

**Title of Proposal** - LendLease - Elliot Springs Hilltop Referral**Section 1 - Summary of your proposed action**

Provide a summary of your proposed action, including any consultations undertaken.

**1.1 Project Industry Type**

Residential Development

**1.2 Provide a detailed description of the proposed action, including all proposed activities.**

The proposed action relates to the development of a residential subdivision within the Hilltop Environmental Residential Sector (HERS) at the Elliot Springs Masterplanned Community. The main activities to be undertaken and covered by this referral include:

- Progressive vegetation clearing, stockpiling and disposal;
- Construction of access roads to the HERS and internal roads within the HERS;
- Reprofilling and levelling of surface soils, site preparation and landscaping;
- Trenching and installation of stormwater, sewer, electrical and telecommunications infrastructure; and
- Construction of watercourse crossings.

**1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.**

Area	Point	Latitude	Longitude
Approximate project area	1	-19.362238563046	146.87932490307
Approximate project area	2	-19.362279051152	146.8793034454
Approximate project area	3	-19.3622588071	146.8793034454
Approximate project area	4	-19.365437092444	146.88415287929
Approximate project area	5	-19.365437092444	146.88415287929
Approximate project area	6	-19.368068746787	146.88215731579
Approximate project area	7	-19.364546369043	146.87732933956
Approximate project area	8	-19.362238563046	146.87932490307

**1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).**

Elliot Springs Hilltop Environmental Residential Sector (HERS) is to be located on the northern range of the Elliot Springs Masterplanned Community, approximately 15 minutes south-east of the Townsville CBD. The site is formally described as Lot 12 on SP243847 and access roads will intersect allotments 463E12493 and 2EP679. A site locality plan is provided in **Figure 1** in **Attachment A**.

The HERS estate is located within the Elliot Springs conservation corridor on an undulating natural plateau, approximately 500 m southwest of Julago. The project area is rural, consisting of grazed rangelands and remnant woodlands.

The HERS ranges in elevation from approximately 150 m AHD to 200 m AHD. Adjacent land drops steeply to the northeast and northwest and south-west ( $>20^\circ$ ) and to a lesser extent along the ridgelines to the south and southeast ( $15 - 20^\circ$ ).

The project area is located within the Ross River drainage basin and site drainage is via three well defined gullies to the north-west, south-west and south-east of the project area. These watercourses are tributaries of Stuart Creek, which is located to the south-west of the project area. As the watercourses are located within the headwater source of the Stuart Creek catchment, the watercourses are highly ephemeral and only contain flowing water for short durations following rainfall.

Under the regional ecosystem (RE) framework, the project area is mapped as land zone 12 – Mesozoic to Proterozoic igneous rocks, which is consistent with the geology of the area.

Geological mapping of the area identifies the site as Julago Volcanics, an early Permian stratified unit of mixed mafites and felsites. A lithological summary of the rock unit describes a complex geology including the presence of rhylitic to andesitic lava, tuff, volcanic beccia, agglomerate, some conglomerate, sandstone, siltstone, shale and coal seams (Queensland Globe, Queensland Detailed Surface Geology Mapping, 2018).

Soils in the project area were mapped during the Soil survey of the Townsville coastal plains (1:100,000) (Murtha 1975). The project area is mapped as M1 which comprises a range of soil types including shallow to deep uniform sands, coarse massive earths and red duplex soils. The description is generally consistent with the soil types observed.

**1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?**

The total area is approximately 28.5 ha, including the bushfire buffer area of 10 ha.

**1.7 Is the proposed action a street address or lot?**

Lot

**1.7.2 Describe the lot number and title.** Lot 12 on SP243847

**1.8 Primary Jurisdiction.**

Queensland

**1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?**

No

**1.10 Is the proposed action subject to local government planning approval?**

Yes

**1.10.1 Is there a local government area and council contact for the proposal?**

Yes

**1.10.1.0 Council contact officer details**

**1.10.1.1 Name of relevant council contact officer.**

Neil Davies

**1.10.1.2 E-mail**

neil.davies@townsville.qld.gov.au

**1.10.1.3 Telephone Number**

07 4727 9465

**1.11 Provide an estimated start and estimated end date for the proposed action.**

Start date 04/2025

End date 04/2061

**1.12 Provide details of the context, planning framework and State and/or Local government requirements.**

The subject site is located within the Townsville City Council Local Government area. The project is subject to the provision of the Townsville City Plan 2014, as well as Queensland's *Planning Act 2016*. The development site is zoned 'Emerging Community' under

the Townsville City Plan 2014.

