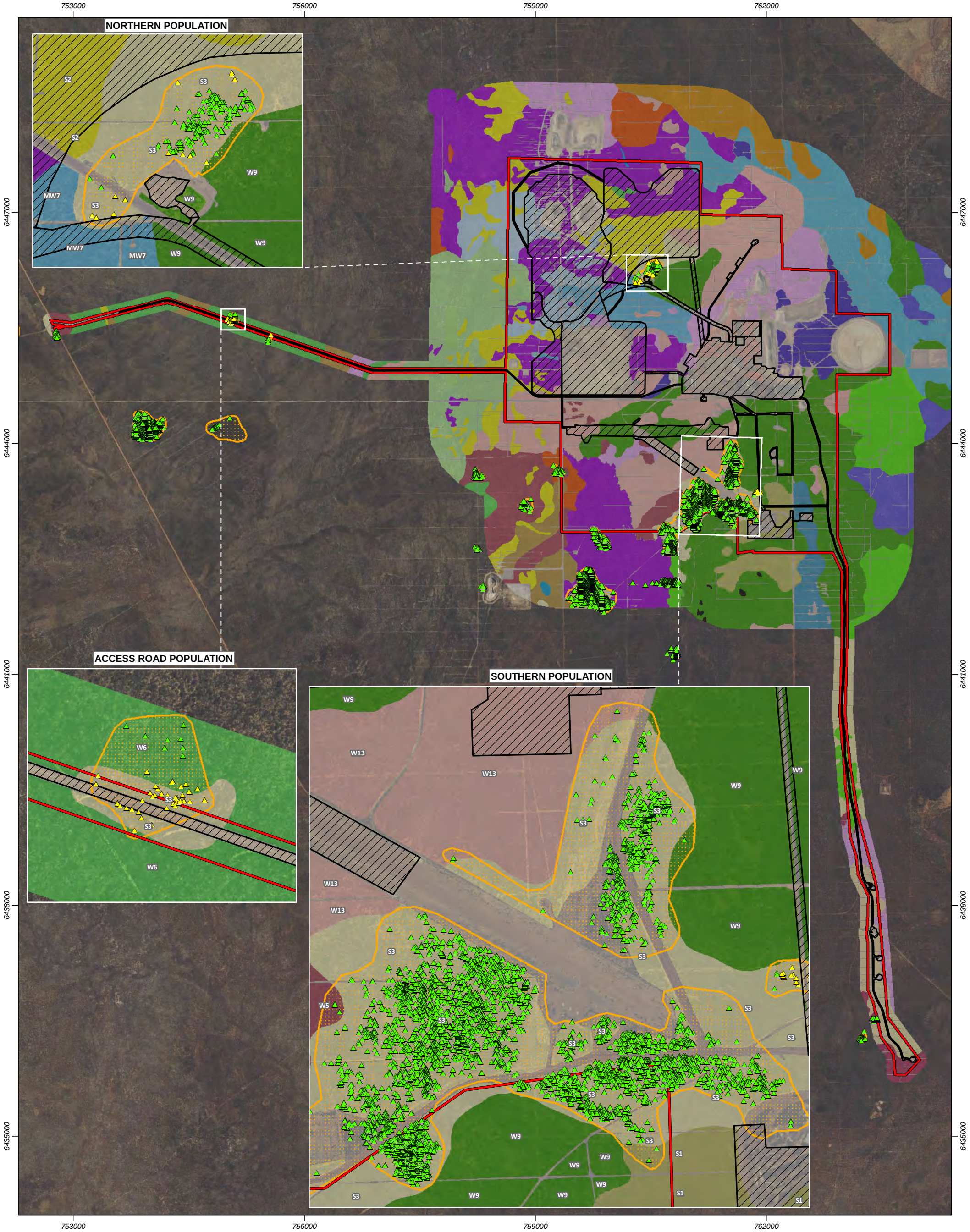

Figure 4: *Banksia sphaerocarpa* var. *dolichostyla* locations

N

Scale 1:8,500 at A3

0 500 1,000 m

Coordinate System: GDA 1994 MGA Zone 50

Date: 17/07/2019

Legend

- Development envelope
- Indicative proposal footprint
- *Banksia sphaerocarpa* var. *dolichostyla* population area

Banksia sphaerocarpa var. *dolichostyla* plants

- Within proposed layout
- Indirectly impacted (50m of proposed layout)
- Not impacted

Vegetation communities

H1, MW6, MW7, MW8, S1, S2, S3, W4, W5, W6, W7, W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, W21, W22, Cleared

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Service Layer Credits: SLIP Public Services Locate Imagery 2019. Client: Sociedad Quimica y Minera de Chile. Site data, 7/2019. Created by: CJT

753000 756000 759000 762000

6447000 6444000 6441000 6438000 6435000

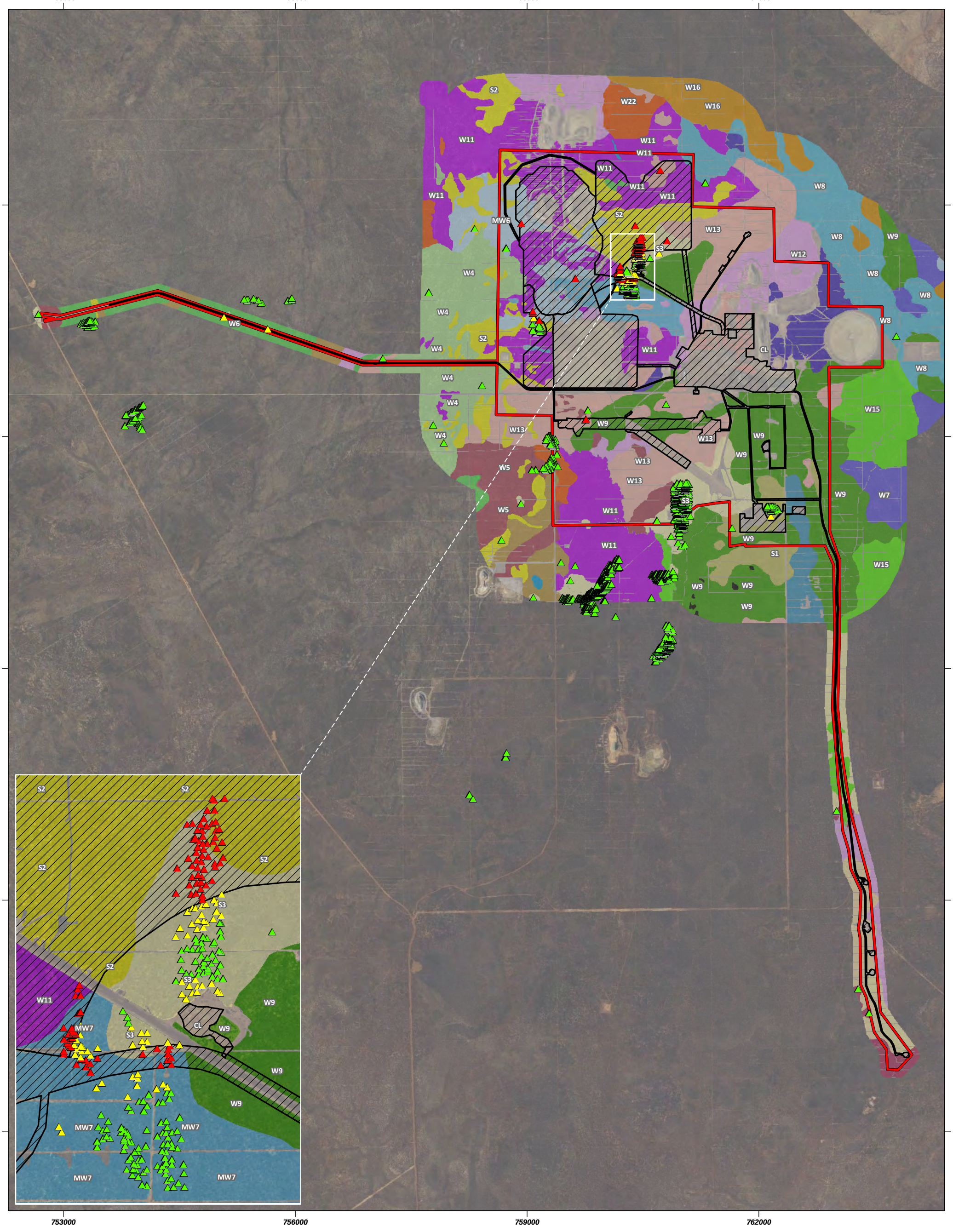

Figure 5: *Microcorys* sp. Mt Holland locations

N

Scale 1:45,000 at A3

0 500 1,000 m

Coordinate System: GDA 1994 MGA Zone 50

Date: 17/07/2019

Legend

- Development Envelope
- Indicative proposal footprint
- ***Microcorys*** sp. Mt Holland D. Angus (DA 2397)
  - Within proposed layout
  - Indirectly impacted (50m within proposed layout)
  - Not impacted

Vegetation communities

- H1
- MW6 (1 plant/ha)
- MW7 (65 plants/ha)
- MW8
- S1
- S2(10 plants/ha)
- S3 (302 plants/ha)
- W4
- W5
- W6
- W7
- W8
- W9 (4 plants/ha)
- W10
- W11 (491 plants/ha)
- W12
- W13 (0.3 plants/ha)
- W14
- W15
- W16
- W17
- W18
- W19
- W20
- W21
- W22
- Cleared

covalent LITHIUM

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Service Layer Credits: SLIP Public Services Locate 2019. Client: Covalent Lithium. Site data, 7/2019. Created by: CJT

1.5 Alignment of offset strategy with policy and guidelines

1.5.1 Recovery plans

Chuditch (Dasyurus geoffroii)

Recovery of this species is guided by the *Chuditch (Dasyurus geoffroii) National Recovery Plan* (DEC 2014).

The objective of this plan is to reduce threats to the Chuditch and increase population densities to ensure long-term survival. Recovery priorities addressed by this Offset Strategy are as follows:

1. *Retain and improve habitat critical for survival*
   Land is proposed to be acquired into the conservation estate and managed to protect and improve habitat condition for Chuditch.

2. *Determine population abundance and distribution of Chuditch populations*
   Land acquired as part of the offset process will be surveyed and monitored to determine population size.

Malleefowl (Leipoa ocellata)

Recovery of this species is guided by the *National Recovery Plan for Malleefowl (Leipoa ocellate)* (Benshemesh J 2007).

The overall objective of this plan is to de-list Malleefowl as a threatened species under the EPBC Act.

Recovery priorities addressed by this Offset Strategy are as follows:

1. *Reduce permanent habitat loss*
   1.1. *The total area of Malleefowl habitat protected in reserves, conservation covenants and similar management agreements, increases over the life of the plan*.
   Land is proposed to be acquired into the conservation estate and managed to protect and improve habitat condition for Malleefowl.

2. *Determine the current distribution of Malleefowl*
   Land acquired as part of the offset process will be surveyed and monitored to determine population size.

Banksia sphaerocarpa var. dolichostyla

Recovery of this species is guided by the *Approved Conservation Advice for Banksia sphaerocarpa var. dolichostyla (Ironcaps Banksia)* (TSSC 2008).

Recovery priorities addressed by this Offset Strategy include the following:

1. *Design and implement a monitoring program, or, if appropriate, support and enhance existing programs.*
2. *More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.*
3. *Monitor known populations to identify key threats.*
4. *Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.*
5. *Minimise adverse impacts from land use at known sites.*
6. *Ensure mining exploration, mining, road widening and maintenance activities involving substrate or vegetation disturbance in areas where Ironcaps Banksia occurs do not adversely impact on populations.*
7. *Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.*
8. *Identify and remove weeds in the local area, which could become a threat to the species, using appropriate methods.*
9. *Manage sites to prevent introduction of weeds in the local area, which could become a threat to Ironcaps Banksia, using appropriate methods.*
10. *Enable recovery of additional sites and/or populations.*
11. *Undertake appropriate seed collection and storage.*
12. *Investigate options for linking, enhancing or establishing additional populations.*
13. *Implement national translocation protocols if establishing additional populations is considered necessary and feasible.*

Priorities 1 – 4, 7 – 9 will be addressed through acquisition of parcels of land with *Banksia sphaerocarpa var. dolichostyla* populations. These land parcels will be subject to management measures including fencing, weed control and feral animal control. Population size will be assessed and information regarding ecological requirements will be recorded. Populations on acquired land will be monitored regularly for vegetation condition and plant health. It is the intent that the land will be secured in conservation tenure and managed by DBCA.

Priorities 10 – 13 above will be addressed by the proposed regeneration of new populations under a germination trial program. Seed will be collected and stored for planting in winter 2020. Any plants established as part of the trials will enhance existing populations of the species.

While not part of this Offset Strategy, known populations within the Development Envelope will be marked for avoidance and monitored regularly to ensure they are protected from any threatening processes, addressing priorities 4 – 6 and 8 – 9 above.

Microcorys sp. Mt Holland (D. Angus DA 2397)

This species was first identified as part of flora and vegetation surveys for the Proposal. As such, limited information is available regarding the species' regional distribution, protection and recovery. A reconnaissance regional survey has occurred (Strategen JBS&G 2019) with additional targeted surveys (Mattiske 2019c – 2019h) completed around the Development Envelope. Additional regional surveys are planned and any data collected during these surveys will contribute to knowledge on the species and its recovery.

1.5.2 EPA policy and guidance

The proposed offset strategy has been considered in the context of counterbalancing the Significant Residual Impact. The offset strategy demonstrates consideration of the six offsets principles defined in the Environmental Offset Policy and WA Environmental Offset Guidelines (EPA 2014) as detailed in Table 2.

Table 2: Assessment of offset strategy against EPA offset principles

Offset principle	Offset Strategy
1. Environmental offsets will only be considered after avoidance and mitigation options have been pursued.	*Fauna* Faunal surveys of the site have been used in the design of proposed facilities to avoid direct impacts on Malleefowl active mounds. The Proposal has been designed to minimise clearing to the maximum extent practicable by utilising existing disturbed areas where possible and backfilling the mine pit as far as practicable. The Proposal would result in clearing of a relatively small area of 386 ha within a bioregion which is almost fully vegetated, therefore having limited impact on Chuditch and Malleefowl breeding and foraging habitat. *Flora* Flora surveys of the site have been used in the design of proposed facilities to ensure that direct impacts on *Banksia sphaerocarpa var. dolichostyla* have been avoided to the maximum extent practical. Based on the current design, the Proposal would result in direct impact to 2 *Banksia sphaerocarpa var. dolichostyla* individual plants. The potential impacts to *Microcorys* sp. Mt Holland (D. Angus DA2397) are estimated based on population estimates associated with vegetation communities. These vegetation communities have been avoided to maximum extent practical. Further detail on avoidance strategies has been described in the ERD (Strategen 2019a) and Response to Submissions (Strategen JBS&G 2019).

