Springfield Rise

Environmental Pre-Start Checklist

Project Area: Village 8 Western Batter	**Date:**
Contractor: Shadforths	**Construction Stage/ Activity:** Additional tree clearing for the construction of V8 Western Batter as approved by Council and shown in Attachment A.
Date work is to start:	
Date work is to cease:	

Notes: This Checklist provides an amendment to the V8 Ultimate Environmental Pre-Clearance Package. All works are to be undertaken in accordance with controls stipulated within the V8 Ultimate Environmental Pre-Clearance Package including the V8 SBMP, issued 19th July 2017.

		Compliance			
Item	**Control Measure**	**Yes**	**No**	**N/A**	**Comments**
1	Are clearing extents marked out and fenced? (N.B. Fencing is required as per ICC permits unless instructed otherwise by Council, Fauna Spotter or Environmental Coordinator)	✓			Clearing extents (as Shown in Attachment A) were flagged and fenced by Wolters and Shadforths on 20th November 2017.
2	Has the fencing of clearing extents demarcation been inspected by the Environmental Coordinator?	✓			SHG checked the flagging of the clearing extents on 23rd November 2017. See Attachment B.
3	Has sign off been provided by the Environmental Coordinator for demarcation areas?	✓			See Attachment B.
4	Has certification for pre-clearance flora been provided? (N.B. Exemptions/permits for protected plants under the NCA must be obtained by EHP where works occur in a High Risk Area). Please provide date and reference.	✓			EHP Reference: AR082999 22 January 2016. See Attachment 2 in V8 Ultimate Pre-Clearance Checklist Package.
5	Have pre-clearance checks surveys for *Plectanthus habrophyllus* been completed over the clearing area?	✓			SHG completed pre-clearance checks on 23rd November 2017. See Attachment C.
6	Are there 'no-go' zones identified within the clearing area?		✓		No *Plectanthus habrophyllus* was recorded within the clearing extent, or 20m buffer of the clearing area. See Attachment C.
7	If yes, have 'no-go' zones been demarcated, fenced, signed and inspected by the Environmental Coordinator and Contractor?			✓	
8	Has the appointed Fauna Spotter completed pre-clearance surveys and reports?	✓			Fauna Spotter Catcher Pre-Clearance and Habitat Values Survey, completed by QFC

					(November 2017). See Attachment D. As per provisions of the V8 SBMP (issued 19th July 2017), a fauna spotter catcher must be present for all clearing activities and will include pre-clearance checks before approved trees are felled.
9	Has the appointed Fauna Spotter identified any sensitive areas for consideration in clearing methods? Please provide a summary.	✓			Fauna Spotter Catcher WHIMP, completed by QFC (November 2017). See Attachment D.
10	Have all contractors, subcontractors and associated personnel been instructed on environmental procedures and controls?	✓			Environmental Awareness Acknowledgement Notice, signed by Shadforths (November 2017 2017). See Attachment E.
11	Has a Council pre-start been completed?	✓			As per correspondence with ICC. No pre-start was required.

NOTE: if the answer to any question (1-5, 7-11) above is NO then the clearing activity will not proceed.

Springfield Rise

Environmental Pre-Start Checklist

Compliance Awareness

All works are to be undertaken in accordance with the V8 Ultimate Bulk Earthworks Extent (including V6-V8 Crossing) Environmental Pre-Start Package issued by Saunders Havill Group on 19 July 2017, which includes the V8 Site Based Management Plan, prepared by Saunders Havill Group, dated July 2017' and this V8 Western Batter Environmental Pre-Start Checklist and attachments.

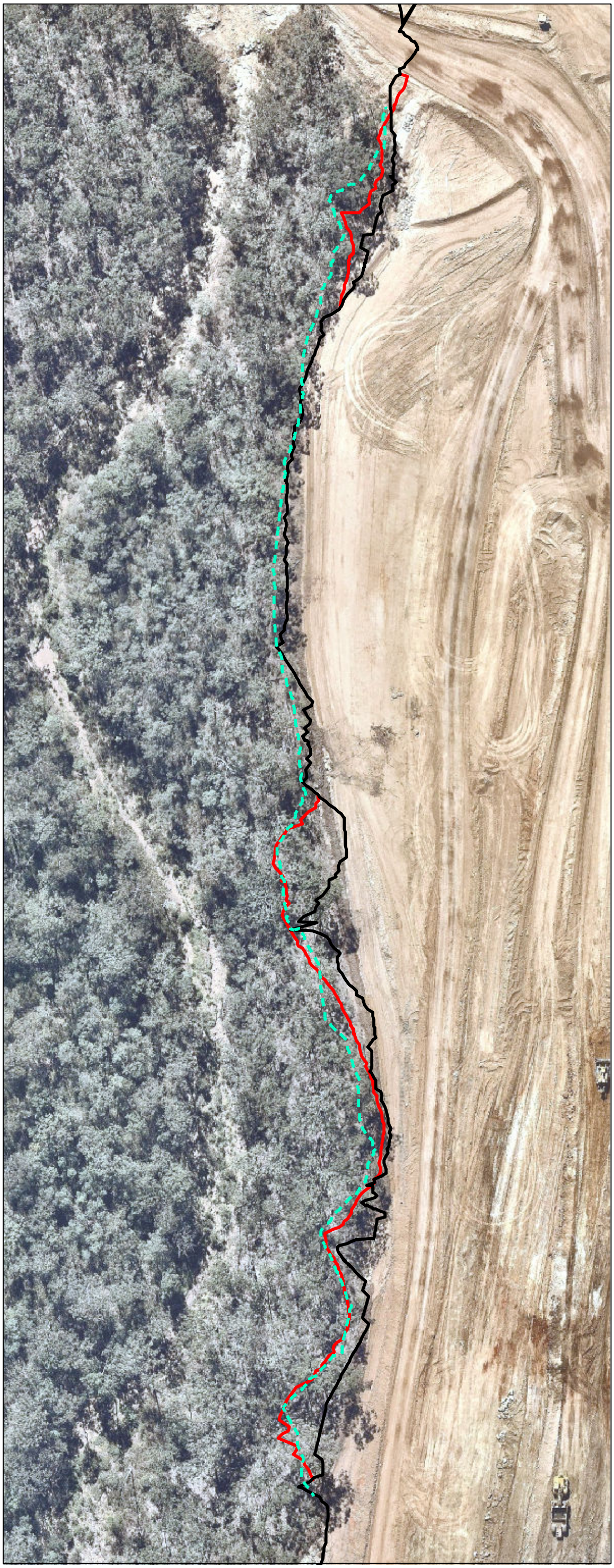
Signing below demonstrates acknowledgement of the environmental pre-start procedures and requirements listed in the checklist above and associated attachments.

Name	Company	Position	Signature	Date
Graeme Thax	LL	Client Representative		4/12/17
Sam Schlotel	Shadforths	Site Contractor		30/11/17
Sam Schlotel	Shadforths	Clearing Contractor		30/11/17.
Bryan Robinson	QFC	Fauna Spotter Catcher		30/11/17
Dan O'Malley	ARCADIS	Project Engineer		04.12.17
Murray Saunders	SHG	Environmental Coordinator		01.12.17

Attachment A

V8 Western Batter Clearing Extent

SPRINGFIELD RISE VILLAGE 8 - PROTECTION FENCING DEMARCATION PLAN



Legend

- Onsite flagging location
- Village 8 approval 1 works extent
- Village 8 amended approval works extent changes

0 10 20 40 60 m

Attachment B

SHG Flagging Check

saunders havill group

Saunders Havill Group Pty Ltd ABN 24 144 972 949
address 9 Thompson St Bowen Hills Q 4006
phone (07) 3251 9444 email mail@saundershavill.com
web www.saundershavill.com fax (07) 3251 9455

surveying town planning urban design environmental management landscape architecture

Date: 24 November 2017
Site: Spring Mountain Precinct /Springfield Rise V8
Client: Lendlease Communities
EPBC Ref: 2013/7057
SHG Ref: 7522
SHG Contact: Murray Saunders (07 3251 9444)

Attention: Ian Murray
Regional Development Manager, Communities
Level 4, Kings Gate,
King Street
Bowen Hills QLD 4006

Springfield Rise: Village 8 Western Batter, Inspection of flagging for demarcation of the ultimate bulk earthworks clearing extents, 7002 Grande Avenue, Springfield (Lot 1 on SP291381)

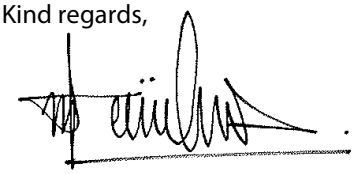
Dear Ian,

The *Environmental Management Division* of **Saunders Havill Group** was engaged by **Lendlease Communities** to carry out an inspection of flagging for demarcation fencing for the Ultimate Bulk Earthworks clearing extent associated with Springfield Rise - Village 8 Western Batter. It is noted that is revision should be read in conjunction with the V8 Ultimate (inclusive of the V6-V8 Crossing Environmental Pre-Clearance Packaged, issued 19th July 2017.

Flagging of the V8 Western Batter was undertaken by the appointed surveys, **Wolter Consulting,** on the 20th November 2017.Ecologists from **Saunders Havill Group** checked clearing extent on the 23rd November 2017 to confirm it is in accordance with relevant Commonwealth and Council permit requirements.

The GPS track log of the inspection extent shown in the plan provided as **Attachment 1**. A post-inspection notification is provided as **Attachment 2** to be kept for your records.

Kind regards,

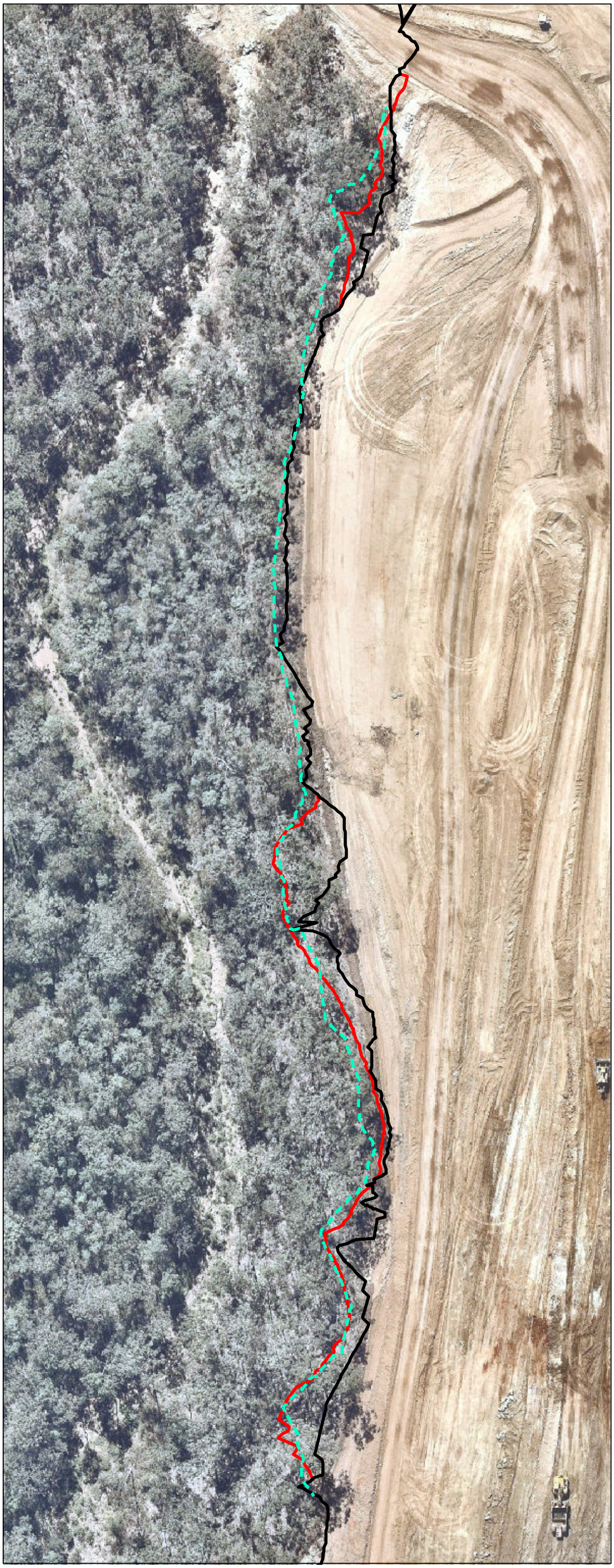


Murray Saunders
Director – Saunders Havill Group

Attachment I –

Demarcation Fencing Inspection Track Log

SPRINGFIELD RISE VILLAGE 8 - PROTECTION FENCING DEMARCATION PLAN



Legend

- Onsite flagging location
- Village 8 approval 1 works extent
- Village 8 amended approval works extent changes

0 10 20 40 60 m

Attachment 2 –

Demarcation Flagging Inspection Notification

Area Inspected:	Springfield Rise – Village 8 Western Batter
Location:	7002 Grande Avenue, Springfield (Lot 1 on SP291381)
Date of Inspection:	23 Noevmber 2017
Appointed Surveyor:	Wolter Consulting - Glenn Hanton
Environmental Representative:	Saunders Havill Group – David Havill
Environmental features:	V8 Western Batter adjoins a watercourse which runs between V8 and V10.

