna habitat type (consistent with EPA 2020). Each monitoring location will consist of a minimum of three 10 m by 10 m quadrats. Locations will include previously identified breeding sites (mounds or denning areas) where possible, in sandy substrates and Woodland fauna habitat in areas with hollow logs. The monitoring locations will be established based on previous fauna records and may be revised following the baseline and subsequent monitoring events. The following fauna habitat 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.
- **)** Foraging and/or prey availability relevant to Malleefowl and Chuditch.

Malleefowl foraging evidence is considered to be the presence of seed-bearing vegetation. As noted in the National Malleefowl Recovery Plan (DAWE 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 (in particular legumes), herbs, invertebrates, tubers and fungi.

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

Table 4.1 identifies the frequency and timing of fauna habitat assessments. Fauna habitat assessments will be undertaken during Year 1 (baseline), then periodically each 5 years. Periodic monitoring at 5 year intervals is considered appropriate for the identification of medium-term changes or patterns in fauna habitat over large conservation areas. The periodic monitoring frequency may increase (short-term, up to annually) if the fauna habitat assessments identify a decline in habitat quality which indicate a need for management intervention.

4.4 Vegetation Assessment

Vegetation monitoring will consist of a minimum of three monitoring quadrats per fauna habitat type with quadrats of size nominally 25 m by 25 m. Monitoring quadrats will be located a minimum of 50 m from property boundaries to negate any potential for 'edge effects' (Casson et al. 2009).



Vegetation monitoring within each quadrat will include:

- J Geographical Positioning System (GPS) coordinates from the north-west corner
-) Photographs outside the quadrat located approximately 3 m to the north-west, south and east of the northwest corner
- J Dominant 3 vascular flora taxa in each strata
- Percentage (%) cover of each strata
- J Vegetation health of each strata
- J Introduced flora taxa and cover
- *J* Disturbance
-) Percentage (%) of bare ground and litter

Based on the data recorded, each vegetation monitoring site will have a vegetation condition score assigned as per Keighery (1994), as detailed in Table 4.2. An average score for each proposed offset site will be determined.

Table 4.1 identifies the frequency and timing of the vegetation assessments. Vegetation assessments will be undertaken during Year 1 (baseline), then periodically each 5 years. Periodic monitoring at 5-year intervals is considered appropriate for the identification of medium-term changes or patterns in vegetation condition over large conservation areas. The periodic monitoring frequency may increase (short-term, up to annually) if the vegetation assessments identify declines in vegetation condition which indicate a need for management intervention.



Monitoring Activity	Timing	Frequency
General Inspections	Not applicable	Annually
Fauna Monitoring	Chuditch – Winter Malleefowl – Spring	Year 1 (baseline), then each 5 years (periodic)
Fauna Habitat Assessment	Winter/Spring	Year 1 (baseline), then each 5 years (periodic)
Vegetation Assessment	Winter/Spring	Year 1 (baseline), then each 5 years (periodic)

Table 4.1: Environmental Monitoring

Table 4.2: Vegetation Condition

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



5. Completion Criteria

5.1 Completion Criteria and Performance Criteria

'Completion Criteria' and 'Performance Criteria' for the proposed offset site(s) have been prepared to meet the Fauna Offset Strategy objective, as outlined within Table 5.1.

The Completion Criteria identify the target outcome (end point) to be achieved within a nominally 20 year period (or earlier), with the Performance Criteria for year 5, year 10 and year 15 to track progress in meeting the completion criteria.

The Completion Criteria and Performance Criteria have been linked to the recovery actions outlined within the DAWE (2007) document National Recovery Plan for Malleefowl (Leipoa ocellata) and the DAWE (2012c) document Chuditch (Dasyurus geoffroii) National Recovery Plan.

If one or more Completion Criteria and Performance Criteria are not met, then appropriate remedial action(s) (contingency actions) will be implemented.

