**Uluṟu- Kata Tjuṯa National Park**

**Environmental Impact Assessment (EIA)**

# Uluru Lodge Walk

## October 2020

Prepared by Low Ecological Services
for Australian Walking Company
Submitted to UKTNP on 9th October 2020

- **INTRODUCTION**

The Uluru-Kata Tjuta National Park (UKTNP) Plan of Management is the key document which determines what activities are allowed in Uluru-Kata Tjuta NP and how they should be assessed. The Plan establishes different categories of action according to the degree of potential impacts (Section 8.5: Table 2 - Impact Assessment Procedures).

All proponents must refer to the full explanation of these categories and the impact assessment process in the EIA Guidelines before completing the following.

**CATEGORY 1 ASSESSMENT**

If your proposal involves an action considered likely to have

- no impact,
- or no more than a negligible impact on the Park's environment and natural and cultural values
- and no impact on Nguraritja

► **COMPLETE UKTNP'S PRELIMINARY CHECKLIST, NOT THIS FORM**

Some examples of Category 1 activities:

- Minor capital works e.g. maintenance, replacement repairing or improving existing infrastructure in its present form.
- Regular/routine ongoing operations to implement prescriptions in UKTNP Plan of Management e.g. patrols, weed control or fire management.
- Seasonal opening/closing of visitor areas.

- Issuing permits for regular activities in accordance with the UKTNP Plan of Management, e.g. commercial tours, research.

**CATEGORY 2 ASSESSMENT**

If your proposal involves an action considered likely to have

- More than a negligible impact,
- but a not a significant impact on the Park's environment and natural and cultural values
- More than a negligible but not a significant impact on Nguraritja.

**► ► AN EIA IS REQUIRED. COMPLETE THIS FORM. ALL SECTIONS OF THE FORM ARE TO BE COMPLETED UNLESS OTHERWISE SPECIFIED.**

Some examples of activities requiring an EIA are:

- Moderate capital works e.g. new infrastructure or moderate expansion/upgrade of existing infrastructure.
- Rehabilitation of heavily eroded sites.
- Development for approved existing tourism activities that do not require major works e.g. new shade shelter construction.
- Minor new operations or developments to implement prescriptions in the UKTNP Plan of Management.

**CATEGORY 3 ASSESSMENT**

If your proposal is considered likely to have

- A significant impact on the Park's environment and natural and cultural values.
- And a significant impact on Nguraritja.

**► ► ► A CATEGORY 3 ASSESSMENT IS REQUIRED.**

**BEFORE COMPLETING THIS FORM, ADVICE MUST BE OBTAINED FROM THE DIRECTOR OF NATIONAL PARKS (DNP) AS TO WHETHER IT SHOULD BE REFERRED AS A CONTROLLED ACTION UNDER THE ENVIRONMENTAL PROTECTION AND BIODVISERSITY CONSERVATION (EPBC) ACT.**

Some examples of proposals requiring CATEGORY 3 ASSESSMENT are:

- Major capital works e.g. new major infrastructure or major expansion/upgrade of existing infrastructure
- Major new operations or developments to implement prescriptions in the UKTNP Plan of Management.
- Major/long-term changes to existing visitor access arrangements
- Expansion of the Mutitjulu township
- New types of commercial activities
- Impacts on threatened species or threatened environmental communities.

# 1 BACKGROUND INFORMATION

## 1.1 Proponent's Details

Proponent's name: Uluru Lodge Walk Pty Ltd (ULW)

## 1.2 Location of the proposed action

Uluru Lodge Walk (ULW) is a project proposed by Uluru Lodge Walk Pty Ltd which is a wholly owned subsidiary of Australian Walking Company Pty Ltd (AWC) in the Uluru-Kata Tjuta National Park (UKTNP), Northern Territory (NT Por 1798). The project involves a 4-day, 4-night guided walk and three camp - lodge style accommodation between Kata Tjuta and Uluru.

The Project Area stretches approximately 50km from west to east in the southern region of UKTNP. The beginning of the projects footprint is approximately 6.5km to the south-west of Kata Tjuta along the unsealed Mantur Rd (homelands track) where a 4.1km Vehicle Access Track (unsealed) is proposed for construction to access Camp 1. The ULW Walking Trail begins from Camp 1 and continues for approximately 40km eastwards before terminating at the south-western end of Uluru near Mutitjulu

Waterhole carpark. A further two Camps (2 and 3) are proposed along the Walking Trail, approximately 16.2km apart, and each serviced by a Vehicle Access Track (unsealed). The Vehicle Access Track for Camp 2 is 2.4km long, branching off Kata Tjuta Rd. The Vehicle Access Track for Camp 3 is 0.8km long and meets an existing UKTNP unsealed service track (5km long) that runs south from Uluru Road, approximately 1km south-west from the Cultural Centre.

All Camp locations have been selected in consultations with Anangu Traditional Owners in 2019. Anangu selected sites were at a significant distance to culturally important areas.

See Figure 1 containing a map of the proposed ULW's location.

***See Attachments 9a-c: ULW Maps (pdf), Shapefiles and KML files.***

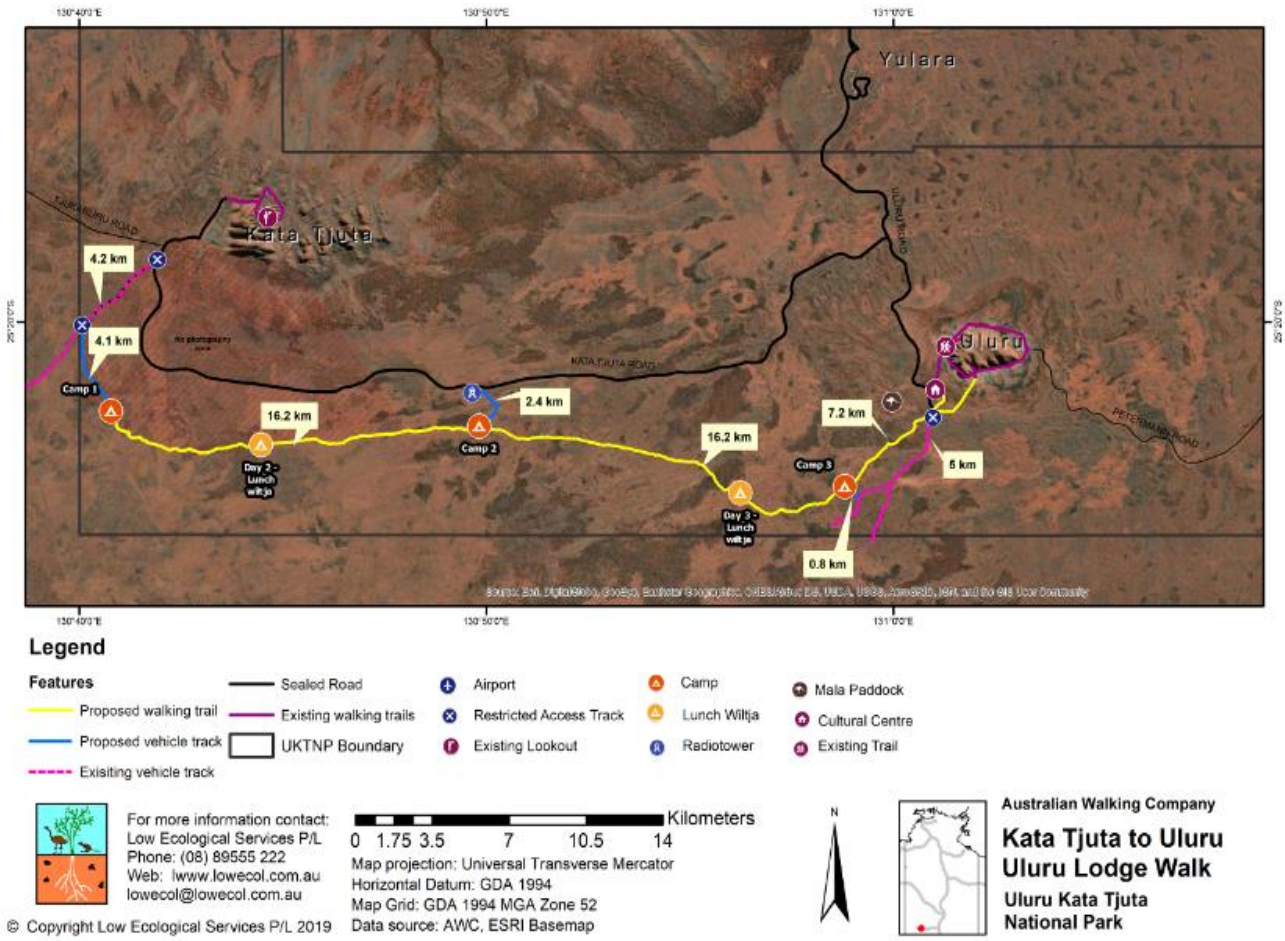



Figure 1. Project Area of the Uluru Lodge Walk, UKTNP, Northern Territory.

1.3 **Project description** (provide a comprehensive description of action or project including: area of site [hectares] or footprint [metres]; current use of the site if any; description of what is involved in the action; steps or stages of the action; what access routes will be used; who will carry out the work; how long the work will take; what machinery will be required for the work; what essential services will be required to carry out the work). Attach plans, diagrams or specifications as necessary.

The ULW proposed by Australian Walking Company involves a 4-day, 4-night guided walk between Kata Tjuta and Uluru. The project will require the development of approximately 40kms of Walking Trail, coupled with three semi-permanent to permanent Camps, two lunch spots and three Vehicle Access Tracks for servicing the Camps. The Project Area is not currently used for other known purposes and is without service tracks.

The operational capacity of the walk will see a group of up to 14 guests and 3 staff departing daily between mid-April to September. Camp 1 and 2 will accommodate one group each and Camp 3 is proposed to accommodate two groups (up to 36 pax) for the final two nights. At full functioning capacity, the ULW expects to host approximately 2,000 guests per year during the cooler season. During the hot season, there are preliminary plans to offer a shorter product, for example 2 day/2 night, based out of Camp 3 only, if there is client demand. This will include shorter walks in the cooler parts of the day and regular evening activities including with Traditional Owners.

The designing of camp accommodation has been carried out by architects from Troppo, who specialise in designing sustainable building and off-grid service projects for remote areas. Troppo explain their contribution to the project in the following statement,

> *"From conceptualisation to construction, a highly considered, site responsive approach will be at the forefront of the design process; working with the Anangu traditional owners within Uluru Kata Tjuta National Park to deliver infrastructure for a walk that will follow Anangu footsteps.*
> *Remote sites have been selected that, in sequence, open up views to Kata Tjuta and then Uluru. Commons and sleeping pods will nestle to dune forms, with boardwalks, moving guests to decked lookouts and campfires beneath the stars. The architecture is derived from the principles of traditional 'wiltjas', all as light and broadly openable as possible, with skins to consider hot days and cold nights (and flies before the sun goes down).*
> *Greenest servicing strategies are integrated, and water conservation methods will lead to fun bath-times!" – Troppo 2020*

***See Attachments 1a-g: Troppo Architectural Design Plans for Camp 1, 2 and 3.***

Table 1. Approx. footprint of disturbance for each project element including buffer at Camp's and Vehicle Access Tracks. Note that the Camp plans are conceptual at this stage and plans may be changed to requirements. BBS has conducted formal surveys of footprints for lease areas. Once this information is available it will be appendixes to this EIA.

| **Proposed Project Disturbance Areas** | **Latitude** | **Longitude** | **Approx Length (m)** | **Approx Width (m)** | **Total Footprint (Hectares)** | **Required Disturbance** |
|---|---|---|---|---|---|---|
| Camp 1 overall footprint | -25.36826 | 130.68006 | 250 | 250 | 6.3 | Selective removal of grasses and small shrubs to establish permanent built Camps, common areas and services (e.g. electricity, plumbing and ablution).<br><br>Camps 1 and 2 will host groups of 14 guests plus up to 4 staff (up to 18 pax), and Camp 3 will host two groups plus support staff at the same time (up to 36 pax). |
| Camp 2 overall footprint | -25.37548 | 130.82918 | 250 | 250 | 6.3 | |
| Camp 3 overall footprint | -25.39767 | 130.98009 | 250 | 250 | 6.3 | |
| Vehicle Access Track, Camp 1 (Mantur Rd to Camp 1) | -25.30896 (Turn off) | 130.69853 | 4100 | 5 | 2.1 | Selective removal of grasses and small shrubs for track corridor. Brush over or a light cut grading to develop an unsealed 4WD Vehicle Access Tracks. Tracks will require standard ongoing maintenance for perpetuity if unsealed. Note – all vehicle tracks utilise existing 'authorised personal only' access tracks that adjoin main roads. |
| Vehicle Access Track, Camp 2 (Kata Tjuta Rd Radiotower track to Camp 2) | -25.35830<br><br>(Turn off) | 130.82810 | 2400 | 5 | 1.2 | |
| Vehicle Access Track, Camp 3 (UKTNP back track to Camp 3) | -25.40043 (Turn off) | 130.98733 | 800 | 5 | 0.4 | |
| Walking Trail, | See map | - | 16100 | 1.5 | 2.4 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Camp 1 to Camp 2 | | | | | | |
| Walking Trail, Camp 2 to Camp 3 | - | - | 16200 | 1.5 | 2.4 | Selective removal of grass cover to establish unsealed Walking Trails. |
| Walking Trail, Camp 3 to Uluru | - | - | 7200 | 1.5 | 1.1 | |
| Lunch spot, Camp 1 to Camp 2 | -25.38156 | 130.74099 | 30 | 30 | 0.1 | Selective removal of grass cover to install a raised platform for sitting to have lunch and resting. A drop toilet and small emergency water tank are proposed. |
| Lunch spot, Camp 2 to Camp 3 | -25.40039 | 130.93734 | 30 | 30 | 0.1 | |

Table 1 displays the estimated footprint of the ULW Project Area. Note: these proposed footprints have included significant buffer areas around the buildings and exact Lease Area Application footprints will be verified by Surveyors at a later date. Estimated total ground disturbance footprint for each camp sites buildings and walkways are in Table 2 below.

Table 2. Estimated total ground disturbance footprint expected, not including temporary construction disturbance areas that will rehabilitated.

| **Total Ground Disturbance (Estimate)** | **Camp 1** | **Camp 2** | **Camp 3** | **Lunch spot x 2** |
|---|---|---|---|---|
| Buildings (ha) | 0.08 | 0.11 | 0.19 | 0.004 |
| Walkways (ha) | 0.05 | 0.04 | 0.07 | - |
| Total (ha) | 0.13 | 0.15 | 0.26 | 0.008 |

All infrastructure/buildings associated with the ULW have been architecturally designed by Troppo with ecological sustainability principles in mind. The buildings are simplistic and majority of the components can be pre-fabricated off-site, then assembled quickly onsite. This minimises ground disturbance and allows for easy removal after the projects end. This type of design allows for a rapid rehabilitation of each of the sites including temporary construction areas.