The subject site is located within the extents of the Preliminary Approval (S.242) Planning Instrument (MC15/0002, approved by Council on the 15/03/2017), which is considered the relevant planning instrument for the subject site.

The site is subject to the following approvals:

- MC15/0002 - 15 March 2017 - Preliminary approval - Material Change of Use (code) (MC15/0002). Preliminary approval under Section 242 of the Sustainable Planning Act 2009 to allow Development in accordance with Precinct 1 Plan of Development for Elliot Springs, Including an amended concurrence agency response (SDA-0115-017656 dated 15 March 2017.
- SDA-0115-017656 - 15 March 2017 - Amended concurrence agency response – preliminary approval only (with conditions) – Preliminary approval under section 241 and section 242 of the Sustainable Planning Act 2009 to allow development in accordance with Precinct 1 Plan of Development for Rocky Springs.
- RE15/0120 - 5 February 2018 -

Development Permit for Reconfiguring a Lot (3 into 254 Lots, plus 6 balance lots, Access Easement and Open Space – Elliot Springs Precinct

1. The most current Minor Change approval was issued on 05 February 2018

**1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.**

Extensive public consultation was completed as part of the application process to achieve a Material Change of Use Approval (approval achieved 2nd March 2010). A communication log is provided as **Attachment B**. In addition, a Cultural Heritage Management Agreement (13 April 2017) has been signed with the Aboriginal Parties to assist in guiding development activities.

**1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.**

An Ecological Assessment was undertaken in 2018 by RPS, which consisted of the following scope of works:

- Undertake a desktop assessment of background information and legislative/policy documents;- Undertake a site investigation to describe the vegetation communities' present within and adjacent to the HERS and identify and record potential habitat for threatened species and ecological communities;- Undertake targeted surveys for threatened species with a potential to occur in the project area;- Prepare a report detailing, methodology and results of the assessment;- Discuss the potential impacts of development and potential legislative constraints and requirements.

**1.15 Is this action part of a staged development (or a component of a larger project)?**

Yes

**1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action.**

This referral adjoins and is a component of the approved Rocky Springs Masterplanned Community, Townsville EPBC Act approval (Reference number: 2007/3574).

**1.16 Is the proposed action related to other actions or proposals in the region?**

Yes

**1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation).**

The Rocky Springs Masterplanned Community was previously referred to the Department of the Environment and Water Resources (Reference number: 2007/3574) and deemed a 'controlled action' on the 29 August 2007 as the project was considered likely to have an impact on:

- Word Heritage Properties (Section 12 and 15A);- Natural Heritage Places (Section 15B and 15C);- Wetlands of International Importance (Sections 16 and 17B);- Listed Threatened Species and Communities (Sections 18 and 18A); and- Listed Migratory Species (Sections 20 and 20A).

The proposal was approved with conditions on the 2 of July 2010. The initial approval conditions are summarised as follows:

- Offset Management Plan for Black Throated Finch habitat as per specifications;- Buffers to watercourse high banks and Black Throated Finch nesting sites as per specifications;- Legal protection of the Core Conservation Area;- Proposal for infrastructure corridors within the Core Conservation Area will require approval;- Identify the extent of any groundwater discharge area, spring and associated water bodies;- Water Quality Monitoring Plan as per specifications; - Wastewater Management Plan as per specifications;- Construction Environment Management Plan as per specifications;- Three-year Ecological Study of Black Throated Finch and Squatter Pigeon on-site as per specifications;- Plans and reports to be made available to the public;- Accurate records as per specifications;- Resubmit any revised plans for approval;- Comply with requests from the Minister to change approved plans;- Commission an independent audit of conditions when requested to do so by the Minister; and- In the absence of substantial commencement of the action within 5 years, permission from the Minister will be required to commence.

A variation to the approval conditions was provided on 1 November 2010 to include an additional Core Conservation Area, and the conditions were revised on 15 October 2014, summarised as follows:

- Offset Management Plan for Black Throated Finch habitat as per specifications;- Water Quality Monitoring and Management Plan as per specifications; - Construction Environment Management Plan as per specifications;- Core Conservation Areas Management Plan as per specifications;- Wastewater Management Plan as per specifications;- Ecological Study Plan as per specifications; and- Riparian, Groundwater and Nest buffer zones as per specifications Plus standard administrative conditions.

## Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The [interactive map tool](#) can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

- [Profiles of relevant species/communities](#) (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- [Significant Impact Guidelines 1.1 – Matters of National Environmental Significance](#);
- [Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).

