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ATLAS Stage 3 – EPBC Pre-clearance Report - Coralbyn

Prepared for:
Senex

Report issued:
October 2025

This document has been prepared and is certified by:
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Document status

Revision	Reason for issue	Author	Reviewed	Issued to	Date
A	Draft report	M. Neill	-	-	01/07/2025
0	Final Report	M. Neill	L. Eade	Senex	30/06/2025
1	Updates to footprint	L. Eade	L. Grigg	Senex	10/10/2025
2	Client review	B. Osborne	L. Grigg	Senex	28/10/2025

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Glossary of Terms

Acronym	Description
ATP	Authority to prospect
DBH	Diameter at breast height
EA	Environmental authority
ECPPFD	*Environmental Constraints Protocol for Planning and Field Development*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
EP Regulation	*Environmental Protection Regulation 2008*
ESA	Environmentally Sensitive Area
GTRE	Ground-truthed regional ecosystem
ha	Hectare
km	Kilometres
m	Metres
MNES	Matter of National Environmental Significance
MSES	Matter of State Environmental Significance
PL	Petroleum lease
sp.	Species (singular)
spp.	Species (plural)
Sqm	Square metres
SQP	Suitably qualified person
TEC	Threatened Ecological Community
The Footprint	Proposed infrastructure layout including wells, gathering, camp, laydowns and extra workspaces.

1 Introduction

The pre-clearance survey methodology applied within this package of works is deemed appropriate to confirm the on-the-ground biodiversity values present.

1.1 Project background

The Atlas Stage 3 Gas Project (EPBC Act referral 2022/09410) involves developing, operating, decommissioning and rehabilitating up to 151 coal seam gas wells; gas and water gathering systems for the producing wells; access tracks; brine and produced water storages; borrow pits; and ancillary supporting facilities on Petroleum Lease (PL) 1127, PL1037, PL445 and PL209 in the central part of the Surat Basin, Queensland (Senex, 2024).

This report provides the results of pre-clearance survey on a proposed infrastructure layout including wells, gathering and extra workspaces (known hereafter as 'The Footprint') and a 30 m buffer within the Coralbyn property:

- Lot 1 on Plan SP184589

1.2 Scope

Ausecology Pty Ltd (Ausecology) was engaged by Senex Energy Pty Ltd (Senex) to undertake pre-clearance ecological surveys as part of the approval conditions for the Atlas Stage 3 Gas Project and in accordance with the Atlas Stage 3 Environmental Constraints Protocol for Planning and Field Development (ECPPFD) document (Senex, 2024). The ECPPFD provides a framework for identifying, assessing and managing potential impacts to Matters of National Environmental Significance (MNES) and Matter of State Environmental Significance (MSES) associated with development of the Atlas Stage 3 Gas Project. Data collected during the pre-clearance surveys will be used by Senex to ensure:

- infrastructure siting complies with relevant environmental approval conditions and does not exceed the maximum disturbance limits
- infrastructure siting adheres to the constraints mapping; and
- no functional change to Koala dispersal habitat, the approval holder must not remove more than a total of 4 ha of trees, measured in canopy cover within mapped koala dispersal habitat.

Results from the pre-clearance survey findings (this report) will be published on the website, including:

- the location and extent of trees to be cleared, including maps; and
- a discussion of how removal of trees will not change the ability of koalas to disperse across the landscape.

This survey also involved targeted threatened flora surveys, active threatened fauna surveys (where suitable habitat was identified) and fauna habitat identification (where encountered) as per the ECPPFD.

1.3 EPBC conditions

This report will validate compliance with the following EPBC approval conditions:

1. The approval holder must not:
b) clear more than 2.1 hectares (ha) of Squatter Pigeon dispersal habitat.
4. In accordance with the Constraints Protocol, the approval holder must:
b) adhere to the constraints mapping.
5. To ensure no functional change to Koala dispersal habitat, the approval holder must not remove

more than a total of 4 ha of trees, measured in canopy cover within mapped Koala dispersal habitat.