If attainment of any Completion Criteria is delayed, or is unlikely to be achieved within the term of this Fauna Offset Strategy, then additional or alternative offsets may be necessary. Any additional and/or alternative offsets will be determined in consultation between Covalent Lithium, DAWE (in accordance with the EPBC Act), EPA (in accordance with the EP Act), and DBCA (as managers of the State Conservation Reserve system).

5.2 Justification for Completion Criteria

The Completion Criteria and Performance Criteria follow the 'SMART Criteria' approach, in that they have been drafted to be:

- J Specific
-) Measurable
- J Achievable
- J Relevant
- J Time-bound

In addition, as noted above, the Completion Criteria and Performance Criteria have been linked to the recovery actions outlined within the DAWE (2007, 2012c) National Recovery Plans in order to ensure consistency with the established objectives and management actions applying to both taxa. The key management actions associated with the Completion Criteria and Performance Criteria align to:

- J Land acquisition (protection of fauna habitat)
- *J* Environmental management (fencing, fire management)
- J Threatening processes (predator control)
- *J* Biological monitoring (fauna monitoring)

Specifically, it should be noted the Completion Criteria and Performance Criteria do not include a requirement to demonstrate the use of the fauna habitats by the target taxa (i.e. individuals recorded as foraging or breeding). Whilst the proposed offset sites provide existing fauna habitat that is suitable for both taxa, and with the proposed offset sites occurring within their recorded regional distributions (Figure 1.2), it is noted that recent local records of Malleefowl are low and recent local records of Chuditch are absent (although Chuditch may occur in densities below detection). The low/nil recent records of Malleefowl and Chuditch is directly attributable to the surrounding broadscale agricultural clearing over the previous century (habitat loss, habitat fragmentation) and with introduced fauna taxa (predation) having reduced the local populations



within the remaining areas of native vegetation. In this context of nil/low existing records, the potential for short-term to medium-term use of the fauna habitats within the proposed offset sites may be considered a 'chance' event (i.e. may or may not occur), and accordingly, presence and use of the fauna habitats by the target taxa is not an appropriate completion criteria metric for the proposed offset sites.