**Camp 1 –** Camp 1 is a semi-permanent lodge-style accommodation for 14 guests and 3 staff. The camp is set at the base of a sanddune with mature desert oaks on the flat providing sufficient shade and wind protection to the camp. Accommodation for guests and staff is either 3m x 4m store-bought heavy-duty canvas tents or architecturally designed canvas tents set on a ground platform amongst the desert oaks. The tents will be dismantled and stored in the storage container in the off season. A main building (Big Wiltja- permanent structure) containing the kitchen and dining area is proposed for mid-way up the sand dune flank on its most wide and stabilized point. The main building is a permanent structure on partially raised supports. An amenities building (permanent structure) with pod toilets and showers is proposed. The camp will include designated walking paths approximately 1.5m wide to direct visitor movements around site and a walk to a look-out on the dune's highest point. The walking path up the dune and on the dune crest will be stabilized by a dune matting material discussed in the LES Flora and Fauna Assessment Report 2019. A service shed is included in design plans.

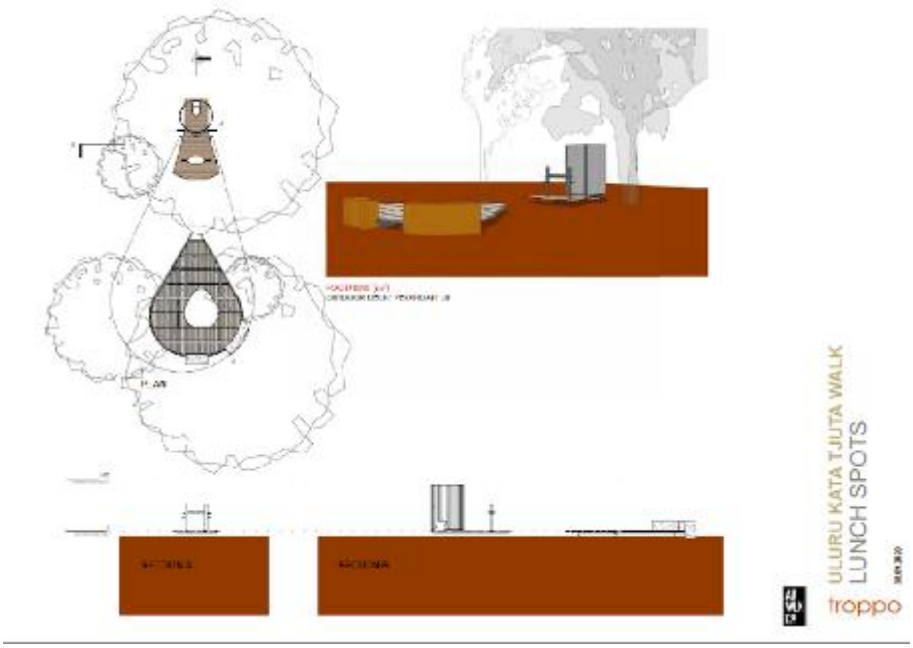

**Camp 2 –** Camp 2 is a permanent lodge-style accommodation for 14 guests and 3 staff. The camp is set on a wide low dune rise amongst mature desert oaks and acacia shrubs providing sufficient shade and some wind protection to the camp. Accommodation for guests and staff will be in a minimalist pod-style shelter (Sleeping Wiltja) on a low-raised platform. Pods will remain in place but closed during the off season. A main building (kitchen/dinning) and an amenities building with pod toilets and showers similar to Camp 1 is proposed. The main building and amenities building are positioned adjacent to the pods along the same wide dune rise. The camp will include designated walking paths approximately 1.5m wide to direct visitor movements around site and a walk to a look-out on the dune's highest point. The walking path up the dune and on the dune crest will be stabilized by a dune matting material. Paths have been selected along gradual dune flank slopes rather than steep inclines to mitigate erosion potential. A service shed is included in design plans.


**Camp 3 –** Camp 3 is a permanent lodging accommodating two tour groups, in total 28 guests and 6 staff each night all year round depending on client demand. The camp is set amongst Eucalyptus mallees and Acacia shrubs at the base of two long low sand dunes separated by a 5 m low saddle. The camp will be divided into two adjacent camp areas to maintain the intimacy of either group. Accommodation for guests and staff will be in more deluxe pod-style shelters (Sleeping Wiltja) on a low-raised platform. Amenities including a pod toilet and shower will be included in the Sleeping Wiltjas as an adjoining bathroom. There are two main buildings (Big Wiltja and Chill Room) providing the kitchen and dining area for each tour group positioned on the mid and lower dune slopes. A Wellness Centre building and Plunge Tanks platform are also proposed. Designated walking paths approximately 1.5m wide will be installed to direct visitor movements around site and include walks to two look-outs on the dune crests. The walking paths up the dunes and on the dune crest will be stabilized by a dune matting material. A service shed is included in the design plans.


**Vehicle Access Tracks –** Three new vehicle access tracks to service each of the 3 Camps are planned providing dry and wet weather access. Tracks will be one lane (up to 5m wide), cleared of vegetation and graded where necessary, totaling a total footprint of approximately 7.2km in length and an area of 3.7ha. Planned routes of tracks will avoid the removal of large trees as much as possible. Any large trees needing removal will be first requested permission for following the appropriate protocols for CLC and UKTNP.

**Walking Trail –** Approx. 1.5m wide trail for foot-traffic and an ATV, that runs from Camp 1 for approximately 40km through predominately spinifex sandplains and open woodlands. Under the initial recommendation of LES, ULW has applied for 200m corridor lease area where a suitable walking trail path will be selected (approx. width 1.5m) based on the recommendations in the Flora and Fauna Assessment and this EIA. The corridor allows for the possibility of the walking path to be shifted to minimise environmental impacts such as potential boggy tracks through mulga groves, or possible migration of threatened species in close proximity. ATV will be utilised for emergency, maintenance and service requirements.

**Lunch Spots**– Two lunch areas at mid-way points along the Walking Trail between Camps 1 and 2, and Camps 2 and 3, will include a toilet and a raised platform with earth rammed seats to accommodate up to 17 people. A surface pod toilet or drop toilet are proposed options for the toilet. Pod toilet waste will be removed monthly as required, via ATV. A small water tank is proposed for emergency water supply to walkers. Investigations into the appropriate fortification of this tank against camels and horses is being done and advice from TO's and Parks is welcomed. Current ideas are that tanks can be made of cement or buried in the ground with a solar pump. Ground disturbance at lunch spots is restricted to an area of 0.1ha, within predominately spinifex grassland or open Mulga woodland.




**Building services strategy –** Ecologically-sensitive services design and ongoing operating principles sit at the core of ULW's business. Guests will be encouraged to follow the ULW's Minimal Impact Bushwalking guidelines which encourage that resources such as water and energy are used minimally and efficiently while enjoying the ULW. The building services strategy includes off-grid building services infrastructure concepts for power generation and hydraulics services.

The following are planned services for the camps in operation:

**Power and appliances**

- Reduced power demand
- Solar with generator back-up at Camp 3
- Off Grid System (ongoing investigation into feasibility)
- 12V power only to Sleeping Pods
- 240V supply to Big Wiltja, Bathing and Chill (Camp 3 only) buildings.
- LED downlights and solar outdoor site lights
- Ceiling fans, and reverse cycle split system units (Camp 3 only) for cooling
- Pumps for both supply and waste systems
- Waste Water Treatment System (aerator and pump)
- Cool room with freezer, variable speed compressor – Camp 3 only
- Up-spec power systems to all elements, for air con, cooking, pool (but still dispersed)

**Gas**

- For Big Wiltja cooking, heating
- Roof mounted solar hot water system for showers
- 4 x 33kg bottles at Service Shed, reticulate to Big Wiltja
- Replace bottles fortnightly/ monthly
- LPG bulk tank– Camp 3 only

**Water**

- Water conservation strategy (timers, spring-loaded taps)
- 50L limit per person per day
- Collect roof water from Commons, Service shed, inc
    - Sealed system
    - Buffer tank at Commons
    - In-ground steel pipeline at steep fall
- 1 x 27,000L litre tank at service shed, in-ground, solid capped
- 2 x water tanks at Camp 3
- Top up from water trailer weekly
- Solar pump (with back-up) at Service Shed
- Lunch spots - 2 x Hydropanel to holding tank at 4.5m height (tankstand)

**Wastewater**

The following 4 main toilet options being considered are:

- Cassette/pod collection
- Long drops & composing toilets
- Septic and soakage systems
- Onsite treatment systems (with either soakage or pumping to holding tanks for site removal)

**Waste**

- Secured in bins with dog proof libs and regularly removed from sites

***See Attachment 1c (pg. 26-29): Troppo Architectural Design Plans include a description of the green service strategy e.g. electricity, gas, plumbing and ablution***

***See Attachment 1g: Troppo Architectural Concept Design Report.***

***See Attachment 3b: ULW Environmentally Sustainable Design Criteria.***

***See Attachment 8: SECON Consulting Engineers, ULW Building Services Report.***

**Phases of Development –** There are six main phases of the ULW development which are set out in the ULW Business Case.

***See Attachment 2: Australian Walking Company Business Case Uluru Lodge Walk 2018, pg. 45-48.***

***See Attachment 3: Project Timeline and Network Activity Chart.***

These include;

1. Feasibility and Approvals

   All deliverables have been completed including Expression of Interest, Concept Development and Feasibility Studies, Business Case, Licence application and Business application.

2. Detailed Proposal Development Phase and Approvals

   Deliverables include Detailed Proposal for Infrastructure Works, EIA report, EPBP Referral process, Controlled Action Assessment and Commercial Tourism License application.

3. Product Development, Design and Documentation Phase and Approvals

   The ULW Project Manager will manage the procurement and subsequent design development, construction and product development of the Uluru Lodge Walk. A Project Advisory Committee including Anangu Traditional Owners will be formulated to guide on-ground works. Design and infrastructure planning phase will be finalised. A Marketing Strategy, Employment, Training Strategies, Workforce Plan and Product and Experience Development are all included under this phase.

4. Construction and Procurement Phase

   ULW foresee that following all appropriate approvals have been obtained, that the construction works and siteworks will be carried out over 6-12 months. It is expected that the development and construction of the proposed 3 accommodation nodes would employ up to 20 contractors during construction phase. ULW's has engaged Northern Territory based architects from Troppo and local consultant teams including local building trades, contractors and subcontractors utilising and maximising local knowledge, skill sets and supporting the local economy. Construction phase will be guided by a Construction Management Plan which will be formulated prior to commencement. ULW parent company, AWC and it's sister company Tasmanian Walking Company Pty Ltd (TWC), has extensive experience formulating low impact construction management plans, and have provided their 'Three Capes Lodge Walk Construction Plan 2017' as a guide to their protocols and practices.

   ***See Attachment 4: Three Capes Lodge Walk Lodge Walk Construction and Environment Management Plan 2017.***

5. Setup and Commissioning Phase

   This phase will run over 4-6 months include a handover of construction works for setup, ordering of provisions, furniture, equipment, vehicles, recruiting staff and training.

6. Operational Phase

The operational stage, commencing in 2021 is planned run for 45 years. Trips depart daily from Mid - April to Sept. During the summer months a shortened itinerary is proposed to utilise only the Camp 3 lodge, the walking trail from Camp 3 to Mutitjulu Waterhole and existing public trails in the Park.

ULW will directly employ up to 20.6 FTE when the business reaches steady state operations by Year 5. The goal of ULW is to have up to 33% Anangu directly employed within the business across varying roles. Completion of the ULW will see some 20 qualified guides employed (approx. 10.3 FTE) along with an Experience Manager, bus drivers, and support staff, adding 20.6 FTE. Looking to the future by Year 10 they will employ up to 26.3 FTE, of which they aim to have up to 30% Anangu staff or more, which is around 20 casual and part-time Anangu staff, equivalent to 9 FTE.

***See Attachment 5: AWC ULW Itinerary Logistics for further details of walk times and daily activities and operations.***

**1.4 Project objectives and justification** (include the reasons why the action is being proposed; and how it relates to existing facilities or proposed future initiatives as applicable)

In 2015 the Uluru Lodge Walk proposal was submitted to the UKTNP Board of Management as part of an Expression of Interest process for interested parties to develop culturally appropriate alternative tourism ventures that would effectively fill the void expected following the Uluru climb closure in October 2019.

The Uluru Lodge Walk proposal was well received by the UKNTP Board and planning commenced immediately with project stakeholders including Anangu, Central Land Council and Parks Australia. Consultation with Anangu has been integral to the project development from inception to present day with senior Tjilpi's and Minyma's giving informal approval and guidance in site and walking trail selection within the Park (***See Attachments 10-17: Consultation records***). As well as in the planning stage, the project also has a specific focus on engaging Anangu to become involved in the business as guides/hosts/support staff and also in other complimentary businesses that will be needed to support the walk.

Uluru Lodge Walk proposes the following objectives:

- Protect and promote the natural and cultural values of the Park
- Respect and uphold Tjukurpa and Anangu values
- Provide long-term and meaningful work opportunities for Anangu
- Create a platform from which Anangu can share their culture with our guests, in a dialogue of learning and respect.
- Broaden the range of tourism experiences available in the Red Centre
- Grow the Park's future revenue base
- Align with the Park's tourism directions
- Be complementary to existing visitor experiences and activities offered in the Park
- Promote the environment and create advocates for environmental protection and preservation

ULW will fulfil these objectives by:

- Maintaining a strong and lasting relationship with Anangu
- Providing opportunities for the sharing of Tjukurpa and cultural stories with guests on their journey
- Maintaining a high level of environmental and cultural interpretation for guests
- Immersion of ULW guests in the outstanding environment they are travelling through to deepen their connection with and respect for the environment
- Ensuring high levels of training and development for all Anangu and non-Anangu staff at an appropriate level
- Marketing the experience on offer in a meaningful, relevant and enticing manner
- Maintaining a strong ongoing connection with the park board and management staff and the Central Land Council.