PRE-CLEARANCE SURVEYS

6. Prior to commencing clearing, the approval holder must:

a) undertake at least one pre-clearance survey of the proposed area of clearing, and

b) publish on the website the pre-clearance survey findings, including:

i) the location and extent of trees to be cleared, including maps, and

ii) a discussion of how removal of trees will not change the ability of Koalas to disperse across the landscape.

2 Methodology

An Ausecology senior ecologist (suitably qualified) and ecologist conducted field surveys on foot on the 24th of June 2025 to determine impacts from the planned gas infrastructure including wells, gathering and extra workspaces on the Coralbyn property. The area surveyed and mapped in this report is shown in Figure 2-1.

2.1 Regional ecosystem assessment and threatened ecological communities

2.1.1 Desktop assessment

A desktop assessment was undertaken which included the review of a suite of environmental databases, maps, and literature. A previous Boobook (2023) ecological report prepared for the WSGP have been provided to Ausecology by Senex. Prior to field surveys, desktop searches were undertaken to identify the potential presence of MNES and MSES including terrestrial threatened species and vegetation communities prescribed under the EPBC Act and NC Act.

2.1.2 Regional ecosystem assessment

During pre-clearance surveys, quaternary site assessments to verify regional ecosystems were undertaken where necessary (i.e., where vegetation and ecological communities have been determined to vary from the mapped GTRE at the time of the pre-clearance surveys). These assessments were conducted in accordance with the ECPPFD.

2.1.3 Threatened ecological communities

Where necessary Threatened Ecological Community (TEC) assessments were undertaken to confirm the presence and condition of TECs identified as known or potential in The Footprint if these were determined to vary from the mapped TEC areas identified in the constraints mapping.

2.2 Targeted threatened flora surveys

These surveys were conducted by a suitably qualified person (SQP). Targeted flora surveys of all known, likely or potential threatened flora species were conducted within The Footprint and 30 m buffer, where mapped constraint areas were present and/or suitable habitat was identified by the SQP, in accordance with the ECPPFD.

These surveys were conducted using the random meander methodology and if a species was encountered, a population survey was undertaken to determine the extent and density of the population. Threatened flora species and the locations of all individuals were recorded and specimens collected of any unknown individual requiring confirmation by the Queensland Herbarium.

Potentially occurring threatened species in the area as per the ECPPFD include Belson's panic (*Homopholis belsonii*), red soil woolly wrinklewort (*Rutidosis lanata*) and winged nightshade (*Solanum stenopterum*).

2.3 Fauna habitat assessment

Senex has committed to not clearing any areas confirmed as habitat for threatened species (ECPPFD), with the exception of koala (*Phascolarctos cinereus*) dispersal habitat, squatter pigeon (*Geophaps scripta scripta*) dispersal habitat and short-beaked echidna (*Tachyglossus aculeatus*) habitat. Fauna habitat baseline assessments have been conducted to an adequate level of detail to enable known, likely and potentially present species to be identified and comprehensive Project impact assessment and constraints mapping has been completed (ECPPFD).

The pre-clearance surveys will reassess the habitat present (as mapped in the constraints mapping (ECPPFD)) or otherwise identified by the SQP during the pre-clearance surveys) in order to refine mapped habitat areas. They will also identify and record micro-habitat features and breeding sites to facilitate avoidance and minimisation of impacts to potentially utilised micro-habitat features and breeding sites. Recorded micro-habitat features, where present include:

- Hollow-bearing trees;
- Dead standing trees;
- Hollow logs;
- Termite mounds;
- Woody debris;
- Surface rocks;
- Gilgais;
- Soil cracks / cracking clay;
- Rocky outcrops, crevices, overhangs and caves;
- Mistletoes;
- Nests;
- Animal burrows;
- Watercourses, wetlands and dams (including proximity); and
- Any other significant habitat features, or values present, such as dense leaf litter, heavily decorticating bark, dense grass/shrub shelter, seeding grass cover, fruiting plants, nectar and pollen producing plants and koala food trees.