### 2.1 Is the proposed action likely to have ANY direct or indirect impact on the values of any World Heritage properties?

No

### 2.2 Is the proposed action likely to have ANY direct or indirect impact on the values of any National Heritage places?

No

### 2.3 Is the proposed action likely to have ANY direct or indirect impact on the ecological character of a Ramsar wetland?

No

### 2.4 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

Yes

#### 2.4.1 Impact table

Species	Impact
Northern quoll ( <i>Dasyurus hallucatus</i> )	The primary impact on the natural environment as a result of the project is the broadacre clearing of approximately 18.5 ha of

Species	Impact
	<p>eucalypt open forest for the construction of access roads, necessary infrastructure and housing envelopes. <i>Dasyurus hallucatus</i> was not recorded during the survey and it is expected that the survey intensity utilised would detect a population of <i>D. hallucatus</i> if they were present. Given the estimated range size of <i>D. hallucatus</i> (males – 100 ha; females – 35 ha), the site is not considered to be of sufficient size to support a significant breeding population. Since 1980 there have been no confirmed records of this species within 10 km of the site. RPS does not believe that the project area is occupied by the species. Whilst northern quoll was not detected during field investigations, the site occurs within the modelled distribution of the species, low density denning/shelter habitat is present on the site and higher quality habitat occurs in vegetation in the local area. In the context of the wider landscape the site represents a small area of potential habitat that may be utilised during dispersal. The project area is located within the modelled distribution of the species and provides potential habitat for the species; however, the habitat is not considered critical to the survival of the species for the following reasons: • The project area is not located on an offshore island; • Rocky habitats, whilst present, provide virtually no denning opportunities with very few interstitial spaces; and • The woodland is not structurally diverse, termite mounds are absent hollow logs are rare and large diameter trees containing hollows are sparse. The site contains dispersal and foraging habitat, however there is no evidence to suggest that this habitat connects populations important to the long-term survival of the species. It is concluded that proposed development will not have a significant impact on Northern quoll.</p>
Bare-rumped sheath-tail bat ( <i>Saccolaimus saccolaimus nudicluniatus</i> )	<p>The primary impact on the natural environment as a result of the project is the broadacre clearing of approximately 18.5 ha of eucalypt open forest for the construction of access roads, necessary infrastructure and housing envelopes. Two distinct populations of the species are known, one in the Top End of the Northern Territory and the other in coastal</p>



Species	Impact
	<p>areas of north-eastern Queensland, from Bowen to Cape York Peninsula. They occur in tropical woodland and tall open forests and are most commonly found in <i>E. platyphylla</i> woodland (Churchill 2008). Ultrasonic echolocation call detection confirmed the presence of <i>S. saccolaimus</i>, where numerous calls were attributed to the species. All confirmed roosts, including maternity roosts of the bare-rumped sheath-tail bat have been from deep tree hollows. No in-depth studies have been undertaken to quantify the structural attributes of roosts to date and therefore accurately quantifying roost availability in the landscape is not currently feasible beyond determining a basic density of hollow bearing trees. An assessment of habitat values for the species focused on the presence and density of suitable tree hollows in the project area. Results of the assessment indicate that available hollows occur at a very low density in the project area (&lt;1 ha) and use of the project area is most likely limited to foraging. As previously discussed, there is a lack of hollow-bearing trees in the project area to provide substantial roosting opportunities, however, adjacent vegetation communities supporting a higher abundance of <i>E. platyphylla</i> and <i>C. dallachiana</i> are likely to be within the foraging range of the species, and therefore the slight loss of potential foraging habitat may occur. In our view the proposed action will not necessitate the removal of significant roosting or foraging resources and is unlikely to have a significant impact on a population of the species.</p>

#### 2.4.2 Do you consider this impact to be significant?

No

#### 2.5 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed migratory species, or their habitat?

No

**2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?**

No

**2.7 Is the proposed action to be taken on or near Commonwealth land?**

No

**2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?**

No

**2.9 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?**

No

**2.10 Is the proposed action a nuclear action?**

No

**2.11 Is the proposed action to be taken by the Commonwealth agency?**

No

**2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?**

No

**2.13 Is the proposed action likely to have ANY direct or indirect impact on any part of the environment in the Commonwealth marine area?**

No

## **Section 3 - Description of the project area**

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

### **3.1 Describe the flora and fauna relevant to the project area.**

Approximately 28.5 ha of eucalypt open forest occurs in the project area (i.e. hilltop residential sector access tracks and fire management area). This habitat type contains one regional ecosystem as detailed Table 3 of Attachment A. This habitat type follows elevated sections of the conservation corridor shown in Figure 1 of Attachment A.