Photos of flagging prior to demarcation fencing:


INTER FACE

Attachment C

SHG *Plectranthus habrophyllus* check

saunders havill group

Saunders Havill Group Pty Ltd ABN 24 144 972 949
address 9 Thompson St Bowen Hills Q 4006
phone (07) 3251 9444 email mail@saundershavill.com
web www.saundershavill.com fax (07) 3251 9455

surveying town planning urban design environmental management landscape architecture

Date: 24 November 2017
Site: Spring Mountain / Springfield Rise V8
Client: Lendlease Communities
EPBC Ref: 2013/7057
SHG Ref: 7243
SHG Contact: Murray Saunders (07 3251 9444)

Attention: Ian Murray
Regional Development Manager, Communities
Level 4, Kings Gate,
King Street
Bowen Hills QLD 4006

Springfield Rise: Village 8 Western Batter –*Plectanthus habrophyllus* pre-clearance survey, 7002 Grande Avenue, Springfield (Lot 1 on SP291381)

Dear Ian,

This letter provides confirmation that the *Environmental Management Division* of **Saunders Havill Group** was engaged by **Lendlease Communities** to undertake a pre-clearance survey for *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) threatened flora species *Plectanthus habrophyllus* within the proposed clearing extent for Village 8 Western Batter) to meet Condition 6 of the EPBC Act approval (Ref: 2013/7057).

No *Plectanthus habrophyllus* specimens were recorded within the Village 8 Western Batter clearing extent (refer to **Attachment 1** for a copy of the clearing extent). It is noted that no *Plectanthus habrophyllus* populations were previously recorded in this area as part of the Spring Mountain EPBC survey by **Yurrah** (refer to **Attachment 2**).

The following provides relevant details of the survey:

Applicant: Lend Lease Communities (Springfield) Pty Ltd
Site Details: 7002 Grande Avenue, Springfield (Lot 1 on SP291381)
Development Area: Springfield Rise -Village 8 Western Batter

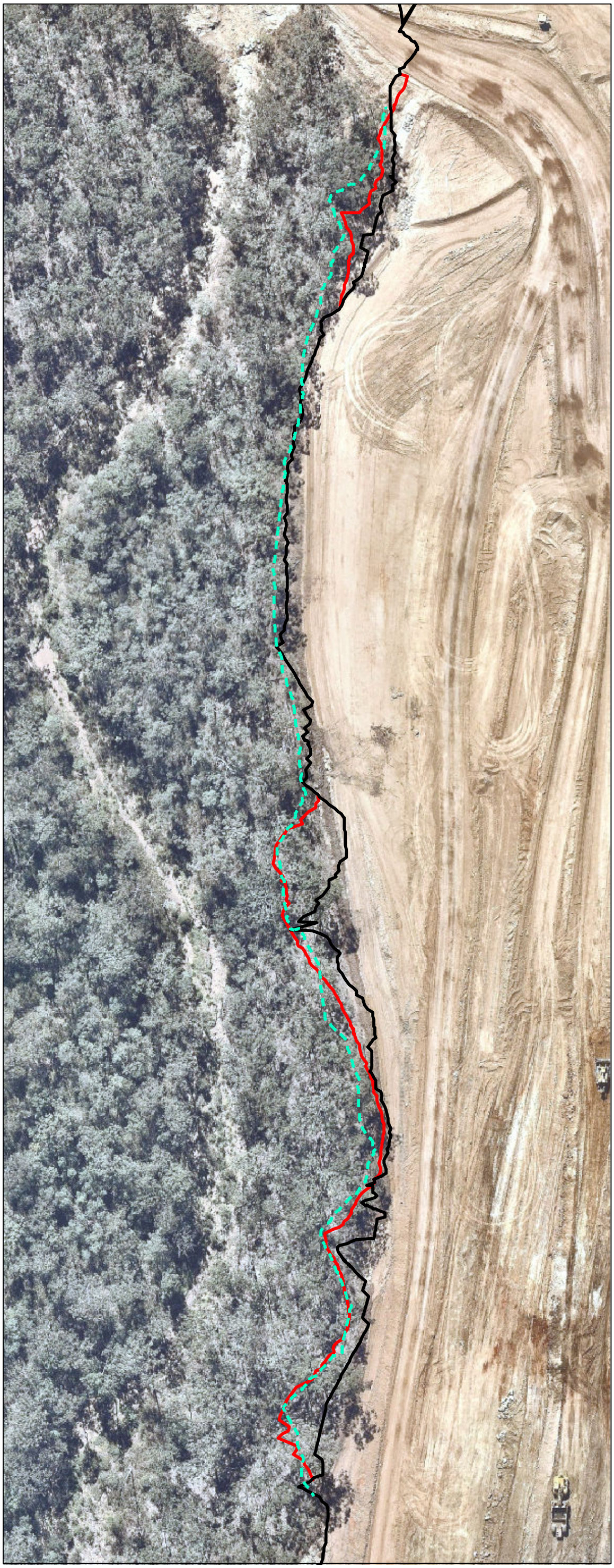
***Plectanthus habrophyllus* Pre-Clearance Survey Results:**
Survey Completed by: David Havill (Senior Ecologist) & Dr Andrew Ridley (Senior Environmental Scientist)
Survey Completion Date: 23 November 2017
Was the survey undertaken in accordance with EPBC Act survey guidelines? Yes
Were any *Plectanthus habrophyllus* specimens identified within the clearing area? No

Kind regards,

Murray Saunders
Director – Saunders Havill Group

Attachment I –
Plectranthus habrophyllus Pre-clearance Survey Extent

SPRINGFIELD RISE VILLAGE 8 - PROTECTION FENCING DEMARCATION PLAN



Legend

- Onsite flagging location
- Village 8 approval 1 works extent
- Village 8 amended approval works extent changes

0 10 20 40 60 m

Attachment 2 –
Plectranthus habrophyllus Surevy by Yurrah

CONCEPT MANAGEMENT PLAN

GPS Locations of *Plectranthus habrophyllus* populations UTM Zone 56 J		
ID	Latitude	Longitude
Plec 1	489651	6937126
Plec 2	489534	6937058
Plec 3	490045	6937140
Plec 4	488935	6937742
Plec 5	489700	6938233
Plec 6	489823	6937058

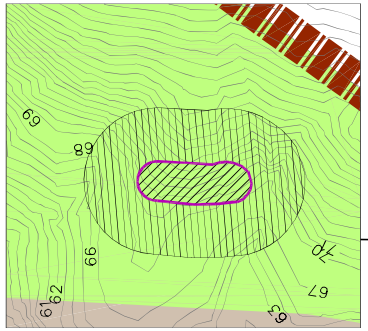
Approximate extent of Plectranthus habrophyllus ID - Plec 2. Approximately 5 mature individuals within approximately 200m². Development footprint, proposed residential, 5m to northwest.

Approximate extent of Plectranthus habrophyllus ID - Plec 1. Approximately 10 mature individuals within approximately 500m². Development footprint, proposed residential, 20m to northwest.

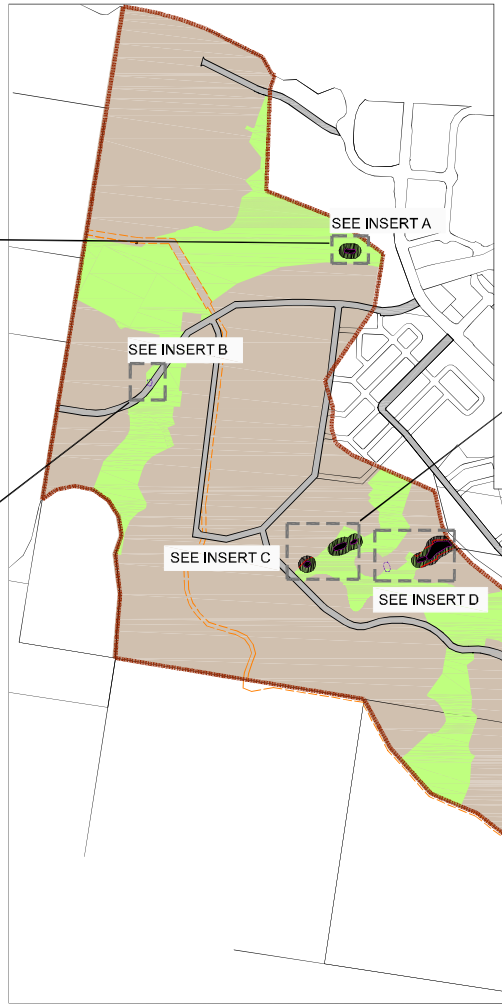
Receive area for Plec 4.

INSERT A

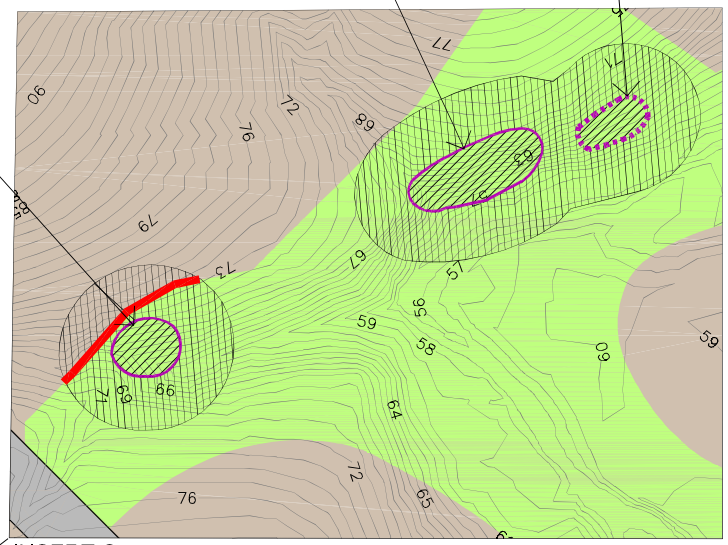
Scale 1:2000 @ A3



Approximate extent of *Plectranthus habrophyllus* sub-population (ID - Plec 5). Approximately 5 mature individuals within approximately 500m². 127m from development footprint to the south.



Scale - 1:20 000 @ A3

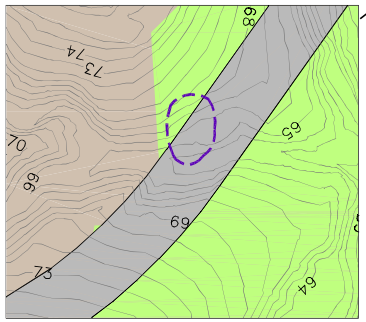


INSERT C

Scale 1:2000 @ A3

INSERT B

Scale 1:2000 @ A3

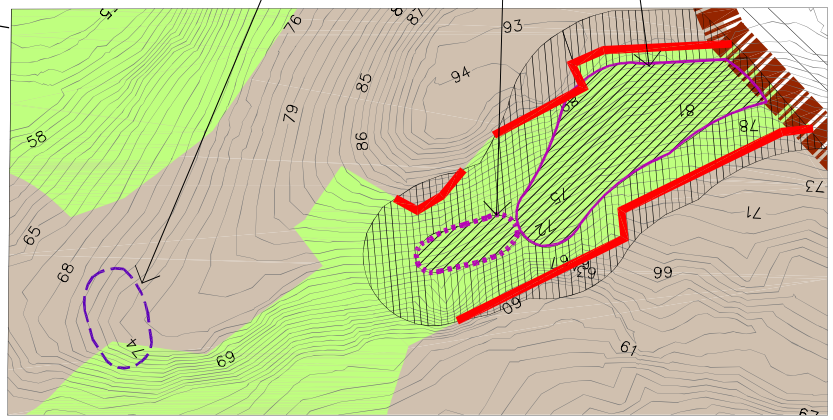


Approximate extent of *Plectranthus habrophyllus* ID - Plec 4. Approximately 5 mature individuals within approximately 400m². Population will require translocation into Linear Open Space. See Insert C. The road is located in this alignment to minimise earthworks within the linear open space and development areas.The southeast regional pipeline is located along the ridge to the west and controls the level of the road as it crosses this linear open space area.

Approximate extent of *Plectranthus habrophyllus* ID - Plec 6. Approximately 20 mature individuals within approximately 500m². Population will require translocation into Linear Open Space to the east.

Receive area for Plec 6.

Approximate extent of *Plectranthus habrophyllus* ID - Plec 3. Approximately 50 mature individuals within approximately 3000m². Adjacent to residential development.



INSERT D

Scale 1:2000 @ A3

LEGEND

E2 Precinct Boundary

Proposed Development Layout

Development footprint - use other than for conservation purposes

Linear Open Space - managed for conservation purposes

Management Plan Core Conservation Areas - *Plectranthus habrophyllus* population location

Where adjacent to an area identified for 'Interface Management' additional management actions required during clearing and construction. Refer Threatened Flora Management Plan Section 3.2.2. Refer Section 3.3 for ongoing habitat management.

In-situ population.

Receive area - translocated population.

Management Plan Buffer Area

Buffer Area overlapping development area. Considered detailed design required. Refer Threatened Flora Management Plan Section 3.2.1 for more information.

Buffer Area within Linear Open Space. Any Buffer Area adjacent an area identified for 'Interface Management' will require targeted management actions for protection of threatened flora during clearing and construction. Refer Threatened Flora Management Plan Section 3.2.2 for more information.

Management Plan Additional Management Actions

Approximate population extent of *P. habrophyllus* to be translocated. Refer Threatened Flora Management Plan Section 3.1 for actions.

Threatened flora Interface management required. Refer Threatened Flora Management Plan Section 3.3.1 for actions.

Attachment D

QFC WPMP and WHIMP

QUEENSLAND FAUNA CONSULTANCY Pty Ltd

November 2017

Fauna Spotter Catcher Wildlife and Habitat Impact Mitigation Plan

Springfield Rise – Village 8 Amendment
Western Batter Clearing
Spring Mountain, Queensland

Report prepared for Shadforths Civil Contractors

Report prepared by

QLD Fauna Consultancy Pty Ltd

Phone: (07) 3376 9780

Fax: (07) 3376 9740

Email: fauna@qfc.com.au

Date:	24/11/2017
Title:	Fauna Spotter Catcher Wildlife and Habitat Impact Mitigation Plan Springfield Rise – Village 8 Amendment, Western Batter Clearing Spring Mountain, Queensland
Author/s:	Bryan Robinson, Camille Palmer, Ramona Rohwedder
Reviewed by:	Bryan Robinson
Status:	Final Report
Filed as:	QFC WHIMP Shadforths Springfield Rise V8 Amendment Western Batter Nov 2017.doc

Contents

1. Introduction

1.1 Project Background

Queensland Fauna Consultancy Pty Ltd has been engaged by Shadforths Civil Contractors to prepare a Fauna Spotter Catcher Wildlife and Habitat Impact Mitigation Plan for amendments to Village 8, specifically the clearing of the western batter, as part of the Springfield Rise Project, Spring Mountain, Queensland.