2.4 Threatened fauna surveys

As areas confirmed as habitat for threatened species have been effectively avoided by The Footprint (with the exception of koala dispersal habitat and echidna habitat), the area required to be surveyed was minimal.

Active fauna surveys of all known, likely or potential threatened fauna species are to be undertaken where suitable potential habitat is mapped or found to be present within The Footprint (refer to the constraints mapping and the habitat features listed in Appendix A of the ECPPFD). Active fauna searches as per Table 1, Appendix A of the ECPPFD include scanning trees, the ground and habitat features; overturning rocks, logs and other woody debris; searching under peeling bark; raking leaf litter and soil at the base of trees; and flushing birds from dense shrubs and groundcover.

Invasive active searches were not undertaken in the 30 m buffer of The Footprint within mapped constraint areas, given no impact is expected and active searches outside of The Footprint would be detrimental to the fauna species habitat. Instead of invasive searches in the 30 m buffer, surveys included incidental observations and scat and sign searches.

2.5 Koala dispersal habitat

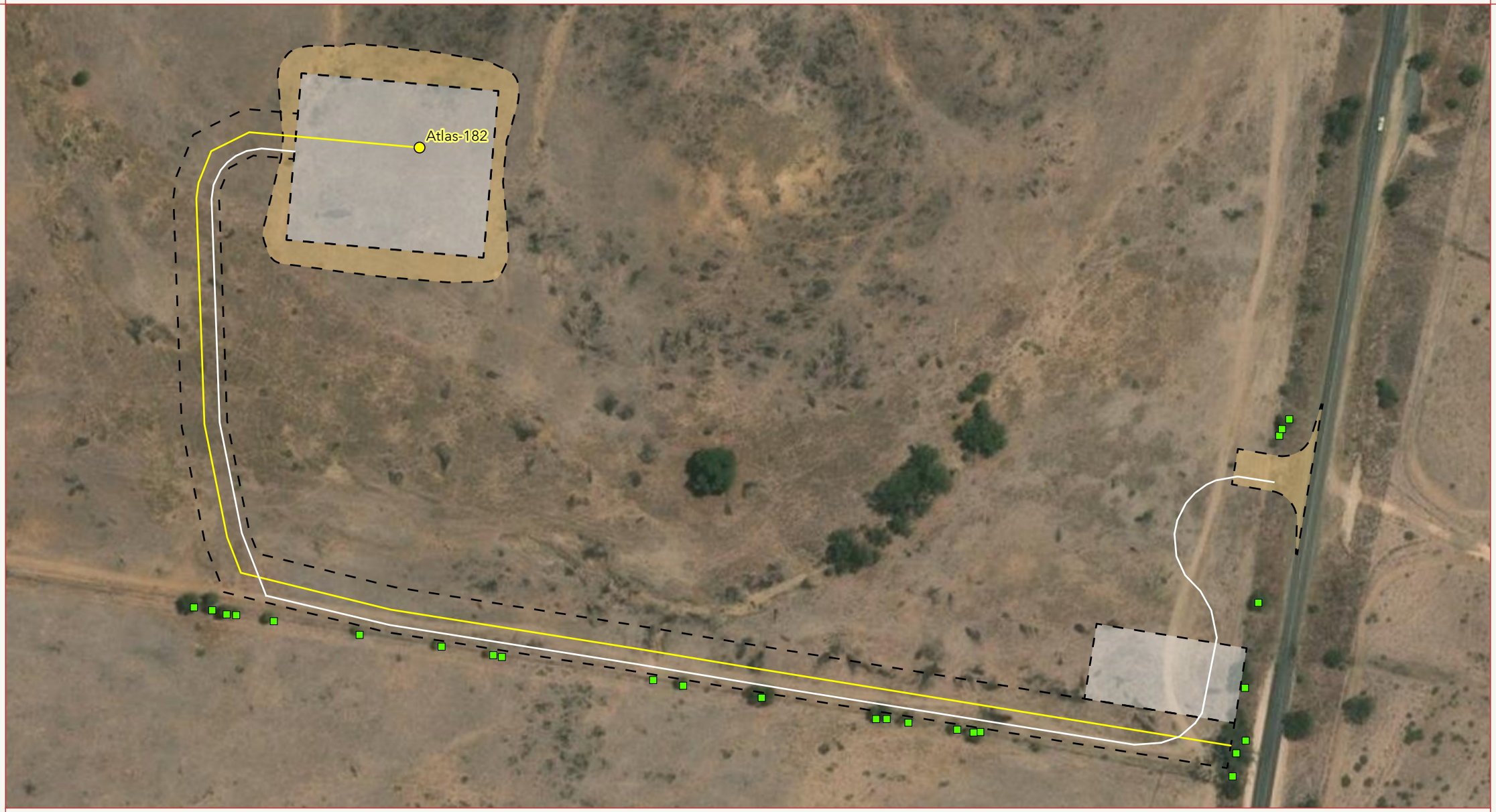
An initial desktop survey was undertaken to analyse all previous ecology data collected in the field, analysis of the ECPPFD and associated constraints mapping, and to identify areas of mapped koala dispersal habitat that would require further ground verification.