The community consists of an open woodland heavily dominated by narrow-leaved ironbark (*Eucalyptus crebra*), which is analogous with Queensland Regional Ecosystem RE 11.12.9.

A summary of the structural characteristics and species composition of the communities is provided in Table 4 of Attachment C. It should be noted that the site was dry at the time of the survey and the ground layer diversity appeared to be lower than would be usually expected for this community. A complete species list is provided in Appendix of Attachment C.

*Saccolaimus saccolaimus nudicluniatus* (bare-rumped sheath-tail bat) was the only threatened fauna species listed within schedules of the EPBC Act (Vulnerable) and NC Act (Endangered) detected within the project area. No threatened flora or migratory fauna species were detected during the survey.

The flora and fauna of the site are detailed the Ecological Assessment (RPS 2019) (Attachment A).

### **3.2 Describe the hydrology relevant to the project area (including water flows).**

The HERS is located on an undulating plateau oriented north-west to south-east, where the HERS ranges in elevation from approximately 150 m AHD to 200 m AHD. Adjacent land drops steeply to the northeast and northwest and south-west ( $>20^\circ$ ), less so along the ridgelines to the south and southeast ( $15 - 20^\circ$ ) (Figure 3 of Attachment A).

The project area is located within the Ross River drainage basin sub-area and site drainage is via three well defined gullies to the north-west, south-west and south-east of the project area (Figure 3 of Attachment A). These watercourses are tributaries of Stuart Creek, which is located to the south-west of the project area. As the watercourses are located within the headwater source of the Stuart Creek catchment, the watercourses are highly ephemeral and only contain flowing water for short durations following rainfall.

### **3.3 Describe the soil and vegetation characteristics relevant to the project area.**

Under the regional ecosystem (RE) framework, the project area is mapped as land zone 12 – Mesozoic to Proterozoic igneous rocks, which is consistent with the geology of the area.

Geological mapping of the area identifies the site as Julago Volcanics, an early Permian stratified unit of mixed mafites and felsites. A lithological summary of the rock unit describes a complex geology including the presence of rhylitic to andesitic lava, tuff, volcanic beccia, agglomerate, some conglomerate, sandstone, siltstone, shale and coal seams (Queensland Globe, Queensland Detailed Surface Geology Mapping, 2018).

Soils in the project area were mapped during the Soil survey of the Townsville coastal plains (1:100,000) (Murtha 1975). The project area is mapped as M1 which comprises a range of soil types including shallow to deep uniform sands, coarse massive earths and red duplex soils. The description is generally consistent with the soil types observed.

### **3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.**

Not applicable

### **3.5 Describe the status of native vegetation relevant to the project area.**

Approximately 28.5 ha of eucalypt open forest occurs in the project area (i.e. hilltop residential sector, access tracks and bushfire management area). The bushfire management area will be managed in accordance with the Bushfire Hazard Management Plan (RPS 2019) (Attachment C). This habitat type contains one regional ecosystem as detailed Table 3 of Attachment A. The community consists of an open woodland heavily dominated by narrow-leaved ironbark (*Eucalyptus crebra*), which commonly occurs in the Townsville region and is analogous with RE 11.12.9.

A summary of the structural characteristics and species composition of the communities is provided in Table 4 of Attachment A and its spatial extent is provided in Figure 4 of Attachment A

### **3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.**

Not applicable

### **3.7 Describe the current condition of the environment relevant to the project area.**

The majority of the project area is intact and virtually unmodified from the natural state, supporting remnant woodland vegetation. Minor clearing has been undertaken on the outside eastern edge of the project area to support a narrow walking trail.

Weed density is high throughout the project area, both in the woody shrub layer and the herb

layer. *Ziziphus mauritiana* (chinee apple), *Lantana camara* (lantana), *Sida cordifolia* (flannel weed) and *Hyptis suaveolens* are the dominant species in their respective strata, forming significant infestations. *Cryptostegia grandiflora* (rubber vine) was also observed, particularly where vine thicket elements were present.

Wild pigs and dogs were photographed on the deployed remote cameras. Although not directly observed, feral cats and cane toads are also expected to occur in the project area.

Grazing impacts from foraging and trampling is evident in localised areas but are relatively insignificant due to limited cattle access to the project area.

Evidence of historical fire was observed, however the exact timing, area and intensity of fire at the site and its relevance to threatened species and fauna is unknown.

The dense weedy shrub layer consisting of *Ziziphus mauritiana* (chinee apple) and *Lantana camara* (lantana) suggests that fire hasn't recently contributed to the ecology of the site.