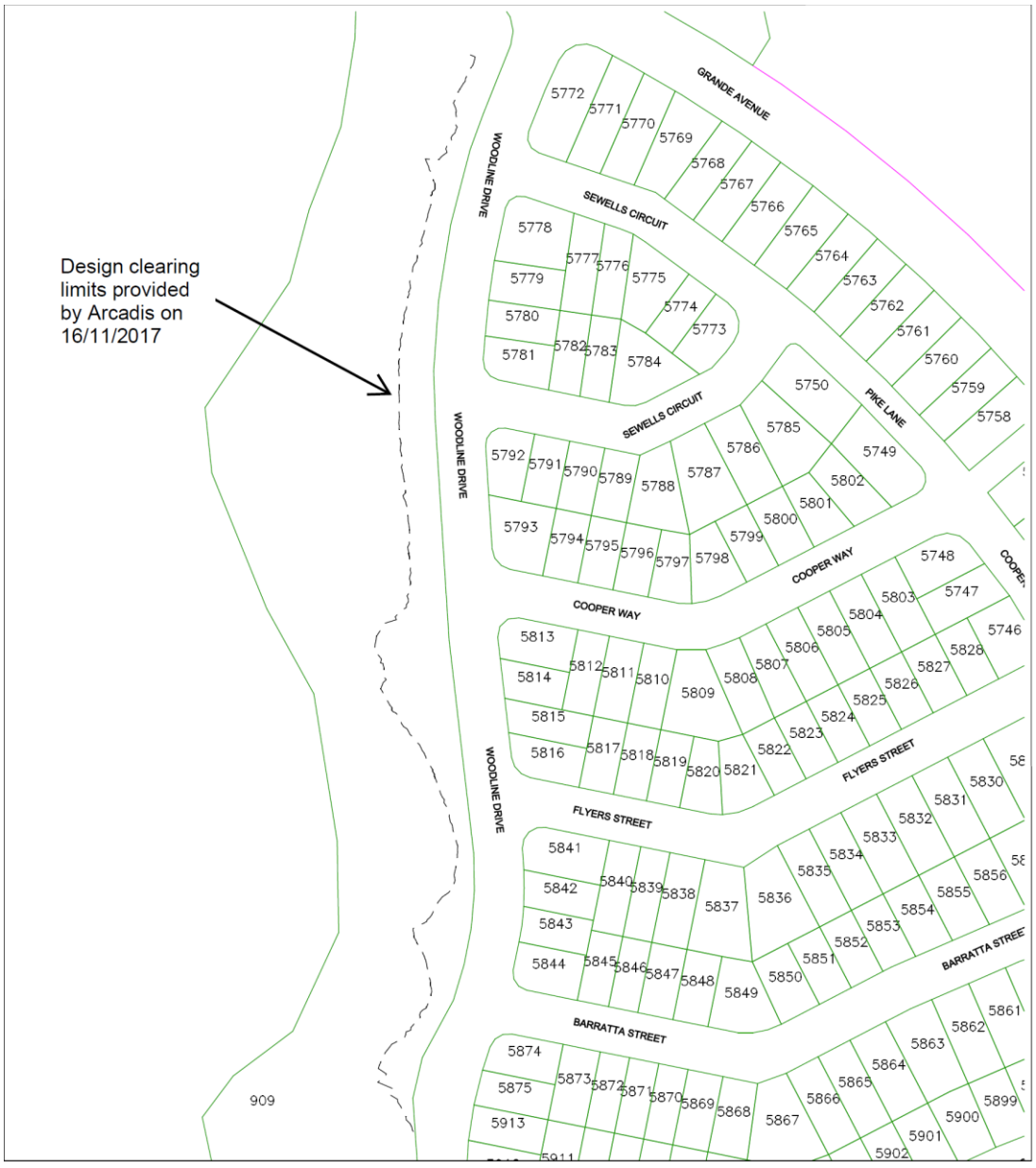
The objective of this report is to summarise the existing fauna values presented in the Fauna Spotter Catcher Pre-clearance Survey and Wildlife Protection and Management Plan (WPMP) and assign mitigatory strategies applicable to probable species likely to be encountered during the clearing of identified habitats throughout or within specific localities of the site. Fauna species both common and of elevated conservation value have been considered within the parameters of onsite investigations and, where provided to QFC, include review of current fauna and floristic reports that may influence the assemblages expected to utilise the microhabitats evident within the site.

This review encompasses species identified under the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the Queensland *Nature Conservation Act 1992*. Further consideration is given, where applicable, to species of iconic, cultural and/or regional significance identified under commonwealth, state or local planning instruments aimed at the persistence of biodiversity values within the area.

1.2 Project Location and Site Description

Village 8 is located in the south-eastern portion of the Springfield Rise precinct compromising areas to the north and south of Grande Avenue, and is encompassed by linear space to the north, east and west. The southern boundary adjoins Conservation land, with the development area consisting of approximately 32 hectares (Saunders Havill Group, 2016).

Existing features exhibit primarily a woodland vegetative complex with drainage features present due to an undulating topography. Dominant trees species across a number of vegetation types include *Corymbia henryi, C. citriodora, Eucalyptus crebra, E. siderophloia, Lophostemon confertus,* and *Angophora leiocarpa.*



Map 1: Western Batter Clearing (Image supplied by Shadforth Civil)

1.3 Current Permits and Authorities

All activities conducted during the site investigations were implemented under the provisions of a number of permits issued to Queensland Fauna Consultancy Pty Ltd by the Department of Environment and Heritage Protection (DEHP) formerly the Department of Environment and Resource Management and the Department of Employment, Economic Development and Innovation (DEEDI). These permits and additional authorities are listed in *Table 1*.

Table 1: Current Permits and authorities issued to QFC

Permit/Authorisation	Permit Number	Expiry Date
Damage Mitigation Permit	WIMP17840916	5th December 2019
Rehabilitation Permit	WA0001454	10th September 2020
Scientific User Registration	Registration Number 589	27th February 2019
Animal Ethics	CA 2016/01/939	27th February 2019

These permits and approvals enable QFC to conduct the investigation, observation and relocation of protected animals exposed to disturbance due to infrastructure expansion resulting in the destruction of natural and artificial habitats.

2. Mitigation Strategies

2.1 Fauna Spotter

It is advised that all identified fauna habitats onsite be inspected by a licensed Fauna Spotter prior to vegetation clearing, and all vegetation removal activities be supervised during the clearing process.

2.2 Clearing Methodologies

In accordance to the *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016* the following sequential clearing conditions are required to be adhered to:

- Clearing of trees is carried out in a way that ensures koalas living in or near the area being cleared (the clearing site) have enough time to move out of the clearing site without human intervention, including in particular, for a clearing site with an area of more than 6ha, by:
    - Carrying out the clearing in stages; and
    - Ensuring not more than the following is cleared in any one stage:
        - for a clearing site with an area of 6ha or less—50 percent of the site's area;
        - for a clearing site with an area of more than 6ha—3ha or 3 percent of the site's area, whichever is the greater; and
    - Ensuring that between each stage there is at least one period of 12 hours that starts at 6p.m. on a day and ends at 6a.m. on the following day, during which no trees are cleared on the site;

In addition to these measures it is recommended that clearing activities be undertaken in a directional manner specified by the fauna spotter/catcher. This is done so as to reduce the likelihood of negative interactions between fauna and potential hazards e.g. roads and traffic, prevent isolation of fauna through habitat fragmentation, and to ensure that natural dispersal of wildlife away from clearing activities is not impeded.

Saunders Havill Group has proposed a plan detailing the direction and clearing locations within the Site Based Management Plan – Area 8 (Refer to Appendix A). This involves directional clearing towards the Mountain Creek Corridor to the west and south toward the Spring Mountain Offset zone, both of which have been earmarked as safe haven zones for fauna movement and connectivity (Saunders Havill Group, 2016). This approach is supported by QFC as the most applicable response to managing highly mobile fauna.

2.3 Fauna Fencing

Temporary fencing has already been installed around the perimeter of the project and will aid in minimizing the movement of large fauna including highly mobile macropods onto roads and into adjacent estates. As Village 8 is situated away from busy roadways, fauna fencing around the immediate proposed clearing area is not required.

2.4 Felling Procedures

Trees identified as having potential fauna values (such as hollows, arboreal termitaria and exfoliating bark) will be clearly identified and subsequently marked for supervision during felling and inspected once felled. Efforts will be made to determine potentially occupant species by way of investigations for indicative signs (scats, scratchings and tracks) on the day(s) of clearing. Where no signs are found or potentially occupant species are undeterminable, machinery operators will be instructed to fell trees in a manner directed at minimising the potential risk of injury to fauna.

All identified microhabitats will be inspected via ground based observation and the direction of felling will be determined considering the safety of personnel, machinery and potentially occupant fauna. Felling procedures will see implementation of a soft felling technique specifically constructed by QFC to achieve minimal deceleration and impact upon felling. This will be achieved under direction of the Fauna Spotter present directly communicating with the plant operator(s).

2.5 Macropods

Though no direct observations were made during the inspection, other signs including macropod scat and footprints were located throughout the proposed clearing area, as well as in areas adjacent to site.

The area of proposed clearing activities exhibits direct connectivity to other areas of notable habitat values along the western and southern boundaries. Therefore if clearing commences in a directional and incremental fashion any macropods potentially encountered on site may move on of their own volition.In this event it is recommended that clearing proceed as already recommended with continual reassessment by the onsite fauna spotters.

2.6 Aquatic Fauna

It is not envisaged that aquatic dewatering activities will be required within the proposed clearing area; however pooled water and drainage features (if present) will be inspected during terrestrial load reduction activities ahead of the clearing front. The following recommendations are made to mitigate impacts to potentially occupant fauna:

- Inspection of banks, peripheral vegetation and other immediate terrestrial microhabitats;
- Identification of potential fauna values including: logs, rocks, artificial structures, discarded rubbish and burrows;
- Targeted searched for frog egg deposition sites on debris, bank edges, water surface and vegetation.

2.7 General Terrestrial and Arboreal Fauna

Overall the site contains medium value refugial opportunities for arboreal and terrestrial fauna species. The species expected within the site are likely to primarily reflect common fauna assemblages for the region however provisions are proposed directly for common fauna and species of conservation significance.

It is advised that all identified fauna habitats onsite be inspected by a DEHP approved Fauna Spotter prior to vegetation clearing and all vegetation removal activities be supervised during the clearing process. Terrestrial load reduction activities will be conducted ahead of the clearing front where possible. Fauna captured will be relocated to adjacent habitat consistent with the life history requirements of the species requiring translocation.

2.8 EVNT Fauna

It is not envisaged that any species, listed under the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* or the *Nature Conservation Act 1992*,other than those listed in the WPMP, will require specific management during vegetation clearing activities.

However, specific management for those identified EVNT species will include targeted investigations immediately prior to vegetation removal activities on each day of clearing and subsequently whilst clearing takes place. Preliminary investigations will be supported by additional monitoring applied during clearing activities with a designated fauna spotter operating with each machine actively involved in vegetation or identified habitat disturbance. These should include the following:

Koala:
As favoured Koala food trees on site exceed a diameter of 100mm at 1.3 metres from the ground, requirements under the Koala Plan's 'Koala Habitat Area' provisions trigger the need for inspection and monitoring during vegetation clearing by a qualified Fauna Spotter.

Historically known to occur within the area the Koala will feature highly in daily search efforts with a dedicated and detailed methodology employed as follows:

- Pre clearing (preliminary) investigations to be conducted specifically for Koala detection by one experienced fauna spotter a minimum half hour prior to works each day. The investigation will embrace all designated clearing zones identified for that day inclusive of a 25 metre buffer around that zone;
- Once clearing commences a fauna spotter will accompany each machine providing continuous verification of habitat values and potential identification of undetected koalas ahead of operating plant. This will also account for potentially transient Koalas that may enter the site after preliminary investigations are complete.

Direct observational methodology will include the following components

- Use of binoculars to inspect the crown, forks and trunk of trees for individuals currently occupying the site;
- 'Drip zone' searches at the base of known food trees for the presence of scats to a radius equal to that of the crown of individual trees;
- Inspection of trunks for scratchings indicative of use by Koalas;
- Repeat observations made of single trees from numerous angles at repeated times throughout the clearing activities by the assigned fauna spotter.

In the event a Koala is detected, the Fauna Spotter will determine the appropriate course of action with exclusion zones implemented and alterations to the clearing plan discussed with the Site Supervisor. Once defined, these directions will be communicated to the plant operators and clearing will proceed in accordance with the recommendations made.

Changes to Koala management strategies highlighted in the *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016* have resulted in particular conditions placed on vegetation clearance involving the removal of Koala food trees. These provisions entail an increased responsibility by developers and land clearance operators alike to ensure the welfare of potentially present Koalas in areas identified as having significance for the persistence of this species.

Where significance under planning instruments is assigned provisions may include the restriction of all clearance that directly interferes with any tree a Koala is residing in or surrounding trees that, when felled, may impact on the crown of the host tree. Koalas are to leave via their own volition through a corridor designated by the Fauna Spotter to the closest remaining suitable habitat.