Areas identified were highlighted on GIS mapping for further identification and field verification. Additional points were collected in the field where applicable. All tree ID numbers have been provided in individual maps of the area surveyed and further details provided in the results.

Canopy cover was measured by walking the dripline of trees located in koala dispersal areas using a sub-10 cm accuracy handheld Trimble GPS unit. The diameter at breast height (DBH) of each of the abovementioned trees was measured and height data was collected. Where denser regrowth was present and canopy cover of individual trees could not be distinguished, the canopy cover of the clump of trees was walked at the outer dripline and average height assessed. Thorny tree species which are not able to be climbed by koala (i.e. desert lime (*Citrus glauca*) were noted in the field but excluded from the final koala tree canopy cover calculations.

2.6 Squatter pigeon dispersal habitat

An initial desktop survey was undertaken to analyse all previous ecology data collected in the field, analysis of the ECPPFD and associated constraints mapping, and to identify areas of mapped squatter pigeon dispersal habitat that would require further ground verification.



Proposed Well
Access Tracks
Proposed Pipeline
RoW
Proposed Extra Workspace
Proposed Wellpad
Proposed Earthworks Extent
Koala Dispersal Trees
Retain

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Figure 2-1
Coralbyn Pre-clearance Survey Report
ATLAS Stage 3

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m
GDA2020 MGA Zone 55

3 Results

The Coralbyn property has been historically cleared for cattle grazing and is dominated by cleared pasture lands of introduced grasses and scattered paddock trees such as mountain coolabah (*Eucalyptus orgadophila),* poplar box (*Eucalyptus populnea),*cooba *(Acacia salicina)* and wilga (*Geijera parviflora)* (Figure 3-1). The property consists of rolling hills with steep slopes that include patches of regrowth pretty wattle (*Acacia decora*). Remnant vegetation found throughout the property were in scattered patches and along road reserves (Figure 3-2).

Figure 3-1 Representative image of cleared grazing pastures

Figure 3-2 Regrowth Acacia decora and remnant patch along drainage line

3.1 Regional ecosystems and threatened ecological communities

Where mapped constraints areas occurred within the disturbance footprint or 30 m buffer these were assessed in the field to ensure they aligned with the mapping. No mapped constraints in the survey area were found to require changes. The survey also confirmed that the proposed disturbance areas do not contain any listed TEC or any TEC within the 30 m buffer area.