Offset principle	Offset Strategy
2. Environmental offsets are not appropriate for all projects.	Offsets have been deemed appropriate for this Proposal based on calculations determining Significant Residual Impacts (detailed within the ERD, Strategen 2019a and Response to Submissions, Strategen JBS&G 2019) and in liaison with DBCA and EPA.
3. Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.	Quantum of offsets will be based on calculations by the Commonwealth Offset Calculator and will be proportionate to the significance of the environmental value being impacted. Offset calculators are detailed in Appendix C.
4. Environmental offsets will be based on sound environmental information and knowledge.	Offsets have been based on multiple surveys, which have been / will be conducted by industry professionals with significant experience and in liaison with DBCA. The uncertainty associated with flora populations will be addressed through additional regional surveys.
5. Environmental offsets will be applied within a framework of adaptive management.	Offsets will be monitored according to the indicative times outlined in this document, with more detailed monitoring regimes to be applied when offsets are confirmed. Management actions for offsets will be reviewed based on data collected through the relevant monitoring programs and adapted if required. An Offset Management Plan is proposed as a result of the additional investigations proposed in this Offset Strategy.
6. Environmental offsets will be designed to be enduring, enforceable and deliver long term strategic outcomes.	Offsets have been designed to: • acquire parcels of land to be transferred to the conservation estate in perpetuity and enhance protection of target species therein • enhance protection of existing populations of target species • contribute data regarding species phenology, habitat, and distribution to the existing body of knowledge.

2. Offset strategy

2.1 Objectives and intended outcomes

Offsets are intended to mitigate residual impacts on flora and fauna as a result of clearing native vegetation within the Development Envelope. The Offset Strategy can be broadly described under the following categories:

1. Land acquisition for land containing *Banksia sphaerocarpa* var. *dolichostyla* and / or *Microcorys* sp. Mt Holland, and for Chuditch and Malleefowl.
2. Regional flora surveys for *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland.
3. Rehabilitation trials for *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland.
4. Management of existing *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland populations.

2.2 Land acquisition

The experience of the Proponent to date in investigating prospective land parcels for the offset package has identified that an adaptable process is required to ensure that suitable land is acquired as and when it becomes available for purchase. This is due to the following factors:

- there is limited suitable land available (i.e. vegetated land in the Wheatbelt, that is not already in the conservation estate)
- land acquisition requires the agreement of the freehold landowner to sell
- there is potential for landowner agreement to not be forthcoming within the Proposal timeframes
- linking a project approval with a particular property could increase the price of that acquisition
- potential for changes in circumstances for a particular property during the approval process, for example; a change in land ownership, a change in vegetation condition due to fire or clearing or a change in the expected sale price.

Given the above factors, the Proponent expects that a LAMP will be conditioned as part of Project Approvals. Once direct offsets sites have been selected, the LAMP will be finalised in agreement with DBCA to have an adaptive approach to land acquisition and management, which includes:

- a step-wise process for investigation, evaluation and purchase of one or more suitable land parcels to achieve the offset requirement
- a contingency in the event that suitable land is not available for purchase within the Proposal timeframe
- a clear funding agreement for land purchase and any revegetation and/or rehabilitation required
- a clear definition of land acquisition and management completion for each case.

2.3 Fauna offset actions

2.3.1 Land acquisition

Consultation with DBCA was undertaken to determine biodiversity conservation planning for both Malleefowl and Chuditch. On 16 January 2018, DBCA confirmed that a review of conservation targets within the Eastern Wheatbelt had been completed in 2012 (the Review) to identify suitable habitat areas for threatened species for reservation within the conservation estate. The Review consisted of a desktop study which assessed the following parameters:

- size
- location in relation to other conservation reserves
- vegetation types
- potential for Threatened flora
- potential for Threatened fauna.

DBCA (pers comm. Alex Errington 16/01/2018) identified that two priority targets for acquisition, potentially suitable as offsets for the Proposal, had been identified as part of the Review. One site is no longer available however two additional sites have been proposed by DBCA, in addition to two sites identified by the Proponent. The five sites are located within the Land Acquisition Area (Figure 8) within the Eastern Wheatbelt, which is considered a significantly cleared area. These sites are suitably located in association with conservation reserves and remnant vegetation to provide suitable habitat.

An initial search of publicly available records in the area has identified that Malleefowl have been recorded within 12 km of all sites. This indicates that the species occurs in the area and therefore would be likely to use the potential offset sites.

In regard to Chuditch, there are records within 30 km of the proposed offset sites, often with records occurring in farmland. The widespread recordings of the species through the local area and highly mobile nature of the species indicates that the species is likely to use the area.

The sites are considered likely to support habitat suitable for Malleefowl and Chuditch and have therefore been considered as potentially suitable offset sites. However, at this initial stage a detailed environmental analysis of the sites has not yet been undertaken. Site location information is not yet publicly available, however would be presented in the Offset Management Plan once confirmed with a LAMP.

The land parcels vary from 100 ha up to 1,100 ha of remnant vegetation with the total vegetated areas identified shown in Table 5.

Table 3: Fauna land parcels identified within land acquisition target area

Site #	Habitat	Land Parcel Area (ha)	Vegetation Area (ha)
10	Malleefowl and Chuditch habitat	2776	1792
12	Malleefowl and Chuditch habitat	4734	1462
25	Malleefowl and Chuditch habitat	1399	1120
26	Malleefowl and Chuditch habitat	9026	3531
27	Malleefowl and Chuditch habitat	3081	612

An approximate quantum of 1,800 ha (for Chuditch and Malleefowl) has been estimated, however this would be dependent on the potential offset site assessment. An example assessment of the environmental values required for the potential offsets sites is provided in Table 4.

Table 4: Assessment of environmental values

Site	Attribute	Chuditch	Malleefowl	Justification of value
Impact site	Impact area (ha)	386	386	Additional clearing required for Proposal
	Quality (out of 10)	8	8	The Proposal comprises of fauna habitat which is unburnt in an area with a historical fire history. Malleefowl breeding habitat is patchy and Chuditch breeding and foraging is likely throughout the Development Envelope. Feral animal predation is considered likely to occur based on fauna survey results. The proximity to a previously disturbed minesite may impact presence of feral animals and weeds.
Offset site	Offset area (ha)	1800	1800	

Site	Attribute	Chuditch	Malleefowl	Justification of value
	Start quality (out of 10)	8	8	The proposed offset sites comprise a similar structured vegetation association to the impact site, therefore represent a similar potential for fauna habitat. The proposed offset sites would need to comprise an area of similar quality unburnt fauna habitat to provide a foraging and breeding resource for Malleefowl and Chuditch to surrounding areas. The proposed offset site is to be of equal or better value than the impact site (8).
	Future quality without offset (out of 10)	7	7	Quality of the offset sites may decline without any protection measures, resulting in a reduction of available foraging and breeding resources in the area. The decline could be associated with feral animal populations, weed introduction, clearing and impacts of fire.
	Future quality with offset (out of 10)	8	8	The quality of the offset sites could be maintained through feral animal control, weed management and fire management activities.
	Time over which loss is averted (max. 20 years)	20	20	It is recommended that the offset sites should be protected as a Conservation Reserve.
	Time until ecological benefit	1	1	Ecological benefit would be realised immediately as a direct offset would be provided.
	Risk of loss (%) without offset	20	20	There are no formal protection mechanisms or active conservation management (i.e. weed control, fire management and access management) at the proposed offset sites. The proposed offset sites are located within highly cleared areas within proximity to agriculture and mining between Nature Reserves. The site is at risk of future degradation,

Site	Attribute	Chuditch	Malleefowl	Justification of value
				particularly from weed infestation and predation by feral animals.
	Risk of loss (%) with offset	5	5	Formal protection of the proposed offset sites will ensure that the risk of loss is minimised as much as possible. It is recommended that the proposed offset site would be included in Conservation Reserves. Ongoing conservation management (weed control, feral animal control, fire management and access management) will contribute to the protection of the proposed offset site condition.
	Confidence in result (%)	90	90	Protection mechanisms, once established, will provide a higher level of certainty that the proposed offset sites will be conserved.
Summary	% of impact offset	102	102	

Once the final offset site is selected, the Proponent will finalise a LAMP that details the land acquisition process and provide funding to DBCA to purchase the site and ongoing management. In the event the purchase is unsuccessful, consultation with DBCA will occur to determine suitable alternatives that meet the requirements of the offset strategy. Ongoing management activities including fencing, weed control, and monitoring of populations present within the proposed offset sites will be funded for five years.

Proposed contingencies if no suitable habitat is found in either location are provided in Table 11.

2.4 Flora offset actions

2.4.1 Regional surveys

Surveys to determine regional presence of *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland are currently being undertaken (with completed surveys shown in Figure 7) in a target area, assessing areas of the following, in order of priority:

- freehold land
- nature reserves
- unallocated crown land.

The aim of the regional surveys is to gain a better understanding of the regional presence of the above two species in terms of habitat, regional distribution, as well as any associations with soil types or vegetation communities.

Areas of freehold land are being targeted within the land acquisition target area (shown in Figure 8) as a matter of priority, for potential acquisition and transfer into the conservation estate. The land acquisition target area has been selected based on known distribution of species with the intent of extending population distributions and protecting existing populations. If land parcels contain either or both *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland, following DBCA consultation, landowners will be contacted to gauge interest in entering negotiations for sale of land.

Regional surveys completed have identified land parcels that may be considered suitable flora offset sites, as shown in Table 5. Further consultation with DBCA to determine if the land parcels are considered suitable offset sites, environmental assessments would occur and then the land acquisition process investigated.

Table 5: Description of land parcels identified within land acquisition target area

Site #	Species	Land Parcel Area (ha)	Vegetation Area (ha)
3	*Banksia sphaerocarpa* var. *dolichostyla* identified within 5km	9329	876
4	*Banksia sphaerocarpa* var. *dolichostyla* identified within 1 - 12 km radius	6991	1808
7	*Banksia sphaerocarpa* var. *dolichostyla* identified within 6 km	2247	564
12	*Banksia sphaerocarpa* var. *dolichostyla* identified within 3 km	4734	1462

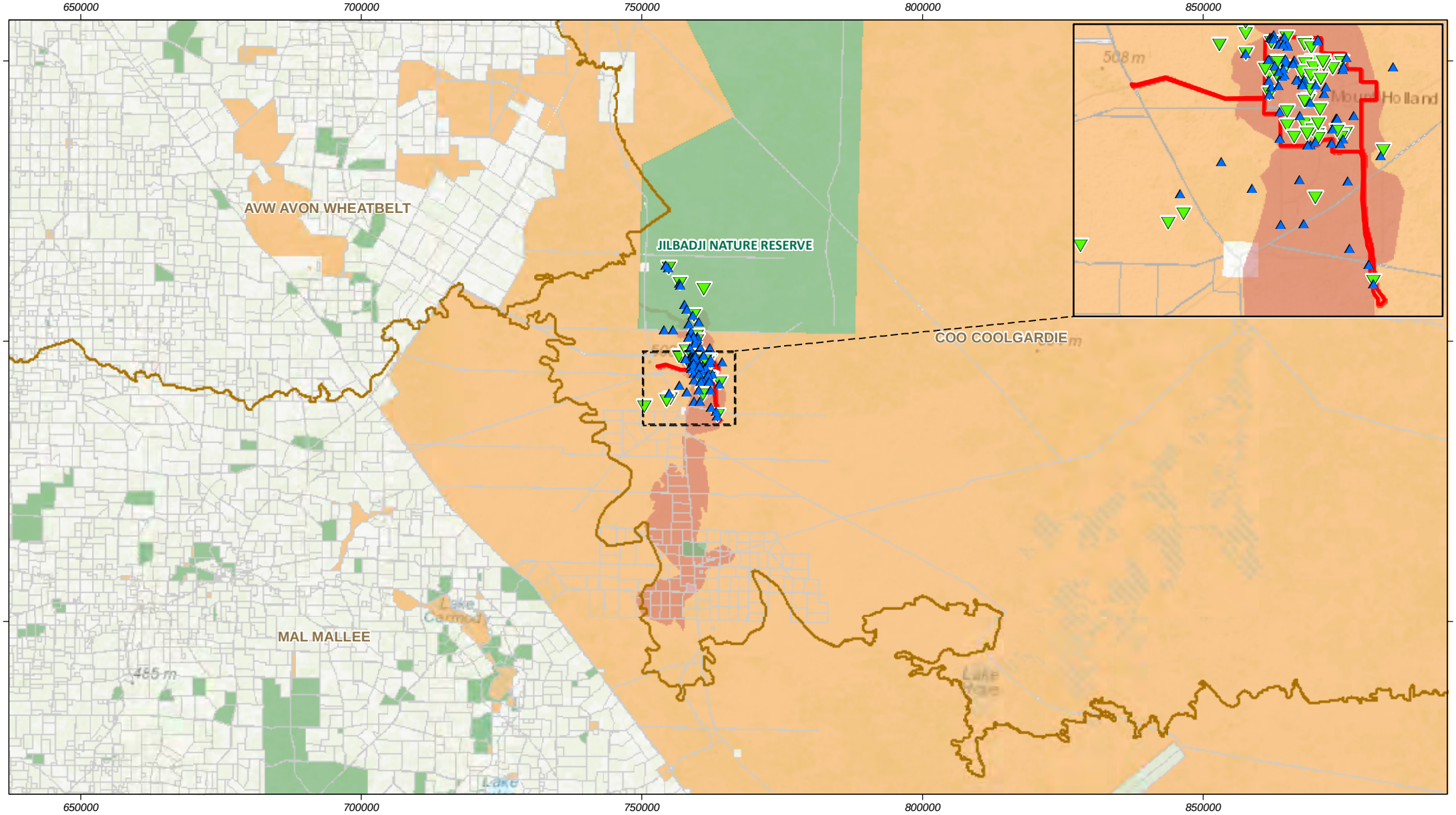

Figure 6: Fauna records

N

Scale 1:900,000 at A4

0 10 20 km

Development Envelope
Cadastral boundaries
Chudith record
Nature Reserve
Unallocated Crown Land
Ironcap Hills vegetation complexes (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone formation)