Throughout this time the Koala may not be interfered with by any means unless special dispensation has been sought through the appropriate government body or where the Koala is evidently in a state of compromised health. Only when Koalas have vacated a tree can clearance operations include the identified host tree and surrounding vegetation which composes the established exclusion zone. Recommendations made by the Fauna Spotter on site will embrace these provisions.

Grey-headed Flying Fox:

Although no Flying Fox camps or roosts were noted during the site survey, the transient nature of this species and the abundance of available feeding resources would see probability for the species to intermittently utilise the site.

The following recommendations are made for management of potentially occurring Grey-headed Flying Fox:

- Daily Inspection of trees assigned for removal be conducted to detect potential roosting Flying Foxes;
- Trees found to contain roosting Flying Foxes to be left standing and re assessed at the end of each days clearing. Being a transient species, the disturbance associated by the surrounding clearing is likely to see individuals fly off via its own volition come nightfall and not return the following morning, thus negating the need for direct disturbance.

3. Wildlife Capture & Removal Plan

Relocation of native fauna is a strategy that may be required during the course of developmental works to up-hold the project's required nature conservation, animal welfare and human safety objectives.

In all circumstance where native fauna are required to be relocated it must be done so, or under the direct supervision of, a suitably licensed fauna spotter/catcher. A summary of the fauna capture, handling and relocations strategies to be implemented by the fauna spotter/catcher for fauna groups deemed likely, or possible, to occur on site are presented in *Table 2*.

Table 2: Fauna capture, handling and relocation strategy table

Animal Group	Capture and handling	Relocation
Lizards Geckoes Dragons Monitors	• Place one hand behind the head at the base of the quadrates and the other at the base of the tail behind the hind limbs; • Be cautious when handling smaller skinks and legless lizards as they may discard their tail; • Lizards and geckoes can be placed inside suitably sized calico bags • In the case of large monitor lizards keep the animal's ventral surface directly away from the body with the tail between the upper arm and torso. • Dragons and small monitors can be placed in suitably sized calico bags. Larger monitors to be placed in suitably sized crate	• Place the lizard head first into a suitable holding crate for later release. o Dragons & monitors– release up trees or into heavy vegetation; o Water dragons – in the vicinity of riparian areas; o Skinks, Geckoes, Legless lizards – around creek margins.
Snakes	• Due to their mobile nature, large snakes generally do not require to be handled or relocated, with the exception of slow moving species (i.e. pythons) or smaller species; • Snakes should be identified and only moved if competent and safe to do so (see SOP006 Handling Venomous Snakes Procedure); • Do not attempt to catch a snake if you're not competent; • Injured snakes should be handled with suitable equipment.	• Release in suitable habitat e.g. along creek lines for python and tree snakes • If feasible take them well away from clearance site to a suitable release location • Release discreetly away from high density suburban areas
Small Mammals	• Place a gloved hand around the whole animal in the case of small mammals (melomys or rats), • Do not handle rodents by the tail as this will cause damage to the tail sheath • Place the animal in calico bag in a cool place for later relocation. • Minimise holding time to avoid animal gnawing through bags and escaping	• Release animal into areasuitable to its habitat requirements. Ensure plenty of cover is available.

Animal Group	Capture and handling	Relocation
Glider Family	• Place gloved hands around the animal at initial capture; • Place the glider(s) into a calico bag or suitable animal crate ensuring family groups are kept together for all inclusive release; • Place in a cool dry area during the day. • When using calico bags ensure the bag is hung and well ventilated • Where possible contain gliders within hollow by plugging openings with a towel or calico bag	• Release glider into habitat with natural hollows and canopy cover; • When releasing a family group with more than one furred young (being carried on the back) either: o Divide young between parents as a mother is unlikely to carry more than one young, o Place young in elevated hollow with parents and allow them to move away in their own time. • Place animal in bag at the base of the selected tree, opening the bag wide and allowing the animal to leave the bag when it is ready. • Relocate hollow (with gliders inside) to suitable habitat and cover lightly with foliage so that the gliders can move away of their own accord and are protected from predators.
Amphibians	• Amphibians should be handled only when necessary and handling times should be kept to a minimum to help prevent: o Removal of the protective mucous layer covering the skin of amphibians; o To prevent handling stress induced by changes in their body temperature; o Risk of spreading pathogens and parasites. • Amphibians from different sites need to be kept isolated from each other, and need to be kept in different containers or bags; • Any dead or sick amphibians need to be quarantined from other amphibians. Amphibians can be handled utilising one of the following methodologies: • **Bare handed** – ensure hands are sterilized before handling and free from lotions, sunscreen etc • **Gloves** – disposable gloves desirable or disinfect gloves between handling different animals; • **Plastic bags** – Single use lightweight plastic bags can be used to pick up and handle frogs; again plastic bags should be disposed of before handling amphibians form a different site. • All staff should be knowledgeable and familiar with the ***Interim Hygiene Protocol for Handling Amphibians – Technical Manual (DEHP)***	• Always ensure that amphibians are kept moist until release. This can include storing in a designated container with moist soil or toweling or in a wet calico bag; • Release into suitable adjacent vegetation that is typical of the species requirements; • Suitable release locations include riparian vegetation, low-lying wetlands, alongside creek lines, hollow logs, dams and ponds; • Amphibians from different sites need to released in separate locations; • Disinfection procedures in relation to amphibians need to be followed.

Animal Group	Capture and handling	Relocation
Macropods	• Capture and restraint of macropods carries a high risk of injury and fatal hyperthermia/myopathy syndrome, and must not be performed by inexperienced personnel, or without appropriate equipment and sedation. • Capture and restraint of healthy macropods (other than pouch young) must be performed using sedation or anaesthesia due to the high risk of developmental myopathy, and other capture and restraint-associated conditions. Sedative and anaesthetic drugs may only be used under direct supervision of a registered veterinarian, or by appropriately licensed persons (Hanger &Nottidge, 2009).	• Release animal into suitable to its habitat requirements. Ensure plenty of cover is available. • Macropods are to be released within the range of normal movement from their place of origin. E.g. a Kangaroo can be released within 100 km of its origin, based on its capacity to travel long distances. • Monitor animals to ensure adequate recovery if sedated.
Microbats	• Only vaccinated persons are to handle bats • If possible plug the hollow opening with a bag or towel and ask the operator to cut the hollow from the tree; • Always wear gloves when handling bats. • If not contained within a hollow, place bats inside a calico bag and hang upright in a cool place	• Relocate hollow (with bats inside) to suitable habitat and cover lightly with foliage so that the bats can move away of their own accord and are protected from predators. • Bats not contained within a hollow should be released as late as possible at the end of the day.

Possums	• Use thick elbow length gloves when handling possums;
	• Try to grip the animal behind the head near the shoulder blades and around the tail so that you have control of the animal;
	• Keep fingers away from the mouth of the animal;
	• Keep the animal's body facing away at all times;
	• Transfer into a thick calico bag and then into a kitty crate. Place in a safe and shady place until you can relocate the animal.
		• Release the possum into habitat with adequate hollows and cover;
		• Place animal in bag at the base of a select tree, opening the bag and allow the animal to leave the bag when it is ready;
		• When releasing a Ringtail Possum mother with more than one furred young (being carried on her back) it is unlikely that she will carry both young if highly stressed;
		  ○ Choose a smaller shrubby tree with vines or heavy foliage (so the adult can construct a drey easily)
		  ○ Watch the adult ascend the tree, it is possible she will only carry one young and so any additional young may be pushed from her back
		  ○ It may be necessary to take one or more of the young to a wildlife carer
		  ○ If possible place mother and young in a suspended hollow, cover lightly with foliage and allow the animals to move on their own accord. This way the mother can ferry young one at a time to a more suitable location.

Animal Group	Capture and handling	Relocation
Birds	• Use gloves when handling larger birds • Use a towel to cover the bird and simultaneously restrain the bird and transfer into calico bag • With larger parrots and raptors, restrain head and legs and transfer into a kitty crate • Wrap chicks loosely in a towel and transfer to kitty crate, keep in a warm location.	• Relocate adult birds in suitable habitat • Chicks should be referred to wildlife carer
Koalas	Movement of Koalas is heavily legislated in South East Queensland. Koalas are not to be captured or relocated without the prior consent of Department Environment and Natural Resource Management (DERM). Koalas should be left to move away of their own volition and trees are not to be felled while a Koala remains in occupancy. See SOP003 Koala Management Procedure for further information.	

4. Wildlife Contingency Plan

In the event sick, injured or orphaned protected animals are encountered during the course of the project they shall be administered to in accordance with the *Code of Practice Care of Sick, Injured or Orphaned Protected Animals in Queensland* under the *Nature Conservation Act 1992*.

The stages in which injuries or illness are described under the code are as follows:

Critical: Injuries or illnesses that are life-threatening; for example, an animal that has been struck by a car and has serious head injuries.

Serious: Injuries or illnesses that might reasonably be expected to cause moderate pain (but are not immediately life-threatening), and the animal is not showing obvious signs of distress or pain, or significantly reduced mental activity; for example an animal with a closed fracture but no other apparent injuries and that is alert and responsive.

Mild: The injuries or illness of an animal appear to cause little discomfort, pain or function loss and are not life-threatening (even without immediate vet treatment); for example superficial cuts, superficial bruising or orphaned animals suffering from mild dehydration.

4.1 Basic Wildlife Care

If wildlife requiring care are encountered by the fauna spotter/catcher they will be attended to in the manner set out by the guidelines provided in *Table 4*. Supplementary advice will be sought from a wildlife carer and/or veterinarian where required. QFC have previously utilized experienced local carer groups and vets. These are listed in Table 3.

Table 3: List of Local Vets & Wildlife Carer Groups

Vets			
Name	**Location**	**Contact Number**	**Comments**
RSPCA Wildlife Hospital	139 Wacol Station Road, Wacol	07 3426 9999	24 Hours/7days
Carers			
Name	**Location**	**Contact Number**	**Comments**
RSPCA Wildlife Hospital	139 Wacol Station Road, Wacol	07 3426 9999	24 Hours/7days
Ipswich Koala Protection Society	Ipswich	Ruth: 07 5464 6274 / 0419 760 127 Helen: 07 3282 5035 / 0417 604 761	Specialize in koalas however rescue all wildlife

Table 4: Basic Wildlife Care

Birds	Reptiles & Amphibians	Mammals
Egg Viable eggs must be kept warm until transferred to a suitable wildlife carer. It is necessary that the orientation of the eggs be maintained as fixed embryos may be lost. Keep wrapped in a pouch and on a heat source (where available). An ideal temperature is between 25-27° (DEHP 2013); where possible attempt to identify the species so the carer can be informed as the management of eggs can vary in accordance with species and stage of development.	**Egg** Viable eggs must be kept warm and stable until transferred to a wildlife carer. It is necessary that the orientation of the eggs be maintained as fixed embryos may be lost. Keep wrapped in pouch or towel and place into an animal crate in a safe location.	**Neonate** Unfurred animals need to be kept warm until transferred to a carer. Place into a pouch and onto a heat pad. Ideal temperature is between 31-34°. 25-27° is appropriate in most other cases (DEHP 2013). Regularly check the animal to ensure it is not overheating by observing for obvious signs of distress (i.e. panting, very warm to the touch, red blotched skin). Adjust the temperature where required. Seek further advice from the carer if you are unsure.
Chick Make sure the animal is correctly identified as different species often have very different requirements. Place chicks into a pouch/towel onto a heat source maintained around 31-34° (only if they have not fledged) and keep in an animal crate until transferred to a carer.	**Juvenile** Place animals in a suitable lined crate and keep covered in a dark quiet place. Refer to the wildlife contact list in your QFC Folder for a carer who specialises in reptiles.	**Juvenile** Place into a lined crate and keep covered in a dark and quiet location.
Adult Keep adult birds in a lined animal crate or cage and covered in a quiet area.	**Adult** Place animals in a suitable lined crate and keep covered in a dark quiet place. Refer to the wildlife contact list in your QFC Folder for a carer who specialises in reptiles.	**Adult** Place into a lined crate and keep covered in a dark and quiet location.
Feeding Providing food and water is generally not required during short periods (2-3 hrs) though this should be reconsidered if animals need to held longer. Consult the vet and/or carer for further advice on how to proceed.	**Feeding** Newly hatched reptiles may require feeding if kept overnight. Consult with QFC for further advice. Snakes and turtles will not require feeding but water should be made available.	**Feeding** Providing food and water is generally not required during short periods (2-3 hrs) though this should be reconsidered if animals need to be held longer. Consult the carer for further advice on how to proceed.

4.2 First Aid

Animals suffering from serious injuries or illness encountered on the project should be passed on to veterinary care as soon as possible. In the interim a licensed fauna spotter/catcher can provide first aid for the animal and organise suitable transportation.

If a seriously sick or injured animal is encountered the fauna spotter/catcher should:

1. Keep the animal calm by placing into an animal crate and keeping it covered in a dark and quiet location. Isolate any nearby threats such as domestic animals or predators.
2. Quickly and thoroughly inspect the animal for trauma. If the injuries are not serious enough to require euthanasia administer the basic first aid as a minimum (but only if capable to do so)

Representative first aid that may be administered by a fauna spotter/catcher is provided in *Table 5*.

Table 5: **Wildlife First Aid**

Ailment	First Aid
Bleeding	Using material that is clean and sanitary, apply direct pressure to the affected area. Bandages can be used to hold material in place until vet treatment can be sought. Veterinarian treatment should be sought for further assistance as soon as possible.
Broken limbs	House the animal in a suitably sized animal crate with towels under the animal for comfort. Keep the crate covered and in a quiet location. Proceed to a veterinarian for further assistance as soon as possible.
Injured tails	House the animal in a suitably sized animal crate with towels under the animal for comfort. Keep the crate covered and in a quiet location. Proceed to a veterinarian for further assistance as soon as possible.
Concussions	House the animal in a suitably sized animal crate with towels under the animal for comfort. Keep the crate covered and in a quiet location. Proceed to a veterinarian for further assistance as soon as possible.