3.2 Targeted threatened flora surveys

No Belson's panic (*Homopholis belsonii*), red soil woolly wrinklewort (*Rutidosis lanata*) and winged nightshade (*Solanum stenopterum)* were identified within The Footprint. It is unlikely for these species to be present in The Footprint, due to the grazing pressure and presence of non-native grasses, mainly buffel grass (*Cenchrus ciliaris*).

3.3 Opportunistic fauna survey and habitat assessment

No threatened fauna species were observed in suitable potential habitat within 30 m of The Footprint, a total of 20 incidental fauna species were found, with the full list shown in Appendix A. Habitat searches found 44 micro-habitat features other than koala dispersal trees including course woody debris, dead standing trees (stags), decorticating bark, bird nests and landholder stockpiles of fencing within The Footprint and 30 m buffer, with a full list shown in Appendix B (Figure 3-3, Figure 3-4). All nests identified in The Footprint did not have any nesting birds at the time of the survey. Invasive searches were not undertaken on habitat features in the proposed footprint, as fauna would be disturbed too early before clearing, and habitat may be unnecessarily destroyed.

Figure 3-3 Logs found within The Footprint

Figure 3-4 Fencing piles within The Footprint

3.4 Weeds

Restricted invasive species under the *Biosecurity Act 2014* present within The Footprint included scattered *Opuntia stricta* and *Opuntia tomentosa*. An additional 24 weed species were also noted, see Appendix C for a list of weeds identified in The Footprint.

3.5 Erosion

Due to the geography and the cleared nature of the property multiple erosion points were recorded within the vicinity of The Footprint, particularly sheet and rill erosion along slopes. Several erosion issues in proximity to The Footprint are shown in Appendix D.

3.6 Ground-truthed koala dispersal trees

Table 3-1 provides the results including canopy cover, height and DBH of the trees assessed in the field in koala dispersal areas. All trees were assessed and, where determined they could be avoided (through underground boring or realignment), have been marked up as “retain” and will be avoided during construction. Trees unable to be avoided have had their canopy cover assessed and calculated under disturbance limits. Mapping of each location (Desktop ID) are shown in Figure 3-5 to Figure 3-6.

Table 3-1 Dispersal habitat trees

Location (Desktop ID)	Area (sqm)	Species	DBH (cm)	Height (m)	Action	Photo
C01	130.4	*Acacia salicina*	20	6.5	Retain	
C02		*Acacia salicina*	15	6	Retain	
C03		*Acacia salicina*	30	7.3	Retain	
CO4		*Acacia salicina*	25	8	Retain	
CO5	10.08	*Acacia salicina*	24	7.5	Retain	
CO6	11.68	*Acacia salicina*	12	7.3	Retain	
CO7	26.88	*Acacia salicina*	27	6.2	Retain	
C08	20.52	*Acacia salicina*	15	5.3	Retain	
C09	46.5	*Callitris glaucophylla*	30	8.10	Retain	
C10		*Acacia salicina*	21	6.2	Retain	
C11	80.03	*Acacia salicina*	18	8.50	Retain	
C12	20.96	*Acacia salicina*	16	6.4	Retain	
C13	6.33	*Acacia salicina*	10	4.7	Retain	
C14	5.15	*Acacia salicina*	10	4.2	Retain	
C15	11.63	*Acacia salicina*	15	6	Retain	

Location (Desktop ID)	Area (sqm)	Species	DBH (cm)	Height (m)	Action	Photo
C16	17.11	*Acacia salicina*	17	6.10	Retain	
C17	16.88	*Acacia salicina*	16	6.4	Retain	
C18	17.89	*Acacia salicina*	18	8.6	Retain	
C19	11.63	*Acacia salicina*	13	6.6	Retain	
C20	17.84	*Brachychiton populneus*	35	8.6	Retain	
C21	45.0	*Acacia salicina*	30	9.8	Retain	
C22	41.41	*Acacia salicina*	28	8.2	Retain	
C23	86.45	*Brachychiton populneus*	50	9.4	Retain	-
CRS01	133.34	*Acacia salicina x 2*	-	5	Retain	
CRS02	31.41	*Eucalyptus populnea & Acacia salicina*	-	18	Retain	