covalent LITHIUM

Coordinate System: GDA 1994 MGA Zone 50

Date: 19/07/2019

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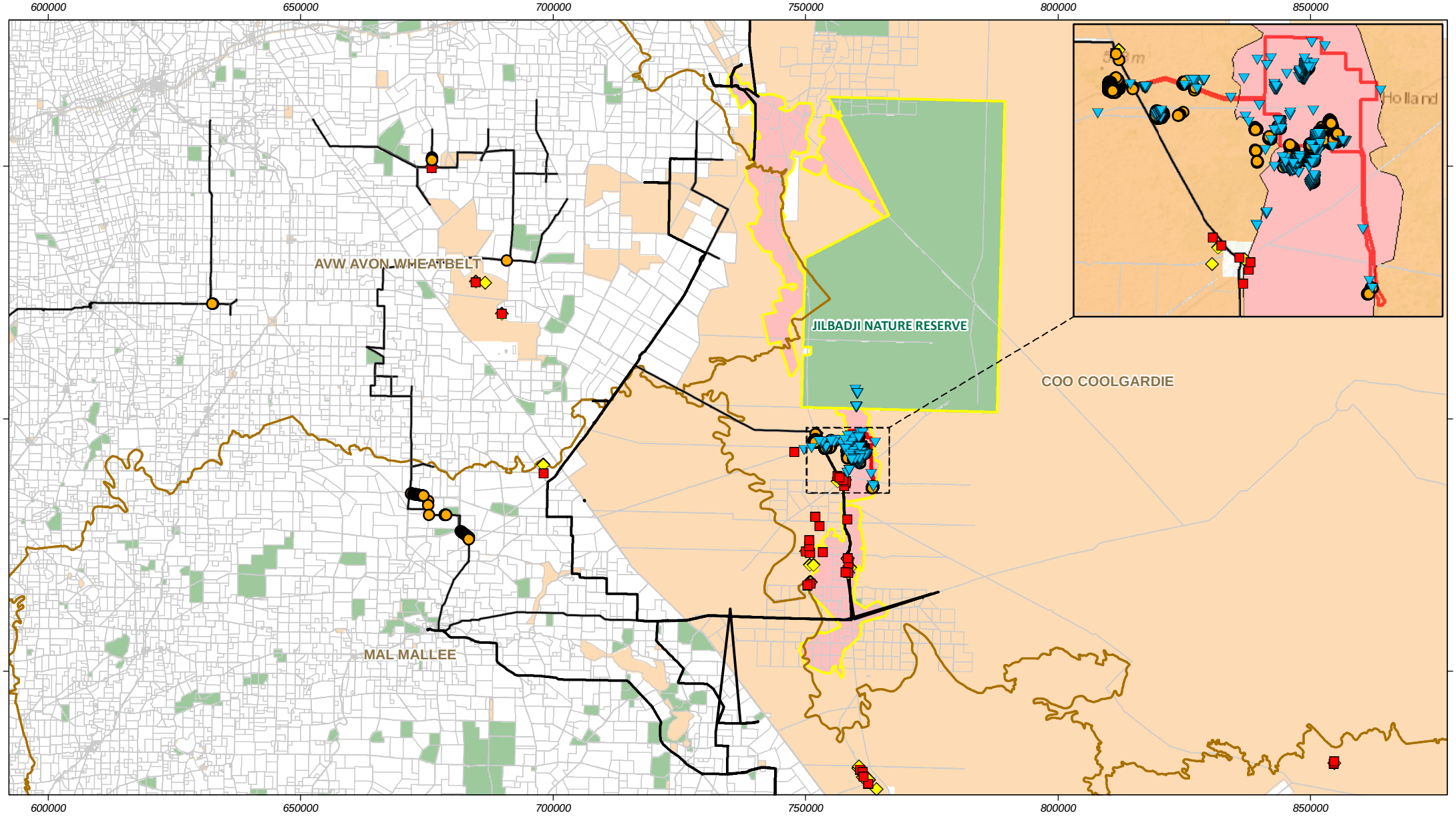

Figure 7: Regional surveys and *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland (D. Angus DA2397) records

N

Scale 1:1,000,000 at A4

0 10 20 km

Coordinate System: GDA 1994 MGA Zone 50

Date: 19/07/2019

- Development Envelope
- Regional surveys
- Cadastral boundaries
- Reconnaissance survey tracks
- Nature Reserve
- Unallocated Crown Land
- Ironcap Hills vegetation complexes (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone formation)
- *Banksia sphaerocarpa* var. *dolichostyla*
- *Microcorys* sp. Mt Holland (D. Angus DA2397)
- TPFL - *Banksia sphaerocarpa* var. *dolichostyla*
- WA Herb - *Banksia sphaerocarpa* var. *dolichostyla*

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Discussions with DBCA (Bourke L [DBCA] pers. comm. 19 May 2019) have indicated that if land is not available for acquisition for *Microcorys* sp. Mt Holland, identification of areas containing the species and any potential provisions for management within unallocated crown land (UCL) may be useful to inform discussions regarding land management as a portion of the offset. As such, areas of UCL are also being surveyed within the target area.

Surveys for both species will also be undertaken within Jilbadgi Nature Reserve to determine whether either species is present. If either species is observed, surveys will be undertaken to determine population boundaries, as well as population estimates. Additionally, DBCA advised that areas of Jilbadgi Nature Reserve are degraded and may provide opportunity for revegetation as part of the offset (Bourke L [DBCA] pers. comm. 19 May 2019); as such, any potential revegetation areas will be assessed during surveys of the Nature Reserve.

A summary of surveys within the Development Envelope and regional studies completed to date, as well as further surveys scheduled are listed in Table 6. All data collected will be made available to DBCA to assist in building regional datasets, and to increase the knowledge base for each species.

Table 6: Completed and scheduled flora surveys

Scheduled / completed	**Investigation / author**	**Scope**
Scheduled - July to November 2019	Mattiske Consulting	Mattiske Consulting and Strategen JBS&G are conducting the following: • targeted surveys for *Microcorys* sp. Mt Holland within the Development Envelope, nature reserves and UCL. Aerial imagery will be interrogated to identify potential sites and an assessment of time since a fire event taken into consideration to identify potential populations and offset sites. • assessments of roadside vegetation • preliminary assessments of viability of freehold land areas as offset sites • regional surveys for *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland. The Land Acquisition target area (Figure 8) will be further searched to identify potential direct offset sites. • collection of seed from *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland for germination trials.
Completed	Strategen JBS&G (2019)	Strategen JBS&G conducted the following: • assessments of roadside vegetation • preliminary assessments of viability of freehold land areas as offset sites

Scheduled / completed	Investigation / author	Scope
		• regional surveys for *Banksia sphaerocarpa* var. *dolichostyla* and Microcorys sp. Mt Holland.
Completed	Mattiske (2019c to 2019h)	Mattiske Consulting conducted targeted flora surveys for conservation significant flora species on Kidman Resources tenements for exploration activities. Additional populations of conservations significant flora species were identified.
Completed	Mattiske Consulting Pty Ltd (2019a).	Mattiske Consulting and Strategen JBS&G conducted targeted floristic surveys focused on Priority 1 flora, range extensions and new species with potential to be impacted by the Proposal in November 2018. Species of focus due to potential presence in the Development Envelope and potential impacts included: • *Brachyloma stenolobum* (P1) • *Grevillea lissopleura* (P1) • *Grevillea marriottii* (P1) • *Labichea rossii* (P1) • *Microcorys* sp. Mt Holland (D. Angus DA 2397) (P1) • *Acacia* sp. 1 (undescribed) • *Acacia* sp. Mt Holland (B. Ellery BE1147) (P1) • *Eremophila verticillate* (Threatened) (previously stated as *Eremophila* sp. aff. *verticillate)* • *Hibbertia* aff. *oligantha* (undescribed) • *Acacia undosa (P3)* • *Eutaxia lasiocalyx (P2)* • *Hakea pendens* (P3) • *Dicrastylis capitellata* (P1) • *Daviesia newbeyi* (P3) • *Stenanthemum bremerense* (P4) • *Daviesia sarissa subsp. redacta* (P2) • *Olearia laciniifolia* (P2) • *Orianthera exilis* (P2) • *Chorizema circinale* (P2) • *Callitris verrucosa* (range extension) • *Centrolepis strigosa subsp. rupestris* (range extension). Targeted surveys were conducted both within and outside the Development Envelope to characterise local context in addition to understanding the direct impacts of the Proposal.
Completed	Mattiske Consulting	Mattiske Consulting Pty Ltd was commissioned between April and June of 2018 by Western Australian Lithium Pty

Scheduled / completed	Investigation / author	Scope
	Pty Ltd (2019b).	Ltd to undertake a survey of the threatened *Banksia sphaerocarpa* var. *dolichostyla* both within the Earl Grey Lithium Development Envelope and within the broader region surrounding the proposal area. 18 individual populations of *Banksia sphaerocarpa* var. *dolichostyla* were recorded during the surveys. A total of 16,503 *Banksia sphaerocarpa* var. *dolichostyla* individuals were recorded across all the areas surveyed. When the estimated numbers outside the Development Envelope are included (6,083), the local population is potentially 22,586 plants.
Completed	Mattiske Consulting Pty Ltd (2018a).	Flora and vegetation surveys have been conducted within the Earl Grey Lithium Project Development Envelope, a 1 km area around the Development Envelope and 200 m either side of the centre line of the access routes. The total area surveyed was 4,417.83 ha, of which 1,993.59 ha was within the Earl Grey Lithium Project Development Envelope. A total of 214 vegetation survey quadrats were established and surveyed across the survey area.
Completed	Blueprint Environmental Strategies (2017).	In April 2017, Goldfields Landcare Services conducted surveys for *Banksia sphaerocarpa* var. *dolichostyla* within proposed landform and infrastructure areas of the Development Envelope.
Completed	Mattiske Consulting Pty Ltd (2017).	The assessment of the flora and vegetation of the Earl Grey, Irish Breakfast and Prince of Wales prospects at Mt Holland was undertaken by Mattiske, from 24 to 26 October 2016 and 9 to 10 November 2016. A total of 43 vegetation survey quadrats were established.
Completed	Native Vegetation Solutions (2016).	In September 2016, Native Vegetation Solutions conducted surveys for *Banksia sphaerocarpa* var. *dolichostyla* within proposed exploration areas of the Earl Grey deposit.
Completed	Native Vegetation Solutions (2014).	Native Vegetation Solutions (NVS) conducted surveys for *Banksia sphaerocarpa* var. *dolichostyla* around existing infrastructure areas (including roads, the historic camp, landfill and airstrip) of the site.

Figure 7 illustrates target areas already surveyed.

2.4.2 Land acquisition

Offset site surveys are currently being undertaken within the region to determine whether any off-site locations contain either *Microcorys* sp. Mt Holland or *Banksia sphaerocarpa* var.

dolichostyla, with the intention of conducting negotiations for purchase of any suitable freehold parcels that contain either or both the species, for inclusion into the conservation estate. Location of the land acquisition target search area is depicted in Figure 8.

It is expected that a Land Acquisition Management Plan (LAMP) will be conditioned as part of the Project approvals. Once the final offset site(s) are selected, the Proponent will finalise a LAMP that details the land acquisition process and provide funding to DBCA to purchase the site and ongoing management. In the event the purchase is unsuccessful, consultation with DBCA will occur to determine suitable alternatives that meet the requirements of the offset strategy.

Ongoing management activities including fencing, weed control, and monitoring of populations present within the proposed offset sites will be funded for five years.

Proposed contingencies if no suitable habitat is found in are provided in Table 11. Potential offset sites have been identified for *Banksia sphaerocarpa* var. *dolichostyla* (Table 5), however no potential offset sites for *Microcorys* sp. Mt Holland has been identified.

An estimated quantum for this element of the offset is defined in Table 7 and it has been estimated that direct offsets of 12,000 *Microcorys* sp. Mt Holland and 180 *Banksia sphaerocarpa* var. *dolichostyla* individuals may be required to meet 100% of the offset requirements.

Table 7: Assessment of environmental values

Site	Attribute	*Banksia sphaerocarpa* var. *dolichostyla*	*Microcorys* sp. Mt Holland	Justification of value
Impact site	Individuals	69	6,246	*Banksia sphaerocarpa* var. *dolichostyla* includes direct impacts to 2 individuals and indirect impacts to 67 individuals. *Microcorys* sp. Mt Holland (D. Angus DA 2397) includes estimated direct impacts to 6,246 individuals and estimated indirect impacts to 711 (indirect impacts to be calculated separately).
Offset site	Time horizon	0	0	Ecological benefit would be realised immediately as a direct offset would be provided.
	Start value (individuals)	185	12,000	The proposed offset sites would need to comprise an area of similar number of individuals.
	Future value without offset (individuals)	90	3500	Whilst the species are considered to actively recruit disturbed areas, a decrease in population sizes is considered likely due to threatening processes (habitat loss, fragmentation, grazing and weed evasion) and limited extent of population and lack of information.

Site	Attribute	*Banksia sphaerocarpa* var. *dolichostyla*	*Microcorys* sp. Mt Holland	Justification of value
Offset site	Future value with offset (individuals)	185	12,000	The quality of the offset sites could be maintained through feral animal control, weed management, conservation fence construction and fire management activities.
	Confidence in result (%)	75	75	Protection mechanisms, once established, will provide a higher level of certainty that the proposed offset sites will be conserved. In addition, the natural populations observed in the field which are not subject to grazing by stock, show survival. Note: confidence in result is based on potential success of the offset, rather than the confidence in obtaining direct offsets through land acquisition. The risk and contingencies associated with land acquisition are detailed in Section 5.
Summary	% of impact offset	103	102	

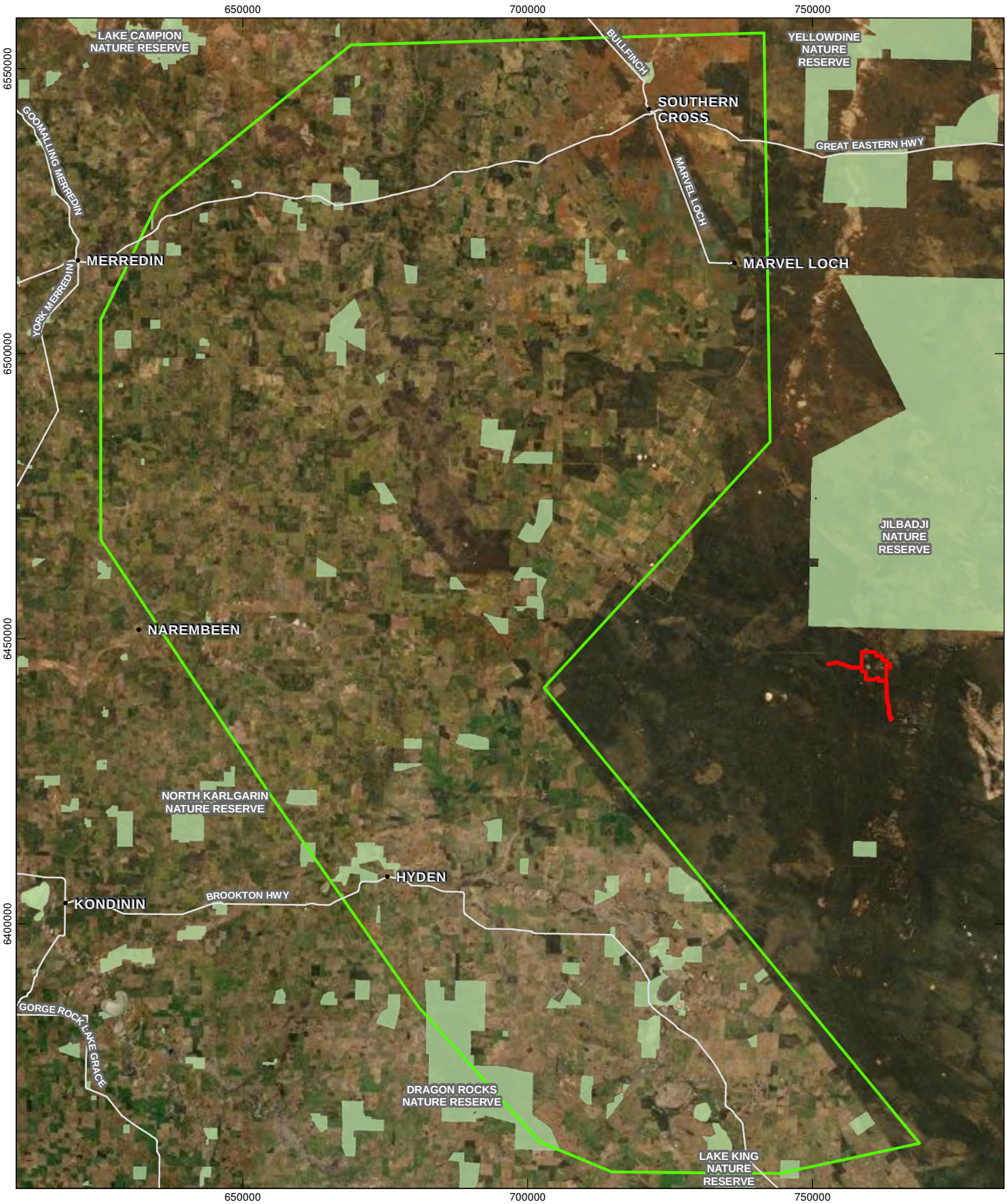

Figure 8: Land acquisition target area

N

Scale 1:900,000 at A4

0 10 20 km

Coordinate System:
GDA 1994 MGA Zone 50

Date: 19/07/2019

Legend

- Land aquisition target area
- Development Envelope
- Nature reserve
- Roads

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Client: Earl Grey Mine. Created by: cthatcher

2.4.3 Rehabilitation trials

Covalent proposes to achieve no net loss of *Banksia sphaerocarpa* var. *dolichostyla* individuals of the currently known population within the Development Envelope (5,220 individuals). In the event of a *Banksia sphaerocarpa* var. *dolichostyla* individual direct loss, Covalent will rehabilitate designated areas within the Development Envelope (Figure 10), in consultation with DBCA. In addition, if rehabilitation trials are successful, rehabilitation of suitable freehold land or known populations outside the Development Envelope would be considered, in consultation with DBCA.