4.3 Euthanasia

Section 12 of the code details how to determine when euthanasia is required and how to euthanise animals ethically. The following standards as listed under the code are to be followed when assessing whether euthanasia is required:

- The euthanasia of wildlife where required is to be provided for by all wildlife rehabilitators;
- Euthanasia without exception is to be carried out when:

    - Significant pain or suffering is to be alleviated where it is not able to be managed by a vet;
    - Further treatment is **not** practical or recovery is **not** expected in a way in which the animal can be successfully rehabilitated back to the wild;
    - Resources are not available to provide appropriate care or an acceptable quality of life throughout the likely rehabilitation period.

- Animals that are suffering and have a poor prognosis for survival must be euthanised rather than left to die from the injury or illness. Failure to undertake appropriate action is a breach of the Animal *Care and Protection Act 2001*.
- Unless permission has been granted by the Department of Environment and Heritage Protection for the animal to enter the Queensland Species Management Plan (QSMP) or otherwise advised by the DEHP Wildlife Management Director, animals must be euthanised when:

    - An orphaned animal is not viable or likely to be rehabilitated;
    - No suitable release locations are available;
    - The ability for an animal to reproduce is lost due to an injury, disease or surgical procedure;
    - The ability to move freely or normally (i.e. run, climb, crawl, hop, fly or swim) is permanently impaired. Examples are: a missing or impaired limb, wing, foot or tail that would significantly impair the animal's ability to survive in the wild;
    - The ability to sense environment (i.e. see, smell, fell, taste or hear) is permanently impaired. For example: missing or injured organ such as an eye, ear or nose that would significantly impair the animal's ability to survive in the wild;
    - The ability to catch, find or handle food is permanently impaired;
    - Its advanced age renders it unlikely to survive in the wild.

5. Wildlife Storage & Housing Plan

For wildlife requiring storage, temporary housing and transportation to release sites and/or to a wildlife carer or veterinarian, guidelines set out in the Code of Practice and QFC's Animal Ethics Permit will be followed.

Dependent on the species of animal and condition of the animal, temporary storage and housing of animals will be as follows:

Calico bags: Calico bags will be used to temporarily house fauna such as snakes, lizards and small mammals (including microbats), Bags will range in size from 200mm x 200mm to 600mm x 1800mm. Bag selection will vary according to the size of animals to be placed in them. In the case of snakes a "hoop bag" may be used to facilitate capture. The hoop is approximately 500mm in diameter attached to a handle. The bag is placed around the hoop ensuring a greater area in which to pass the snake through into the bag.

Plastic holding tubs/containers/animal crate: Plastic holding tubs/containers/crates will be used to temporarily house fauna such as snakes, lizards, frogs, small mammals and birds (Plastic holding tubs/containers/crates will range in size from 150mm x 150mm x 120mm to 500mmx 400mm x

400mm. Plastic holding tubs/containers/crates selection will vary according to the size and number of animals to be placed in them.

In addition to this, material is used to line the tub/crate to ensure the animals won't lose its footing. This may include folded towels on the bottom of the crate or a fitted pad. These items are washed between each use to reduce the spread of disease/parasites.

Section 9 of the Code relates to how transportation of wildlife should be undertaken. The following will be adhered to when transporting wildlife to the vet and/or carer:

- Additional pain or distress of the animal is to be avoided;
- Wildlife should only be transported when necessary;
- Transport containers must be appropriate for the species (size, strength and behaviour of species being moved;
- Transport containers must be designed and maintained in a way as to:
    - Prevent injury;
    - Prevent escape;
    - Prevent rolling/tipping during transit;
    - Prevent damage to plumage (feathers);
    - Be hygienic;
    - Minimise stress and
    - Be suitably ventilated.

- Non-compatible species must not be transported in a manner which allows for visual or physical contact;
- Containers must be secured to prevent movement and provide protection from direct sunlight, wind and rain;

Venomous, dangerous or potentially disease transmitting animals must be clearly marked with warning labels (i.e. Caution –'venomous snake' or 'live bat') and be locked and secured.

6. Wildlife Release & Disposal Plan

Spring Mountain Forest Park lies to the south of Village 8 and contains similar habitat types suitable for species likely to be encountered when clearing.

With the exception of highly mobile species such as birds and macropods where natural relocation may occur, it will be necessary for the fauna spotter/catcher to translocate the majority of fauna found into suitable habitat within these areas. A map of the intended release site can be viewed in Appendix B.

In regard to all fauna capture and disposal activities conducted on the project the following records will be made:

- **a.** species;
- **b.** identification name or number;
- **c.** sex (M, F, or unknown);
- **d.** approximate age or age class (neonate, juvenile, sub-adult, adult);
- **e.** time and date of capture;
- **f.** method of capture;
- **g.** exact point of capture (GPS point);
- **h.** state of health;
- **i.** incidents associated with capture likely to affect the animal;
- **j.** veterinary intervention or treatments;
- **k.** time held in captivity;
- **l.** disposal (euthanasia, re-release, translocation etc);
- **m.** date and time of disposal;
- **n.** details of disposal (if released, exact point of release GPS);
- **o.** for released animals: distance in metres from point of capture to point of release.

7. Post Works Impact Minimisation

As the project area will be cleared of all vegetation, post works impact monitoring and/or impact minimisation is deemed not necessary. It is unlikely the vast majority of wildlife will return to the area as all habitat and foraging resources will be removed and habitat connectivity is also not present.

In the event that fauna is found on site post-works, it is recommended personnel contact QFC and a licensed and experienced wildlife consultant can be dispatched to remove and relocate the animal should it be necessary. QFC wildlife consultants are available 24/7 for fauna related call-outs in relation to this project.

It is recommended that if any fauna, such as Kangaroos and Wallabies, are noted in the wider area and appear distressed post-works that QFC be contacted to further assess the situation.

8. Assessment, Conclusion and Fauna Management Recommendations

A number of conclusions and recommendations are presented, with the specific intention of providing a comprehensive management structure to facilitate minimal impact to fauna during the clearing of vegetation and subsequent disturbance of habitats. The directives given by Fauna Spotter Catchers should embrace a “best practice” approach which includes implementation of proven specific management techniques for identified habitat types and compliance with legislation relevant to the activity.

Fauna management is presented here specific to EVNT fauna, general terrestrial and arboreal fauna and aquatic fauna. Although each is treated separately, overlap does occur within target techniques providing a comprehensive approach for target species of all conservation significance.

9. References

Anstis, M (2013) *Tadpoles and Frogs of Australia*, New Holland Publishers, Sydney.

Curtis, LK, Dennis, AJ, Mcdonald, KR, Kyne, PM & Debus, SJS (2012), Queensland's Threatened Animals, CSIRO Publishing, Victoria.

Department of Environment & Heritage Protection, *Interim Hygiene Protocol for Handling Amphibians*, Technical Manual

Hanger, J&Nottidge B (2009), *Draft Queensland Code of Practice for the Welfare of Wild Animals Affected by Land-Clearing and other Habitat Impacts and Wildlife Spotter/Catchers*, Australian Wildlife Hospital, Australia Zoo, Beerwah.

Queensland Environmental Protection Agency and Queensland Parks and Wildlife Service (2006). *Nature Conservation (Koala) Conservation Plan 2006 and Management Plan 2006 – 2016*. Queensland Government – Environmental Protection Agency.

Queensland Fauna Consultancy (2017) *Fauna Spotter Catcher Pre-clearance and Survey and Wildlife Protection & Management Plan, Springfield Rise – Village 8, Spring Mountain, Queensland,* (QFC FHA WPMP Shadforths Springfield Rise Village 8 Amendment April 2017.doc).

Saunders Havill Group (2016). *Lend Lease Communities, Springfield Rise – Village 8, Site Based Management Plan – Grande Avenue*. Report prepared for Lend Lease Communities Pty Ltd, December 2016.

References for nomenclature

Cogger, H. (2000) *Reptiles & Amphibians of Australia*. 6th edition, Sydney: Reed New Holland.

Leiper, G., Glazebrook, J., Cox, D. and Rathie, K. (2008) *Mangroves to Mountains: a Field Guide to the Native Plants of South-east Queensland*, Browns Plains: Logan River Branch Society for Growing Australian Plants.

Menkhorst, K. & Knight, F. (2011) *A Field Guide to the Mammals of Australia*, 3rd edition, South Melbourne: Oxford University Press.

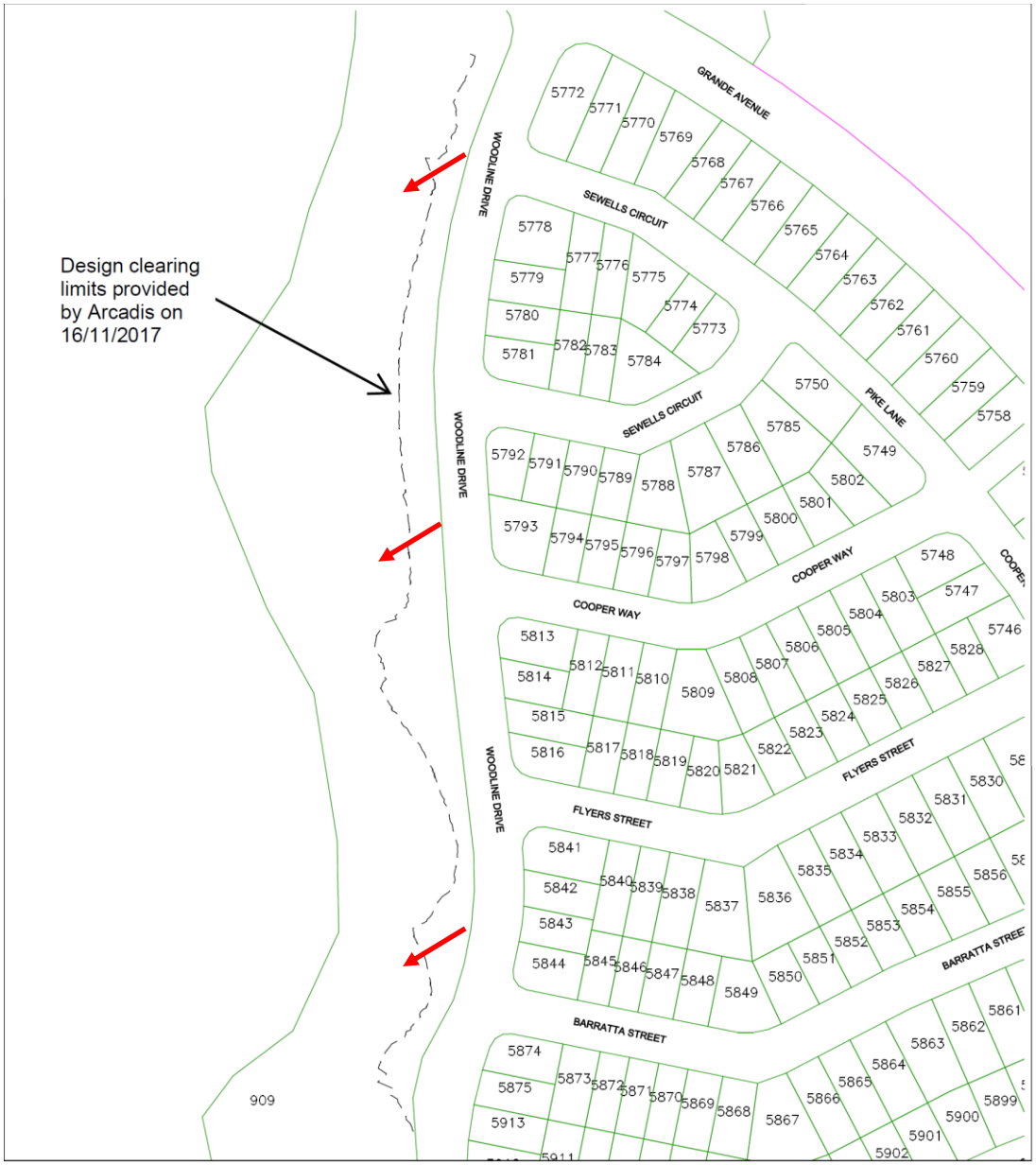
Simpson, K. and Day, N. (2004) *Field Guide to the Birds of Australia,* Camberwell:Penguin Group Australia.

Strahan, R. (Ed) (1995) *The Mammals of Australia*. Sydney: New Holland Publishers.