Location (Desktop ID)	Area (sqm)	Species	DBH (cm)	Height (m)	Action	Photo
CRS03	14.42	*Acacia salicina x 2*	-	4.5	Retain	
CRS04	45.71	*Eucalyptus populnea*	-	7	Retain	
Remove area:		**Total (sqm)**	**0**			
		Total (ha)	**0**			
Retain area:		*Total (sqm)*	**849.25**			
		Total (ha)	***0.085***			

Access Tracks
Proposed Pipeline
RoW
Koala Dispersal Trees
Retain
Retain

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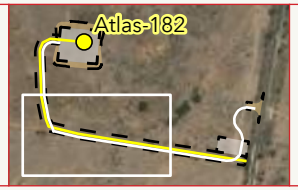
Figure 3-5
Coralbyn Pre-clearance Survey Report
ATLAS Stage 3



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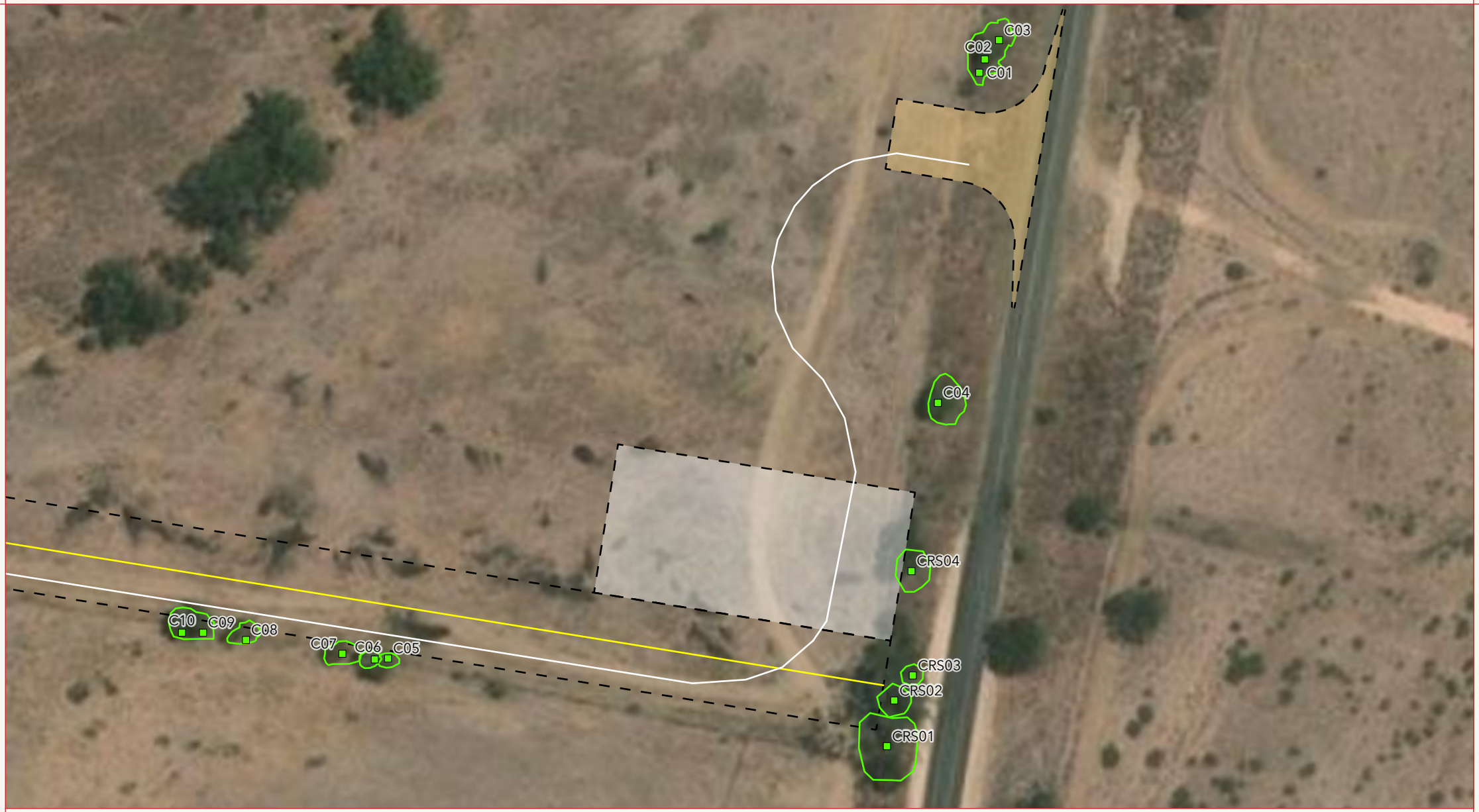