The above-listed objectives of the ULW are in-line with the following objectives and actions in the UKTNP Plan of Management 2020-2030 which specify the following (Director of National Parks, 2019):

- *Objective 4.1: Aṉangu are employed in and benefit in other ways from the management and visitor use of the park, whilst maintaining Tjukurpa and culture.*
    - *Action 4.1.4: Provide a range of Aṉangu employment and career development opportunities that are culturally appropriate and relevant to the management of the park. This will include:*
        - *b. identified positions or work that utilises traditional knowledge and skills*
        - *g. on-country work that provides opportunities for intergenerational knowledge transfer*
        - *h. mentoring and 'malpa' arrangements in which Aṉangu and non-Aṉangu staff exchange knowledge and skills*
        - *i. governance and leadership, including through the Board and working groups*
        - *j. commercial tourism associated with the park*
    - *Action 4.1.7: Work with stakeholders to facilitate Aṉangu employment opportunities in the tourism industry, including through tourism enterprise development and commercial tourism licences.*
    - *Action 4.1.9: Seek to increase the level of park generated revenue and therefore amounts paid to Aṉangu under the park lease agreement.*
- *Objective 5.1: Visitor experience and site management - Enhance visitor access, and increase the range and quality of cultural and natural experiences available in the park*
    - *Action 5.1.11: Develop new or enhance existing visitor infrastructure and activities to increase the range and quality of visitor experiences. This is will be done in ways that:*
        - *a. align with the tourism principles;*
        - *b. provide visitors with fulfilling and safe cultural and natural experiences;*
        - *c. enhance visitor understanding and appreciation of cultural and natural values;*
        - *d. protects and conserves the park's cultural and natural values; and*
        - *e. are cost effective.*
- *Objective 5.2 Information, education and interpretation - Enrich visitor understanding and appreciation of the park's cultural and natural values*
    - *Action 5.2.4: Work with Aṉangu to develop and deliver a range of visitor interpretation and educational experiences and activities, which promote the park's cultural and natural values and greater cultural awareness.*
    - *Action 5.2.7: Provide visitors with relevant safety information, including the risks associated with recreational activities in the park.*
- *Objective 5.4 Commercial operations - Commercial tourism provides a range of fulfilling, sustainable, culturally appropriate and rewarding visitor experiences and benefits Aṉangu.*
    - *Action 5.4.10: Work with the tourism industry to encourage and facilitate the establishment of new commercial tourism activities and services consistent with the park's values, to increase the range and quality of visitor experiences.*

  - *Action 5.4.12: Work with Aṉangu, the tourism industry and other stakeholders to increase Aṉangu employment levels in tourism and build other benefits from tourism, including through Aṉangu tourism enterprise opportunities.*
- *Objective 6.1 Capital works and infrastructure – Effectively and efficiently maintain and develop the park's infrastructure and assets.*
  - *Prescription 6.1.4: New infrastructure and buildings, significant alterations, renovations or repairs to existing infrastructure and buildings must:*
    - *a. as far as practicable incorporate cost-effective environmental design, including efficient resource use;*
    - *b. as far as practicable, use low maintenance designs and material s;*
    - *c. as far as practicable, use existing roads and tracks; and*
    - *d. comply with all relevant laws, standards, and codes of practice , including all applicable accessibility standard.*
- *Objective 6.2 Resource Use – Minimise the negative effects of the park's operations on the environment as much as possible.*
  - *Prescription 6.2.1: Recycled, energy efficient and renewable resources and technologies will be used where practicable to reduce the environmental impact of park operations.*
  - *Prescription 6.2.2: Construction waste cannot be disposed of in the park.*
  - *Action 6.2.3: Minimise energy and resource use and greenhouse gas emissions i n park operations. Where possible, this will include investigating and adopting options for the use of energy efficient technologies in the development of new, or, upgrading of existing infrastructure.*
  - *Action 6.2.4: Work with relevant organisations, stakeholders, suppliers and co ntractors to:*
    - *a. promote and implement safe and best practice environmental work practices and standards relating to resource use;*
    - *b. investigate, and where possible implement, alternatives to the disposal of waste materials into landfill; and*
    - *c. comply with relevant environmental management plans, government policy and legislation, including toxic and hazardous waste disposal requirements.*
- *Objective 6.4: Compliance and enforcement - Maximise visitor and stakeholder compliance with the EPBC Act and EPBC Regulations.*
  - *Action 6.4.1: Develop and implement education, compliance and enforcement strategies, plans, procedures and training for managing compliance issues, in accordance with the EPBC Act and EPBC Regulations, this management plan and other relevant legislation.*

The ULW also provides a number of solutions to issues specified in the UKTNP Plan of Management 2020-2030 such as (Director of National Parks, 2019);

- *Making sure Aṉangu have opportunities to develop the skills they need to take on more responsibility for the administration, control and management of the park;*
- *Increasing social and economic benefits for Aṉangu through the economic activity generated by tourism in the park;*

- *Involving other organisations in addressing the social and economic challenges that affect Aṉangu employment levels;*
- *Making sure we provide a range of high-quality and culturally appropriate information to visitors to improve their experience, both before visiting and while visiting the park;*
- *Making sure visitors are aware of and value the park' s cultural and natural values;*
- *Making sure Aṉangu are actively involved in providing information and interpretive activities;*
- *Building meaningful and sustainable opportunities for Aṉangu to be involved in and benefit from commercial tourism, including by developing Aṉangu-owned or jointly owned tourism businesses and products;*
- *Balancing the importance of the park for commercial tourism and need to develop new commercial tourism opportunities, with the need to properly present and help visitors to experience the park's cultural and natural values and ensure tourism is environmentally, commercially and culturally sustainable.*

## 1.5 **Alternatives and preferred option** (include alternative alignments, layouts, materials, work methods etc and brief explanation of why the preferred option was selected)

During the ULW development, a number of alterations have been adopted to address Traditional Owner concerns, legal obligations and ecological considerations.

Sacred sites – Initially, the project was planned to follow a similar route as the rehabilitated Old Kata Tjuta Road which runs north of the current Kata Tjuta Road. After initial consultations with Anangu, it was recommended to consider planning the route in the southern region of the Park to give a greater distance to culturally sensitive sites around Kata Tjuta. These recommendations were taken on-board and are reflected in the current positioning of the project area.

Archaeological sites – During archaeological field surveys, significant artefacts were found along the proposed Walking Trail. In line with the recommendations of Traditional Owners and legal requirements, the path will be diverted to avoid this area and new path selected by TO's during Scared Site Clearance consultations in 2020.

Ecologically sensitive sites – During a scoping meeting in May 2019 and ecological field survey's in June and November 2019, Low Ecological Services (LES) advised on where best to place vehicle access tracks to service camps to minimise disturbance to dunes, flooding potential in woodland depressions, protect areas with tress and sensitive habitats. LES also advised on the positioning of lookouts on dunes, placement of buildings and walking track route to minimise erosion, avoid boggy areas after rain, and minimise vegetation removal.

Initially, a shorter, more direct vehicle access track was planned adjoining Kata Tjuta Road to meet Camp 1. However, after initial ecological assessment the area was found to be an extensive mulga grove depression that could become flooded, boggy and easily erodible following heavy rains. As a result, this track option was revised and the alternative selected diverting off Mantur Road to Camp 1.

ULW has taken on advice by LES to reroute a section of the proposed walking trail between Camp 1 and Camp 2 that previously was planned along a dune crest for 1km. Due to the sensitivity of the dune crest habitat and high erosion potential, the walking track has been rerouted to the adjacent lower dune flank and sandplain, with an option for a dune lookout that has dune matting applied for stabilisation.

**1.6 Business plan** (include source of funding; approval information if relevant; information about joint venture arrangements if relevant; list set-up costs and maintenance requirements separately)

A comprehensive ULW 'Business Case' has been finalised and attached. This document details the funding sources, costings and projected profits.

***See Attachment 2: Australian Walking Company Business Case Uluru Lodge Walk 2018.***

## 2 LEGISLATION, PLANNING AND POLICY CONSIDERATIONS

UKTNP is managed in a multi-layered legislative framework which includes international, national, regional, and park-specific considerations. In addition, policies are developed to assist in day-to-day park management.

This section of the EIA indicates whether the proposed action is:

(a) legally permissible within the legislative framework; and
(b) appropriate under existing park management policies.

The UKTNP Plan of Management is the key instrument for determining if an action is permissible in UKTNP. Other planning and policy documents should only be referred to as relevant. Complete the following sections by following the prompts and inserting text from the Plan of Management or other relevant document (available on DEWHA's website – see EIA Guidelines), with an accompanying statement as necessary.

| **Is the Action Permissible and Appropriate under:** | **YES** | **NO** |
|---|---|---|
| **PARK-SPECIFIC CONSIDERATIONS**: (to be completed by all proponents) | | |
| **UKTNP Plan of Management**[1]<br>Is the proposed action referred to specifically? **NO**<br>Are other general provisions of the plan relevant to the proposal? **YES**<br><br>*ULW is not a proposed action referred to specifically in the UKTNP Plan of Management. General provisions of the plan relevant to the proposal include; Sections 4.1, 5.1, 5.2, 5.4, 6.1, 6.2, 6.4 (see section 1.4 of this document for all relevant objectives and actions).* | ☒ | ☐ |

[1] If not permissible under the UKTNP Plan of Management, the action cannot be approved.

| | | |
|---|---|---|
| *In summary, the plan makes provisions for expanding tourism opportunities within the Park that support Anangu work aspirations, cultural knowledge sharing and opportunities for Aboriginal business development. The ULW meets all these objectives and many more. The proposed action is an outcome of a specific call of Expressions of Interest for new culturally appropriate tourism ventures made by the UKTNP Board of Members and Nguraritja in response to the Uluru climb closure.*<br>Does Section *8.8 New activities not otherwise specified in this Plan* apply? **YES**<br><br>Has the process under section *4.1 Making decisions and working together* been applied in relation to the proposal? **YES**<br><br>*ULW follows all directives of 'Decision-making process and consultation requirements' for non-routine actions. Consultations have been carried out with the UKTNP Board of Management, CLC, Nguraritja, community members and other stakeholders throughout the projects development and will continue to occur following the appropriate processes throughout the whole life-cycle of the project.* | | |
| **Memorandum of Lease between the Uluru-Kata Tjuta Land Trust and the Director of National Parks (specify which ALT lease applies)**<br>Does the proposal impact on the interests of Relevant Aboriginals? **YES**<br>Has an environmental evaluation been carried out for proposed development as required by the lease? **YES**<br><br>**Provide details**<br>*ULW at present has an advanced draft of the lease and licence agreement with feedback from CLC and Parks Australia.*<br>*ULW seeks to collaborate with local Anangu through direct and indirect employment, business development and training opportunities. This collaboration is critical to the success of ULW and a meaningful, genuine working relationship between the Anangu will continue to be sought at every step of the journey. See Attachment 2: Australian Walking Company Business Case Uluru Lode Walk 2018 for further details on positive impacts proposed by the project.*<br>*Environmental evaluation has been carried out by LES during 2019 which fulfills Lease obligations.* | ☒ | ☐ |
| **UKTNP policies, management strategies or area plans e.g. weed management strategy, fire management plans, feral animal strategy, walking track strategy etc. UKTNP policies and procedures[2]**<br>Is the proposal consistent with the relevant strategy or policy? **YES** | | |

2

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|---|---|---|
| If not, provide justification.<br><br>*ULW aims to follow all relevant UKTNP polices, management strategies and area plans by incorporating relevant procedures and practices into its own management plans and strategies. For example, the fire management plan will follow directives made in the UKTNP Fire Management Plan and seek consultation and involvement of Anangu continually in regards to fire management. Introduced species management will follow procedures in line with existing management strategies such as the Buffel Grass Strategy 2015-2020 and UKTNP Weed Strategy 2003.* | ☒ | ☐ |
| **UKTNP Board of Management resolutions**<br>Provide details<br>"The Board provides in-principle approval for the Australian Walking Company (AWC) proposal subject to:<br>· Central Land Council (CLC) consultations with Anangu and a CLC sacred sites clearance<br>· A preliminary environmental impact assessment to inform consultations and a final impact assessment<br>· Parks Australia and CLC negotiating license/sub-lease fees and conditions"<br><br>(Previous Park Manager) – 2nd November 2018 | ☒ | ☐ |
| **INTERNATIONAL AGREEMENTS** (complete only if relevant) | | |
| World Heritage listing<br>● *World Heritage Convention*<br>● *CAMBA – migratory birds*<br>● *JAMBA – migratory birds*<br>● *ROKAMBA – migratory birds*<br>● *Bonn Convention – migratory species*<br>● *CBD – Convention on Biological Diversity*<br>● *UN Declaration on the Rights of Indigenous Peoples* | ☒ | ☐ |
| **NATIONAL AND AUSTRALIAN GOVERNMENT CONSIDERATIONS** (complete only if relevant) | | |
| **EPBC Act & EPBC Regulations**<br>Is the proposal consistent with the objects of the Act? **YES**<br>Is the proposal consistent with the purposes and objectives of a national park as defined under the Act? **YES**<br>Is the proposed action specified in Section 354 of the Act? **YES** | ☒ | ☐ |

| | | |
|---|---|---|
| *ULW has been authorised by the UKTNP Board of Management and the project will be undertaken in accordance with the UKTNP Plan of Management made for that reserve under the EPBC Act.*<br><br>Does the proposal relate to a "matter of national environmental significance (NES)" as defined under the Act? (Refer to list of NES matters in Appendix 1) **YES**<br><br>- *listed threatened species and communities;*<br>- *World Heritage*<br>- *National Heritage*<br><br>Do specific provisions in the Regulations apply? eg use of genetic resources **NO** | | |
| **Australian Standards/Building Code of Australia**<br>Have the relevant Australian Standards been adopted and adhered to in the construction and design of the proposal? eg *Australian Standard for Walking Tracks, Building Code of Australia* **YES**<br><br>*All relevant building standard have been adopted and will be adhered to in the planning, design and construction phases of the ULW.* | ☒ | ☐ |
| **Burra Charter** (the *Australian ICOMOS Charter for Places of Cultural Significance*)<br>Where the proposal involves non-Aboriginal heritage values, is it consistent with the guidelines of the Charter? **YES**<br><br>*See Attachment 7: Uluru Lodge Walk Heritage Impact Assessment 2019, pg. 57 and 61. This details the non-Aboriginal heritage values recorded (two bores) during heritage assessment field work and assesses their heritage value in relation to the Burra Charter.* | ☒ | ☐ |
| **National Strategies and Policies** e.g. National Strategy for the Conservation of Australia's Biological Diversity; National Strategy for Ecologically Sustainable Development; National Forest Policy Statement; National Reserves System; Wetlands Policy of the Commonwealth Government of Australia. | ☒ | ☐ |
| **Threatened Species Recovery Plans** e.g. *Recovery Plan for Great Desert Skink (2001).*<br>Where the proposal involves a nationally listed threatened species, is it consistent with the provisions of the Recovery Plan? **YES**<br><br>*ULW meets the requirements in the Recovery Plan for Great Desert Skink, and the Conservation Advice Pezoporus occidentalis Night Parrot.* | ☒ | ☐ |

| | | |
|---|---|---|
| **DEHWA policies and protocols (to be completed by UKTNP)** | ☐ | ☐ |
| **NORTHERN TERRITORY LEGISLATION, STRATEGIES, POLICIES AND REGIONAL AGREEMENTS** (complete only if relevant) | | |
| **Northern Territory Threatened Species List** | ☒ | ☐ |
| ***Northern Territory Aboriginal Sacred Sites Act*** | ☒ | ☐ |
| ***Northern Territory Bushfires Act*** | ☒ | ☐ |
| **Northern Territory Weeds Management Act** | ☒ | ☐ |
| **OTHER (specify)**<br>Other NT legislation that may be applicable to project activities:<br>Land Use:<br>● *Environment Protection Act 2019*<br>● *Planning Act 1999 (amended 2016 and 2019)*<br>● *Aboriginal Land Act 1978 (amended 2013)*<br>● *Soil Conservation and Land Utilization Act 1969 (amended 2016)*<br>● *Bushfires Management Act 2016*<br>Cultural and Heritage:<br>● *Northern Territory Aboriginal Sacred Sites Act 1984 (amended 2013 and 2019)*<br>● *Heritage Act 2011 (amended 2016)*<br>Water Quality, Air Quality, Noise and Waste Management:<br>● *Water Act 1992 (amended 2019)*<br>● *Biological Control Act 1986 (amended 2018)*<br>● *Public and Environmental Health Act 2011 (amended 2020)*<br>● *Waste Management and Pollution Control Act 1998 (amended 2016 and 2019)*<br>Safety and Environmental Compliance:<br>● *Work Health and Safety (National Uniform Legislation) Act 2011 (amended 2020)*<br>● *Environmental Offences and Penalties Act 1996 (amended 2011)*<br>● *Transport of Dangerous Goods by Road and Rail (National Uniform Legislation) Act 2010 (amended 2016)*<br>● *Dangerous Goods Act 1998 (amended 2012)* | ☒ | ☐ |

# 3 DESCRIPTION AND FEATURES OF THE EXISTING ENVIRONMENT

The environment of UKTNP includes physical, cultural, and social aspects so that a comprehensive description is needed to provide the context for the proposed action. Site-specific information, rather than generic information is needed as evidence of the proponent's familiarity with the site. The condition of the environment, including its conservation value needs to be described in order to assess what changes or impacts the proposed action may have.