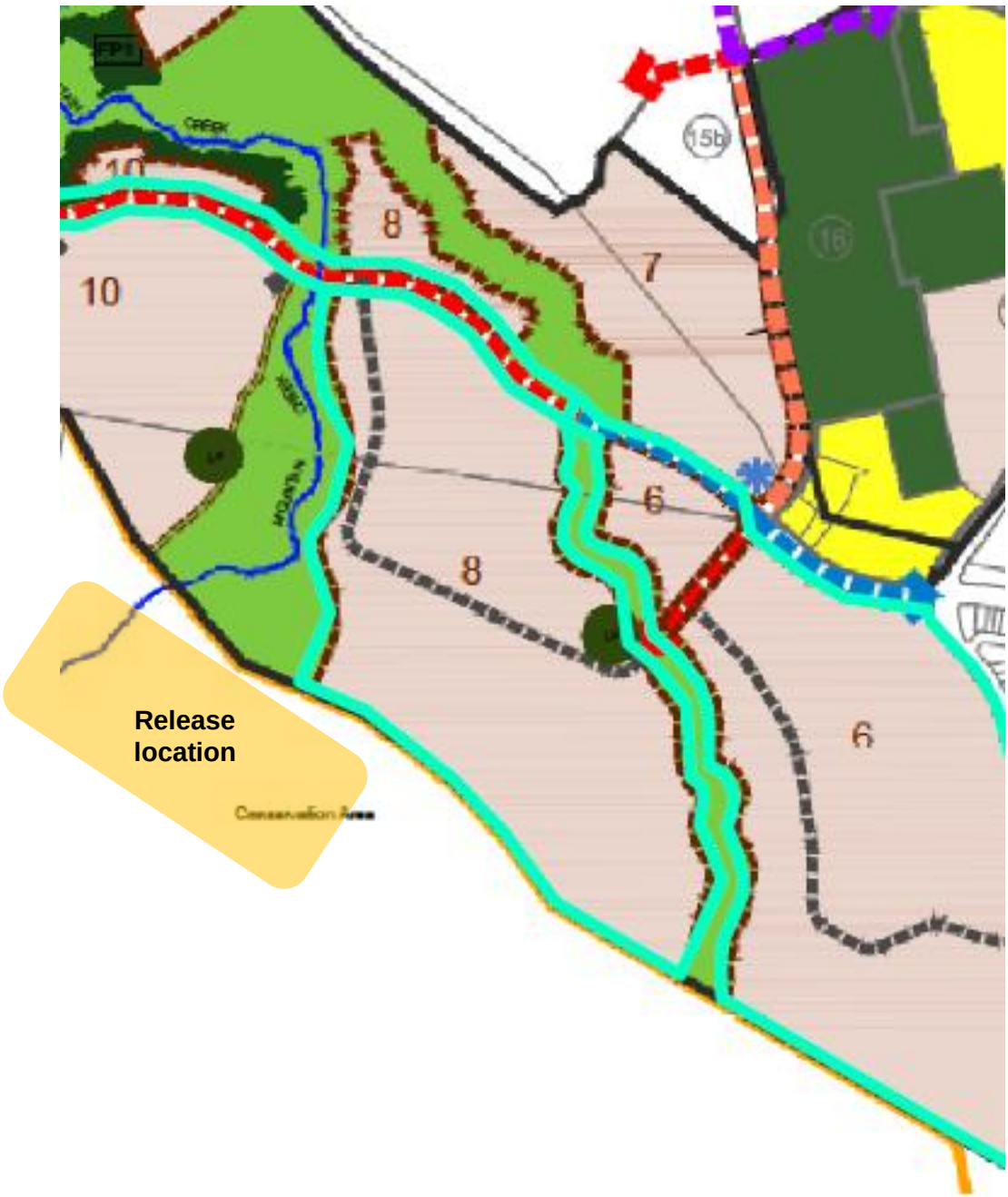
Wilson, S. (2005) *A Field Guide to Reptiles of Queensland*. Sydney: New Holland Publishers.

Queensland Museum (2007) *Wildlife of Greater Brisbane,* 2nd edition, Brisbane: Queensland Museum Publishers.

10. Appendix A: Intended Stages of Clearing



11. Appendix B: Intended Release Site for Wildlife



QUEENSLAND FAUNA CONSULTANCY Pty Ltd

November 2017

Fauna Spotter Catcher Pre-clearance Survey and Wildlife Protection & Management Plan

Springfield Rise – Village 8 Amendment
Western Batter Clearing
Spring Mountain, Queensland

Report prepared for Shadforths Civil Contractors

Report prepared by

QLD Fauna Consultancy Pty Ltd

Phone: (07) 3376 9780

Fax: (07) 3376 9740

Email: fauna@qfc.com.au

Date:	24/11/2017
Title:	Fauna Spotter Catcher Pre-clearance and Habitat Values Survey Springfield Rise – Village 8 Amendment, Western Batter Clearing Spring Mountain, Queensland
Author/s:	Bryan Robinson, Camille Palmer, Ramona Rohwedder
Reviewed by:	Bryan Robinson
Field personnel:	Camille Palmer
Status:	Final Report
Filed as:	QFC FHA Shadforths Springfield Rise V8 Amendment Western Batter Nov 2017.doc

Contents

1. Introduction

1.1 Project Background

Queensland Fauna Consultancy Pty Ltd has been engaged by Shadforths Civil Contractors to conduct a Fauna Spotter Catcher Pre-clearance and Habitat Values Survey and present a subsequent report for amendments to Village 8, specifically the clearing of the western batter, of the Springfield Rise development proposed at Spring Mountain, Queensland. The site location with indicative site extent is presented in Map 1.

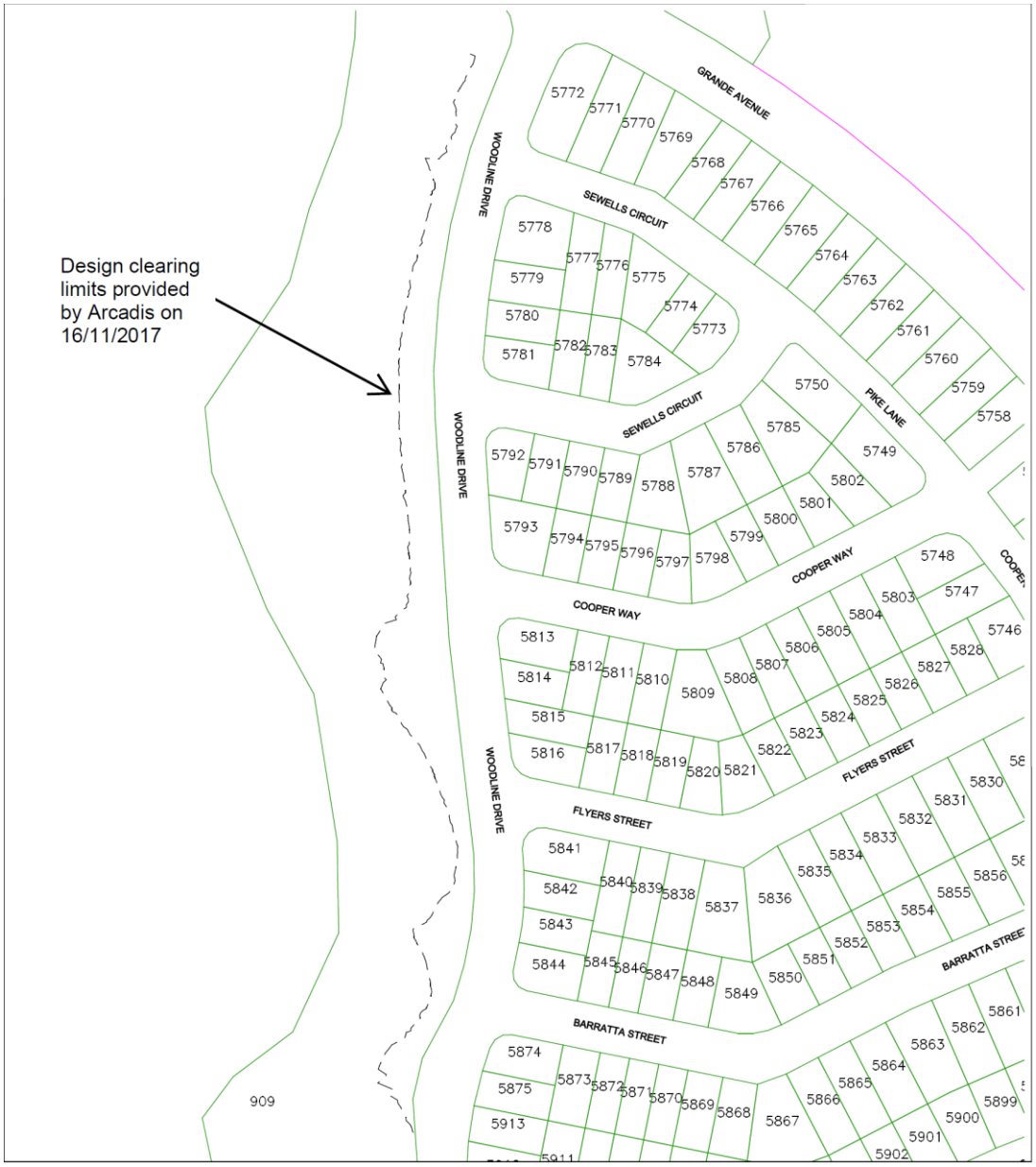
The objective of this report is to summarise the existing fauna values present and assign mitigatory strategies applicable to probable species likely to be encountered during the clearing of identified habitats throughout or within specific localities of the site. Fauna species both common and of elevated conservation value have been considered within the parameters of onsite investigations and, where provided to QFC, include review of current fauna and floristic reports that may influence the assemblages expected to utilise the micro habitats evident within the site.

This review encompasses species identified under the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the Queensland *Nature Conservation Act 1992*. Further consideration is given, where applicable, to species of iconic, cultural and/or regional significance identified under commonwealth, state or local planning instruments aimed at the persistence of biodiversity values within the area.

1.2 Project Location and Site Description

Village 8 is located in the south-eastern portion of the Springfield Rise precinct compromising areas to the north and south of Grande Avenue, and is encompassed by linear space to the north, east and west. The southern boundary adjoins Conservation land, with the development area consisting of approximately 32 hectares (Saunders Havill Group, 2016).

Existing features exhibit primarily a woodland vegetative complex with drainage features present due to an undulating topography. Dominant trees species across a number of vegetation types include *Corymbia henryi, C. citriodora, Eucalyptus crebra, E. siderophloia, Lophostemon confertus,* and *Angophora leiocarpa.*



Map 1: Western Batter Clearing (Image supplied by Shadforth Civil)

1.3 Current Permits and Authorities

All activities conducted during the site investigations were implemented under the provisions of a number of permits issued to Queensland Fauna Consultancy Pty Ltd by the Department of Environment and Heritage Protection (DEHP) formerly the Department of Environment and Resource Management and the Department of Employment, Economic Development and Innovation (DEEDI). These permits and additional authorities are listed in Table 1.

Table 1: **Current Permits and authorities issued to QFC**

Permit/Authorisation	Permit Number	Expiry Date
Damage Mitigation Permit	WIMP17840916	5th December 2019
Rehabilitation Permit	WA0001454	10th September 2020
Scientific Purposes Permit	WISP16935816	14th February 2021
Scientific User Registration	Registration Number 589	27th February 2019
Animal Ethics	CA 2016/01/939	27th February 2019

These permits and approvals enable QFC to conduct the investigation, observation and relocation of protected animals exposed to disturbance due to infrastructure expansion resulting in the destruction of natural and artificial habitats.

2. Methodology

A site inspection was carried out on 24th November 2017 by Qld Fauna Consultancy. A standard set of observational techniques aimed at maximising the detection of fauna and the probable habitats they may occupy were employed to ascertain and identify the current fauna values throughout the project area. Where species of elevated conservation significance where foreseen as potentially present targeted searches were instigated to further evaluate individual species habitat.

Due to the habitat variability expressed across the development site the composition of investigations may include a range of features that entail specific components indicative of the presence of particular species or faunal groups. This may include where evident, observation of activity or signs of both historical and current use.

These may include but are not limited to the following:

- Identification of terrestrial microhabitats such as ground hollows, rock, burrows, leaf litter, stands of heavy vegetation, fallen branches and bark exfoliations;
- Identification of arboreal micro habitats including basal, trunk and limb hollows, tree fissures, bark exfoliates and arboreal termitaria;
- Identification of constructed arboreal micro habitats including bird nests and Ringtail Possum dreys;
- Artificial habitats including but not limited to ornamental gardens, discarded rubbish, human dwellings and other infrastructure;
- Observation and investigation of aquatic habitats including dams, soaks, creeks, rivers and seasonally inundated vegetation communities. Artificial aquatic habitats may include constructed drains and culverts. Further components of interest include bank profiles and undercuts, submerged and/or exposed timber and rock, immediate aquatic and riparian vegetation, surfacing animals, nesting and/or feeding birds;
- Direct observation of active or exposed fauna within terrestrial, aquatic and arboreal habitats;
- Identification of scats, tracks and scratchings to determine fauna potentially present or to have historically utilised the site for either transient or longer term life history purposes.

2.1 Specific methodology for Koalas *Phascolarctoscinereus*

Due to specific requirements and the cryptic nature of the Koala the following techniques were employed to assist in ascertaining the current and historical presence/absence status of the species at the site:

- Use of binoculars to inspect the crown, forks and trunk of trees for individuals currently occupying the site;
- 'Drip zone' searches at the base of known food trees for the presence of scats to aradius equal to that of the crown of individual trees;
- Inspection of trunks for scratchings indicative of use by Koalas.

3. Findings

The findings endeavor to demarcate the existing habitat profiles and the features present into three distinct groups: terrestrial, arboreal and aquatic. All habitat features present onsite are noted,however it is probable additional features will be present with these being accounted for during the Fauna Spotter Catcher process to be applied to all vegetation clearing across the site.

3.1 Terrestrial Habitat Features

The proposed clearing for the western batter clearing runs adjacent to the existing cleared boundary of Village 8. Understorey components vary across the site with areas exhibiting sparse vegetative cover (Figure 1) to other areas displaying moderate cover provided by shrub regrowth (Figure 2).

Scattered woody debris is present across the site (Figure 3) and scattered surface rocks (Figure 4) are also present in several localities further adding to its potential habitat value for small reptiles and amphibian species. 2 timber stockpiles were noted (Figure 5) which may provide suitable refugia for a number of amphibian, reptile and mammal species.

A single terrestrial termite mounds (Figure 6) was identified, however no recent excavations in the mounds were observed. Mammal assemblages may comprise both native and introduced species. Potential native mammals occurring on site include the Northern Brown Bandicoot *Isoodon macrourus* which may be present in localities with significant vegetative ground cover.

These features collectively contribute to the potential presence of a wide variety of native fauna species utilising the area for refugial, foraging and other resources.