Access Tracks
Proposed Pipeline
RoW
Proposed Extra Workspace
Proposed Earthworks Extent
Koala Dispersal Trees
Retain
Retain

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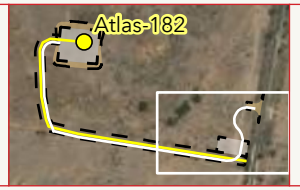
Figure 3-6
Coralbyn Pre-clearance Survey Report
ATLAS Stage 3



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Discussion

The surveys on the Coralbyn property found that the projects' impacts to koala habitat or dispersal habitat have all been avoided. The majority of the impact footprint is located within predominantly cleared agricultural areas and has actively avoided major remaining fragments of habitat and potential dispersal trees following the constraint mapping. Given all trees are being retained there is no significant effect on the ecological function of dispersal habitat on the property for koalas.

No remnant or HVR regulated vegetation, TEC and potential threatened fauna habitat are present within The Footprint. Threatened flora searches found no threatened species within or in proximity to The Footprint. Numerous weed species were observed on the property, notably listed restricted and WoNS; common prickly pear (*Opuntia stricta*) and velvety tree pear (*Opuntia tomentosa*).

The area is a known echidna and potential koala dispersal area. Numerous other least concern species were observed in the area and a total of 44 habitat features were recorded within The Footprint. Several patches within The Footprint have been mapped as habitat for least concern species as there were many habitat features in a certain area such as course woody debris and stags. It is recommended that a qualified fauna spotter catcher undertake a pre-clearance survey across the disturbance footprint to identify habitat features prior to clearing and be present during clearing works to check habitat features and relocate fauna, and where possible habitat features in order to further reduce impacts to fauna.

Appendix A – Fauna records

Scientific Name	Common Name	NC/EPBC Listing or non-native (*)
Avifauna		
Acanthiza chrysorrhoa	yellow-rumped thornbill	
Aprosmictus erythropterus	red-winged parrot	
Cacatua galerita	sulphur-crested cockatoo	
Circus approximans	swamp harrier	
Cisticola exilis	golden-headed cisticola	
Corvus orru	Torresian crow	
Cracticus nigrogularis	pied butcherbird	
Dicaeum hirundinaceum	mistletoebird	
Eolophus roseicapilla	galah	
Falco cenchroides	nankeen kestrel	
Falco longipennis	Australian hobby	
Gymnorhina tibicen	Australian magpie	
Malurus melanocephalus	red-backed fairy-wren	
Nymphicus hollandicus	cockatiel	
Pachycephala rufiventris	rufous whistler	
Pardalotus striatus	striated pardalote	
Pomatostomus temporalis	grey-crowned babbler	
Rhipidura leucophrys	willie wagtail	
Trichodere cockerelli	white-streaked honeyeater	
Trichoglossus moluccanus	rainbow lorikeet	