### **3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.**

No Commonwealth Heritage Places or other places recognised as having heritage values are known to occur in the vicinity of the project area.

### **3.9 Describe any Indigenous heritage values relevant to the project area.**

In accordance with the Cultural Heritage Management Agreement signed with the Aboriginal Parties a pre-development survey will be completed prior to works commencing on site.

### **3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.**

Freehold

### **3.11 Describe any existing or any proposed uses relevant to the project area.**

Whilst the subject allotments are currently being utilised for cattle grazing, cattle predominantly forage on the alluvial plains where pasture quality is higher and more accessible.

## **Section 4 - Measures to avoid or reduce impacts**

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

### **4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.**

The primary impact on the natural environment as a result of the project is the broadacre clearing of approximately 18.5 ha of eucalypt open forest for the construction of access roads, necessary infrastructure and housing envelopes. As part of the development approval conditions imposed by the Department of State Development, Manufacturing, Infrastructure and Planning, a number of management measures to mitigate impacts must be implemented by the proponent. These measures are summarised below:

#### **1. Construction Environmental Management Plan**

All works must be carried out and completed in accordance with the approved Construction Environmental Management Plan. This provides details on:

- Stakeholder requirements.
- Development compliance with current environmental legislation.
- Environmental Management System requirements (in accordance with ISO 14001).
- Mitigation committed to within the Environmental Statement and how it will be implemented on site.
- How any adverse effects are minimised during construction.
- Site-specific method statements.

#### **2. Stormwater Management Plan**

All works must be carried out and completed in accordance with the approved Stormwater Management Plan. This provides details on:

- Stormwater quality improvement devices
- Mechanisms for monitoring and reporting

The implementation of the Stormwater Management Plan will ensure that water quality standards set by State and Local governments are achieved.

#### **3. Erosion and Sediment Control Plan**

Operational works applications must be accompanied by an Erosion and Sediment Control Plan, to be approved by Council. It must contain details on:

- Catchment boundary and overland flow path
- Estimated soil loss from each catchment
- Length, width and depth of each sediment basin
- Spillway details and levels
- Energy dissipation/ scour protection

The following specific mitigation measures have been recommended by RPS following site surveys;

### **Northern Quoll**

Despite the likely lack of significant impact but due to the presence of potential habitat, a number of proposed mitigation measures specific to the northern quoll have been suggested, some of which have been derived from the relevant Guidelines, to minimise and mitigate potential impacts.

### Habitat Clearing

- Rehabilitate disturbed habitats.
- Restrict the area of disturbed habitat to the proposed footprint and retain significant habitat features such as hollow logs, boulders and rocky watercourses where possible.
- Avoid the operation of heavy machinery between May and November (quoll breeding).
- Vegetation clearing should be undertaken in a manner that reduces potential injuries and mortalities to fauna.
- Engage a DES approved spotter/catcher or ecologist to identify habitat trees that may be occupied by fauna.
- Implement a staged approach to clearing.
- Gently disturb habitat trees to warn resident fauna of the impending clearing.

### Invasive Species

- Implement quarantine protocols.
- Educate staff and contractors about quarantine protocols and risks involved with invasive species.
- Control (and where possible) eradicate weeds listed in the *Biosecurity Act 2015* and Weeds of National Significance. Existing threats on the site include Chinee apple\* and Lantana\*.

### Traffic

- Control and manage traffic to minimise mortality.
- Educate project staff to reduce speed whilst driving and minimise travel on the site during construction.
- Erect signage to prevent entry into the proposed conservation corridor at the site.
- Avoid and enforce unauthorised off-track driving with signage and penalties.
- Reduce and enforce speed limits in the vicinity of quoll habitat with signage and penalties.
- Report and record road kills.

## Feral Animals

- Control feral animal abundance such as feral cats, pigs and wild dog.
- Eradicate feral animals through localised live trapping.
- Remove any harbourage sites such as tips and dump sites.
- Modify existing habitat to make it less suitable for cats e.g. reduce fragmentation by rehabilitating tracks and clearings and making it more structurally complex with shelter and escape sites.
- Potential predation by cats and dogs at the proposed wildlife underpasses needs to be taken into consideration in the design and placement of those structures, including the likely increase in populations of those species because of increased urban development in the area.