Table 5.1: Completion Criteria and Performance Criteria

Offset Action	Recovery Plan Action	Completion Criteria		Performance Criteria	
		20 years	0 – 5 years	5 – 10 years	
Land Acquisition	 National Recovery Plan for Malleefowl (Leipoa ocellata) (DAWE 2007) Action 1.1 Retain areas that support Malleefowl, and those that support Malleefowl habitat, and protect them from incremental clearing. Action 5.1 Develop strategic corridors of native vegetation to connect patches of habitat that are suitable for Malleefowl. Chuditch (Dasyurus geoffroii) National Recovery Plan (DAWE 2012c). Action 1. Retain and improve habitat critical for survival J Identify areas of remnant vegetation that can be protected or enhanced through re-vegetation. J New areas of suitable habitat acquired through land acquisition process. J Habitat identified through Environmental Impact Assessment and negotiated through off-set. 	 J Land Acquisition of Offset Site(s) J Transfer of Offset Site(s) to DBCA 	 J Land Acquisition of Offset Site(s) J Transfer of Offset Site(s) to DBCA 	Not applicable	Not a
Environmental Management	National Recovery Plan for Malleefowl (Leipoa ocellata) (DAWE 2007) Action 9.2 Monitor and manage existing monitoring sites across Australia.	 J Fencing established to prevent human and stock access J Fire is managed management to protect fauna habitat quality J Introduced flora (weeds) are controlled by herbicide and/or physical removal to maintain fauna habitat quality) 	 J Fencing installed to prevent human and stock access (including removal of internal fencing, if present) J Fire breaks established, fuel load reduction (if required) J Introduced flora identified and controlled (as required) 	 J Fencing maintained to prevent human and stock access J Fire breaks maintained, fuel load reduction (if required) J Introduced flora controlled (as required)) Fe pr st) Fi m re) In cc (a
Threatening Processes (Introduced Fauna Control)	 National Recovery Plan for Malleefowl (Leipoa ocellata) (DAWE 2007) Action 2.3 Erect adequate fencing to protect Malleefowl habitat. Action 4.2 Reduce fox numbers in small and isolated habitat remnants. Action 4.3 Reduce fox numbers in large areas of native habitat where Malleefowl densities have declined and fox predation is a likely explanation for such declines. Chuditch (Dasyurus geoffroii) National Recovery Plan (DAWE 2012c). Action 4. Continue, expand and improve baiting of foxes and feral cats J Encourage baiting programs on other land tenures. J Effective baiting programs (e.g. Western Shield Program) for feral cats and foxes. 	J Introduced fauna (foxes and cats) are controlled by baiting, trapping and/or culling to minimise predation on Malleefowl and Chuditch) Introduced fauna are controlled (as required)	 Introduced fauna are controlled (as required)) Ir cc (a
Biological Monitoring	 National Recovery Plan for Malleefowl (Leipoa ocellata) (DAWE 2007) Action 9.1 Analyse and review monitoring data. Recommend improvements and develop site-specific management plans for monitoring sites, consistent with a national adaptive management design. Action 10.1 Detail the distribution of Malleefowl in remote areas of SA and WA by field surveys, and describe the habitats in which Malleefowl are found. Action 9.2 Monitor and manage existing monitoring sites across Australia. Chuditch (Dasyurus geoffroii) National Recovery Plan (DAWE 2012c). Action 5. Determine population abundance and distribution of Chuditch populations J Identify, develop protocols and implement monitoring at 'key populations'. Action 6. Establish reference sites for monitoring Chuditch population abundance to evaluate the effectiveness of fox and cat control J Identify reference sites spread across the range of Chuditch which incorporate where fox and potentially cat control will take place. J Monitor Chuditch populations at reference sites to determine the effectiveness of fox and cat control. 	 J Biological monitoring is undertaken to indicate the presence, abundance and use (e.g. foraging, breeding) of fauna habitat by Malleefowl and Chuditch J Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch 	 J Biological monitoring undertaken for: Malleefowl and Chuditch presence, abundance, habitat use, habitat quality assessment Introduced fauna Introduced flora Vegetation condition J Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch J Mathematical States (Second States) 	 J Biological monitoring undertaken for: Malleefowl and Chuditch presence, abundance, habitat use, habitat quality assessment Introduced fauna Introduced flora Vegetation condition Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch 	J Bi un ° ° J Va m av °V tc fa fo Cl



	Monitoring
10 – 15 years	Activity
applicable	Not applicable
Fencing maintained to prevent human and stock access Fire breaks maintained, fuel load reduction (if required) Introduced flora controlled (as required)	 J General Inspections (as per Table 4.1) J Vegetation Assessment (as per Table 4.1)
Introduced fauna are controlled (as required)	J Fauna Monitoring (as per Table 4.1)
 Biological monitoring undertaken for: Malleefowl and Chuditch presence, abundance, habitat use, habitat quality assessment Introduced fauna Introduced flora Vegetation condition Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch 	 <i>J</i> Fauna Monitoring (as per Table 4.1) <i>J</i> Vegetation Assessment (as per Table 4.1) <i>J</i> Fauna Habitat Assessment (as per Table 4.1)



6. Roles and Responsibilities

Covalent Lithium will implement this Fauna Offset Strategy following its approval, in accordance with Condition 6 of the Statement 1118 approval and Condition 4 of the EPBC 2017/7950 approval. Implementation of this Fauna Offset Strategy will be coordinated by Covalent Lithium's Manager Environment, Approvals and Safety, with support of Covalent Lithium's site-based Environmental Officers and the Registered Mine Manager, as detailed in Table 6-1.

The implementation of this Fauna Offset Strategy will be assisted through Covalent Lithium's Environmental Management System (EMS) which provides systems, processes, procedures and work instructions relating to the management, monitoring and reporting components for the environmental management of the Proposal.