GPS coordinates for all indicative terrestrial habitat features are shown in Table 2. Localities for identified terrestrial habitat features are presented in Map 2.

A comprehensive list of fauna species recorded in the region can be viewed in Appendix C.

Table 2: **Localities for identified terrestrial habitat features**

Number	Habitat Feature	GPS Coordinates	
		Latitude	Longitude
1	Timber Stockpile	-27.69592	152.89990
2	Terrestrial Termite Mound	-27.69532	152.89981
3	Timber Stockpile	-27-69432	152.89970

Figure 1: Sparse understorey

Figure 2: Understorey comprised of shrub regrowth

Figure 3: Woody debris

Figure 4: Surface rock

Figure 5: Timber stockpile

Figure 6: Terrestrial termite mound

Map 2: Localities for identified terrestrial habitat features

3.2 Arboreal Habitat Features

The majority of the clearance area consists predominately of scattered Eucalypts of varying height, species and density suitable for feeding and nesting resources (Figure 7)

A single hollow bearing stag identified (Figure 8) may provide habitat opportunities for arboreal mammal or reptile species. No arboreal termite mounds were observed. No bird nests were observed however further investigations immediately prior to clearing are recommended.

GPS coordinates for all indicative arboreal habitat features are shown in Table 3. Localities for identified arboreal habitat features are presented in Map 3.

Primary and secondary Koala food trees located in the clearance area include *Corymbia henryi and Eucalyptus crebra.* However, no evidence was observed to indicate recent use of these trees by koalas. No koala scats were found during 'drip zone' searches and characteristic scratchings were not found during trunk investigations.A Koala habitat values map for the clearance area is presented in Appendix A.

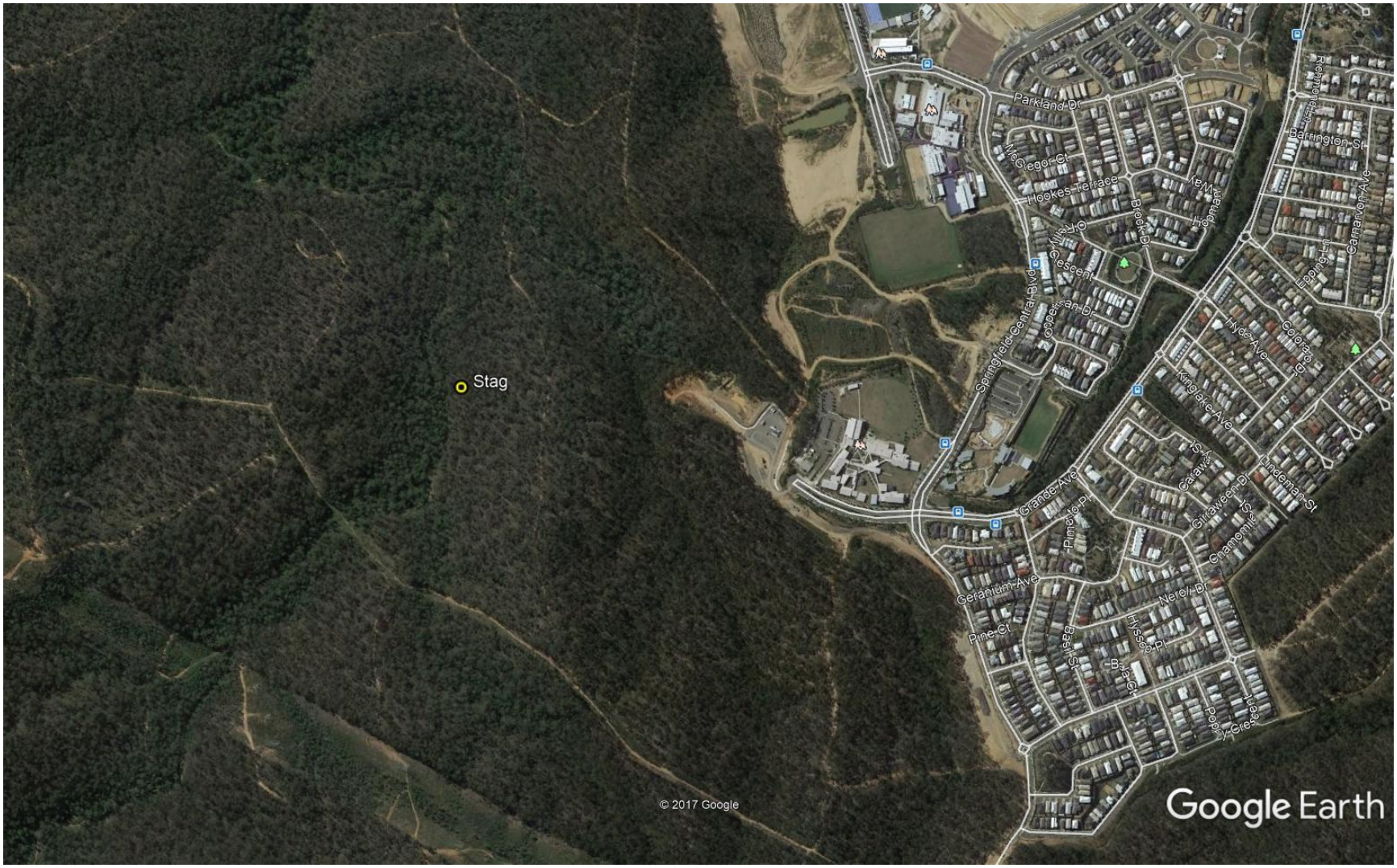
Table 3: **Localities for identified arboreal habitat features**

Number	Habitat Feature	GPS Coordinates	
		Latitude	Longitude
1	Stag	-27.69520	152.89978

Figure 7: Trees of varying height and species occur across the site

Figure 8: Dead Stag

Map 3: **Localities for identified arboreal habitat features**



3.3 Aquatic Habitat Features

Existing drainage features caused by water runoff from the adjacent cleared village 8 may contain areas of pooled water during rain events (Figure 9 & 10). When such events occur, these features may provide breeding opportunities for frogs and a water source for various mammals and birds.

Figure 9: Drainage feature caused by water runoff

Figure 10: Drainage feature

3.4 Endangered, Vulnerable and Near Threatened (EVNT) Species

It is not envisaged that any EVNT fauna species will be detrimentally impacted by the proposed works. However, 2 species identified within the Online EPBC Protected Matters Report and the Queensland Government Wildlife Online Search Tool were considered likely or possible to occur within the site and will require further mitigation during clearing activities.

Although no evidence was found during the site inspection of very recent Koala use the species has previously been recorded in the area. Some areas within the site are identified as High Value Bushland under Koala Habitat in South East Queensland mapping sourced from the DEHP online search tool (see Appendix A). It is advised that dedicated methodologies be employed by a qualified Fauna Spotter specific to the detection of these species prior to vegetation clearing activities.

Table 4: **Significant species deemed likely or possible to occur within the clearance survey area**

Common Name **Scientific Name**	**Species Information**	**Likelihood of Occurrence within the Clearance Survey area**
Mammals		
Koala *Phascolarctoscinereus* **EPBC:**Vulnerable **NCA:**Vulnerable	Inhabits a range of open forest and woodland communities which may include any of the following noted food trees: *Eucalyptus*, *Corymbia*, *Melaleuca*, *Angophora* and *Lophostemon*.	***Likely*** Known food trees for the transient Koala (*Phascolarctoscinereus)* occur on the clearance siteand the species is well documented within the area.
Grey-headed Flying-fox *Pteropuspoliocephalus* **EPBC:** Vulnerable **NCA:**Least Concern	The Grey-headed Flying-Fox roosts in aggregations of various sizes on exposed branches, commonly of emergent trees. Roost sites are typically located near water, such as lakes, rivers or the coast. Habitat includes open forests, woodlands, urban parks and gardens.	***Possible*** Suitable vegetation communitiescontaining both feeding and roosting resources occur on and adjacent to the clearance site.

4. Fauna Impacts

It is important to consider the existing and future residential developmental areas when investigation potential fauna impacts.

Impacts to fauna as a result of vegetation clearance will include the following:

- Loss of trees for foraging, roosting and nesting;
- Loss of hollow-bearing trees for nesting and refuge;
- Loss of habitat and foraging areas for terrestrial species;
- Loss of overall habitat;
- Potential loss of abundance of some local species.

Other impacts may include:

- Injury or death during felling of trees;
- Injury or death from machinery;
- Alteration of nesting, foraging and general activities due to disturbance.

5. Assessment and Conclusion

Overall the site contains medium value refugial opportunities for arboreal and terrestrial fauna species (see Section 3.1 and 3.2). The species expected within the site are likely to primarily reflect common fauna assemblages for the region; however, provisions will be proposed directly for common fauna and species of conservation significance.

The connectivity to adjacent conservation land from Village 8 in conjunction with sequential clearing methodologies will aid in the movement of medium to large size fauna such as Koala and Kangaroos. Specific methodologies for these species will be detailed within the Wildlife and Habitat Impact Mitigation Plan (WHIMP).

A number of conclusions and recommendations will be presented in the WHIMP, with the specific intention of providing a comprehensive management structure to facilitate minimal impact to fauna during the clearing of vegetation and subsequent disturbance of habitats.

It is advised that all identified fauna habitats onsite be inspected by a DEHP approved Fauna Spotter prior to vegetation clearing and all vegetation removal activities be supervised during the clearing process (as per the SBMP V8 – 07: Pre-Clearance – Fauna Management). Terrestrial load reduction activities will be conducted ahead of the clearing front where possible. Fauna captured will be relocated to adjacent habitat consistent with the life history requirements of the species requiring translocation.The directives given by Fauna Spotter Catchers should embrace a “best practice” approach which includes implementation of proven specific management techniques for identified habitat types and compliance with legislation relevant to the activity.

It is recommended that in the event any nests which contain chicks are identified during clearing be left until fledged, and those that are in a construction phase should be dismantled to prevent further nesting activity. Any fertile eggs recovered will require incubation and subsequent rearing for latter release.

6. References

Anstis, M (2013) *Tadpoles and Frogs of Australia*, New Holland Publishers, Sydney.

Beruldsen, G. (2003) *Australian Birds their Nests and Eggs*, Kenmore Hills: Self Published.

Curtis, LK, Dennis, AJ, Mcdonald, KR, Kyne, PM & Debus, SJS (2012), Queensland's Threatened Animals, CSIRO Publishing, Victoria.

Department of Sustainability, Environment, Water, Population and Communities (2012) EPBC Act Protected Matters Report. Date created 23rd September 2016.

Department of Environment and Heritage Protection (2012) Koala habitat map request form, http://www.ehp.qld.gov.au/wildlife/koalas/mapping/maprequestform.php
Date accessed 23rd September 2016.

Department of Environment and Heritage Protection (2012) Wildlife and Ecosystems- Threatened Species,http://www.ehp.qld.gov.au/wildlife/threatened-species/index.html
Date accessed 23rd September 2016.

Forshaw, J.M. and Cooper, W.T. (1987) *Kingfishers and Related Birds: Todidae, Momotidae, Meropidae*, Melbourne: Lansdowne Editions.

Higgins, P.J., J.M. Peter & W.K. Steele (Eds) (2001). *Handbook of Australian, New Zealand and Antarctic Birds. Volume Five - Tyrant-flycatchers to Chats*. Melbourne: Oxford University Press.

Lindenmayer, D. (2002) *Gliders of Australia – A Natural* History, UNSW Press Ltd, Sydney

Queensland Environmental Protection Agency and Queensland Parks and Wildlife Service (2006). *Nature Conservation (Koala) Conservation Plan 2006 and Management Plan 2006 – 2016*. Queensland Government – Environmental Protection Agency.

Saunders Havill Group (2016). *Lend Lease Communities, Springfield Rise – Village 8, Site Based Management Plan – Grande Avenue*. Report prepared for Lend Lease Communities Pty Ltd, December 2016.

Van Dyck, S. & Strahan, R (2008). *The Mammals of Australia*, 3rdedn, Reed New Holland, Sydney.

References for nomenclature

Brooker, M.I.H. and Kleinig, D.A. (2004) *Field Guide to Eucalypts: Volume 3 Northern Australia*, 2nd edn, Melbourne: Blooming Books.

Churchill, S. (2008) *Australian Bats*, 2nd edition, Sydney: Allen & Unwin.

Cogger, H. (2000) *Reptiles & Amphibians of Australia*. 6th edition, Sydney: Reed New Holland.

Leiper, G., Glazebrook, J., Cox, D. and Rathie, K. (2008) *Mangroves to Mountains: a Field Guide to the Native Plants of South-east Queensland*, Browns Plains: Logan River Branch Society for Growing Australian Plants.

Menkhorst, K. & Knight, F. (2011) *A Field Guide to the Mammals of Australia*, 3rd edition, South Melbourne: Oxford University Press.

Morcombe, M. (2003) *Field Guide to Australian Birds*. Archerfield: Steve Parish Publishing.

Simpson, K. and Day, N. (2004) *Field Guide to the Birds of Australia,* Camberwell:Penguin Group Australia.