To achieve the above, trials are required to assess if *Banksia sphaerocarpa* var. *dolichostyla* can be germinated from seed in the field, with limited intervention. This would address one of the research priorities identified in the *Approved Conservation Advice for Banksia sphaerocarpa var. dolichostyla (Ironcaps Banksia)* (DEWHA 2008); i.e., to more precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.

The aim of this germination trial will be to assess the following:

1. Ability of *Banksia sphaerocarpa* var. *dolichostyla* to germinate from seed.
2. Ability of successful *Banksia sphaerocarpa* var. *dolichostyla* germinants to survive in situ.

Similar to *Banksia sphaerocarpa* var. *dolichostyla*, Covalent proposes to rehabilitate *Microcorys* sp. Mt Holland designated areas within the Development Envelope, in consultation with DBCA (refer to Figure 10 for rehabilitation area). In addition, if rehabilitation trials are successful, rehabilitation of suitable freehold land or known populations outside the Development Envelope would be considered, in consultation with DBCA. Consideration will also be given to planting of tubestock in suitable sites.

Approval of a Translocation Proposal is required to conduct the above trial. The Translocation Proposal was submitted to DBCA in July 2019. Further details on the rehabilitation trials are presented in Appendix D.

2.4.4 Management of populations

Populations of *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland suitable for management will be undertaken in areas of UCL within the region and within the Development Envelope. Suitable areas will be determined in liaison with DBCA and appropriate management measures will be based on advice from DBCA. Management measures may include:

- monitoring of plant condition and vegetation health
- fencing
- weed management
- revegetation.

Locations of populations proposed for management are illustrated in Figure 9. Any additional populations identified on UCL or freehold land would be considered for management activities to achieve 100% offsets. Due to the lack of freehold land available for *Microcorys* sp. Mt Holland land acquisition, indirect offsets (including population management) may constitute a portion of the offset package (i.e. indirect offsets may be greater than 10%).

Pending the outcome of the rehabilitation trials, translocation or direct seeding of existing populations or suitable sites may be considered, particularly for populations within nature reserves (eg Jilbadji Nature Reserve).

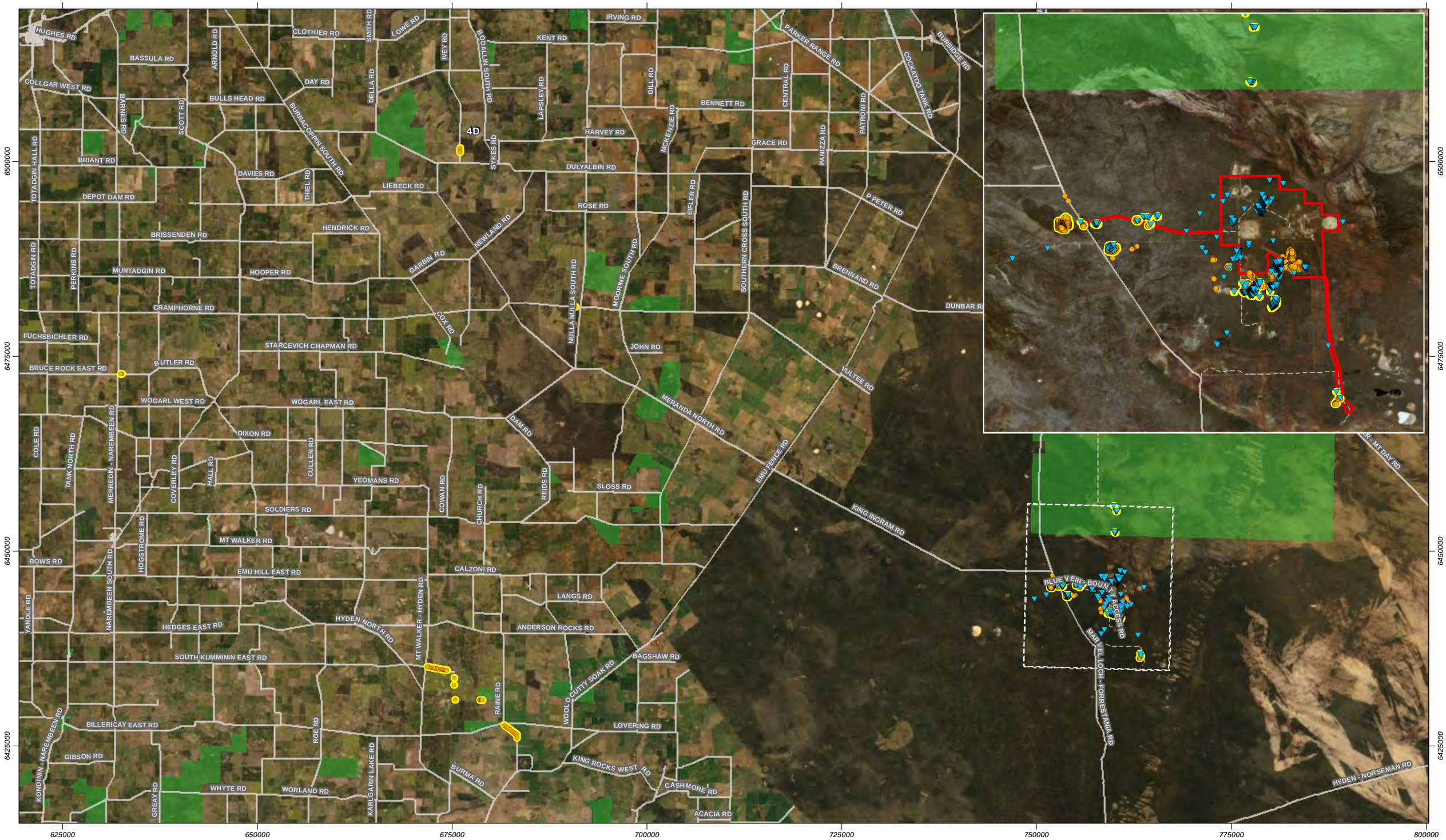

Figure 9: Conservation significant flora populations proposed management areas

N

Scale 1:450,000 at A3

0 4.5 9 km

Coordinate System: GDA 1994 MGA Zone 50

Date: 19/07/2019

Legend

- Development envelope
- Conservation significant flora proposed management areas
- Nature Reserve

Priority flora

- *Banksia sphaerocarpa* var. *dolichostyla*
- *Microcorys* sp. Mt Holland (D. Angus DA2397)

- Major road
- Minor road
- Track

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3. Reporting

Reporting requirements are provided in Table 8. It is anticipated that additional reporting obligations will be required as part of any approvals received (e.g. Ministerial conditions). An Offset Management Plan is expected to be developed which would further define reporting requirements.

Table 8: Reporting frequency

Offset element	Report type	Frequency of reporting	Indicative timing
Fauna – land acquisition	Fauna survey report	Once off	Mid-late 2019 post survey
	Completion report	Once off	Upon completion of land purchase
Flora – land acquisition	Report on regional surveys	Once off	July 2019
	Completion report	Once off	Upon completion of land purchase
Germination trials	Monitoring reports	Once annually during trial	January 2021
	Final project report	Once off at completion of trial	August 2021
Regional surveys	Survey reports	Once off	July 2019

4. Timeline and responsibilities

An indicative timeline for offset actions and monitoring is provided in Table 9.

Covalent will engage suitable and experienced contractors to assist where required to undertake the actions identified in Table 9.

Table 9: Indicative timing of offset actions

Subject	Action	Time frame	Responsibility*
Fauna – land acquisition	Fauna survey of proposed offset sites to determine presence of suitable habitat	Mid – late 2019	Covalent
	Commencement of sale negotiations	As soon as practicable subsequent to confirmation of presence of species habitat within target land parcels	Covalent
	Transfer of land to DBCA	As soon as practicable subsequent to purchase of land parcels.	Covalent
Flora – land acquisition	Regional surveys to determine presence of species in broader region	July 2019	Covalent
	Submission of land access permission requests	As soon as practicable subsequent to confirmation of species in freehold properties	Covalent
	Flora surveys of target land parcels	As soon as practicable subsequent to receipt of access permission	Covalent
	Commencement of sale negotiations	As soon as practicable subsequent to confirmation of presence of species within target land parcels	Covalent
	Transfer of land to DBCA	As soon as practicable subsequent to purchase of land parcels	Covalent
Germination trials	Multiple actions	See Table 10 for detailed timing	Covalent

Subject	Action	Time frame	Responsibility*
Regional surveys	Surveys of freehold land, road reserves, UCL and Nature Reserves	July 2019	Covalent
	Provision of data to DBCA	Upon completion of surveys or as required	Covalent
Management of flora populations	Determination of suitable locations of populations for management (further regional surveys required)	Upon receipt of Proposal approval and prior to finalisation of Offset Management Plan	Covalent
	Determination of suitable management actions for each population	Subsequent to confirmation of suitable locations	Covalent
	Implementation of management actions	Subsequent to determination of suitable actions for each population	Covalent

*Note: all consultants will be directed by the Proponent

Table 10: Timeline for actions relating to rehabilitation trials

Action	Indicative timing
Prepare and submit application for seed collection of *Banksia sphaerocarpa* var. *dolichostyla*	June 2019
Prepare and submit application for seed collection of *Microcorys* sp. Mt Holland	July 2019
Prepare and submit Translocation Proposal to DBCA – *Banksia sphaerocarpa* var. *dolichostyla*	July 2019
Liaise with DBCA to determine requirements for collecting seed and conducting trials for *Microcorys* sp. Mt Holland	June / July 2019
Prepare and submit Translocation Proposal to DBCA (if required) *Microcorys* sp. Mt Holland	July 2019
Collection of seed – *Banksia sphaerocarpa* var. *dolichostyla*	July – December 2019 (if permission received)

Action	Indicative timing
Collection of seed – *Microcorys* sp. Mt Holland	July – December 2019 (if permission received)
Trial plot locations determined	June 2019
Submit Translocation Proposal for DBCA and independent review	June 2019
Site preparation	June 2020
Weed control (if required)	June 2020
Retrieval of seeds from storage	June 2020
Planting of seeds	June 2020
Commencement of quarterly monitoring (spring) to monitoring germination success, survival in situ, weed cover and grazing evidence	September 2020
Contingency actions undertaken, if required	September – December 2020
Interim report	January 2021
Second round of quarterly monitoring (mid-summer)	December 2020
Contingency actions undertaken, if required	December 2020 – March 2021
Third round of quarterly monitoring (post-summer)	March 2021
Contingency actions undertaken, if required	March – June 2021
Fourth round of quarterly monitoring (winter)	June 2021
Contingency actions undertaken, if required	June – September 2021
Fifth round of quarterly monitoring (spring)	September 2021
Contingency actions undertaken, if required	September – December 2021
Sixth round of quarterly monitoring (mid-summer)	December 2021
Contingency actions undertaken, if required	December – March 2021
Sixth round of quarterly monitoring (post-summer)	March 2021
Final report	August 2021

5. Risks and contingency measures

5.1 Fauna

Risks and contingencies relating to land acquisition for Chuditch and Malleefowl habitat are described in Table 11.

Table 11: Risks and contingencies relating to land acquisition for Threatened fauna habitat

Risk factor	Trigger	Contingency action / response
Habitat availability	No suitable habitat present within proposed offset sites	1. Review other parcels of land identified as part of flora offset site selection process. 2. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package.
Land availability	Land unavailable for purchase	1. Review other parcels of land identified as part of flora offset site selection process. 2. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package.
Insufficient area of habitat	Insufficient area of habitat available in proposed offset sites	1. Review other parcels of land identified as part of flora offset site selection process. 2. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package, and investigate increasing other elements of offset package options in liaison with DBCA.

5.2 Flora

5.2.1 Land acquisition

Risks and contingencies relating to land acquisition for *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland are presented in Table 12.

Table 12: Risks and contingencies relating to land acquisition for Threatened and Priority Flora

Risk factor	Trigger	Contingency action / response
Absence of target species	Species not present within proposed offset sites	1. Review other parcels of land identified as part of flora offset site selection process. 2. Given *Microcorys* sp. Mt Holland potentially germinates following fire events, unburnt sites should be assessed for potential seed bank. Suitability as a flora offset site should be discussed with DBCA, particularly if habitat and proximity to other populations indicate potential for *Microcorys* sp. Mt Holland presence. 3. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package which may include population management on UCL, rehabilitation onto suitable freehold land (if rehabilitation trials are successful) or research.
Land availability	Land unavailable for purchase	1. Review other parcels of land identified as part of flora offset site selection process. 2. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package which may include population management on UCL, rehabilitation onto suitable freehold land (if rehabilitation trials are successful) or research.
Insufficient area / plant numbers	Insufficient land area / insufficient plant numbers available in proposed offset sites	1. Review other parcels of land identified as part of flora offset site selection process. 2. If no further land available for acquisition, liaise with DBCA to discuss alternative suitable offset package which may include population management on UCL, rehabilitation onto suitable freehold land (if rehabilitation trials are successful) or research. Investigate increasing other elements of offset package options in liaison with DBCA.