## **Bare-rumped sheath-tail bat**

Despite the low potential for a significant impact, the following mitigation measures are recommended to further reduce any prospect of a residual impact on bare-rumped sheath-tail bat:

- Staged clearing works to allow bats to leave potential roosting sites.
- Periodic impact noise to encourage bats to leave roosting sites – use of noise cannons is currently the preferred method.
- Additional methods to encourage bats to leave roosting sites is the intrusive method of tapping trees with hollows before clearing.
- Immunised spotter catcher will be on site for the entire clearing exercise to monitor clearing works and assist with clearing hollows as each tree is felled.
- Timing for clearing works will where practicable be outside the breeding season (tropical wet season) so young are not keeping adult bats in roosting sites.
- Gently disturb habitat trees to warn resident fauna of the impending clearing.

## **Summary**

Each of the above-mentioned management measures are specifically aimed at avoiding and reducing impacts on the environment as a result of the development. In particular, the use of a fauna-spotter catcher during clearing and construction phases will ensure that impacts to threatened fauna, if present, are avoided.

## **4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.**

Following the desktop and field investigations RPS determined that a significant impact assessment was required for bare-rumped sheath-tail bat and northern quoll (Attachment A). The assessment for bare-rumped sheath-tail is necessary due to a number of confirmed detections on ultrasonic echolocation call detectors during the field survey. Although northern quoll was not detected during field investigations, the site occurs within the modelled distribution of the species. Field investigations confirmed the presence of low density denning/shelter habitat on the site in addition to higher density denning habitat in the local area. The significant



impact assessment concluded that impacts on northern quoll and bare-rumped sheath-tail bat from the proposed action are likely to be 'low' for each of the 'significant impact criteria'.

Environmental outcomes to be achieved are detailed below:

Northern quoll (*Dasyurus hallucatus*)

*Avoidance* - The proposed development will not involve the clearing of habitat critical to the survival of northern quoll. Structurally diverse woodland or forest areas containing large diameter trees, termite mounds or hollow logs considered critical to survival were very sparse in the project area. Additionally, dispersal and foraging habitat associated with or connecting, populations important for the long-term survival of the northern quoll is also considered habitat critical to the survival of the species. We note that there are no local records of northern quoll within 10km of the project area, with key populations located at Mount Elliot, in Bowling Green Bay National Park to the south and Cape Cleveland to the south-east. Remnant connectivity with these populations has been severed and this action is unlikely to prevent dispersal from these core populations. Therefore the proposed development will not include the clearance of dispersal and foraging habitat associated with or connecting populations.

*Mitigation* - Despite the likely lack of significant impact but due to the presence of potential habitat, a number of proposed mitigation measures have been developed to minimise the impact to potential foraging habitat, including specific mitigation measures for the northern quoll and the implementation of a construction environmental management plan.

The proposed environmental outcomes include the following:

- Restrict the area of disturbed/cleared habitat to the proposed footprint and retain significant habitat features (ie. hollow logs, boulders and rocky watercourses) where possible; and
- Maintain the integrity of adjacent habitat by minimising edge effects and controlling and where possible eradicating weeds.

Bare-rumped sheath-tail bat (*Saccolaimus saccolaimus nudiclunatus*)

*Avoidance* - The proposed development will only require the removal of a limited number of hollow-bearing trees which may provide potential roosting opportunities, where the results of the ecological assessment indicated that hollows occur at a very low density in the project area (<1ha). Therefore, adjacent vegetation communities that support a higher abundance of *E. platyphylla* and *C. dallachiana* (hollow bearing trees) and which are likely to be within the foraging range of the species, will not be cleared.

*Mitigation* - Despite the likely lack of significant impact but due to the presence of potential habitat, a number of proposed mitigation measures have been developed to minimise the impact to potential habitat, including specific mitigation measures for the bare-rumped sheath-tail bat and the implementation of a construction environmental management plan. The proposed environmental outcomes include the following:

- Ensure no mortalities as a result of clearing potential roost trees, by implementing the following mitigation measures; staging clearing works to allow bats to leave potential roosting

sites, using periodic impact noise to encourage bats to leave roosting sites – use of noise cannons is currently the preferred method, use of a immunised spotter catcher for the entire clearing exercise to monitor clearing works and assist with clearing hollows as each tree is felled and ensuring that the timing for clearing works where practicable is outside the breeding season (tropical wet season) so young are not keeping adult bats in roosting sites.

- Restrict the area of disturbed/cleared habitat to the proposed footprint; and
- Maintain the integrity of adjacent habitat by minimising edge effects and controlling and where possible erradicating weeds.