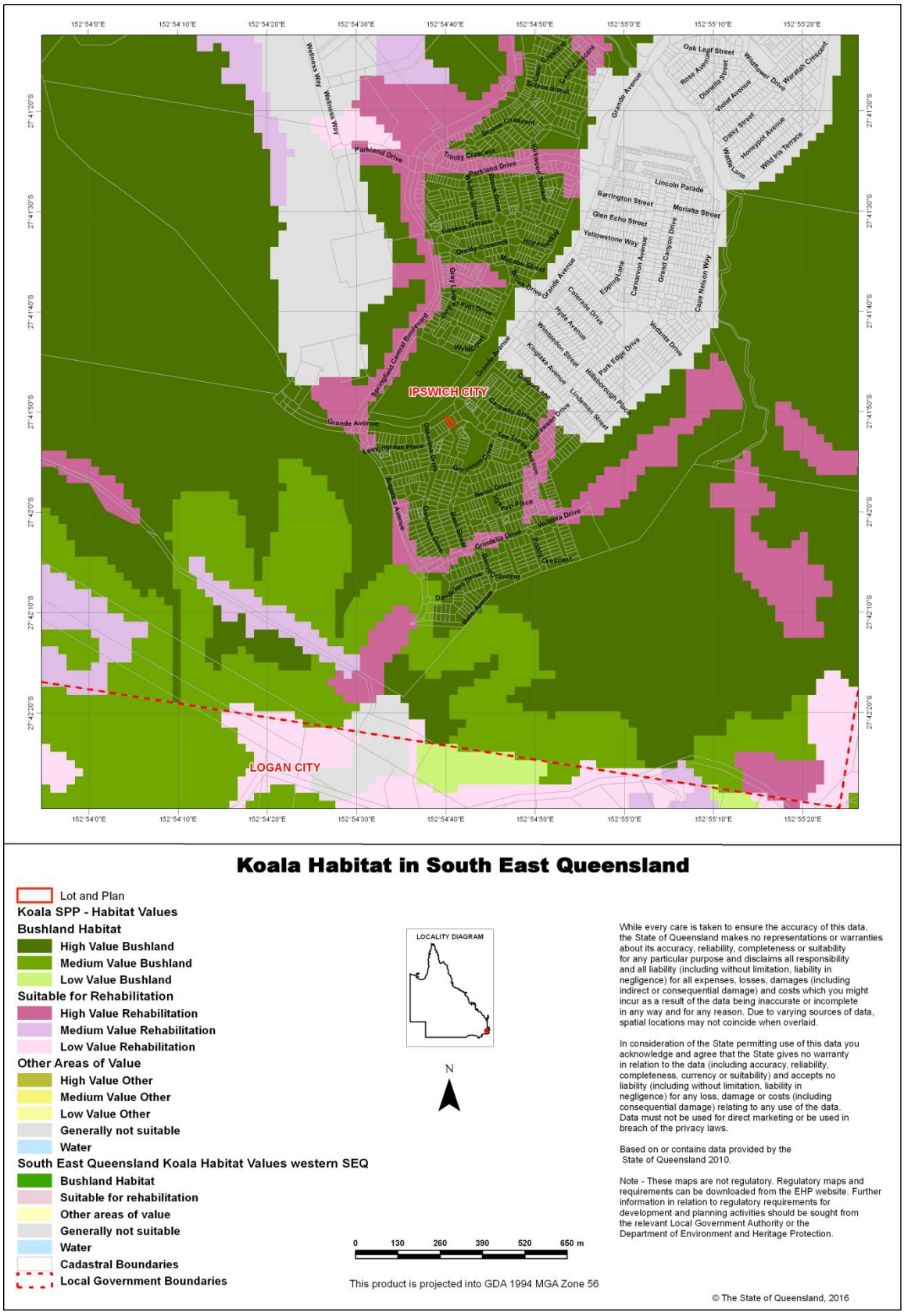
Strahan, R. (Ed) (1995) *The Mammals of Australia*. Sydney: New Holland Publishers.

Wilson, S. (2005) *A Field Guide to Reptiles of Queensland*. Sydney: New Holland Publishers.

Queensland Museum (2007) *Wildlife of Greater Brisbane,* 2nd edition, Brisbane: Queensland Museum Publishers.

Vanderduys, E. (2012) *Field Guide to the Frogs of Queensland*. Collingwood: CSIRO Publishing.

7. Appendix A: Koala Habitat Values



8. Appendix B: EPBC Act Protected Matters Report

Australian Government
Department of the Environment

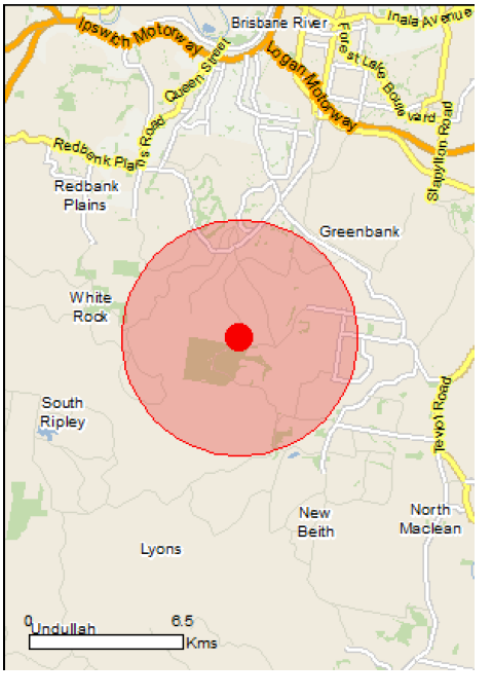
EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

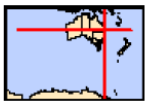
Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

Report created: 23/09/16 11:33:32



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates
Buffer: 5.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	32
Listed Migratory Species:	13

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	1
Listed Marine Species:	20
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	1
Regional Forest Agreements:	None
Invasive Species:	32
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Poephila cincta cincta Southern Black-throated Finch [64447]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus hallucatus Northern Quoll, Digul [331]	Endangered	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat known to occur within area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Reptiles		
Delma torquata		
Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Furina dunmalli		
Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Saiphos reticulatus		
Three-toed Snake-tooth Skink [88328]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area

Migratory Wetlands Species		
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

9. Appendix C: Wildlife Online extract

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: All
Date: Since 1980
Latitude: -27.7039
Longitude: 152.9097
Distance: 5
Email: camillejpalmer@gmail.com
Date submitted: Friday 23 Sep 2016 11:34:29
Date extracted: Friday 23 Sep 2016 11:40:03

The number of records retrieved = 285

Disclaimer

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

No statements, representations or warranties are made about the accuracy or completeness of this information. The State of Queensland disclaims all responsibility for this information and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		15
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		3
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		7
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		6
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		3
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		5
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		16
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		3
animals	amphibians	Myobatrachidae	*Pseudophryne coriacea*	red backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Mixophyes fasciolatus*	great barred frog		C		5
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		3
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		7
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		1
animals	birds	Acanthizidae	*Chthonicola sagittata*	speckled warbler		C		11
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		34
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		8
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		29
animals	birds	Acanthizidae	*Acanthiza lineata*	striated thornbill		C		7
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		20
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		35
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		18
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		3
animals	birds	Accipitridae	*Accipiter novaehollandiae*	grey goshawk		C		5
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		18
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		7
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		10
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		31
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		2
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		4
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		SL		2
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		11
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		9
animals	birds	Alcedinidae	*Ceyx pusilla*	little kingfisher		C		1
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		5
animals	birds	Anatidae	*Aythya australis*	hardhead		C		7
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		58
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		60
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		2
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		5
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		7

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		6
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		SL		6
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		SL		5
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		29
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		62
animals	birds	Ardeidae	*Ardea ibis*	cattle egret		SL		29
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		8
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		7
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		100
animals	birds	Artamidae	*Artamus cyanopterus*	dusky woodswallow		C		4
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		106
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		6
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		56
animals	birds	Artamidae	*Cracticus tibicen*	Australian magpie		C		121
animals	birds	Artamidae	*Cracticus sp.*					4
animals	birds	Artamidae	*Artamus personatus*	masked woodswallow		C		1
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V		2
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		5
animals	birds	Cacatuidae	*Eolophus roseicapillus*	galah		C		61
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		1
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		81
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		90
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		21
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		7
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		9
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Campephagidae	*Coracina lineata*	barred cuckoo-shrike		C		1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		2
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		33
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		10
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		2
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		2
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		14
animals	birds	Climacteridae	*Climacteris affinis*	white-browed treecreeper		C		1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		36
animals	birds	Climacteridae	*Cormobates leucophaea*	white-throated treecreeper		C		5
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		1
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		6
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		2
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		21
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		57
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		4
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		19
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		46

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		21
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		48
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		165
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		10
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		53
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		37
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		24
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		33
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		26
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		6
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		5
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		2
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		78
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		44
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		4
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		15
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		10
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		4
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		10
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		10
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		128
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		53
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		19
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		39
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		6
animals	birds	Hirundinidae	*Cheramoeca leucosterna*	white-backed swallow		C		5
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		10
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		9
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		27
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		46
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		49
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		1
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		5
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		15
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		22
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		11
animals	birds	Meliphagidae	*Myzomela erythrocephala*	red-headed honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		71
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		4
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		84
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		72
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		55
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		27
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		2
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		145

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		63
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		87
animals	birds	Meliphagidae	*Anthochaera chrysoptera*	little wattlebird		C		5
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		31
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		SL		52
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		5
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		29
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		6
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		15
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		71
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		1
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		9
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		31
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		22
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		23
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		38
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		69
animals	birds	Pachycephalidae	*Pachycephala sp.*					1
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		83
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		45
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		10
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		55
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		80
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		6
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		46
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		11
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		24
animals	birds	Petroicidae	*Tregellasia capito*	pale-yellow robin		C		1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		29
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		14
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		11
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		31
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		18
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		24
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		30
animals	birds	Psittacidae	*Platycercus eximius*	eastern rosella		C		8
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		33
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		82
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		58
animals	birds	Psittacidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		93
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		45
animals	birds	Psophodidae	*Cinclosoma punctatum*	spotted quail-thrush		C		9
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		18
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		14

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		24
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		23
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		43
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		76
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		8
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		44
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		37
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		21
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		23
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		21
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		57
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		11
animals	insects	Hesperiidae	*Neohesperilla xanthomera*	yellow grass-skipper				1
animals	insects	Lycaenidae	*Acrodipsas brisbanensis brisbanensis*	bronze ant-blue				2
animals	insects	Lycaenidae	*Ogyris zosine zosine*	northern purple azure (southern subspecies)				1
animals	insects	Lycaenidae	*Ogyris oroetes oroetes*	silky azure				1
animals	insects	Lycaenidae	*Candalides cyprotus pallescens*	copper pencilled-blue				1
animals	insects	Nymphalidae	*Danaus petilia*	lesser wanderer				1
animals	insects	Nymphalidae	*Polyura sempronius sempronius*	tailed emperor				1
animals	insects	Nymphalidae	*Acraea andromacha andromacha*	glasswing				5
animals	insects	Nymphalidae	*Vanessa kershawi*	Australian painted lady				2
animals	insects	Nymphalidae	*Euploea core corinna*	common crow				2
animals	insects	Nymphalidae	*Melanitis leda bankia*	common evening-brown				3
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				2
animals	insects	Nymphalidae	*Danaus plexippus plexippus*	monarch				5
animals	insects	Papilionidae	*Graphium sarpedon choredon*	blue triangle				2
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				2
animals	insects	Pieridae	*Delias nigrina*	black jezebel				1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Canis lupus dingo*	dingo				5
animals	mammals	Dasyuridae	*Sminthopsis murina*	common dunnart		C		1
animals	mammals	Dasyuridae	*Antechinus stuartii*	brown antechinus		C		1
animals	mammals	Dasyuridae	*Antechinus flavipes flavipes*	yellow-footed antechinus (south-east Queensland)		C		4
animals	mammals	Dasyuridae	*Dasyurus maculatus maculatus*	spotted-tailed quoll (southern subspecies)		V	E	1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		2
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		15
animals	mammals	Macropodidae	*Petrogale penicillata*	brush-tailed rock-wallaby		V	V	3
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		10
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		1
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		2
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		10/1
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		52
animals	mammals	Macropodidae	*Macropus sp.*					1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		1
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		11
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		6
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		C		2
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		14
animals	mammals	Phalangeridae	*Trichosurus caninus*	short-eared possum		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		67
animals	mammals	Phalangeridae	*Trichosurus sp.*					3
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	70
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		6
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		C	V	9
animals	mammals	Pteropodidae	*Pteropus sp.*					1
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	11
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		7
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		2
animals	mammals	Vespertilionidae	*Scotorepens sp.*					2
animals	mammals	Vespertilionidae	*Scotorepens orion*	south-eastern broad-nosed bat		C		3
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		2
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				1
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		6
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		3
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		53
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		12
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		1
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		25
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		4
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		1
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		5
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		9
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		2
animals	reptiles	Elapidae	*Demansia sp.*					1
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		6
animals	reptiles	Elapidae	*Pseudechis guttatus*	spotted black snake		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		1
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		4
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		5
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Scincidae	*Lampropholis amicula*	friendly sunskink		C		1
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		8

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		1
animals	reptiles	Scincidae	*Calyptotis scutirostrum*	scute-snouted calyptotis		C		5
animals	reptiles	Scincidae	*Ophioscincus ophioscincus*	yolk-bellied snake-skink		C		1
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		2
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		21
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		1
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		2
animals	reptiles	Scincidae	*Ctenotus arcanus*	arcane ctenotus		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		16
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		6

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*. The values of EPBC are Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Extinct in the Wild (XW) and Vulnerable (V).

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Attachment E

Shadforths Contractor Awareness Acknowledgement

ENVIRONMETAL AWARENESS

CONTRACTOR ACKNOWLEDGEMENT

I SAM SCHROTER., the Contractor (or the Contractor Representative), appointed by Lendlease Communities, acknowledge receipt and acceptance of the Lendlease Communities rules and policies in the **V8 SIte Based Management Plan and Environmental Pre-Start Package**. By signing below, I acknowledge that there are mechanisms in place to ensure all material provided within this SBMP will be read and understood by all site contractors and sub-contractors prior to commencing works on site.

SHADFORTHS CIVIL CONTRACTORS.

Company Name (Please print)

Signature (Contractor / Contractor Representative)

SAM SCHROTER.

Name (Please print)

PROJECT MANAGER.

Title / Position

30 / 11 / 17.

Date