5.2.2 Germination trials

Risks and contingencies relating to germination trials are outlined in Table 13.

Table 13: Risk management and contingency actions for germination trials

Risk factor	Trigger	Contingency action / response
No germination	Monitoring in September 2020 and December 2020 indicates no germination has occurred.	1. If an inadequate portion of the seeds germinate, the trial will be considered to have failed, and other methods of establishment will be required to rehabilitate the species. 2. Liaise with experts (e.g. Botanic Gardens and Parks Authority research division) to develop lab-based trial.
Water stress	Monitoring in September 2020, December 2020 or March 2021 indicates germinants are experiencing water stress.	1. If germinants cannot survive without water additional to that occurring naturally at the site, the trial will be considered to have failed and other methods will be required to rehabilitate the species. 2. Liaise with experts (e.g. Botanic Gardens and Parks Authority research division) to develop lab-based trial.
Weeds	Monitoring in September 2020, December 2020 or March 2021 indicates germinants are being outcompeted by weeds.	1. If weeds become detrimental to the survival of germinants, appropriate weed control will be undertaken subsequent to the monitoring event.
Grazing	Evidence of grazing by rabbits or kangaroos	1. Fencing will be installed around the trial plots to protect against kangaroo grazing. If evidence of rabbit ingress / grazing is observed during any monitoring events, tree guards will be installed around seedlings.

5.2.3 Regional surveys

No risks to the successful completion of the offset were identified in relation to this action.

5.2.4 Management of populations

Risk factors and contingency actions in relation to land management are described in Table 14.

Table 14: Risk factors and contingency actions for land management

Risk factor	Trigger	Contingency action / response
Unauthorised access	Monitoring of population indicates unauthorised ingress has occurred	1. Investigate how ingress occurred. 2. Conduct any repairs necessary to prevent future unauthorised access. 3. Continue to monitor regularly.
Weeds	Monitoring indicates weed growth is detrimental to the health of the population (i.e. heavy infestations)	1. Appropriate weed control will be undertaken subsequent to the monitoring event.
Grazing	Evidence of grazing by rabbits or kangaroos	1. Investigate how ingress occurred. 2. Conduct repairs necessary to prevent future ingress of fauna.
Condition of surrounding vegetation	Change to condition of surrounding vegetation	1. Review flora monitoring to identify potential causes of surrounding vegetation change. 2. Amend monitoring program to investigate vegetation condition change.

6. Financial arrangements

Offset actions will be fully funded by the Proponent. Management and monitoring actions in relation to land acquisition sites will be undertaken for a period of five years. Monitoring actions in relation to the germination trials will be undertaken for the duration of the study (outlined in Section 4).

The Proponent is currently undertaking consultation with respect to the purchase of land and its ongoing management.

7. References

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Strategen JBS&G 2019, Covalent Earl Grey Lithium Project Response to Submissions, Version 1, report prepared for Covalent Lithium, Perth.

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8. Appendices

Appendix A Stakeholder consultation register

Stakeholder	Date	Type of Consultation	Persons Involved	Summary of Communication	Comments Received and Issues Raised	Proponent Response and/or resolution	Stakeholder Response to changes
Department of Mines, Industry, Regulation and Safety (DMIRS)	16/02/2017	Meeting	**DMIRS**: Ian Mitchell (Team Leader – Operations, Environment), Richard Smetana (Environmental Officer). **Kidman**: Chris Williams (General Manager), Siobhan Pelliccia (Environmental Advisor, Blueprint Environmental Strategies).	Overview of project presented to DMIRS, focusing on proposed operations, environmental setting, baseline study results, presence of Chuditch, Mallee fowl and vulnerable flora, opportunities for rehabilitation of abandoned mine site.	DMIRS commented on the potential positive outcomes associated with rehabilitation of historic disturbances. DMIRS suggested a pre–referral meeting be held with the Office of the Environmental Protection Authority to discuss significant species.	Pre-referral meeting held with Office of EPA	Acceptable
Department of the Environment and Energy (DoEE)	20/03/2017	Meeting in Canberra	**DoEE:** Dionne Cassanell (Senior Assessment Officer, Project Assessments West Section), Angela Gillman (Assistant Director, Project Assessments West Section), Karen Mexon (Assessment Officer), Cassandra Elliott (Assessment Officer). **Kidman**: Chris Williams, Michael Green (Exploration Manager), Siobhan Pelliccia, James Cumming.	Summary of project presented to DoEE (as described above for the EPASU) with a focus on matters of national significance, including the Chuditch, Mallee fowl and *Banksia sphaerocarpa var. dolichostyla.*	Discussed possible approval pathways. DoEE commented that provision of fauna management plans would assist in the assessment process. DoEE would want to have a clear understanding of impacts and measures to avoid or minimise impacts and any residual impact remaining after implementation of management measures.	Referral to DoEE undertaken	Acceptable
DBCA – Western Shield Group	5/05/2017	Meeting	**DBCA**: Ashley Millar. **Kidman**: Chris Williams, Siobhan Pelliccia, Jill Woodhouse (Environmental Advisor) and Jenny Wilcox (Western Wildlife – Lead Zoologist).	Overview of Project presented with focus on findings of fauna survey occurrence of Mallee fowl and Chuditch.	Information on the Western Shield Program and ways in which Kidman can assist in the program through sponsorship and provision of survey results.	Further engagement to occur	Acceptable
National Mallee fowl Recovery Team	12/09/2017	Meeting	**National Mallee fowl Recovery Team**: Dr Elizabeth Kington (Project Officer, WA). **Kidman**: Chris Williams, Siobhan Pelliccia, Belinda Bastow (Environmental Advisor, Integrate Sustainability).	Overview of project presented, focusing on proposed operations, environmental setting, baseline study results, presence of Chuditch, Mallee fowl and vulnerable flora, opportunities for rehabilitation of abandoned mine site.	• Mound data being incorporated into the national data. • Project adopting the national mound monitoring protocol. • Joining the national mound monitoring network. • Approach adopted for remotely identifying mounds. • Project participating in the national adaptive management/predator control study. • No obvious concerns about the project.	Ongoing engagement will occur	Acceptable
Greening Australia	12/09/2017	Meeting	**Greening Australia**: Dr Blair Parsons (Director of Conservation – WA/NT), David Timmel (Business Development Manager). **Kidman**: Chris Williams, Siobhan Pelliccia, Belinda Bastow (Environmental Advisor, Integrate Sustainability).	Overview of project presented, focusing on proposed operations, environmental setting, baseline study results, presence of Chuditch, Mallee fowl and vulnerable flora, opportunities for rehabilitation of abandoned mine site.	• Opportunities for traditional owner or aboriginal in the project. • Proximity to the Jilbadji Nature Reserve. • Intensity of the Malleefowl surveys. • Potential opportunities for GA to provide services to project in areas such as offsets, on–ground environmental work and rehabilitation work.	Ongoing engagement will occur	Acceptable

					• No obvious concerns about the project.		
Mt Holland Multi-Agency Site Visit	07/12/2017	Site Visit	**EPA Services**: Robert Hughes. **DMIRS**: Ryan Hepworth. **DoEE:** Angela Gillman, Mallory Owen, Denis Snowden. **DWER:** Tim Gentle, Louise Lavery. **DJTSI**: Steve Cosgrove, Steve Dawson. **Kidman**: Chris Williams. **SQM**: Nicolas Velar, Mark Fones. **Strategen**: Mat Brook, Matthew Jones.	• Site inspection and discussion of project, outcomes of environmental surveys.	• Offsets need to be considered. • Management plans need to be outcome focused.	Environmental Review Document submitted with offsets and management plans	Acceptable
Department of the Environment and Energy (DoEE)	10/05/2018	Meeting in Canberra	**DoEE:** Dionne Cassanell (Senior Assessment Officer, Project Assessments West Section), Rod Whyte (Director, Project Assessments West Section). **Covalent**: David English. **Kidman**: Chris Williams. **Strategen**: Matthew Jones.	• Notification of formalisation of joint venture and joint venture management entity, WA Lithium (now known as Covalent Lithium Pty Ltd.). • Discussion of proposed changes to site layout. • Discussion of outcomes of environmental work and recent surveys. • Discussion of anticipated residual impacts and potential offsets for MNES. • Discussion of proposed timeline and next steps.	• Offsets need to be considered. Proposals for offsets need to be consistent and provide certainty for both parties.	Offsets included in Environmental Review Document	Acceptable
DWER – EPA Services	10/10/2018	Meeting	**EPA Services:** Robert Hughes, Nyomi Bowers, Bec Ryan. **Covalent:** Jan de Jage. **Strategen:** Kane Moyle, Tristan Sleigh, Matthew Jones.	• Discussion on DMA comments. • Adequacy of flora surveys for significant species. • Statistical Comparison of Vegetation within the Earl Grey Lithium Project with the Ironcap Hills Vegetation Complex. • Environmental offsets and consideration in the ERD.	• Covalent to consider additional targeted surveys for significant flora.	Additional targeted flora surveys completed and included in Environmental Review Document (Revision 5)	Acceptable
DWER – EPA Services	19/10/2018	Meeting	**EPA Services**: Nyomi Bowers. **Covalent**: Colyn Louw. **Strategen**: Matthew Jones. **Mattiske**: David Angus.	• Review of DMA comment regarding targeted surveys for significant flora. • Field survey methods for proposed additional targeted flora surveys.	• Covalent to conduct additional targeted surveys in November 2018 for significant flora. • Results to be incorporated into the updated ERD	Additional targeted flora surveys completed and included in Environmental Review Document (Revision 5)	Acceptable
DWER – EPA Services	14/11/2018	Meeting Memorandum	**EPA Services**: Robert Hughes, Nyomi Bowers. **Covalent**: Susanna Beech, Colyn Louw.	• Discussion of additional targeted significant flora survey results.		Additional targeted flora surveys completed and	Acceptable

			Strategen: Matthew Jones.	• Timing of resubmission of the updated ERD.		included in Environmental Review Document (Revision 5)	
DoEE	28/11/2018	Telephone	**DoEE:** Dionne Cassanell. **Covalent:** Susanna Beech.	• Discussion of a review conducted on the Offsets section in the ERD.		Amendments to Offsets in Environmental Review Document (Revision 5)	Acceptable
Mallee Fowl Recovery Team	05/12/2019	Meeting – Skype	**National Mallee Fowl Recovery Team** – Liz Kington. Covalent Lithium – Susanna Beech, Colyn Louw.	• Presentation of proposal and fauna survey results relating to Mallee Fowl populations. • Discussion regarding NMRT survey procedures, including Lidar, application of algorithm and ground surveys. • Discussion relating to other protocols and procedures relating to clearing of vegetation and disturbance of Mallee Fowl mounds, breeding season, monitoring methods etc. • Commitment to work with NMRT with respect to baseline survey and ongoing monitoring. • Outlined that ERD to be publicly advertised and comments from NMRT.	• Recommendations from NMRT relating to survey methods and disturbance of Mallee Fowl Mounds.	NMRT to provide comments during public review of ERD Covalent to work with NMRT with respect to baseline Mallee Fowl surveys and ongoing monitoring	Acceptable
Non-government organisations – multiple stakeholders	13/12/2018	Workshop – Covalent Lithium	**Jen Wilcox, Western Wildlife.** **Libby Mattiske, David Angus – Mattiske Consulting.** **Kit Sainsbury, Wilderness Society.** **Kane Moyle, Strategen Environmental Consultants.** **Peter Price, Great Western Woodlands.** **Tristan Sleigh, Strategen Environmental Consultants.** **Colyn Louw, Covalent Lithium.** **Brian Moyle, Wildflower Society.** **Louise Whitley, Strategen Environmental Consultants.**	• Workshop prior to public advertising of Environmental Review Document. • Western Wildlife, Mattiske and Strategen delivered presentations that provided an outline of the proposed lithium mining project, baseline studies, environmental values, project impacts, management and mitigation measure, offsets etc. • Discussions regarding impacts, mitigation measures and offsets.	• Recommendations by NGO's to minimize impact as much as possible and to continue to engage and consult with them in relation to mitigation and management measures.	NGO's will review ERD and provide public comments	Acceptable
JTSI	14/01/2019 11:00am	Meeting - Covalent	**Steve Dawson.** **Geoff Sheppard, Colyn Louw, Susanna Beech.**	• Project update. • Approvals update – ERD comments.	• Discussed ERD comments – impacts to flora and fauna and offsets strategy.	JTSI available to assist with discussions with regulators regarding	Acceptable

						approval requirements and timelines	
Mallee Fowl Recovery Team	28/02/2019 2:00pm	Meeting – Covalent Lithium	**Liz Kington – WA Co-ordinator.**	• Discussion with respect to the content of the ERD, with respect to impacts on Mallee Fowl. • Discussed proposed impacts, mitigation and management measures. • Discussed breeding season and survey methods.	• Liz will be submitting comments on the ERD, with respect to impacts on Mallee Fowl.	Liz will be making recommendations relating to that disturbance to inactive Mallee Fowl mounds occur outside of breeding season and survey methods for identification of mounds	Acceptable
DoEE	13/03/2019 8:00am	Meeting – by telephone	**Dionne Cassannell, DoEE.**	• Discussion with Dionne with respect to DoEE comments on ERD, Threatened Species Management Plans and Offset Strategy.	• Dionne provided specific advice with respect to the calculation of offsets for Threatened Species. • Dionne also provided advise with respect to direct and indirect offsets.	Covalent to adopt Dionne's advice as a part of its amendment to the ERD	Acceptable
DBCA	04/04/2019 9:45am	Meeting – DBCA Office Kensington	**Nyomi Bowers, Robert Hughes – DWER, EPA Services.** **Lindsay Bourke, Nicholas Woolfrey, Bec Ryan – DBCA.** **Dionne Cassanell (by telephone) – DoEE.** **Louise Whitley - Strategen Environmental Consultants.** **Dave Angus – Mattiske Consulting.** **Susanna Beech – Covalent Lithium.**	• DBCA public submission on the ERD, specifically regarding the following items: **Flora** • Covalent agrees with recommendations made by DBCA that clearly defined limits to impacts of conservation significant flora species and their habitat is made a condition of approval. However, Covalent requests that the limit is based on a percentage of the known local population and would like to discuss the challenges with applying absolute numbers. Comment 3 Threatened Flora Banksia sphaerocarpa var. dolichostyla - Further efforts to understand, avoid, minimise, manage and mitigate (including offset, if the reduced impacts are considered acceptable) is required. Covalent would like to discuss further the five	• It was agreed that the threshold for impact to conservation significant flora species be based on a percentage of the population within the development envelope. • Direct offset for Banksia is required. Evidence to support translocation, germination trials would be required for this to be accepted as a viable offset. • A direct offset for Microcorys is required. Covalent need to identify where populations of Microcorys occurs outside of the Development Envelope in areas that are viable for offsetting (e.g. freehold land). • Changes to the calculation of indirect impact to Microcorys is required as DBCA is unable to accept to use of percentages to determine indirect impact. • DBCA and DWER are generally happy with the proposed fauna offset area – further work is required to determine if the value is equal to or greater than the area proposed to be disturbed.	Covalent to resubmit RtS and update management plans based on the advice and clarification received during the meeting	Acceptable