## **Section 5 – Conclusion on the likelihood of significant impacts**

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

### **5.1.1 World Heritage Properties**

No

### **5.1.2 National Heritage Places**

No

### **5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)**

No

### **5.1.4 Listed threatened species or any threatened ecological community**

No

### **5.1.5 Listed migratory species**

No

### **5.1.6 Commonwealth marine environment**

No

### **5.1.7 Protection of the environment from actions involving Commonwealth land**

No

### **5.1.8 Great Barrier Reef Marine Park**

No

### **5.1.9 A water resource, in relation to coal/gas/mining**

No

### **5.1.10 Protection of the environment from nuclear actions**

No

#### **5.1.11 Protection of the environment from Commonwealth actions**

No

#### **5.1.12 Commonwealth Heritage places overseas**

No

**5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.**

Significant matters have been identified and addressed in Attachment A and whilst there is the potential for an impact on threatened species a significant impact on a species population is considered unlikely.

## **Section 6 – Environmental record of the person proposing to take the action**

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

### **6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.**

Yes.

Lendlease has an exemplary record of environmental management and sustainability at state, national and international levels.

Lendlease has worked closely with community as well as local and state authorities to ensure site-responsive outcomes on its projects. Examples of this include returned effluent treatment and reuse systems, seed collection and propagation programmes with both Landcare and Greening Australia, undertaking HIA Green Smart Programmes across a number of projects, provision of site-based management plans across all communities, generation of site-based urban design outcomes (in consultation with local authorities), water recycling programmes at a number of communities, waterway and corridor management plans ensuring no impact into downstream wetlands and builders water recycling programmes. Additional to this, Lendlease undertakes community education and interaction programmes across its communities to create a high level of social capital.

Lendlease has won numerous state and national awards for master planned communities. These awards are recognition for the comprehensive planning and implementation of site specific outcomes in working with all constraints including the provision of environmental and sustainability initiatives. Also, three of its communities, Twin Waters, Golden Grove and West Lakes, have won the Prix d'Excellence awarded by the International Real Estate Federation for best community.

### **6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.**

None

### **6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?**

Yes

**6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.**

Lend Lease's Sustainability Framework monitors and assesses design and sustainability performance across its range of projects.

Our vision was to become the lead agency for the practical demonstration of sustainable development by 2012 and our Sustainability Framework includes numerous strategies, processes and procedures such as:

- A system for tracking and measuring corporate performance
- A strategy for innovation
- A system for the sustainability assessment of projects
- A project design review process
- A process for visioning and objective setting
- Providing guidelines for purchasers to achieve design outcomes
- Sustainable development policies

The proposed action is governed by all the above, many of which are already demonstrated in the supporting documentation provided.

**6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?**

Yes

**6.4.1 EPBC Act No and/or Name of Proposal.**

2001/520 Lend Lease Development Pty Ltd/Urban Developments/Pine Rivers Shire/QLD/North Lakes Development

2004/1907 Lend Lease Development Pty Ltd/Tourism, recreation and conservation management/Mudjimba/QLD/Development of Stage 7 of the North Shore Coastal Village

2004/1921 Lend Lease / Urban and commercial new development / Caroline Springs / VIC / Caroline Springs residential development (northern sector)

2005/1935 Lend Lease / Urban and commercial new development / Caroline Springs / VIC / Caroline Springs Residential development (middle sector)

2006/3057 Delfin Craigieburn Pty Ltd / Residential Development / Craigieburn / VIC / Fairways North residential development

2007/3574 Lend Lease / Commercial development / Bruce Highway, Julago, 12 km south east of Townsville CBD / QLD / Development and Construction of Rocky Springs Masterplanned Community

2007/3585 Pacific Pines Estate, Lennox Head NSW

2010/5381 Lend Lease Limited / Residential development / Calderwood Valley, Illawarra Region / NSW / Calderwood Urban Development

2011/5902 Lend Lease / Residential development / 80L Romeo Rd and 2611 Marmion Ave, Alkimos WA/WA / Residential development Lot 1004 Alkimos WA

2011/5826 Gawler East Development Project, SA

2013/6791 Lend Lease Yarrabilba Project, Waterford-Tamborine Road, Yarrabilba, Queensland.