Briefly describe the existing *'environment'* under the following headings as they are relevant to the proposal.

## 3.1 Natural heritage

The following information has been adapted from the Uluru Lode Walk Flora and Fauna Assessment 2020 report (Low Ecological Services, 2020).

***See Attachment 6: Low Ecological Services, Flora and Fauna Assessment of Uluru Lodge Walk 2020***

**a) Landforms and landscapes** (include the physiographic unit of the subject area, names of regional features, unusual or outstanding landscape features)

The location of the ULW in the southern section of the Park, occupies predominately sandplain country of sand dunes and interdune depressions or swales covered by mulga groves, mallee or broad grass plains with emergent desert oaks. The landforms and landscapes within the Project Area can be best understood in more detail through land unit categories that were mapped by Allan (1984; Table 3). These land units have been derived from the interaction of vegetation and fire regimes while also including geomorphic features.

Several of the land units mapped correlate to areas of consistent fire behaviour patterns (Figure 2 and Figure 3) even in the last 20 years (Allan, 1984). The fire regime in UKTNP is influenced by infrequent wildfires and controlled winter burns by Park's staff and Traditional Owners. The extent and connectivity of hummock grasslands which carry fire readily interspaced with areas of low fuel such as dune slopes and mature mulga groves disrupt the movement of the fire front creating unburnt patches or 'fire shadows' (Allan, 1984). These fire shadows vary in size from a few sparse tussocks on a dune slope to large intervening swales of mulga groves and may encompass important habitat for fire sensitive or threatened species.

Where possible, fire shadows have been identified in the Project Area as well as areas assumed to have high fuel loads (> 7 years since last fire) that may pose a safety risk when traversed on the walk. These include around Camp 2 and the Vehicle Access Track to Camp 2 where large mature spinifex grasslands have been unburnt for over 15 years. Due to its age, this area also has considerable habitat value and should be preserved as much as possible. TO's and experienced technicians should patch burn around the majority of mature spinifex, creating a buffer with reduced fuel loads, thereby minimising risks to ULW assets, humans and rare patches of spinifex. Additionally, areas which frequently burn have been flagged,

so that appropriate fire management can be implemented to mitigate any safety concerns or for asset protection.

Table 3. Description of land units within the Uluru Lodge walk Project Area, mapped by Allan (1984) and updated in 2003 and 2006. Fire history is included derived from data from North Australian Fire Information (2019).

| Land Unit | Facet | Distinctive Topographic Features | Distinctive Vegetation | Fire History |
|---|---|---|---|---|
| **5d1** | **15** | Dune ridges and hummocks, irregular pattern, large swales of red earth. | Occasional dense grove of mulga. | An extensive summer wildfire burnt this region in 2018. Fire shadow on south margin adjoining mature mulga groves and dune crests (17 years since last burnt). |
| **5b** | **5b1** | Undulating terrain of red earthy sands with some sandy rises and occasional low sand dunes. | Open mallee scrub and a sparse understorey of soft (5b1) or hard (5b2) spinifex. | Partially burnt in 2018 with remaining mulga and mallee groves unburnt for 17 years. The sparse soft spinifex understorey restricts the fire spread across the open terrain. |
| **5c1** | **6** | Dune ridges and hummocks, irregular pattern and interdune sandplain. | Many desert oaks. | Long unburnt (17 years old) area south of Uluru monolith. |
| | **8** | Dune ridges and hummocks, irregular pattern and interdune sandplain. | Few desert oaks. | Seven years since last fire. Likely fire shadows caused by irregular sand dune formations. |
| **5f1** | **1** | Dune ridges, large swales of red earth. | Dense mulga. | Mostly burnt in 2018 fire with old growth mulga disrupting fire across the sand plains. |
| | **2** | Dune ridges, small swales of red earth. | Sparse mulga. | Entirely burnt in 2018. |
| | **4** | Dune ridges, large swales of red earth. | Dense mulga. | Unburnt for the last 7 years. Likely fire shadow caused by dense mulga patches. |
| | **5** | Red earth swales only. | Dense mulga. | Unburnt for the last 7 years. Likely fire shadow caused by dense mulga patches. |
| **5a** | **5a1** | Transitional area of sandplain between the upland land system and the dune fields. | Hummock grasslands dominated by soft (5a1) or hard (5a2) spinifex. Scattered shrubs and desert oaks occur. | Entirely burnt in 2018. The uniform topography and vegetation allow fires to spread through the entire uni<br>t. |
| **4b** | **4b** | More gently sloping plains with sandy loam soils downslope of 4a. | Clumps or scattered mulga over perennial and annual grasses. | Completely burnt in 2018, however finer scale may be needed to see fire impact in mulga groves. Mature mulga communities have too sparse an understorey to carry wildfire, except after a succession of good seasons. Immature |

| | | | | |
|---|---|---|---|---|
| | | | | mulga communities have higher understorey fuels and are susceptible to fire. |

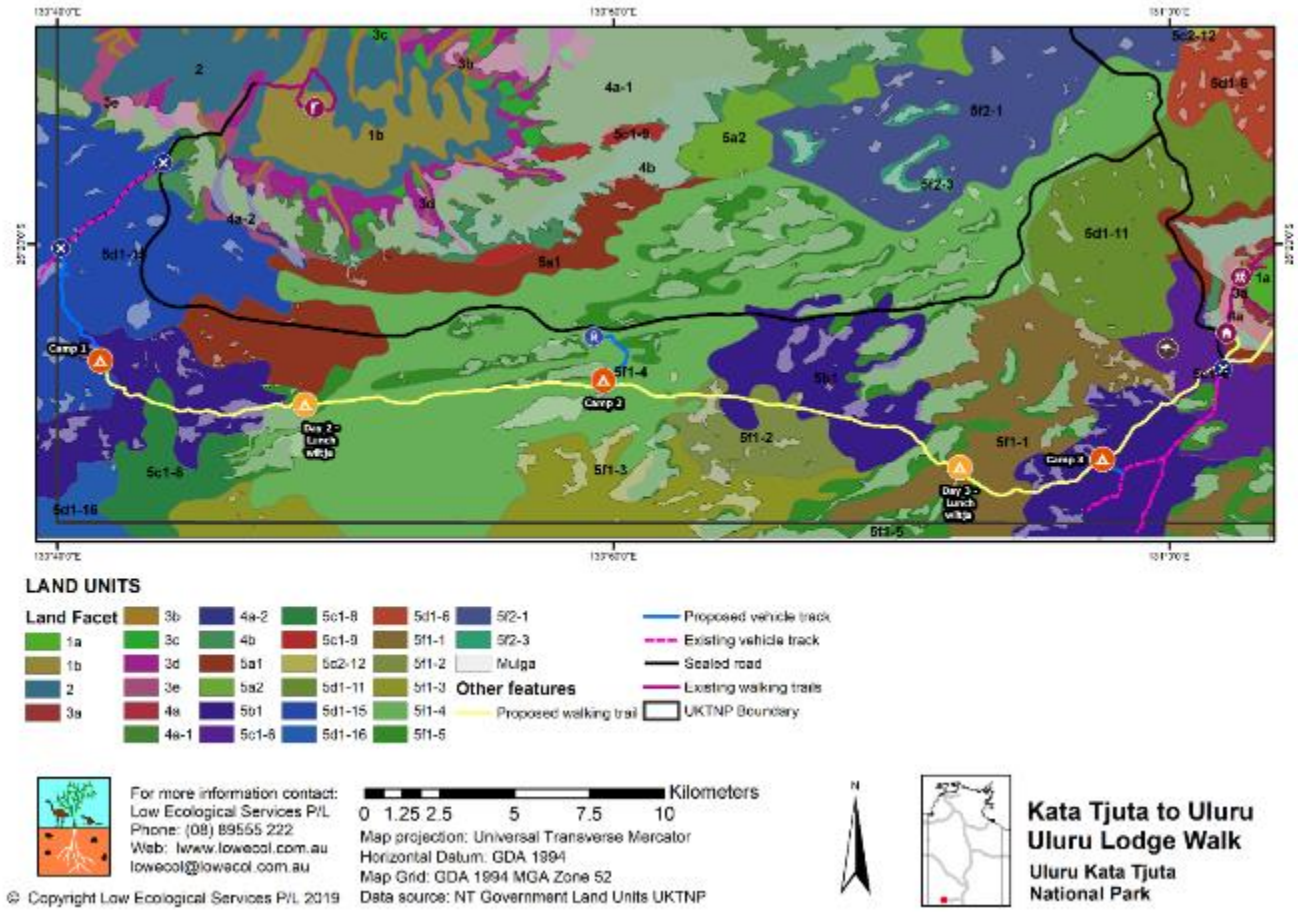


Figure 2. Land units derived using a hierarchical land system approach, mapped by Allen (1984). See Table 3. 2 for descriptions of each land unit.

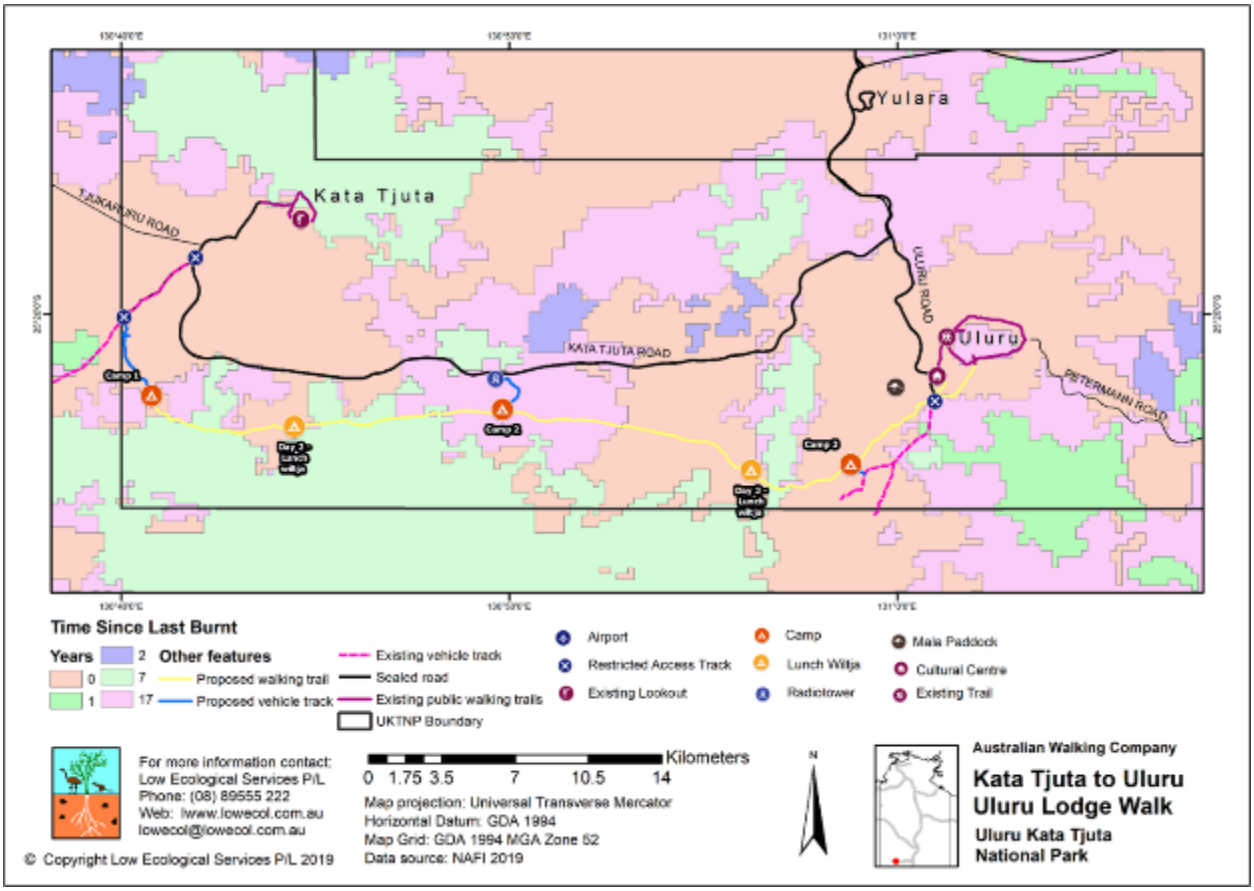


Figure 3. Fire map showing time since last burnt from 2002 to 2019 (North Australia and Rangelands Fire Information, 2019).

**b) Geology, geomorphology**

The Uluru Lodge Walk lies within the Mackay subregion of the Great Sandy Desert bioregion (NT Department of Environment and Natural Resources, 2019). This section of the subregion is characterised by Proterozoic and Palaeozoic rocks of the Amadeus Basin sequence, which have through time, been folded and faulted developing several orogenies (Jacobson, Lau, McDonald, & Jankowski, 1989). The large paleodrainage system between Uluru and Kata Tjuta was infilled by Cainozoic sediments and then up to 100m thick deposits of Quaternary sands, clay, gravel and calcrete with minor lignite form the dunes and sandplains existing today (Jacobson, Lau, McDonald, & Jankowski, 1989).