				points DBCA considered necessary to assist in understanding the risk associated with impacts and practicality for this assessment. • Comment 5 Priority Flora Microcorys sp. Mt Holland - Further efforts to understand, avoid, minimise, manage and mitigate (including offset, if the reduced impacts are considered acceptable) is required. Covalent would like to discuss further measures DBCA would consider appropriate to reduce risks and residual impacts on the species. • Comment 7. Monitoring - Covalent seeks further clarification from DBCA around the level of detail required for the monitoring programs at this early stage of the project. A more detailed monitoring program plan will be possible once baseline monitoring has occurred. • Comment 8 Flora Management Plan – DBCA has raised concern with the use of percentage impact, rather than number of plants. Given the level of impacts on species populations are usually measured and assessed as a percentage of the total population, is it not appropriate to base triggers and thresholds on percentages also? General discussion around the proposed land acquisition for fauna offsets and next steps to progress acquisition.		
DWER – EPA Services	13/06/2019	Meeting DWER Joondalup	**Nyomi Bowers, Robert Hughes – DWER EPA Services.** **Susanna Beech – Covalent Lithium.** **Louise Whitley – Strategen Environmental Consultants.**	• Meeting to discuss next steps in the assessment process.	• DWER outlined that they had reviewed the timeline for assessment and in order to meet the July EPA Meeting Covalent would need to resubmit the RtS and Offset Strategy. • DWER advised that the information required for the RtS to be accepted are locations for Microcorys Offsets and a clearer explanation on	.	Acceptable

					the calculation of indirect impacts to Microcorys. • Covalent indicated that it may not be able to meet the deadline of 19th June for resubmission of RtS and Offset Strategy as it needs to undertake further survey work to identify Microcorys outside the DA.		
DBCA **DWER – EPA Services**	19/05/2019	Meeting JTSI Offices	**Steve Dawson – JTSI.** **Susanna Beech – Covalent Lithium.** **Louise Whitley – Strategen.** **Robyn Chesney – Strategen.** **Nichols Woolfrey, Lindsay Bourke – DBCA.**	• Meeting to discuss content of Offset Strategy, DBCA and DWER comments.	• DBCA advised that in its view what would be valuable from an Offsets perspective is further survey work to identify the distribution of Microcorys in the local and regional area and once this is established that an Offset could be considered. • DWER advised that the EPA will take a conservative view of Microcorys given that it is only known in the Mt Holland area. Consequently, EPA will want to see a direct offset for Microcorys. • It was discussed and agreed that the Offset Strategy for Microcorys should include further regional surveys and surveys within the DA as well as a contingency several Offset options. • It was also discussed that rehabilitation of historical drillines within Jilbadji National Park would also be considered of benefit to the species given that it has been located within Jilbadji National Park. • Covalent presented the survey program for week beginning 24/06/2019 to DBCA and DWER outlining the target areas and whether these areas would be of interest to DBCA given their proximity to conservation areas. • DBCA advised that in this case the key criteria would be the presence of Microcorys, rather than more general biodiversity values. • The values within the Offset would need to be equal to or greater than the values within the disturbance area. • Covalent raised the possibility that an area of freehold land containing Microcorys may not exist, given the likelihood that Microcorys may be associated with the PEC and that there is	Covalent will incorporate DBCA and DWER's advice into the Offset Strategy	Acceptable

					only one block of freehold land within the PEC area. • DBCA and DWER advised that some flexibility may be required with respect to offsets in this case. • DWER advised of the difficulty with obtaining DoEE's agreement to non-direct offsets. • Covalent raised the potential for the populations within the southern section of the DA being set aside as an offset area and raise the possibility of Microcorys populations located within unallocated crown land being able to be secured in the conservation estate. • DBCA and DWER concurred that it would be difficult to obtain whole of government approval to set aside unallocated crown land in an area of significant mineralisation within the Conservation Estate, however if it were identified that Microcorys is restricted to Mt Holland then this may be possible.		
DBCA	11/06/2019	Email	**Dr Tanya Llorens – DBCA.** **Robyn Chesney – Strategen.**	• Email request for information regarding *Banksia sphaerocarpa* var. *dolichostyla* germination trials.	• DBCA provided confirmation a Translocation Proposal would be required for conducting a germination trial with seed only and no actual translocation of plants. • DBCA advised no publicly available examples. • DBCA advised simple TPs likely to require internal review at DBCA only.	Covalent will incorporate DBCA advice into Translocation Proposal	
DBCA	25/06/2019	Telephone call	**Dr Tanya Llorens – DBCA.** **Robyn Chesney – Strategen.**	• Discussion relating to *Banksia sphaerocarpa* var. *dolichostyla* germination trials.	• DBCA advised: - if working in close proximity to existing population, may be inadvertent disturbance by machinery – may need additional permit to protect against this - if plants grow successfully, and are to stay in ground subsequent to trial, this would be considered a " reinforcement" type trial - what to include in TP: planting design, how many seeds, watering systems, access tracks, weed treatment; regularity of monitoring; how to protect plants from grazing; how to protect existing vegetation; background info on species; background of project	Covalent will incorporate DBCA advice into Translocation Proposal	

					- papers have been written on population ecology of *Banksia sphaerocarpa* var. *caesia* but may have limited application - success criteria should be provided for short, medium and long term - if plants are to stay in ground then these become a known DRF population - reports are to be submitted to DBCA to Tanya / Flora Data - turnaround time for approval likely to be less than 3 mths if not a complex trial - Tanya will give proposal a "first pass" before formal review - District office of DBCA should be advised of trials.		
DBCA	25/06/2019	Email	**Dr Tanya Llorens – DBCA.** **Robyn Chesney – Strategen.**	• Provision of papers relating to population ecology of *Banksia sphaerocarpa* var. *caesia.*	• DBCA provided two research papers on *Banksia sphaerocarpa* var. *caesia* relating to genetic studies in remnant populations of the species.	Covalent will incorporate any relevant research into Translocation Proposal	
Botanic Gardens and Parks Authority	12/06/2019	Telephone call	**Robyn Chesney – Strategen.** **Botanic Gardens and Parks Authority.**	• Telephone conversation to gain information on whether Kings Park had conducted research into *Banksia sphaerocarpa* var. *dolichostyla.*	• BGPA advised best approach is to put query into email.	To be followed up	
Botanic Gardens and Parks Authority	12/06/2019	Email	**Robyn Chesney – Strategen.** **Botanic Gardens and Parks Authority.**	• Email request seeking information on Kings Park research into *Banksia sphaerocarpa* var. *dolichostyla.*	• No response.	To be followed up	
Botanic Gardens and Parks Authority	25/06/2019	Email	**Robyn Chesney – Strategen.** **Botanic Gardens and Parks Authority.**	• Email request seeking information on Kings Park research into *Banksia sphaerocarpa* var. *dolichostyla.*	• No response.	To be followed up	
Botanic Gardens and Parks Authority	03/07/2019	Telephone call	**Robyn Chesney – Strategen.** **Botanic Gardens and Parks Authority.**	• Following up on previous requests.	• BGPA advised that initial email had been quarantined and second email had been forwarded to Lyndsey Osborne (Science Administration Assistant) and would be responded to within 10 days of receipt of the second email.	To be followed up	
DBCA	25/06/2019 03/07/2019	Email	**Robyn Chesney – Strategen.** **DBCA Wildlife Licensing.**	• Query regarding documentation required for *Microcorys* sp. Mt Holland seed collection.	• Wildlife Licensing advised a Reg 61 permit is required for collection of a P1 species.	Covalent will prepare a Reg 61 permit on behalf of Mattiske Consulting for	

						seed collection in future surveys	
DBCA	25/06/2019 03/07/2019	Email	**Robyn Chesney – Strategen.** **DBCA Wildlife Licensing.**	• Query regarding documentation required for "inadvertent disturbance" of vegetation during *Banksia sphaerocarpa* var. *dolichostyla* germination trials.	• Wildlife Licensing advised the advice of the Species and Communities Branch would be required to answer this query.	To be followed up	
DBCA	03/07/2019	Email	**Dr Tanya Llorens – DBCA.**	• Query regarding whether documentation required for conducting germination trials on priority species.	• DBCA advised: - Translocation Proposals are required for Priority species on a case by case basis - Circumstances where a translocation of Priority flora will require a TP include where the translocation is required to be established under other legislation (e.g. EP Act or Mining Act) for conservation outcomes. This will usually be Priority species that are likely to become threatened (will certainly include some P1 species), and hence there is the need to ensure the establishment is done properly - may also be required for some Priority flora being established for conservation programs, to ensure the flora is not deemed to be 'cultivated' under the BC Act and Regs and thus will contribute to the conservation status of these species in the future.	To be followed up	

Appendix B WA Environmental Offsets table

Existing Environment / Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid / Minimise	Rehabilitation Type	Likely Rehabilitation Success		Type	Risk	Likely Offset Success	Time Lag	Offset Quantification
Clearing of up to 2 individuals (0.01% of the local population (16,822) and 0.01% of the regional population (25,445) of Banksia sphaerocarpa var. dolicholstyla and potential indirect impact to 67 individuals (0.40% of the local population (16,822) and 0.26% to the regional population (25,445)) individuals)	Avoid • Populations of *Banksia sphaerocarpa* var. *dolichostyla* not impacted by the Proposal will have a 50 m Conservation Significant Flora Exclusion Zone and development will not occur within these areas. • Avoid accidental clearing though implementation of an internal clearing permit procedure and preclearance surveys. Minimise • Impacts caused by dust due to vehicle movements by keeping roads and other areas well-watered. Dust suppression measures that include maintenance practices for vehicles, cleared areas, and active stockpiles. • All populations of *Banksia sphaerocarpa* var. *dolichostyla* within 50 m buffers adjacent to disturbed areas and Proposed Layout will be demarcated and signed as Conservation Significant Flora Buffer Zones and impact avoided if possible. • Water that is <5,000mg/L TDS will be used for dust suppression (outside of the mine pit) and will be applied to road surfaces by dribble bars. • Hypersaline water will be used only within the mine pits for dust suppression and will be applied to surfaces and stockpiles using dribble bars that do not allow overspray onto surrounding vegetation. • Weeds through control measures that include vehicle hygiene procedures, stockpiling of on-site topsoil for reuse, and annual monitoring.	Rehabilitation studies and trials will be undertaken during operations to determine the most effective methodologies for rehabilitating and translocating individuals. The initial rehabilitation objective for the mine involves the no net loss of the currently known local population. Rehabilitation strategy includes: • *Banksia sphaerocarpa* var. *dolichostyla* seeds and/or cuttings will collected and stored appropriately for rehabilitation (where seed is present). *Banksia sphaerocarpa* var. *dolichostyla* will be considered as part of the plant mix for rehabilitation areas near existing populations. • Rehabilitation trials and research programs (in consultation with DBCA and Kings Park and Botanical Gardens) will be undertaken to increase translocation and rehabilitation success. • Directly impacted individuals will be attempted to be translocated into an area of suitable habitat. • Rehabilitation of areas will occur to provide suitable habitat for *Banksia sphaerocarpa* var. *dolichostyla.* • Seeding of areas with suitable habitat within the Development Envelope with *Banksia sphaerocarpa* var. *dolichostyla* seeds will occur. • Monitoring of translocated individuals and rehabilitated areas will be undertaken.	Can the environmental values be rehabilitated? The field observations associated with the species indicates it is an active recruiter. However, uncertainty does exist for the effectiveness of the rehabilitation strategy, as research programs and rehabilitation trials have not occurred to date. What is the type of vegetation being rehabilitated? *Banksia sphaerocarpa* var. *dolichostyla* within the S3 vegetation community.	Extent 2 individuals (0.01% of the local population (16,822) and 0.01% of the regional population (25,445)) of Banksia sphaerocarpa var. dolichostyla and potential indirect impact to 67 individuals (0.40% of the local population (16,822) and 0.26% to the regional population (25,445). Conservation Significance *Banksia sphaerocarpa* var. *dolichostyla* is both Vulnerable under BC Act and EPBC Act. Land Tenure Mining Tenements. Time Scale 30 years. According to the agreed significance framework, Significant Residual Impact is considered to be significant as the species is protected by statue and the uncertainty associated with the effectiveness of the rehabilitation strategy. In addition, the extent of impact to the regional population (0.01% direct impacts and a maximum of 0.25% potential indirect	Land acquisition and management.	Low Covalent is committed to providing funding to DBCA for the purchase and management of the offset or indirect offsets as per the Offset Strategy. It is also expected that the offsets will be a condition of the Ministerial approval of the project.	Medium Land acquisition and management in the wheatbelt for the species is not well established, however land acquisition process has been previously implemented by DBCA as an offset for other proposals. Some uncertainty exists regarding the successful rehabilitation strategy, however a plan is in place to remove uncertainty.	N/A.	Direct offset activities would include: • Direct acquisition, purchase and management of land containing 185 individuals of *Banksia sphaerocarpa* var. *dolichostyla* for the purpose of species population conservation. In the event that direct offsets are not 100% achievable indirect offset activities would include: • Regional surveys to confirm population distribution and numbers. • Rehabilitation investigations (translocation, propagation and seeding) within Development Envelope or Local area for *Banksia sphaerocarpa* var. *dolichostyla.* • Acquisition of freehold land containing *Banksia sphaerocarpa* var. *dolichostyla* population/s that do not meet 90% direct offset requirement. • Management of *Banksia sphaerocarpa* var. *dolichostyla* population/s that are located in Jilbadgi Nature Reserve and Unallocated Crown Land in local area. • Acquisition of freehold land containing vegetation communities and soil structures similar to those supporting populations on the fringes of the known distribution. The portion of land acquisition required to meet 90% of offset requirements was determined using the Commonwealth Calculator as a guide to provide a greater than 100% impact of offset, with 10% indirect offsets required as part of the rehabilitation strategy.