2014/7400 Lend Lease Communities Australia Limited/Residential Development/1km east of Hume Hwy and Picton Road intersection, Wilton /New South Wales/Bingara Gorge staged residential development, NSW

2015/7534 Lend Lease Communities (Townsville) Pty Ltd/Transport – land/Bruce Hwy, Julago/QLD/Construction of a western access road, Julago

2015/7561 Lend Lease Corporation Limited/Commercial Development/Marmion Ave, Alkimos/Western Australia/Alkimos city centre and central development, WA

## Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

### 7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
DoEE (2018) Protected Matters Search Tool	High – resource provided by the commonwealth environment regulator	Nil
Queensland Wildlife Online Search	High – resource provided by the commonwealth environment regulator	Nil
Australian Soil Resource Information System – Digital Atlas of Australian Soils (1991)	High – resource provided by CSIRO	Nil
Atlas of Living Australia	High – resource provided by CSIRO, National Research Infrastructure of Australian and Global Biodiversity Information Facility	Nil
Elliot Springs Hilltop Estate – Ecological Assessment (RPS 2019)	High - targeted surveys and ecological assessment undertaken by consulting ecologists.	The ecological assessment (RPS 2019) includes a desktop assessment and field survey to characterise the relevant MNES which may be impacted by the project.



## **Section 8 – Proposed alternatives**

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

### **8.0 Provide a description of the feasible alternative?**

Alternative sites are not available within the conservation corridor due to the topographical, environmental (particularly connectivity) and cost constraints associated with development in other areas.

### **8.1 Select the relevant alternatives related to your proposed action.**

### **8.27 Do you have another alternative?**

No

## **Section 9 – Contacts, signatures and declarations**

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

### **9.0 Is the person proposing to take the action an Organisation or an Individual?**

Organisation

#### **9.2 Organisation**

##### **9.2.1 Job Title**

Regional Development Manager

##### **9.2.2 First Name**

Simon

##### **9.2.3 Last Name**

Walker

##### **9.2.4 E-mail**

Simon.walker@lendlease.com

##### **9.2.5 Postal Address**

PO Box 1438  
Townsville QLD 4810  
Australia

##### **9.2.6 ABN/ACN**

ABN

80072714688 - LENDLEASE COMMUNITIES (TOWNSVILLE) PTY LIMITED

##### **9.2.7 Organisation Telephone**

0438 117 545

##### **9.2.8 Organisation E-mail**

simon.walker@lendlease.com

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

#### Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

#### Person proposing the action - Declaration

I, SIMON WALKER, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature: Simon Walker Date: 4/4/2019

I, SIMON WALKER, the person proposing the action, consent to the designation of LENDLEASE COMMUNITIES (TOWNVILLE) as the proponent of the purposes of the action describe in this EPBC Act Referral. RTV LIMITED

Signature: Simon Walker Date: 4/4/2019

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

**9.5.1 Job Title**

Regional Development Manager

**9.5.2 First Name**

Simon

**9.5.3 Last Name**

Walker

**9.5.4 E-mail**

simon.walker@lendlease.com

**9.5.5 Postal Address**

PO Box 1438  
Townsville QLD 4810  
Australia

**9.5.6 ABN/ACN**

ABN

80072714688 - LENDLEASE COMMUNITIES (TOWNSVILLE) PTY LIMITED

**9.5.7 Organisation Telephone**

0438 117 545

**9.5.8 Organisation E-mail**

simon.walker@lendlease.com

**Proposed designated proponent - Declaration**

I, Simon Walker, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: Simon Walker Date: 3/4/2019

**9.6 Is the Referring Party an Organisation or Individual?**

Organisation

## 9.8 Organisation

### 9.8.1 Job Title

Practice Leader NQ

### 9.8.2 First Name

Laurence

### 9.8.3 Last Name

Liessmann

### 9.8.4 E-mail

laurence.liessmann@rpsgroup.com.au

### 9.8.5 Postal Address

PO Box 977  
Townsville QLD 4810  
Australia

### 9.8.6 ABN/ACN

ABN

44140292762 - RPS AUSTRALIA EAST PTY LTD

### 9.8.7 Organisation Telephone

(07) 4724 4244

### 9.8.8 Organisation E-mail

townsville@rpsgroup.com.au

## Referring Party - Declaration

I, Laurence Liessmann, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:  Date: 3/04/19

## **Appendix A - Attachments**

The following attachments have been supplied with this EPBC Act Referral:

1. 6.3.2 Environmental Policy & Planning Framework.pdf
2. 100506-TCC Development Application Negotiated Decision Notice.pdf
3. 100824 Endorsed PoD Approval Ltr.pdf
4. Attachment A.pdf
5. Attachment B.pdf
6. Attachment B\_Communications Log.pdf
7. Figure1\_Location.pdf
8. Finalised\_ReferralShapefiles.zip
9. HilltopPlan.zip
10. HilltopResidentialAccessRoads.zip
11. PR122454-3 - Elliot Springs Hilltop Estate - 1.5 - Report.pdf