Role	Responsibility
Corporate	 J Covalent Lithium have the overall responsibility for the implementation of this Fauna Offset Strategy. J If any roles are delegated to a Contractor or Consultant, Covalent Lithium
	has the responsibility to audit compliance and ensure any contingency actions are implemented on behalf of Covalent Lithium.
Manager Environment, Approvals & Safety	 Overall accountability for auditing and compliance assessment with this Fauna Offset Strategy during operation to ensure it is maintained and meets objectives and targets
	 Provide technical support to all personnel to ensure this Fauna Offset Strategy is implemented correctly and complied with
	<i>J</i> Implement and maintain this Fauna Offset Strategy, review its effectiveness and review the implementation as required
	 Liaise with key stakeholders and technical advisors for advice and resolution of management aspects/objectives as required
) Review and close-out any contingency actions
) Report as required to Government authorities
	May delegate all, or part of, responsibility to an appropriately qualified person
Environmental Advisors (site-based)	 Provide technical support to all personnel to ensure this Fauna Offset Strategy is implemented correctly and complied with
	<i>J</i> Implement and maintain this Fauna Offset Strategy, review its effectiveness and review the implementation as required
) Obtain relevant approvals for land disturbance as required
	J Ensure all personnel are inducted and will adhere to Fauna Offset Strategy requirements
	J Undertaking ongoing monitoring and documenting monitoring resultsJ Review and close-out any contingency actions
Registered Mine Manager	J Comply with all legal requirements and the requirements
	<i>J</i> Appoint appropriate consultants to undertake specific activities set out, if required.
All Personnel	J Complete site induction prior to commencement of work on site
	J Comply with all legal requirements and the requirements
) Attend environmental inductions and any other training required
	J Participate in toolbox meetings and encourage personnel to suggest improvements.

Table 6-1: S	Summary of	Roles and	Responsibilities
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7. Risk Assessment and Contingency Measures

A risk assessment has been completed in accordance with Commonwealth Environmental Management Plan Guidelines (DAWE 2014) using the risk matrix identified in Table 7.1 and Table 7.2. If contingency measures are required, Covalent Lithium will review and revise this Fauna Offset Strategy (if necessary).

Risks and contingencies relating to achieving the Fauna Offset Strategy objectives are described in Table 7.3.

	neasure of likelihood (how likely is it that this event/circumstances will occur ement 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 doe 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 7.1: Likelihood and Consequence

Table 7.2: Risk Matrix

		Consequence							
		Minor	Moderate	High Major		Critical			
g	Highly Likely	Medium	High	High	Severe	Severe			
pooq	Likely	Low	Medium	High	High	Severe			
keli	Possible	Low	Medium	Medium	High	Severe			
	Unlikely	Low	Low	Medium	High	High			
	Rare	Low	Low	Low	Medium	High			