Existing Environment / Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid / Minimise	Rehabilitation Type	Likely Rehabilitation Success		Type	Risk	Likely Offset Success	Time Lag	Offset Quantification
	• impacts due to uncontrolled fire through control of ignition sources, procedures and regional coordination on prescribed burns.			impacts) is not considered significant. However, as the species if protected by statue an offset is proposed.					
Clearing of up to 14.30% of the estimated regional population (6,246 individuals of 43,676) of Microcorys sp. Mt Holland (D. Angus DA2397) and potential indirect impacts to 1.63% of the estimated regional population (711 individuals)	Avoid • Populations of *Microcorys* sp. Mt Holland (D. Angus DA 2397) not impacted by the Proposal will have a 50 m Conservation Significant Flora Exclusion Zone and development will not occur within these areas. • Avoid accidental clearing though implementation of an internal clearing permit procedure and preclearance surveys. Minimise • Impacts caused by dust due to vehicle movements by keeping roads and other areas well-watered. Dust suppression measures that include maintenance practices for vehicles, cleared areas, and active stockpiles. • All populations of *Microcorys* sp. Mt Holland (D. Angus DA2397) within 50 m buffers adjacent to disturbed areas and Proposed Layout will be demarcated and signed as Conservation Significant Flora Buffer Zones and impact avoided if possible. • Water that is <5,000mg/L TDS will be used for dust suppression (outside of the mine pit) and will be applied to road surfaces by dribble bars.	Rehabilitation studies and trials will be undertaken during operations to determine the most effective methodologies for rehabilitating and translocating individuals. Rehabilitation strategy includes: • *Microcorys* sp. Mt Holland (D. Angus DA 2397) seeds and/or cuttings will collected and stored appropriately for rehabilitation (where seed is present). *Microcorys* sp. Mt Holland (D. Angus DA 2397) will be considered as part of the plant mix for rehabilitation areas near existing populations. • Rehabilitation trials and research programs (in consultation with DBCA and Kings Park and Botanical Gardens) will be undertaken to increase translocation and rehabilitation success. • Directly impacted individuals will be attempted to be translocated into an area of suitable habitat. • Rehabilitation of areas will occur to provide suitable habitat for *Microcorys* sp. Mt Holland (D. Angus DA 2397). • Seeding of areas with suitable habitat within the Development Envelope with *Microcorys* sp. Mt Holland (D. Angus DA 2397) seeds will occur. • Monitoring of translocated individuals and rehabilitated areas will be undertaken.	Can the environmental values be rehabilitated? The field observations associated with the species indicates it is an active recruiter. However, uncertainty does exist for the effectiveness of the rehabilitation strategy, as research programs and rehabilitation trials have not occurred to date. What is the type of vegetation being rehabilitated? *Microcorys* sp. Mt Holland (D.	Extent Clearing of up to 14.30% (6,246 individuals) of the estimated regional population (43.676) of Microcorys sp. Mt Holland (D. Angus DA2397) and potential indirect impacts to 1.63% (711 individuals) of the estimated regional population (43,676). Conservation Significance *Microcorys* sp. Mt Holland (D. Angus DA2397) is a Priority 1 species. Land Tenure Mining Tenements. Time Scale 30 years. According to the agreed significance framework, Significant Residual Impact is considered to be significant due to the potential impact on the regional population and the resulting impact on conservation threat rating. 14.30% impact to the estimated population is not considered to be significant	Land acquisition and management.	Low Covalent is committed to providing funding to DBCA for the purchase and management of the offset or indirect offsets as per the Offset Strategy. It is also expected that the offsets will be a condition of the Ministerial approval of the project.	Medium Suitable sites for land acquisition and management for the species is not established, however land acquisition process has been previously implemented by DBCA as an offset for other proposals. Some uncertainty exists regarding the successful rehabilitation strategy, however a plan is in place to	N/A-	Direct offset activities would include: • Direct acquisition, purchase and management of land containing 12,000 individuals of *Microcorys* sp. Mt Holland (D. Angus DA 2397) for the purpose of species population conservation. In the event that direct offsets are not 100% achievable indirect offset activities would include: • Rehabilitation investigations (translocation, propagation and seeding) within Development Envelope or Local area for *Microcorys* sp. Mt Holland (D. Angus DA 2397). • Acquisition of freehold land containing *Microcorys* sp. Mt Holland (D. Angus DA 2397) population/s that do not meet 90% direct offset requirement. • Management of *Microcorys* sp. Mt Holland (D. Angus DA 2397) population/s that are located in Jilbadgi Nature Reserve and Unallocated Crown Land in local area. • Acquisition of freehold land containing vegetation communities and soil structures similar to those supporting *Microcorys* sp. Mt Holland (D. Angus DA 2397) populations on the fringes of the known distribution. The portion of land acquisition required to meet 90% of offset requirements was determined using the

Existing Environment / Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid / Minimise	Rehabilitation Type	Likely Rehabilit-ation Success		Type	Risk	Likely Offset Success	Time Lag	Offset Quantification
	• Hypersaline water will be used only within the mine pits for dust suppression and will be applied to surfaces and stockpiles using dribble bars that do not allow overspray onto surrounding vegetation, in particular where Microcorys sp. Mt Holland (D. Angus DA 2397) is located adjacent to mine pit areas. • Weeds through control measures that include vehicle hygiene procedures, stockpiling of on-site topsoil for reuse, and annual monitoring. • Impacts due to uncontrolled fire through control of ignition sources, procedures and regional coordination on prescribed burns.		Angus DA2397).	due to the estimated population size (43,676), however, uncertainty does exist with the population estimate and future impacts. Direct impacts to recorded population is 6.75% (733 recorded individuals of a recorded population of 10,856). Due to this uncertainty, an offset strategy is proposed to offset any Significant Residual Impacts.			remove uncertainty.		Commonwealth Calculator as a guide to provide a greater than 100% impact of offset, with 10% indirect offsets required as part of the rehabilitation strategy.
386 ha of terrestrial fauna habitat (potential breeding habitat for Chuditch) clearing	Avoid accidental clearing of faunal habitat though implementation of an internal clearing permit procedure. Ensure that a fauna specialist is present during clearing so that timely identification, avoidance, and relocation, can be undertaken if required. If trapped during clearing, Chuditch would be relocated into bushland adjacent to the Development Envelope before nightfall or within the same day. Implement traffic management measures including speed limits and driving restrictions at dusk and dawn to reduce potential vehicle strikes. Ensure dust suppression measures that include maintenance practices for vehicles, cleared areas, and active stockpiles are undertaken. Prevent entrapment of animals in all excavations (including steep–walled	Rehabilitation studies and trials will be undertaken during operations to determine the most effective methodologies for rehabilitating the different landforms used under the Project. The initial rehabilitation objective for the mine involves the reestablishment of native vegetation and fauna habitats.	Can the environment-tal values be rehabilitated? There are already a number of rehabilitated landforms present within the abandoned Mt Holland mine site, with varying degrees of rehabilitation success, these would be assessed to further refine rehabilitation designs of	Extent 386 ha of potential habitat for Chuditch. Quality 8 (out of 10) per the Commonwealth offset calculator. Conservation Significance Chuditch is Vulnerable under BC Act and EPBC Act. Land Tenure Mining Tenements. Time Scale 30 years.	Land acquis-ition and manage-ment.	Low Covalent is commit-ted to providing funding to DBCA for the purchase and manage-ment of the offset. It is also expected that the offsets will be a condition of the Minister-ial	High Land acquisition and manage-ment in the wheatbelt is well understood and has been previously implement-ted by DBCA as an offset for other proposals.	N/A.	Land connectivity activities would include: • Direct acquisition, purchase and management of up to 1,800 ha of land within the wheatbelt along the fringes of the GWW for the purpose of conservation and connectivity between wheatbelt fragments and the GWW. In the event that direct offsets are not 100% achievable NRM activities would include: • Working with the Wheatbelt NRM and/or Rangelands NRM to improve land management activities (fire or weed management) undertaken within the GWW. In the event that direct offsets are not 100% achievable research activities would include:

Existing Environment / Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid / Minimise	Rehabilitation Type	Likely Rehabilit-ation Success		Type	Risk	Likely Offset Success	Time Lag	Offset Quantification
	holes or trenches which are more than one meter deep) by securing against inadvertent animal entry at the close of each day or ensure that escape ramps are installed. Control feral predators (cats, wild dogs, foxes) by implementing local control measures.		new landforms. What is the type of vegetation being rehabilitated? Mallee / woodland.	According to the agreed significance framework, residual impact is considered to be significant due to the impact to Chuditch potential breeding habitat.		approval of the project.			• An indirect offset may be utilised to fund additional research by organisations, universities or other conservation bodies for the purpose of improving knowledge of the GWW and the conservation significant species/protected matters which occur in the area. Suitable research areas might include ∗ Chuditch population dynamics and genetics ∗ influence of fire management on Chuditch ∗ influence of feral animal control on Chuditch ∗ the ratio of land protected compared to that cleared (4.8:1) was determined using the Commonwealth Calculator as a guide to provide a greater than 100% impact of offset.
386 ha of terrestrial fauna habitat (potential breeding habitat for Mallee-fowl, including active mounds) clearing	Avoid clearing of vegetation within 100 m of active Malleefowl mounds and accidental clearing of faunal habitat though implementation of an internal clearing permit procedure. avoid removal of active nest mounds during the operational life of the project. Ensure that a fauna specialist is present during clearing so that timely identification, avoidance, and relocation, can be undertaken if required. Implement traffic management measures including speed limits and driving restrictions at dusk and dawn to reduce potential vehicle strikes.	Rehabilitation studies and trials will be undertaken during operations to determine the most effective methodologies for rehabilitating the different landforms used under the Project. The initial rehabilitation objective for the mine involves the reestablishment of native vegetation and fauna habitats.	Can the environmental values be rehabilitated? There are already a number of rehabilitated landforms present within the abandoned Mt Holland mine site, with varying degrees of rehabilitation success, these would be	Extent 386 ha of potential habitat for Malleefowl. Quality 8 (out of 10) per the Commonwealth offset calculator. Conservation Significance Malleefowl is Vulnerable under BC Act and EPBC Act. Land Tenure Mining Tenements.	Land acquis-ition and manage-ment.	Low Covalent is commit-ted to providing funding to DBCA for the purchase and manage-ment of the offset. It is also expected that the offsets will be a	High Land acquisition and manage-ment in the wheatbelt is well understood and has been previously implement-ted by DBCA as an offset for other proposals.	N/A.	Land connectivity activities would include: • Direct acquisition, purchase and management of up to 1,800 ha of land within the wheatbelt along the fringes of the GWW for the purpose of conservation and connectivity between wheatbelt fragments and the GWW. In the event that direct offsets are not 100% achievable NRM activities would include: • Working with the Wheatbelt NRM and/or Rangelands NRM to improve land management activities (fire or weed management) undertaken within the GWW.

Existing Environment / Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid / Minimise	Rehabilitation Type	Likely Rehabilit-ation Success		Type	Risk	Likely Offset Success	Time Lag	Offset Quantification
	Ensure dust suppression measures that include maintenance practices for vehicles, cleared areas, and active stockpiles are undertaken. Prevent entrapment of animals in all excavations (including steep–walled holes or trenches which are more than one meter deep) by securing against inadvertent animal entry at the close of each day or ensure that escape ramps are installed. Control feral predators (cats, wild dogs, foxes) by implementing local control measures.		assessed to further refine rehabilitation designs of new landforms. What is the type of vegetation being rehabilitated? Mallee / woodland.	Time Scale 30 years. According to the agreed significance framework, residual impact is considered to be significant due to the impact to Malleefowl potential breeding habitat.		condition of the Minister-ial approval of the project.			In the event that direct offsets are not 100% achievable research activities would include: • An indirect offset may be utilised to fund additional research by organisations, universities or other conservation bodies for the purpose of improving knowledge of the GWW and the conservation significant species/protected matters which occur in the area. Suitable research areas might include ∗ Malleefowl population dynamics ∗ influence of fire management on Malleefowl ∗ influence of feral animal control on Malleefowl. The ratio of land protected compared to that cleared (4.8:1) was determined using the Commonwealth Calculator as a guide to provide a greater than 100% impact of offset.

Appendix C EPBC Offset Calculator

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
1 October 2012

This guide relies on Matters being enabled in your browser.

Matter of National Environmental Significance	
Name	Habitat, threatened species etc.
EPBC Act status	Threatened
Annual probability of extinction Based on IUCN category definitions	0.2%

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

Impact calculator

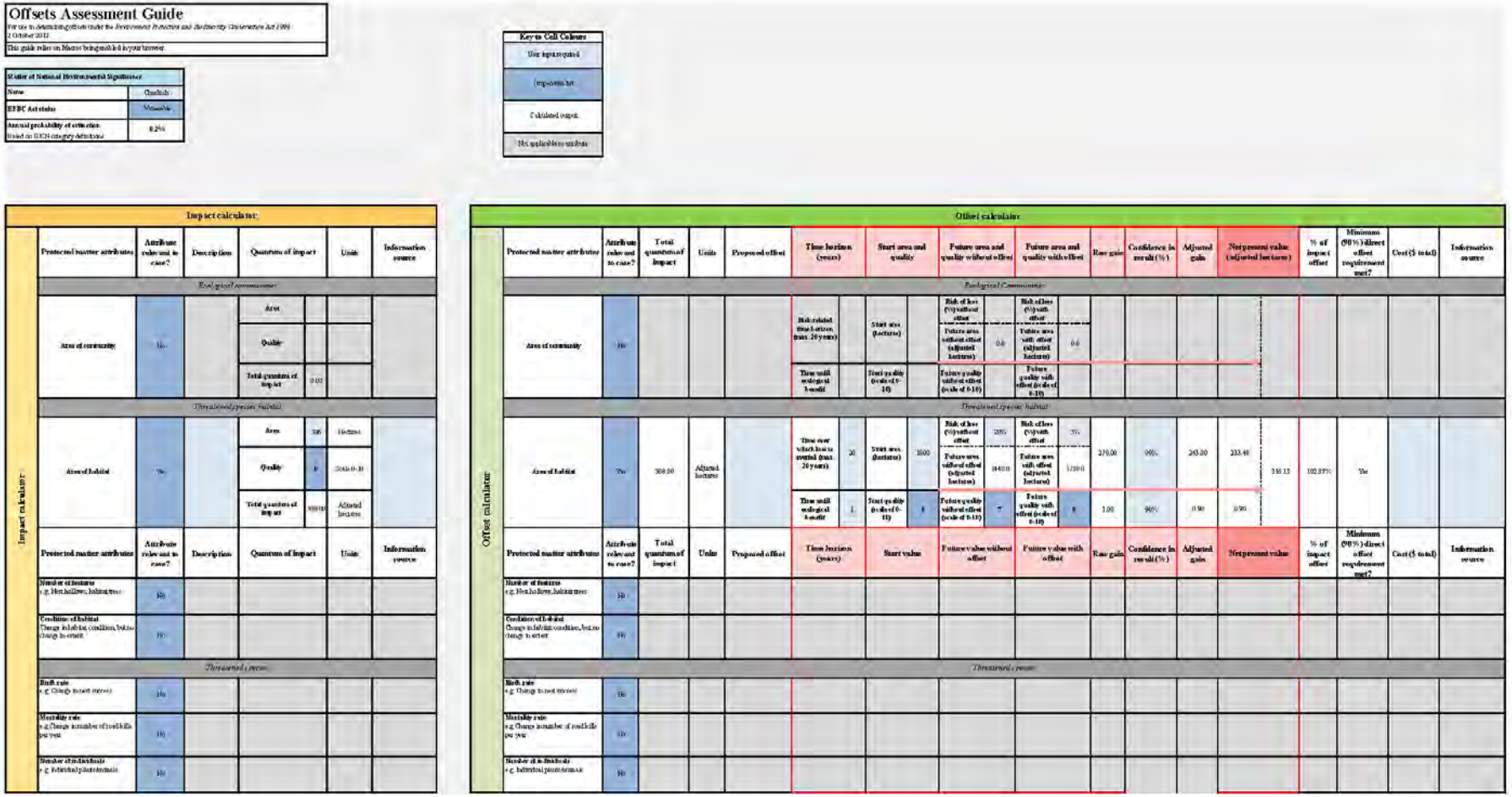
Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	Yes		Area			
			Quality			
			Total quantum of impact	5.00		
Threatened species habitat						
Area of habitat	Yes		Area			
			Quality			
			Total quantum of impact	0.00		
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	Yes					
Condition of habitat Change in habitat condition, but no change in extent	Yes					
Threatened species						
Birth rate e.g. Change in nest success	Yes					
Mortality rate e.g. Change in number of road kills per year	Yes					
Number of individuals e.g. Individual plants/animals	Yes	Direct impact to 2 individuals (clearing)	69		Count	1920