The geological units of the Uluru Lodge Walk Project Area are described in Table 4 and mapped in Figure 4. The geology of the Project Area is primarily sedimentary, containing sandstone, quartzite, conglomerate, limestone and granite (Ahmad, 2000). Underlying geology has a strong influence on soil types, vegetation communities and thus habitat in a region (Perry, Mahbbutt, Litchfield, & Quinlan, 1960).

Table 4. Geological units present within and surrounding the Project Area, as described by Ahmad (2000).

| Map unit | Rock type | Description |
|---|---|---|
| -P101 | Sedimentary | Heavitree Quartzite and Bitter Springs Formation containing quartzite, sandstone, conglomerate, dolostone, shale |
| -P103 | Sedimentary | Pioneer, Olympic, and Pertatataka Formations containing sandstone, dolostone, limestone, diamictite |
| -P104 | Sedimentary | Arumbera Sandstone containing sandstone, limestone, siltstone |
| g9 | Plutonic | Granite/gneiss |

Sand dunes within the Project Area are mostly longitudinal (linear), predominately oriented either east to west, or south-west to north-east (

Figure 5). They are formed by seasonal alternating dominant wind directions from the east, and to a lesser extent from the south-east and north-east (Bureau of Meteorology, 2019; Wiggs, 2019). There are also some secondary traverse dunes present which branch off from linear dunes creating multi-scale and complex dune forms (Wiggs, 2019). Such is present at the Radio Tower and the first section of the Vehicle Access Track to Camp 2 where a series of intersecting traverse dunes create circular swales with larger east-west longitudinal dunes.

Within the bi-stable state model defined by Lyons *et al.* (2018), dunes are defined as either stable and immobile (non-active) or unstable and mobile (active). Dunes in the Project Area are said to be in meta-

stable because they are generally non-active dunes with vegetation coverage, but climate forcing events over a certain threshold can switch them into an active state, where most notably, the dune crests become non-vegetated (Lyons, Mills, Gordon, & Letnic, 2018). For example, long drought periods can stress vegetation causing a reduction of protective shrub coverage on the dune which may result in dune activation (Forman, et al., 2006). In addition, vegetation loss from fire on dunes can act to destabilise the dune until regeneration of vegetation occurs. While biological crusts have been identified as a key stabilising factor of dunes (Siegal, Tsoar, & Karnieli, 2013), little to no crusts were identified on the dunes within the Project Area.

Climate change predictions for the Central Desert region specify greater temperature extremes and higher precipitation totals (Donut, Lowry, Alexander, O'Gorman, & Maher, 2016). However, uncertainty exists within the scientific community as to whether increased rainfall will ease drought stress on vegetation as evaporation rates are higher, meaning water storage rates will not change as rainfall will run-off dry soil or evaporate quickly.

Walking activities and vehicle use will reduce the density of vegetation coverage on sand dunes, which influences wind flow and sediment transport regimes possibly triggering dunes to become unstable and mobile (Lyons, Mills, Gordon, & Letnic, 2018). Of particular concern, is the dune crest where vegetation is already scarce due to higher exposure to wind forces (Wiggs, 2019). This assessment of dune stability has been factored into the ULW design plans to mitigate negative environmental impacts.

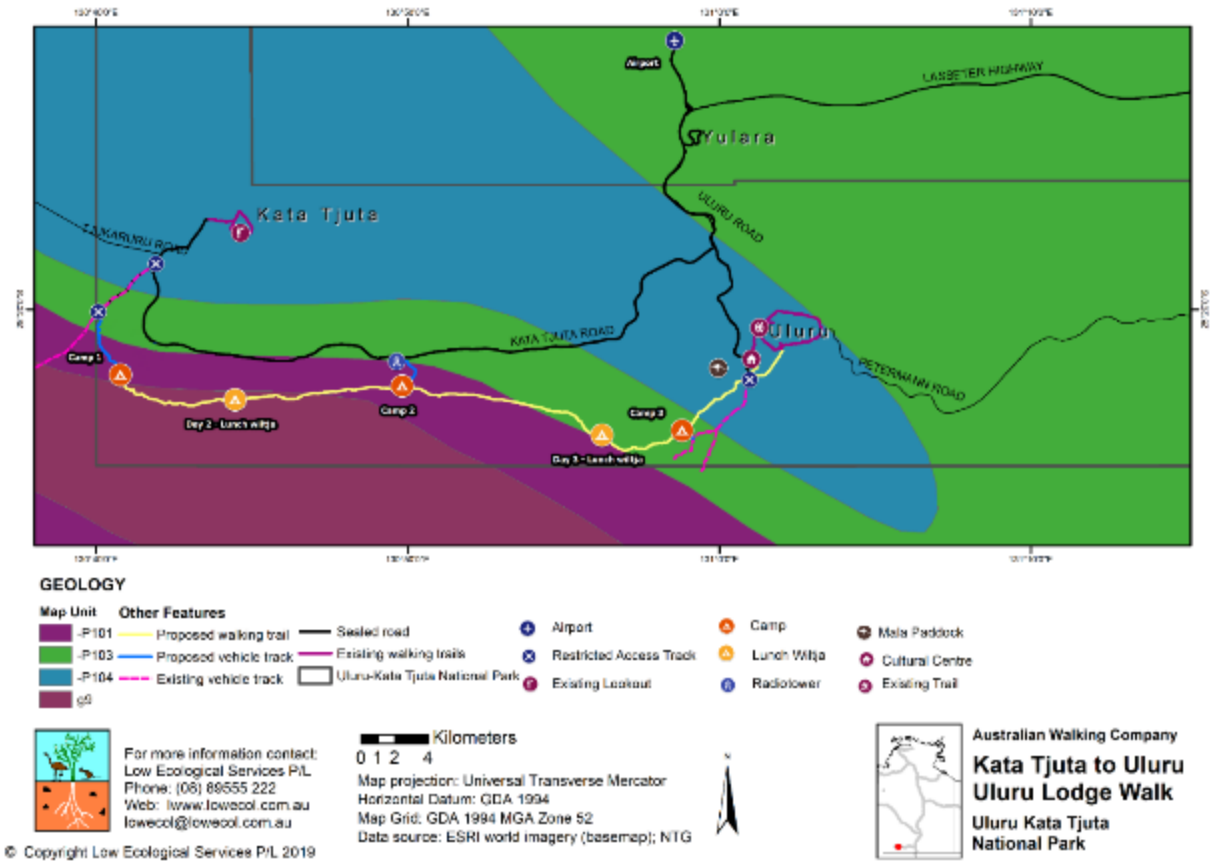


Figure 4. Geological mapping of the Uluru-Kata Tjuta region within and surrounding the Project Area (Ahmad, 2000). Geological units are described in Table 1.

**c) Soils** (include information on stability, erodibility etc)

Soil types within the Project Area have been mapped using the Atlas of Australian Soils (Northcote, 1968)( Figure 5). However, the currently accepted classification system is the Australian Soil Classification (ASC) (Isbell & National Committee on Soil and Terrain, 2016). A conversion from the Atlas of Australian Soils to the Australian Soil Classification was developed by Ashton and McKenzie (2001).

The Uluru Lodge Walk Project Area lie almost entirely on the AB60 soil unit. This soil unit is described from both the Australian Soils Atlas and the Australian Soil Classification in Table 5. The area is overlain to variable depths by aeolian and alluvial sands over the last 60,000 years.

In 'moderate deserts' such as those in Central Australia, dune crests and flanks are dynamic areas of mobile aeolian sands that are easily erodible if vegetal cover becomes sparser (Mabbutt, 1969). This can result from human foot traffic and fire. Soils within mulga groves are more cohesive, with high clay content. These soils experience periodic inundation during high rainfall events when sheetflow occurs. With frequent and consecutive rainfall events mulga groves become 'boggy', at which point soil surface disturbance can cause compaction and long-term changes in the surface hydrological flow, accelerating erosion from wind and water (Winkworth, 1973).

Table 5. Description of soil types within and surrounding the Project Area from the Australian Soils Atlas (Northcote, 1968) and the Australian Soil Classification (Isbell & National Committee on Soil and Terrain, 2016).

| Map unit | Australian Soil Atlas | Australian Soil Classification |
|---|---|---|
| AB60 | Plains with many dunes often relatively short and of irregular shape: chief soils are red earthy sands. Associated are red siliceous sands on the dunes and red earths on the plains. | Tenosol – Uc5.21 |
| BA26 | Steep narrow ranges on sandstones and quartzite with some shales; extensive areas of bare rock: chief soils are shallow stony sands. | Rudosol – Uc1.43 |
| My111 | Extensive plains with a few low dunes; occasional low stony residuals: chief soils are neutral red earths with red earthy sands. | Kandosol – Gn2.12 |

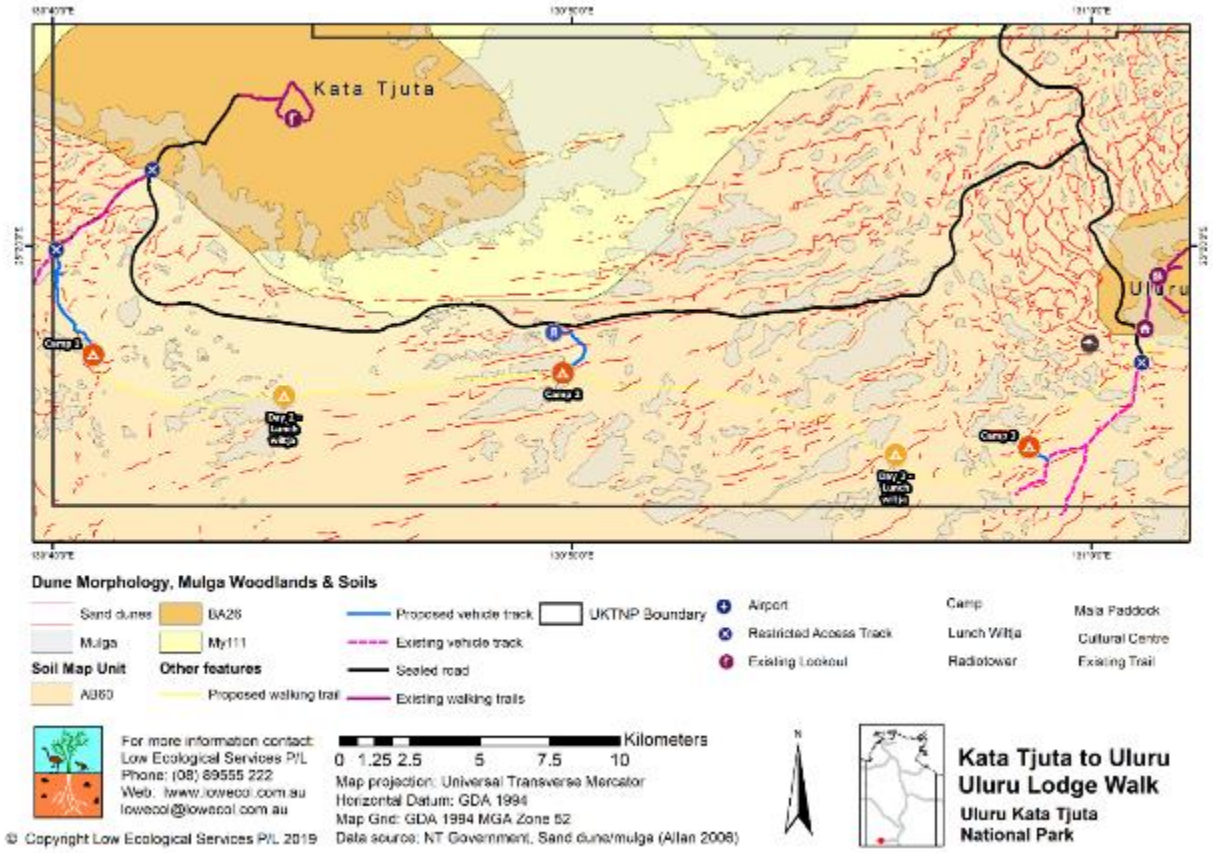


Figure 5. Sand dune morphology, mulga woodlands by Allan 2006, and soil map units as mapped by the Atlas of Australian Soils (Bureau of Rural Sciences, 1991) within and surrounding the Project Area. Soil units are described in Table 5.

**d) Hydrology and water flows** (refer to waterholes and their conservation value; include information on potential for contamination during rain events, presence of any built structures for visitor/management access, diversion of natural water flows etc)

Surface water courses at UKTNP are ephemeral, relating directly to the arid climate and rainfall events which often deposit a large amount of rain in one event. Surface water generally drains in a northern direction towards Lake Amadeus but flooding out in sand dunes prior to meeting the playa lakes (Jacobson, Lau, McDonald, & Jankowski, 1989).

The hydrogeology of UKTNP was investigated by English (1998) in the study 'Paleodrainage at Uluru-Kata Tjuta National Park and implications for water resources'. The study reconstructs the palaeovalley that exists between the monoliths of Uluru and Kata Tjuta, carved out by a palaeoriver now covered by dune plains. It highlights the importance of surface runoff as a 'sheetflow recharge mechanism' supporting banded mulga shrublands in swale networks and replenishing the aquifer system at the base of slopes.

East of the Day 3 Lunch Spot, the proposed Walking Trail intersects a claypan which is part of the surface drainage line flowing from the south to the north-east (Figure 6). It is expected that after 25mm of rainfall this claypan will hold water for only a few days due to high evaporation rates (Jacobson, Lau, McDonald, & Jankowski, 1989). ULW guests on-foot are highly unlikely to cause any contamination or disturbance to this clay pan and the surface water flow regime.

The Mantur Rd (Homelands Track) which will be used to access the Camp 1 Vehicle Access Track also traverses a drainage line. It is expected that this road section may also become inundated with rain for days following high rainfall and a 4x4 vehicle may be necessary for access. The presence of the road has not altered the surface water flow and surrounding pristine mulga grove is able to capture water for groundwater recharge. ULW vehicles using this service road will be regularly serviced and maintained and are unlikely to cause any contamination to the surface water course.

Cultural significant waterhole exists at Uluru and Kata Tjuta monoliths and are visited on existing public walking trails. All ULW guests will abided by UKTNP rules and regulations when visiting these waterholes which have been environmentally risk assessed and approved for visitors.

The remaining Project Area is clear of water courses and waterholes.

Bore records (RN007003, RN015387, RN006133) from the bores in the vicinity of the project area state that standing water level is between 14-28 m depth. Strata is made up of red sands to 3m, then layers of conglomerate, clayey sand, clay and gravel, silty sandstone and siltstone. Deep drainage of greywater from the Camps is unlikely to pose a contamination risk to ground water. There are no active bores within 5 km of any of the Camps.