Table 7.3: Offset Site Risks and Contingencies

Offset Action	Completion Criteria	Performance Criteria	Event	Res	Residual Risk		Contingency Action / Response	Monitoring
				Likelihood	Consequen ce	Risk Level		
Land Acquisition	Land Acquisition of Offset Site(s)	Land Acquisition of Offset Site(s)	 J Land acquisition of Offset Site(s) is delayed or does not occur (e.g. delay in Government processes, Covalent Lithium funding, change of mind by current Landowner) 	Unlikely	Moderate	Low	 Undertake consultation to resolve administrative delays, change of mind, etc. If necessary, investigate options for additional or alternate environmental offsets in consultation with DAWE, EPA and DBCA, and revise the Fauna Offset Strategy to reflect any agreed additional or alternate environmental offsets 	Not applicable
	Transfer of Offset Site(s) to DBCA	Transfer of Offset Site(s) to DBCA	 J Transfer of Offset Site(s) to DBCA is delayed or does not occur (e.g. delay in Government processes, DBCA change of mind in acquisition or desire for alternate management process) 	Unlikely	Moderate	Low	 Undertake consultation to resolve administrative delays, change of mind, etc. If necessary, investigate options for additional or alternate environmental offsets in consultation with DAWE, EPA and DBCA, and revise the Fauna Offset Strategy to reflect any agreed additional or alternate environmental offsets 	Not applicable
Environmental Management	Fencing established to prevent human and stock access	Fencing maintained to prevent human and stock access	 Unauthorised human access or stock access resulting in a decline in vegetation condition (fauna habitat quality) 	Possible	Minor	Low	 Repair, maintain and/or improve boundary fencing and/or gates Consultation with adjacent Landowners to exclude stock 	General Inspections (as per Table 4.1)
	Fire is managed management to protect fauna habitat quality	Fire breaks maintained, fuel load reduction (if required)	 J Fire breaks not established or not maintained J Fuel load reduction not permitted (e.g. seasonal conditions unsuitable for prescribed burning) 	Unlikely	Minor	Low	 J Establish and/or maintain fire breaks, as required (which may include increased frequency of maintenance) J Consult with DBCA, adjacent Landowners and Shire of Yilgarn on suitable seasonal conditions, timing and methodology to enable fuel load reduction works 	General Inspections (as per Table 4.1)
	Introduced flora (weeds) are controlled by herbicide and/or physical removal to maintain fauna habitat quality)	Introduced flora controlled (as required)	 Introduced flora become established and/or spread within the Offset Site(s) resulting in a decline in vegetation condition (fauna habitat quality) 	Possible	Minor	Low	 Undertake additional introduced flora control by herbicide and/or physical removal (which may include an increased frequency of periodic introduced flora control) 	Vegetation Assessment (as per Table 4.1)
Threatening Processes (Introduced Fauna Control)	Introduced fauna (foxes and cats) are controlled by baiting, trapping and/or culling to minimise predation on Malleefowl and Chuditch	Introduced fauna are controlled (as required)	 Presence of introduced fauna (predator) taxa (foxes and cats) increasing risk of predation Monitoring identifies an increase in introduced fauna (predator) records from previous monitoring period 	Likely	High	High	 Review of effect to Malleefowl and/or Chuditch presence, as determined through review of Fauna Monitoring results Additional introduced fauna management controls (baiting, trapping and/or culling) are implemented within the offset site(s) and surrounding lands, in consultation with DBCA and relevant stakeholders (e.g. adjacent Landowners, Eastern Wheatbelt Biosecurity Group) Consider need to increase the frequency of the Fauna Monitoring to confirm a reduction in introduced fauna (following additional baiting, trapping and/or culling) and response to local Malleefowl and Chuditch population. 	Fauna Monitoring (as per Table 4.1)
Biological Monitoring	Biological monitoring is undertaken to indicate the presence, abundance and use (e.g. foraging, breeding) of fauna habitat by Malleefowl and Chuditch	 Biological Monitoring undertaken for: Malleefowl and Chuditch presence, abundance, habitat use, habitat quality assessment Introduced fauna Introduced flora Vegetation condition 	 J Biological Monitoring delayed or not undertaken (e.g. unfavourable seasonal conditions, access constraints, administrative issues) 	Possible	Minor	Low)	Fauna Monitoring (as per Table 4.1) Vegetation Assessment (as per Table 4.1) Fauna Habitat Assessment (as per Table 4.1)



Offset Action	Completion Criteria	Performance Criteria	Event	Residual Risk		Risk	Contingency Action / Response	Monitoring
				Likelihood	Consequen	Risk Level		
	Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch	Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch	J Vegetation condition does not meet average condition of 'Very Good' or higher during monitoring of Vegetation Assessment	Possible	High	Medium	 Review of Vegetation Assessment results to identify the potential cause(s) of the vegetation condition not meeting an average condition of 'Very Good' Identify and implement management measures in consultation with DBCA (e.g. rehabilitation works (seeding or seedlings), weed control, fire management, fencing) Increase the frequency of Vegetation Assessment and/or extend duration of Vegetation Assessment (beyond 20 years) Investigate options for additional or alternate environmental offsets in consultation with DAWE, EPA and DBCA, and revise the Fauna Offset Strategy to reflect any agreed additional or alternate environmental offsets 	Vegetation Assessment (as per Table 4.1)
	Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch	Vegetation condition is maintained to an average condition of 'Very Good' or higher to provide suitable fauna habitat quality for Malleefowl and Chuditch	 Unplanned fire results in decline n vegetation condition (fauna habitat quality) 	Possible	High	Medium	 J Identify and implement management measures in consultation with DBCA (e.g. rehabilitation works (seeding or seedlings), weed control, fire management, fencing) J Increase the frequency of Vegetation Assessment and/or extend duration of Vegetation Assessment (beyond 20 years) 	Vegetation Assessment (as per Table 4.1)