Offset calculator

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality	Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																			
Area of community	Yes				Risk related time horizon (max 20 years)		Start area (hectares)	Risk of loss (%) without offset		Risk of loss (%) with offset									
								Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0								
					Time until ecological benefit		Start quality (scale of 0-10)	Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)									
Threatened species habitat																			
Area of habitat	Yes				Time over which loss is averted (max 20 years)		Start area (hectares)	Risk of loss (%) without offset		Risk of loss (%) with offset									
								Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0								
					Time until ecological benefit		Start quality (scale of 0-10)	Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)									
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**	**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	Yes																		
Condition of habitat Change in habitat condition, but no change in extent	Yes																		
Threatened species																			
Birth rate e.g. Change in nest success	Yes																		
Mortality rate e.g. Change in number of road kills per year	Yes																		
Number of individuals e.g. Individual plants/animals	Yes	69	Count	215	0		105	90		185		95	75%	71.25	71.25	103.26%	Yes		



Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Quokka
EPBC Act status	Vulnerable
Annual probability of extinction based on IUCN category definitions	0.2%

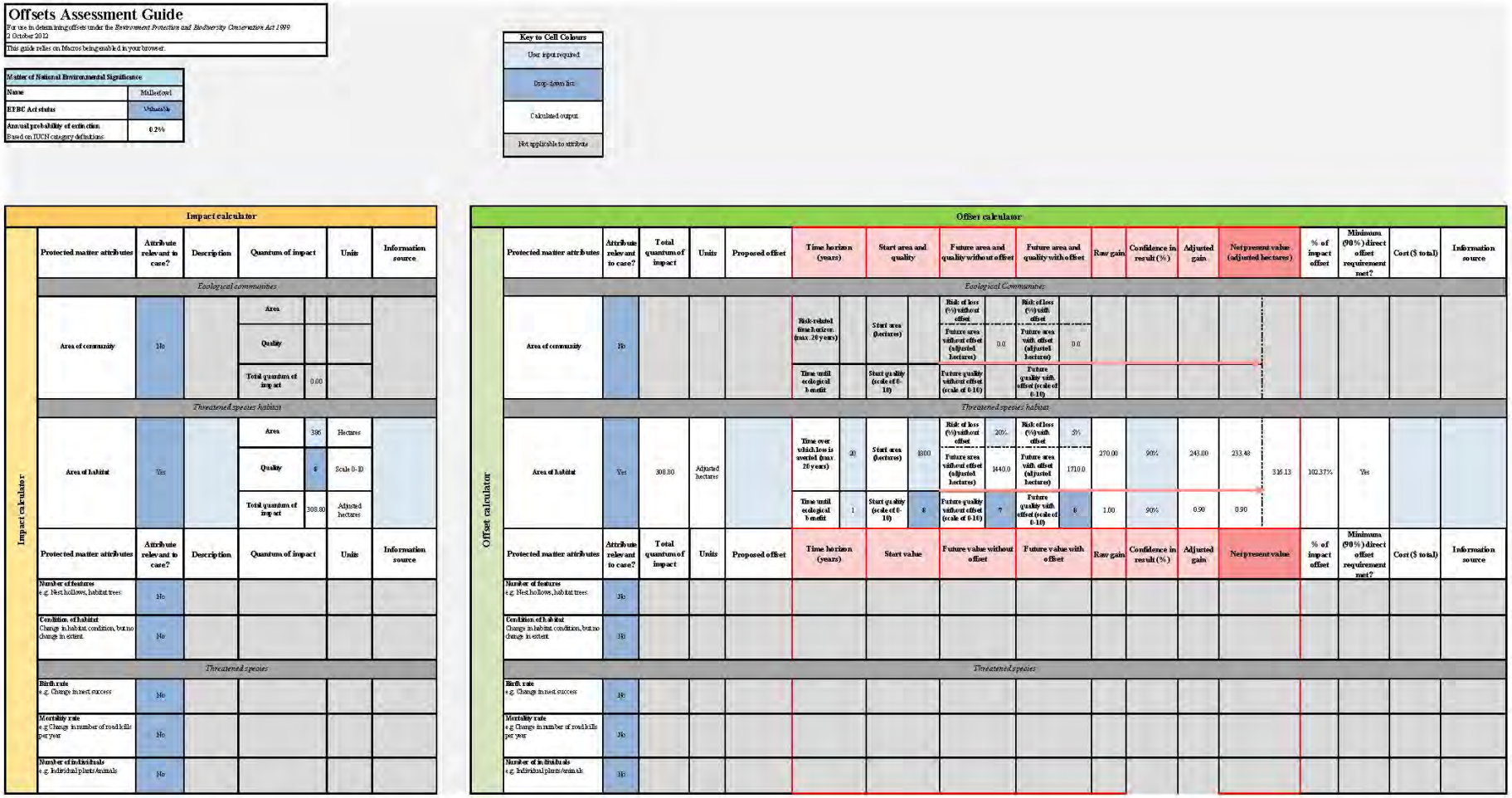
Key to Cell Colours
User input required
Input constant
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological Communities						
Area of community	Yes		Area			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		Area	300	Hectares	
			Quality	8	Scale 0-10	
			Total quantum of impact	800.00	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Hectalitres, hollow trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g. Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				Risk related time horizon (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset		Risk of loss (%) with offset									
									Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0								
					Time until ecological benefit		Start quality (scale of 0-10)		Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)									
Threatened species habitat																				
Area of habitat	Yes	300.00	Adjusted hectares		Time over which loss is averted (max. 20 years)	20	Start area (hectares)	1600	Risk of loss (%) without offset	20%	Risk of loss (%) with offset	5%	270.00	90%	243.00	233.48	166.13	102.37%	Yes	
									Future area without offset (adjusted hectares)	1440.0	Future area with offset (adjusted hectares)	1520.0								
					Time until ecological benefit	1	Start quality (scale of 0-10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	90%	0.90	0.90				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Hectalitres, hollow trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g. Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			



Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Mulleted owl
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions:	0.2%

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

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		Area			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		Area	386	Hectares	
			Quality	8	Scale 0-10	
			Total quantum of impact	308.80	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g. Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				Risk-related time horizon (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset		Risk of loss (%) with offset									
									Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0								
					Time until ecological benefit		Start quality (scale of 0-10)		Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)									
Threatened species habitat																				
Area of habitat	Yes	308.80	Adjusted hectares		Time over which loss is averted (max. 20 years)	20	Start area (hectares)	1800	Risk of loss (%) without offset	20%	Risk of loss (%) with offset	5%	270.00	90%	243.00	233.48	316.13	102.37%	Yes	
									Future area without offset (adjusted hectares)	1440.0	Future area with offset (adjusted hectares)	1710.0								
					Time until ecological benefit	1	Start quality (scale of 0-10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	90%	0.90	0.90				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g. Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	No																			

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Macrozamia sp. Mt Holland
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions	0.2%

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

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		Area			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	No		Area			
			Quality			
			Total quantum of impact	0.00		
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g. Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	Yes	Direct impact to 6,246 individuals (clearing)	6,246		Count	EKD

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality	Future area and quality without offset	Future area and quality with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																
Area of community	No				Risk-related time horizon (max. 20 years)	Start area (hectares)	Risk of loss (%) without offset	Risk of loss (%) with offset								
							Future area without offset (adjusted hectares) 0.0	Future area with offset (adjusted hectares) 0.0								
					Time until ecological benefit	Start quality (scale of 0-10)	Future quality without offset (scale of 0-10)	Future quality with offset (scale of 0-10)								
Threatened species habitat																
Area of habitat	No				Time over which loss is averted (max. 20 years)	Start area (hectares)	Risk of loss (%) without offset	Risk of loss (%) with offset								
							Future area without offset (adjusted hectares) 0.0	Future area with offset (adjusted hectares) 0.0								
					Time until ecological benefit	Start quality (scale of 0-10)	Future quality without offset (scale of 0-10)	Future quality with offset (scale of 0-10)								
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**	**Start value**	**Future value without offset**	**Future value with offset**	**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No															
Condition of habitat Change in habitat condition, but no change in extent	No															
Threatened species																
Birth rate e.g. Change in nest success	No															
Mortality rate e.g. Change in number of road kills per year	No															
Number of individuals e.g. Individual plants/animals	Yes	6246	Count	12000	0	12000	3500	12000	8500	75%	6375.00	6375.00	102.07%	Yes		

Appendix D Rehabilitation Trials

1. Background

1.1 Banksia sphaerocarpa var. dolichostyla

A need to conduct further research on *Banksia sphaerocarpa* var. *dolichostyla* was identified, as an analysis of clearing required for the Proposal against recorded locations of *B. sphaerocarpa* var. *dolichostyla* identified that there would be direct and potential indirect impacts on individuals of the species.

While research has been conducted on *B. sphaerocarpa* var. *caesia* (Llorens et al. 2012, Llorens et al. 2013), limited information is available for var. *dolichostyla*. *B. sphaerocarpa* var. *dolichostyla* has been identified as a good candidate for seeding in rehabilitation areas with suitable soils, based on survey observations that indicate the species recruits readily in previously burnt and disturbed areas.

1.2 Microcorys sp. Mt Holland (D. Angus DA2397)

Microcorys sp. Mt Holland was first recorded by Mattiske Consulting during a reconnaissance survey of the Earl Grey prospect in 2016 (Mattiske 2017). Due to the recent discovery of this species, there is limited information available regarding its habitat and ability to regenerate from seed. As such, germination trials for this species are also proposed alongside trials for *Banksia sphaerocarpa* var. *dolichostyla*. Covalent Lithium is currently liaising with DBCA to obtain the appropriate documentation enabling permission to collect seed and conduct germination trials.

1.3 Location of trials

The germination trials are proposed to take place on the southern side of the existing airstrip (Figure 10). Trial plots will be located close to the edge of remnant bushland, in areas where both *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland have been mapped. This location will ensure that soil type and associated vegetation is appropriate for the species. Due to the close proximity of existing *B. sphaerocarpa* var. *dolichostyla* populations, the trial should be considered a "reinforcement" style translocation, as any plants germinating from the trial will remain in the ground, enhancing an existing population.

This area is currently cleared of vegetation and, as such, there will be no impact of the establishment of trial plots on any existing vegetation. Remnant vegetation will be either fenced or marked clearly to prevent ingress of machinery.

Location of trial plots will be as close to the edge of remnant vegetation as possible, so as to avoid compacted soils adjacent to the airstrip. The airstrip is currently in use for emergency requirements but is proposed to ultimately be decommissioned as a new airstrip is to be constructed elsewhere.

Site inductions will include information on the presence of the trial plots, and trial plots will be fenced off and signposted to alert site staff that access is prohibited.

753000 756000 759000 762000

6447000 6444000 6441000 6438000 6435000

INSET MAP

N

Scale 1:45,000 at A3

0 500 1,000 m

Coordinate System: GDA 1994 MGA Zone 50

Date: 19/07/2019

Development envelope

Rehabilitation area (12.45ha)

Indicative proposal footprint

Germination trial plots

Banksia sphaerocarpa var. *dolichostyla* population area

Banksia sphaerocarpa var. *dolichostyla* plants

- Within proposed layout
- Indirectly impacted
- Not impacted

Vegetation communities

H1, MW6, MW7, MW8, S1, S2, S3, W4, W5, W6, W7, W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, W21, W22, Cleared

covalent LITHIUM

Figure 10: Location of germination trials

E:\Strategen\GIS\Consult\2017\SQM\SQM17406\01_GIS_documents\ArcMap_documents\SQM17406_G056_RevA.mxd

Service Layer Credits: SLIP Public Services Locate Imagery 2019. Client: Covalent Lithium. Site data, 7/2019. Created by: cthatcher

1.4 Trial design

Seeds will be collected from remnant vegetation adjacent to the airstrip by staff from Mattiske Consulting and will be stored in accordance with relevant guidelines. Seed collectors would aim to collect up to 50 mature cones from separate plants, in the case of *Banksia sphaerocarpa* var. *dolichostyla*, and up to 50 seed-containing branches from *Microcorys* sp. Mt Holland. Collected cones will be stored at Red Dirt Seeds, located in Porongorup. Other than collecting fruit (closed fruit holding seed) it is not intended to disturb the established plants.

Banksia sphaerocarpa var. *dolichostyla* cones collected will be treated by heating in a hot oven to release the seeds from the cone follicles, after which 50% of seed will be treated with smoke, while the other 50% will remain untreated. Burning of *Microcorys* sp. Mt Holland infructescences is not required; however, 50% of seed will be treated with smoke, while the other 50% will remain untreated.

It is proposed to establish six 20 m by 20 m trial plots for each species adjacent to the airstrip, as illustrated in Figure 10. This species appears to establish after wild fires and in previously disturbed ground such as road verges or drains; as such, ripping or scarifying the soil surface will be conducted in some trial plots to emulate such disturbance.

Treatments for each plot are as follows:

1. Control (no treatment).
2. Ripping of soil only.
3. Ripping of soil and planting of untreated seeds.
4. Ripping of soil and planting of smoke-treated seeds.
5. No soil treatment and planting of untreated seeds
6. No soil treatment and planting of smoke-treated seeds.

Depending on number of seeds collected, 40 seeds will be planted per plot, in rows as illustrated in blue dotted lines above. Watering is not proposed, in order to assess the ability of the seeds to germinate and survive in natural conditions. Percentage foliage cover of weeds will be recorded at the time of planting to assess the baseline cover of weed species.

Monitoring will be undertaken quarterly from September 2020 until March 2021, to assess germination and survival over the course of two summers.

Information collected will include the following:

- photograph of each plot
- number of germinants per plot
- evidence of any plant deaths
- percentage foliage cover of weeds
- information regarding weed invasion, evidence of unauthorised access, erosion, or grazing.

Remnant vegetation adjacent to the trial plots will be marked either by fencing or flagged posts to alert any staff working in the area that this vegetation should not be disturbed.

Seeds will be sourced from populations of *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland located to the south of the airstrip. Cones will be collected from up to 50 individuals each of *Banksia sphaerocarpa* var. *dolichostyla* and *Microcorys* sp. Mt Holland, with a view to extracting at least four seeds per cone / infructescence.

Pending outcomes of the rehabilitation trials, consideration will be given to planting of tubestock in suitable sites.