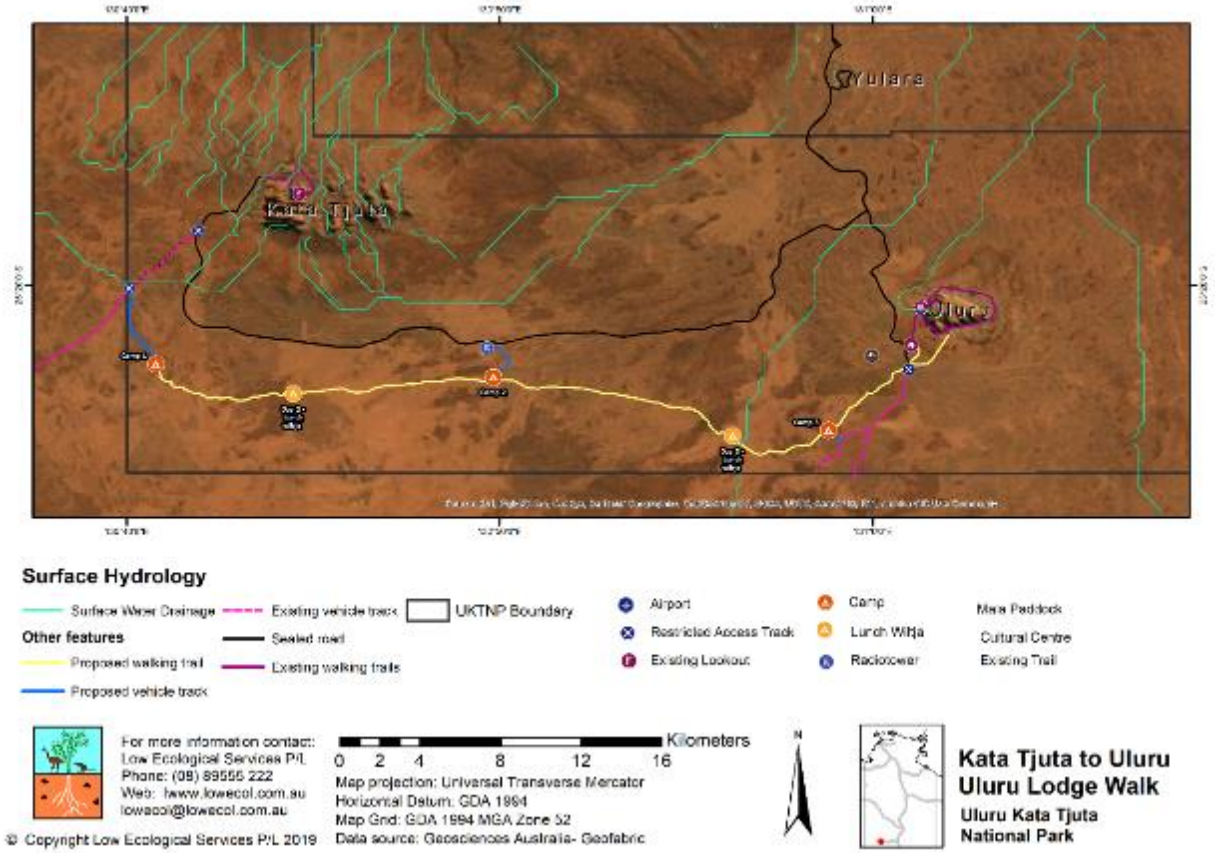


Figure 6. Surface hydrology of the UKTNP and Project Area, mapped using the Geosciences Australia Geofabric Surface Network dataset (Australian Government, 2019).

**e) Vegetation** (indicate the condition of the vegetation on site including weed infestations and how much of the site is cleared, provide names of the vegetation community(ies) present and their conservation value, include information about fire sensitivity and fire zoning under UKTNP policy if known, provide records of threatened and regionally significant flora species relevant to the site. NOTE: it is not necessary to list all pant species which occur).

National Vegetation Information System (NVIS) vegetation units of the project region are mapped in Figure 7. Majority of the ULW Project Area occurs within vegetation NVIS map unit 93: hard spinifex (*Triodia basedowii*) hummock grassland with desert oak low open-woodland overstorey between dunes (Wilson, Brocklehurst, Clark, & Dickinson, 1990). The final section of the ULW Walking Trail passes through vegetation NVIS map unit 82: *Triodia basedowii* (hard spinifex) hummock grassland with *Acacia aneura* (mulga) tall sparse-shrubland overstorey between dunes.

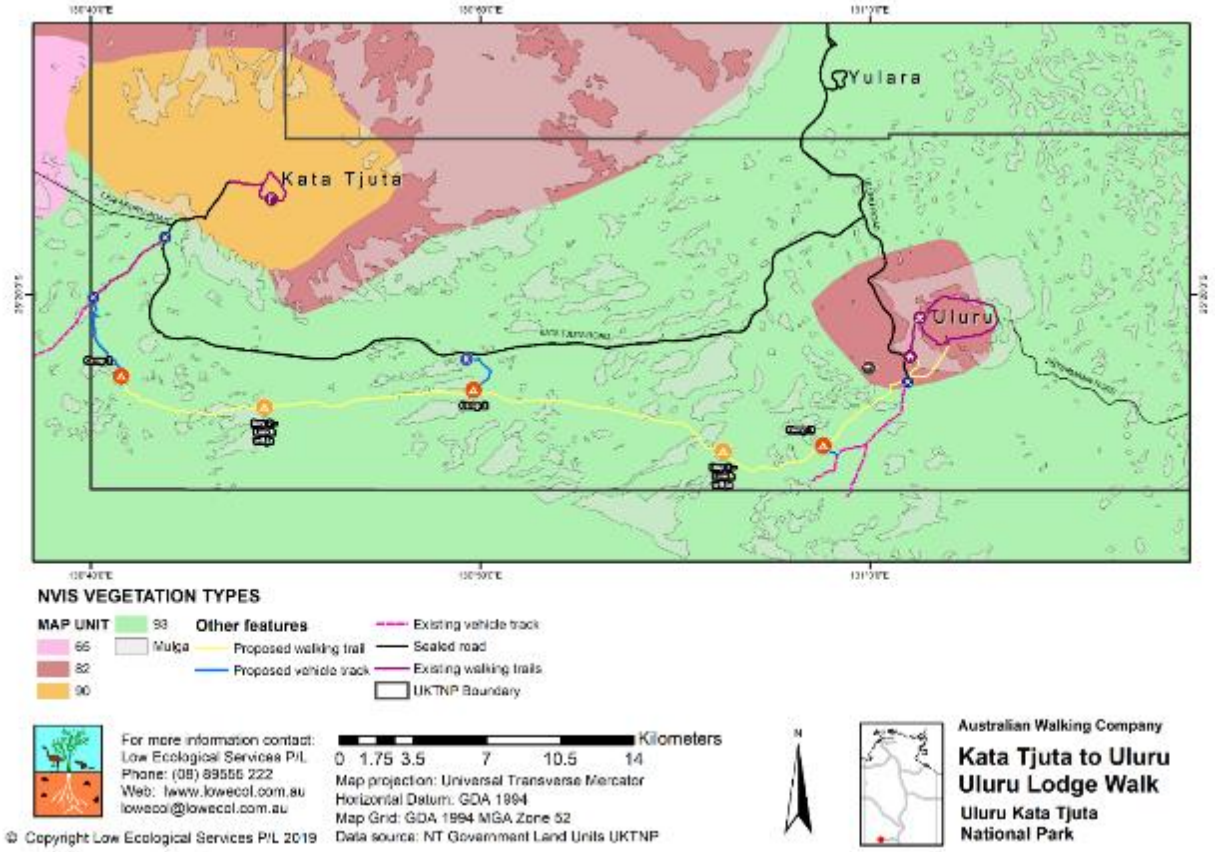


Figure 7. NVIS vegetation types of the UKTNP and mulga stands mapped by Allan (per comms. 2006).

Finer scale vegetation community mapping conducted during ecological surveys of the ULW by LES in 2019 are displayed in Table 6 and Figure 8. ULW Project Area encompasses a variety of habitat types with the two most frequent being open spinifex sandplains with scattered desert oaks (*Allocasuarina decaisneana*), hakeas and grevilleas (22% coverage of Project Area), and mulga (*Acacia aneura*) woodland habitat (21%). More specialised vegetation assemblages occur in distinct habitats associated with rocky outcrops, creeks and gorges; however, these are closer to the Uluru and Kata Tjuta outcrops and not in the vicinity of the ULW (Allan, 1984).

Table 6. Habitat types within Project Area described by vegetation classification, structure, topography and dominant species.

| Vege-tation map unit | Broad vegetation classification | Structural formation | Topography | Vegetation strata | Photo |
|---|---|---|---|---|---|
| A | Low open shrubland over open spinifex and forbs | Low open tussock and forbs<br><br>OR<br><br>Low open shrubland | Sand dune crest | Upper stratum: *Grevillea stenobotrya, Dodonaea viscosa, Gyrostemon ramulosus*<br><br>Mid stratum: *Acacia ligulata, Exocarpos sparteus, Eremophila sturtii, Rhagodia eremaea, Aluta maisonneuvei, Senna pleurocarpa*<br><br>Lower stratum: *Triodia pungens, Rulingia loxophylla, Eragrostis eriopoda, Helichrysum apiculatum, Aristida holothera, Aristida contorta* |  |
| B1 | Aluta heathland with emergent desert oaks, witchery grub bush patches and isolated | Heathland | Sand dune flank – mid to lower slope | Upper stratum: *Allocasuarina decaisneana, Acacia kempeana, Corymbia opaca, Hakea divaricata* |  |

| | | | | | |
|---|---|---|---|---|---|
| | spinifex grasses | | | Mid stratum: *Aluta maisonneuvei, Acacia ligulata*<br><br>Lower stratum: *Triodia pungens, Eragrostis eriopoda* | |
| B2 | Desert oak tall open woodland with scattered hakeas and grevilleas over spinifex understory | Tall open woodland | Sand dune flank and gentle sloping plain | Upper stratum: *Allocasuarina decaisneana, Hakea divericata, Grevillea eriostachya*<br><br>Mid stratum: *Acacia ligulata, Exocarpos sparteus, Eremophila longifolia*<br><br>Ground stratum: *Triodia pungens, Heliotropium ovalifolium, Leptosema chambersii*<br><br>*Note: in older growth forms of this community more mid-story plants are present. |  |
| C1 | Open spinifex grassland with scattered, emergent hakeas and desert oaks | Open tussock grassland with emergent woodland | Interdune sandplain | Upper stratum: *Allocasuarina decaisneana, Hakea divaricata, Eucalyptus gamophylla and other mallees*<br><br>Mid stratum: *Exocarpos sparteus*<br><br>Ground stratum: *Triodia pungens/Triodia schinzii, T. basedowii* |  |

| | | | | | |
|---|---|---|---|---|---|
| C2 | Mulga (*Acacia anuera*) grove woodland | Low woodland | Interdune depression | Upper stratum: *Acacia anuera, Eucalyptus gamophylla, Acacia kempeana, Acacia sibirica*<br><br>Mid stratum: *Senna art. ssp. filifolia, Eremophila latrobii, Eremophila alternifolia*<br><br>Ground stratum: *Eragrostis eriopoda, Triodia pungens* |  |
| C3 | Open mallee shrubland over spinifex understory | Open shrubland/ low woodland | Interdune plain/depression | Upper stratum: *Eucalyptus gamophylla*, *Eucalyptus trivalvis, Eucalyptus socialis*<br><br>Mid stratum: *Eremophila latrobei*<br><br>Ground stratum: *Triodia pungens, Eragrostis eriopoda* |  |
| D | Ecotone – mixed grasses and forbs | Grassland | Interdune plain/depression | Upper stratum: *Acacia anuera, Hakea lasiandra, Grevillea striata*<br><br>Mid stratum: *Eremoophila latrobei, Eremophila freelingii*<br><br>Ground stratum: *Eragrostis eriopoda, Aristida holothera, Aristida contorta, Triodia pungens, Portulaca oleracea* |  |

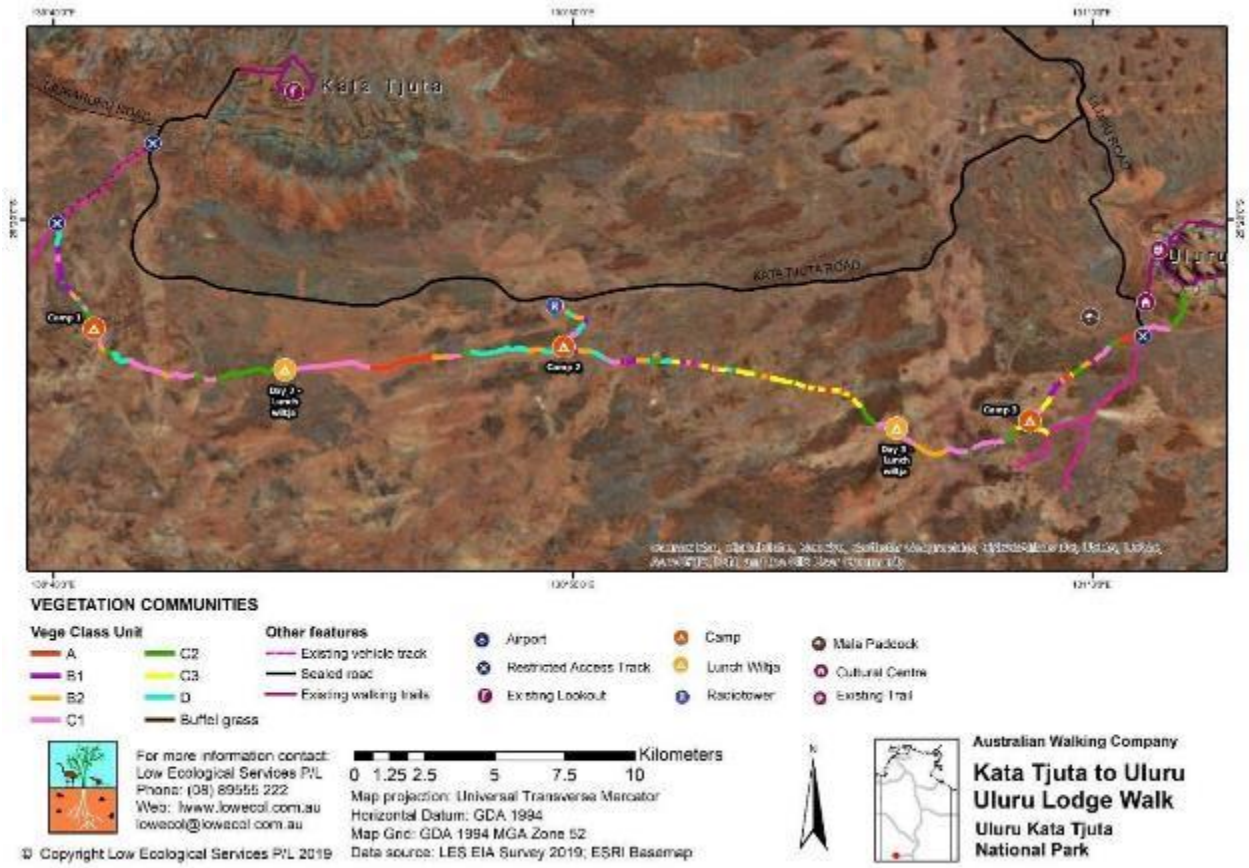


Figure 8. Vegetation communities mapped according to vegetation class unit along the proposed Uluru Lodge Walk Project Area.