8. Reporting and Auditing

Covalent Lithium will assess compliance and report annually on implementation of this Fauna Offset Strategy, in accordance with the annual reporting requirements to EPA under Condition 4 of the Statement 1118 approval and to DAWE under Condition 12 of the EPBC 2017/7950 approval. The annual reporting on this Fauna Offset Strategy will include:

- J Status of land acquisition of the proposed offset site(s)
-) Progress for the transfer of the land to DBCA for management as part of the State Conservation Reserve system
- J Implementation status of the management actions
- J Progress against Completion Criteria and Performance Criteria
- J Environmental monitoring results
- J Implementation and outcomes of corrective actions (if required)

Any non-compliance with the requirements of this Fauna Offset Strategy will be reported to DAWE and EPA as soon as reasonably practicable (generally within two business days), with further details provided within a period of not less than 10 business days (as required by Condition 14 of EPBC 2017/7950 approval).



9. Adaptive Implementation

Section 7 Risk Assessment and Contingency Measures considers the risks to achieving the Objectives, Completion Criteria and Performance Criteria outlined within this Fauna Offset Strategy, and details of contingency measures (corrective actions).

Environmental monitoring as outlined within Section 4 Environmental Monitoring, Reporting and Evaluation identifies fauna and vegetation monitoring within the proposed offset sire(s), in addition to periodic general inspections. The environmental monitoring results will be compared against the Completion Criteria and Performance Criteria detailed in this Fauna Offset Strategy, to determine if the criteria have been met and/or are likely to be met.

The environmental monitoring will provide an indication if performance is on an appropriate trajectory towards meeting the end-point Completion Criteria. If the environmental monitoring indicates that any Completion Criteria or Performance Criteria will not be met (or is unlikely to be met in the future) within the expected timeframe, the management actions will be reviewed and amended accordingly. In the event significant changes are required to management actions, a revised version of this Fauna Offset Strategy will be developed and submitted to DAWE and EPA for review and approval.

If monitoring by Covalent Lithium identifies the requirement for refinement of the Completion Criteria and/or Performance Criteria, this Fauna Offset Strategy will be revised and submitted to DAWE and EPA for review and approval.

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

-) Delayed then Covalent Lithium will advise the DAWE and EPA. The DAWE and EPA may then, in consultation with DBCA and Covalent Lithium, determine alternative or additional offset requirements and Covalent Lithium will submit a revised Fauna Offset Strategy for review and approval in accordance with the timeframes specified by the DAWE and EPA, or
-) Unlikely to be attained and/or maintained then Covalent Lithium will advise the DAWE and EPA. The DAWE and EPA may then in consultation with DBCA and Covalent Lithium, determine alternative or additional offset requirements and submit a revised Fauna Offset Strategy to the DAWE and EPA for review and approval in accordance with the timeframes specified by the DAWE and EPA.



10. Declaration of Accuracy

(as required under the Environment Protection and Biodiversity Conservation Act 1999 (C'th))

I declare that:

To the best of my knowledge, all the information contained in, or accompanying this Management Plan (Earl Grey Lithium Project Fauna Offset Strategy, Revision B) 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 (C'th) (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 (C'th) 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.

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Signed

Full Name Anthea Pate Manager Environment, Approvals and Safety

Organisation Covalent Lithium Pty Ltd

Date 21 April 2022



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