Appendix B – Habitat features

Habitat	Latitude	Longitude
Course woody debris	-26.2463	149.8358
Course woody debris	-26.2462	149.8355
Course woody debris	-26.2462	149.8354
Course woody debris	-26.2465	149.836
Course woody debris	-26.2471	149.8355
Hollow Logs and Course woody debris	-26.2487	149.8352
Hollow Logs and Course woody debris	-26.2488	149.8352
Hollow Logs and Course woody debris	-26.2491	149.8351
Large rock	-26.2577	149.8359
Burrow	-26.2511	149.8355
Course woody debris	-26.2636	149.8419
Course woody debris	-26.2584	149.8387
Stag with decorticating bark	-26.2548	149.8361
Stag with decorticating bark	-26.2555	149.8362
Wood stockpiles	-26.2476	149.8356
Wood stockpiles	-26.2477	149.8354
Hollow Logs and Course woody debris	-26.2587	149.8388
Hollow Logs and Course woody debris	-26.2587	149.8388
Hollow Logs and Course woody debris	-26.2588	149.8388
Hollow Logs and Course woody debris	-26.2587	149.8387
Hollow Logs and Course woody debris	-26.2588	149.8385
Log	-26.2625	149.8389
Log	-26.2586	149.8386
Log	-26.2584	149.8387
Log	-26.2463	149.8359
Log	-26.2513	149.8356
Log	-26.2486	149.8353
Log	-26.2486	149.8352
Log	-26.249	149.8352
Log	-26.2524	149.836
Logs and Course woody debris	-26.2504	149.8353
Log pile	-26.2637	149.8422
Log pile	-26.264	149.8415
Log pile	-26.2641	149.8413
Log pile	-26.2629	149.8382
Log pile	-26.262	149.839
Log pile	-26.2641	149.841
Log pile	-26.264	149.8406
Log pile	-26.2545	149.8359
Rubbish piles	-26.2475	149.8355
Log pile	-26.2462	149.836
Stag	-26.2584	149.8386
Stick nest	-26.2585	149.8386
Logs and farm waste	-26.2475	149.8352

Appendix C – Weed species list

Scientific Name	Status	Abundance
Argemone ochroleuca	*	Rare
Bidens pilosa	*	Occasional
Cenchrus ciliaris	*	Common
Chloris gayana	*	Occasional
Cirsium vulgare	*	Occasional
Cynodon dactylon	*	Occasional
Eragrostis trichophora	*	Abundant
Glandularia aristigera	*	Rare
Gomphocarpus physocarpus	*	Occasional
Gomphrena celosioides	*	Rare
Heliotropium amplexicaule	*	Rare
Malvastrum americanum	*	Rare
Megathyrsus maximus	*	Occasional
Melinis repens	*	Occasional
Opuntia stricta	Restricted - Category 3	Occasional
Opuntia tomentosa	Restricted - Category 3	Occasional
Schkuhria pinnata	*	Rare
Senna occidentalis	*	Occasional
Symphyotrichum subulatum	*	Occasional
Tagetes minuta	*	Rare
Vachellia farnesiana	*	Occasional
Verbena bonariensis	*	Rare
Xanthium occidentale	*	Rare
Zinnia peruviana	*	Rare

Appendix D – Erosion points and photos

Type of erosion	GPS	Photo of erosion
Gully erosion	-26.264047, 149.840217	
Sheet and rill erosion	-26.257451, 149.836613	
Gully erosion	-26.264035, 149.840234	N/A
Sheet and rill erosion	-26.263953, 149.840003	

Type of erosion	GPS	Photo of erosion
Gully erosion	-26.26379, 149.839996	
Sheet and rill erosion	-26.261782, 149.838932	
Sheet and rill erosion	-26.254074, 149.836237