Predominately linear dunes and few traverse dunes creating circular swales feature in the Project Area with scattered bands of mulga woodland in inter-dune depressions. Expansive mulga woodlands occur along the Walking Trail between Camp 1 and Camp 2, and approaching the Mutitjulu waterhole. Mulga woodlands are highlighted as important habitats due to a 'sheetflow recharge mechanism' that slows and captures surface run off within depressions, facilitating percolation into soil and replenishing the aquifer system at the base of slopes (English, 1998). As a result, during wet periods, they are at risk of becoming 'boggy' at which point soil surface disturbance from vehicles or foot-traffic can cause compaction and long-term changes in the surface hydrological flow, and accelerate erosion (Winkworth, 1973). The ULW Vehicle Access Tracks have been planned to avoid passing through dense mulga stands and Walking Trails have been planned with alternative diversion paths if paths become boggy after heavy rains. These avoidance and mitigation measures will ensure limited impacts of these sensitive habitats.

Dune crests (11% coverage of the Project Area) were determined to be the most sensitive habitats with sparse vegetation cover, easily disturbed by foot traffic and fire, which could lead to erosion. ULW have committed to reducing walking on sand dune crests by accepting reroute options proposed by LES and implementing surface matting when on dune flanks and crests to mitigate the impacts of erosion.

The NT Flora Atlas and UKTNP Flora & Fauna survey 1994-2010 databases identified 1293 flora records of 502 different flora species within UKTNP (NT Department of Environment and Natural Resources, 2019). No plant species listed under the EPBC Act were identified in the databases including the Protection Matters Search Tool (PMST) as being likely to occur in the Park. Thirteen flora species are declared to be of conservation significance (1 'Vulnerable'; 12 'Near-threatened') by the NT Government TPWC Act. Mapping of these flora records highlighted that none occur within the Project Area, however of these species, three have been assessed as having a medium likelihood of occurring in the Project Area based on habitat matching (Table 7). Overall, the risk of any adverse impact to these species at the population level is assessed as being low. No mitigation measures are required.

Table 7. NT listed flora species with conservation status 'Near Threatened' assessed as having a medium likelihood of occurring in the Project Area, and the risk of impact to these species at population level. Potential location is determined using LES fine-scale vegetation mapping data and desktop assessment.

| Scientific name | Habitat | Potential location | Likelihood of occurrence | Risk of impact |
|---|---|---|---|---|
| *Acacia ammobia* | Usually in sandy soils, often on dunes, or in gravelly soils, with spinifex. | See Figure 8 - red | Low –limited part of trail traverse's spinifex dominated dunes and gravelly soils. | Low – ULW have adapted their plans to avoid constructing the Walking Trail and Camp infrastructure on the dune crests to mitigate erosion and any impacts on diverse plant communities. |
| *Eremophila alternifolia* (Imangka imangka) | Frequently on red or stony soils. Observed growing on the edges of open plains on red loam over crumbly limestone substrate. | See Figure 8 - blue | Low - stony soil and limestone substrate is limited to only a few areas traversed by the 1 m wide trail. | Low – species is found widely just west of Uluru in WA and north towards Areyonga. No impact at a community scale is predicted from the proposed development actions. |
| *Goodenia occidentalis* | Mainly in mallee and acacia scrub on sandy soils. Associated species are mulga and spinifex (*Triodia scariosa*) | See Figure 8 - yellow | Low – mallee and acacia scrub habitat is marginal in Project Area. | Low – disturbance of habitat is minimal and no detection at survey sites. |

Flora surveys carried out in June and November 2019 recorded a total of 51 flora species from 17 different families. No conservation significant flora were recorded.

Buffel grass (*Cenchrus ciliaris*) infestation in the majority of the Project Area is minor, occurring at 5 locations and can be easily managed at this stage by hand removal (Table 8). Large infestation were present on the proposed trail within 1 km from Mutitjulu water hole and surrounding Kata Tjuta existing walking trails (which is the first visit for ULW guests). Scattered plants were found on the Camp 2 and Camp 3 vehicle access tracks. A total of 38 additional introduced flora have been identified previously in UKTNP recorded in the NT Flora Atlas. Further infestation in the Project Area by introduced flora is regarded a high risk and following a management and control plan for buffel grass and other potential weed species in accordance with UKTNP existing policies and procedures will be a priority.

Table 8. Locations of buffel grass infestations recorded within the Project Area, UKTNP.

| Site | Latitude | Longitude | Description |
|---|---|---|---|
| 2A | -25.361 | 130.8329 | Dense patch 20 x 10 m under a mature desert oak (*Allocasuarina decaisneana)* with surrounding spinifex (*Triodia pungens*) and *Aluta maisonneuvei* |
| 2A | -25.3606 | 130.8322 | 11 x small tussocks scattered under desert oaks on lower dune flank with spinifex and *Aluta maisonneuvei* |
| 3A | -25.4001 | 130.9822 | 1 x large tussock under *Eucalyptus mannesis* in mallee woodland |
| 1km before Mutitijulu Waterhole | -25.3561 | 131.0298 | Dense dominant ground cover for 1 km leading to Mutitijulu waterhole and surrounding majority of Uluru monolith |
| Kata Tjuta | -25.285 | 130.7264 | Dense dominant ground cover in major sections of the Valley of the Winds Walk and on approach to lookouts |

**f) Fauna and fauna habitat values** (provide records of threatened, migratory, and regionally significant fauna species within a radius relevant to the site, include the conservation status of each recorded

species, describe habitat values present on the site relevant to each recorded species, include information about non-native species and their use of the area as relevant )

The NT Fauna Atlas and UKTNP Flora & Fauna survey 1994-2010 databases identified 7264 fauna records of 264 different fauna species within UKTNP (NT Department of Environment and Natural Resources, 2019).

Of these records, there are 88 records of 37 fauna species of conservation significance within the UKTNP (Table 9)(NT Department of Environment and Natural Resources, 2019). The Protect Matters Search Tool identified 8 fauna species that are EPBC Act listed, as likely to occur or with species habitat within the UKTNP. Unfortunately, of these significant species, 17 are considered to be locally extinct and only three EPBC Act listed species may still be occurring 'wild' in the Park; *Pezoporus occidentalis* (night parrot), P*olytelis alexandrae* (princess parrot) and *Liopholis kintorei* (great desert skink). Targeted surveys or these three species were carried out during field survey of the Project Area to verify their presence or suitable habitat.

*Lagorchestes hirsutus* (mala) is currently in an enclosure in the Park. TWPC Act significant species potentially occurring in the Project Area include one 'Critically Endangered', seven 'Vulnerable', ten 'Near Threatened' and two 'Data Deficient' species.

Table 9. Fauna species of conservation significance occurring, or potentially occurring, within the UKTNP, identified by the EPBC Protected Matters Search Tool (PMST), the NT Fauna Atlas and the Uluru Fauna Survey. Species are ranked on their likelihood of occurring within the Project Area, and their risk of impact from development activities at a population level. EX: extinct, EW: extinct in the wild, CR: critically endangered, EN: endangered, VU: vulnerable, NT: near threatened.

| Scientific name | Common name | Conservation Status | | Database | | | Likelihood of occurrence | Risk of impact at population level |
|---|---|---|---|---|---|---|---|---|
| | | TPWC | EPBC | PMST | NT Fauna Atlas | UKTNP Survey 94'-10' | | |
| ***Mammals*** | | | | | | | | |
| *Antechinomys laniger* | kultarr | NT | | | X | | Low | Low |
| *Dasycercus blythi* | brush-tailed mulgara | VU | | | X | X | High | Low |
| *Dasycercus cristicauda* | crest-tailed mulgara | VU | | | X | | Low | Low |
| *Notoryctes typhlops* | southern marsupial mole | VU | | | X | | Low - Moderate | Low |
| *Rattus tunneyi* | pale field-rat | VU | | | X | | Low | Low |
| *Rattus villosissimus* | long-haired rat | NT | | | X | | Low | Low |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ***Considered Locally Extinct*** | | | | | | | | |
| *Bettongia lesueur* | burrowing bettong | EX | EX | | X | | Zero | Zero |
| *Chaeropus ecaudatus* | pig-footed bandicoot | EX | EX | | X | | Zero | Zero |
| *Dasyurus geoffroii* | western quoll | ER | VU | | X | | Zero | Zero |
| *Isoodon auratus* | golden bandicoot | EN | VU | | X | | Zero | Zero |
| *Lagorchestes hirsutus* | mala | EW | EN | X | X | | Very Low – may escape enclosure | Low |
| *Leporillus apicalis* | lesser stick-nest rat | EX | EX | | X | | Zero | Zero |
| *Macroderma gigas* | ghost bat | NT | VU | | X | | Low | Low |
| *Macrotis lagotis* | greater bilby | VU | VU | X | X | | Very Low | Low |
| *Notomys amplus* | short-tailed hopping-mouse | EX | EX | | X | | Zero | Zero |
| *Notomys longicaudatus* | long-tailed hopping-mouse | EX | EX | | X | | Zero | Zero |
| *Perameles eremiana* | desert bandicoot | EX | EX | | X | | Zero | Zero |
| *Petrogale lateralis* | black-footed rock-wallaby | NT | VU | | X | | Very Low | Low |
| *Phascogale calura* | red-tailed phascogale | ER | VU | | X | | Zero | Zero |
| *Pseudomys fieldi* | Shark Bay mouse | ER | VU | | X | | Zero | Zero |
| *Sminthopsis psammophila* | sandhill dunnart | DD | EN | X | X | | Zero | Zero |
| *Trichosurus vulpecula* | common brushtail possum (Southern N.T.) | EN | | | | | Very Low | Low |
| *Zyzomys pedunculatus* | central rock-rat | EN | CE | X | X | | Zero | Zero |
| ***Birds*** | | | | | | | | |
| *Ardeotis australis* | Australian bustard | NT | | | X | X | High | Low |
| *Cinclosoma castaneothorax* | chest-breasted quail thrush | NT | | | | X | Low | Low |
| *Conopophila whitei* | grey honeyeater | DD | | | X | X | Moderate | Low |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Dromaius novaehollandiae* | emu | NT | | | X | | Low | Low |
| *Lophoictinia isura* | square-tailed kite | NT | | | X | | Low | Low |
| *Neophema splendida* | scarlet-chested parrot | NT | | | X | X | Low | Low |
| *Pezoporus occidentalis* | night parrot | CR | EN | X | | | Low | Unknown |
| *Polytelis alexandrae* | princess parrot | VU | VU | X | | | Low | Low |
| *Pyrrholaemus brunneus* | redthroat | NT | | | X | X | Moderate | Low |
| *Falco hypoleucos* | grey falcon | VU | | | X | | Low | Low |
| ***Reptiles*** | | | | | | | | |
| *Aspidites ramsayi* | woma python | NT | | | X | | Moderate | Low |
| *Delma desmosa* | banded delma | DD | | | | X | Moderate | Low |
| *Liopholis kintorei* | great desert skink | VU | VU | X | X | | Moderate | Low |
| *Pseudechis australis* | king brown snake | NT | | | X | X | Moderate | Low |

Night parrot (*Pezoporus occidentalis)* records across Australia have been primarily from spinifex (*Triodia* sp.) hummock grasslands in stony or sandy areas and chenopod shrublands on floodplains, salt lakes and claypans (Pavey, 2006a; Pyke & Ehrlich, 2014). *P. occidentalis* is nocturnal and roosts and nests within clumps of large mature spinifex feeding on their seeds (Pyke & Ehrlich, 2014). Pyke & Ehrlich (2014) suggest that they are sedentary, but may occasionally fly to and from the areas where they spend most of their time to water sources. The closest record of *P. occidentalis* to the Project Area is an unconfirmed sighting in the vicinity of Curtin Springs station, 80 km east of Yulara. Recent anecdotal reports of sound recordings of calls in the Northern Territory suggest populations may be persisting yet remain undetected.

Princess parrot *(Polytelis alexandrae)* has been recorded from sandplain environments with vegetation characterised by eremophila, grevillea and hakea shrubs with scattered trees and less frequently in riverine forest, woodland and shrubland habitats (Pavey, 2006b). *P. alexandrae* forages on the ground and in the foliage of shrubs and trees (Pavey, 2006b; Pavey, et al., 2014). *P. alexandrae* breeds in the hollows of eucalyptus trees, predominantly river red gum (*E. camaldulensis*), but also marble gum (*E. gongylocarpa*) and other hollow-bearing eucalypts (Pavey, 2006b; Pavey, et al., 2014). The closest record of *P. alexandrae* to the Project Area is approximately 7.5 km north west (close to Kata Tjuta) recorded in 1986.

Great desert skink *(Liopholis kintorei)* is predominantly found in sandplains and adjacent swales containing mature spinifex grassland vegetation and scattered shrubs, but can occupy a range of vegetation types

such as melaleuca shrub areas in lateritic palaeodrainage lines in the Tanami Desert (McAlpin, 2001). The species' burrows are identifiable by at least one large external latrine (McAlpin, 2001). Populations appear to have declined over the past 50 years, possibly due to the cessation of traditional Aboriginal patch burning of small areas of spinifex and due to predation, particularly in connection with large fires. Building tourism infrastructure close to populations has led to burrow abandonment, and deaths from vehicle traffic (McAlpin, 2001); burrows are also prone to collapse underfoot (Parks Australia, pers. communication 2020). The Yulara area represents a major stronghold for the skink (McAlpin, 2001). The Great Desert Skink is active and mobile in UKTNP; for example, 94 active burrows were found in 2017, 34 of them new, and routine monitoring of a small active population surrounding Yulara in 2019 also demonstrates its ongoing persistence in the region (Director of National Parks, 2010a; Eldridge & Paltridge, 2019). However, locations and occupancy of burrows fluctuate, with contributing factors still largely unknown. The species appears to struggle in the post-fire environment during the first two years, particularly where large areas and mature spinifex are burnt (Hauselberger 2017), as it has been the case in the Park in recent years. Although little monitoring has been conducted in the project area itself, it represents suitable habitat for the Skink and is likely to be occupied by it at some point in time.

During the June and November 2019 surveys of the ULW Survey Sites, a total 246 records of fauna species were collected comprising 68 vertebrate fauna species including 33 birds, 17 mammals, 14 reptiles and 4 introduced mammal species (Figure 9).

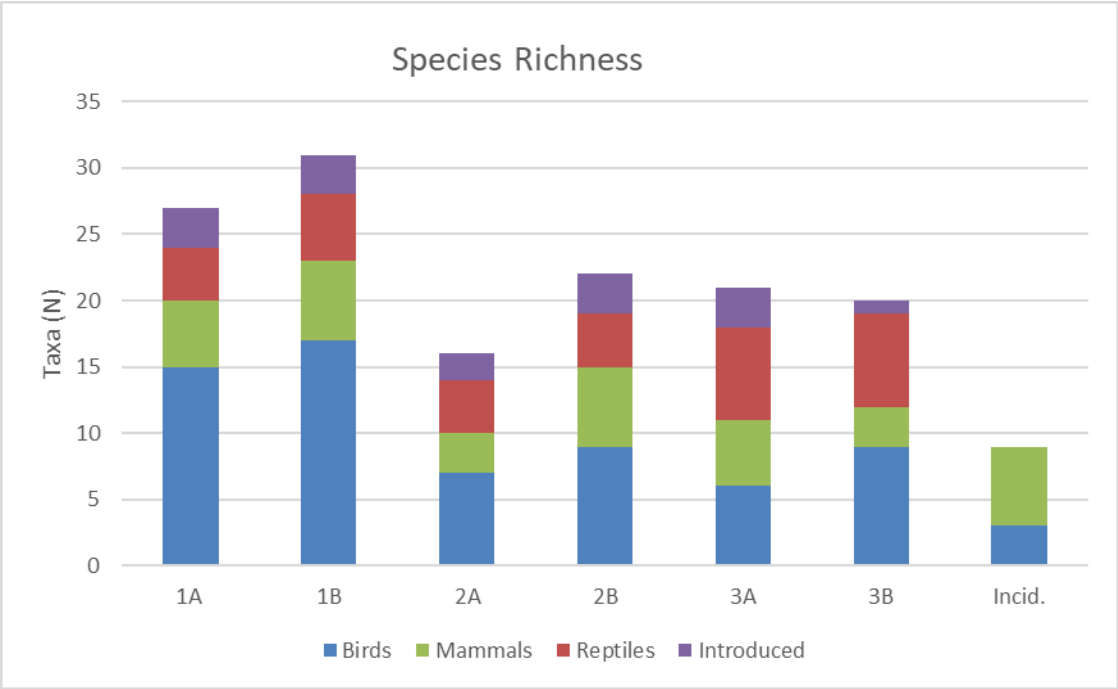


Figure 9. Species richness per survey site totalling June and November surveys.

Conservation significant fauna species

Song meter records did not identify bird calls from night parrots at any of the proposed Camps or one potential habitat area with large mature spinifex present (-25.370499, 130.832573; ~1km north east of Camp 2). In this area (approximately 0.5 $km^2$), large spinifex hummocks were searched for evidence of night parrot nests but none were detected. This habitat was marginal for the night parrot as hummocks were not enormous, and the bulk of the centre had dried out reducing the cover available for birds to nest in successfully. Frequent widespread fire through the Project Area suggests there is a low likelihood of night parrots occurring in the area due to lack of mature stands of spinifex and chenopod shrublands.

The princess parrot was not detected during on-ground surveys. Whilst available feeding areas of open spinifex sandplains with emergent hakeas and grevilleas were identified in the Project Area, there are no tall hollow-bearing eucalypt*us* which the parrot needs for nesting sites. The irruptive nature of this species following high rainfall seasons when food availability is high, yields a small possibility of it occurring in the Project Area periodically in the future. However, the high mobility of the species and extensiveness of similar habitat in the region, mean it is unlikely the proposed ULW development and hiking activities will have an impact on the species. There is a low risk of impact at a population level.

Targeted surveys for burrow systems and central latrines of the great desert skink across the entire proposed Walking Trail and Camps yielded no results indicating that the species is not likely to be present in the Project Area. Its preferred habitat of spinifex sandplain is marginal within the Project Area and thus individuals may migrate here in the future. Whilst this suggests the precautionary principle should be followed, it is important to note that their habitat is extensively available elsewhere in the Park and in the surrounding Katiti Petermann Indigenous Protected Area.

A mole-sized tunnel assessed to have been left by a southern marsupial mole (*Notoryctes typhlops*) was found in a mole survey pit at site 1A; along the proposed access track to Camp 1. *N. typhlops* is considered 'Vulnerable' under the Northern Territory TWPC Act; however, in the UKTNP the species is listed as 'Rare'. The conservation status of these moles may be a function of the difficultly in recording their presence, as the mole spends most of its life below ground. It is becoming more widely believed that the mole is more common in the UKTNP than previously thought but detectability is still challenging (Bennison, Clayton, Godfree, Pavey, & Wilson, 2014).

As evidence of mole activity was on a dune flank, and their preferred habitat is subterranean, moles are unlikely to be disturbed by access routes, as they will be placed to follow the lower dune flanks and sand plain topography, avoiding dunes.

Listed migratory birds

The EPBC PMST identified eleven listed migratory and marine species as potentially occurring within the UKTNP (). However, within the NT Fauna Atlas database, only a few records exist of migratory birds within the park, dating back to late 1980s. These include the rainbow bee-eater, common sandpiper, fork-tailed swift and sharp-tailed sandpiper.

Multiple recordings of rainbow bee-eater occurred within dune/interdune spinifex grassland with desert oaks habitat, scattered mulga stands and adjacent to permanent monolith waterholes. The common sandpiper, fork-tailed swift and sharp-tailed sandpiper records are within 2km of the Uluru monolith, which is surrounded extensively by dense mulga and containing permanent waterholes. It is likely these species and other migratory species use these watering points and seek the protection of these woodland areas on their migration path.

During field surveys in June and November 2019, rainbow bee-eater was recorded at survey site 3B, the proposed site for Camp 3. Most of the listed migratory birds have a strong preference for wetland habitats which are not present in the ULW Project Area. They are likely to roost around permanent waterholes surrounding Uluru and Kata Tjuta monoliths or those south of the Park and adjacent areas. These sites are far from the proposed Project Area, except where the walk approaches Mutitijulu waterhole carpark and a small ephemeral claypan which is passed on the Walking Trail between Camp 2 and Camp 3. A full migratory bird assessment of risk of impact at population level, and mitigation strategies in included in the Appendix section of the ULW Flora and Fauna Report 2020.

In conclusion, if the above recommended mitigation strategies are followed by ULW, in co-operation with UKTNP and Anangu Traditional Owners, the proposed Uluru Lodge Walk development is unlikely to have a significant impact at the population level on any of the species of conservation significance.

## 3.2 Aboriginal cultural heritage (to be completed by CLC)

**a) Nguraritja cultural heritage values** (include sacred sites, other cultural sites and/or landscape features; indicate cultural heritage values which are specifically referred to in the UKTNP lease, indicate cultural constraints if known)

This section shall be addressed by the Sacred Sites Clearance Report as advised by CLC.

AWC acknowledges that all earthworks will require prior Sacred Sites Clearances following protocols according to Central Land Council (CLC); and that there are likely to be additional cultural matters that will require clarification in close communication with CLC.

**b) Nguraritja customary use values** (include plant and animal species or other resources specific to the site which are used by Nguraritja)

The following table has be collated from publicly available resources on the UKTNP website, Peter Latz' (1995) book 'Bushfires and Bushtucker: Aboriginal plant use in Central Australia' and personal observations by Sara Weir from working with Anangu over the past 4 years.

CLC's Joint Management Officer ..has confirmed this list with Anangu Traditional Owners in June 2020.

Table 10. Nguraritja customary use values of natural resources within the project area.

| Pitjantjatjara name | Scientific name | Common name | Customary use value |
|---|---|---|---|
| wanari | *Acacia aneura* | mulga | waru (firewood) for cooking meat<br>miru (spear throwers)<br>mukulpa (barbs)<br>wa̲ta (spearheads)<br>ka̲li (boomerangs)<br>wana (digging sticks)<br>tju̲tinypa (club)<br>wiltja (shelters) and yuu (windbreaks)<br>latja made from mulga seeds<br>tarulka (mulga apples)<br>kurku (scale secretion) |
| tjanma̲ta | *Cyperus bulbosus* | bush onion<br>yalka, onion grass | mai (food) - bulbs<br>tjukurpa |
| wakati | *Portulaca oleracea* | native pigweed, | mai (food) - seeds, greens |

| | | | |
|---|---|---|---|
| | | purslane | mythology |
| kampurarpa,<br>kati-kati | *Solanum sp.* | bush tomato | mai (food) – fruit<br>tjukurpa |
| arnguli | *Santalum lanceolatum* | bush plum, wild plum | mai (food) – fruit, juice<br>mythology, decoration, medicine |
| ili | *Ficus platypoda var. minor* | native fig<br>wild fig, desert fig | mai (food) – fruit<br>mythology |
| wayanu,<br>mangata | *Santalum acuminatum* | quandong, native peach, peach tree | mai (food) – fruit, seeds<br>hair conditioner,<br>tjukurpa |
| wakalpuka,<br>lungkunpa (ground seed) | *Acacia tetragonophylla* | dead finish | mai (food) - seeds to make nyuma (seed cake), grubs, sweet sap |
| wangunu | *Eragrostis eriopoda* | woollybutt grass | seeds to make nyuma (seed cake) |
| ultukunpa,<br>ultukunyilypa,<br>yultukunpa | *Grevillea juncifolia* | honey grevillea | tjuratja (sweet food) nectar, cordial drink |
| kaliny-kalinypa | *Grevillea eriostachya* | yellow flame grevillea/ desert grevillea | tjuratja (sweet food) nectar, cordial drink |
| katji-katji | *Sida sp.* | | mai (food) - seeds<br>medicine |
| ilpara | *Grevillea stenobotrya* | sandhill grevillea | mai (food) - seeds<br>ash, medicine |
| apara,<br>itara | *Eucalyptus camaldulensis* | red river gum | wira (small bowl) for digging or collecting small fruits<br>kanilpa (larger bowl) for cleaning seeds<br>piti (largest dish) for carrying water |
| kiti (resin) | *Triodia pungens* | soft spinifex | resin for glue for tools |
| urtjanpa,<br>kulata (spear) | *Pandorea doratoxylon* | spearbush,<br>spearwood | kulata (spear), wood tool to make manguri,<br>mythology |

| | | | |
|---|---|---|---|
| uṉturngu | *Marsdenia australis* | bush banana, silky pear | mai (food) – fruit, greens |
| ilykuwara, Witchetty grub- maku ilykuwarra | *Acacia kempeana* | witchetty bush | mai (food) - maku (witchetty grubs) in roots, seeds, grubs, lerp |
| tjaḻa | *Camponotus inflatus* | honey ants | tjuratja (sweet food) tjukurpa |
| maku | *Endoxyla leucomochla* | witchetty grubs | mai (food) tjukurpa |
| tingka | *Varanus gouldii* | sand goanna | kuka (meat) tjukurpa |
| ngiṉṯaka | *Varanus giganteus* | perentie | kuka (meat) ngampu (eggs) tjukurpa |
| kaḻaya | *Dromaius novaehollandiae* | emu | kuka (meat) ngampu (eggs) sinew for tools tjukurpa |
| kuniya | *Aspidites ramsayi* | woma python | kuka (meat) tjukurpa |
| maḻu | *Osphranter rufus* | red kangeroo | kuka (meat) sinew for tools tjukurpa |
| kanyaḻa | *Macropus robustus* | euro | kuka (meat) |
| kipara | *Ardeotis australis* | Australian bustard | kuka (meat) tjukurpa |
| Pilyali, puunpa, wituka, ungka (roots), urpa (growth tips). Anumara (caterpillar) | *Boerhavia spp.* | caterpillars, tar vine | mai (food) – plant roots and caterpillars that feed of this plant |
| tjungaṟi, tjiwa | - | grinding stone and base | processing seeds into flours |

## 3.3 Non-Aboriginal cultural heritage (include listed and unlisted sites, identify conservation value of sites and adopted management regime if assessed)

Earth Sea conducted a Heritage Impact Assessment of the Uluru Lodge Walk project area in 2019. Their report details the following findings;

"The field survey recorded two historical water bore sites consisting of bore caps, star pickets and name tags. These sites are likely to have been associated with the 1970s dune plains aquifer drilling program which tested the extent of the aquifer and its capacity to supply water to the original motels located at the base of Uluru. These sites are of relatively low heritage value and are unlikely to meet any of the heritage significance criteria outlined in the EPBC Act or the Burra Charter. The walking trail in these areas are unlikely to impact on the historic sites however it is recommended that the track avoid direct impact on the two sites." (Keys & Woolfe, 2020)

***See Attachment 7: Earth Sea ULW Heritage Impact Assessment 2020.***

## 3.4 Community

**(a) Visitor use** (describe nature and scale of visitor use, include season, include type and numbers of tour operators, include type and number of vehicles, include information on visitor management as relevant)

The operational capacity of the walk will see a group of up to 14 guests and 3 staff departing daily between mid-April to September. Camp 1 and 2 will accommodate one group each and Camp 3 is proposed to accommodate two groups (up to 36 pax including 8 staff) for the final two nights. At full functioning capacity, the ULW expects to host approximately 2,000 guests per year during the cooler season. During the hot season, there are preliminary plans to offer a shorter duration product, such as 2 day/2 night, based out of camp 3 only if there is a client demand. This will include shorter walks in the cooler parts of the day and regular evening activities including with Traditional Owners.

Visitors will be picked up from Yulara airport by a ULW vehicle (the type is still being decided) and driven to Kata Tjuta to commence walks along public tracks and look-outs. Following, they will be transported by the vehicle to 1km before Camp 1 and walk the last section into the Camp 1 site. Luggage of visitors will be transported to each Camp everyday via vehicle access tracks along with food supplies, water (if needing refilling) and waste management. On the fourth day, visitors will be picked up from the cultural centre by the vehicle and transported back to Camp 3 via the service route. ULW's initial view is that they will operate a 21- seater bus for arriving and departing groups, an ATV at each of the three camps to allow for miscellaneous servicing and support tasks, and 1 or 2 4WD type vehicles to move people/supplies between camps.

The nature and scale of ULW's proposed commercial activity and development will have a significantly reduced impact on Parks Australia's existing infrastructure within the Uluru-Kata Tjuta National Park. Guests will predominantly be using trails and amenities wholly operated and maintained by ULW. As such the demand on park infrastructure including walking trails, car parks, internal roads, reticulated water and sewerage is minimised. ULW will be responsible for managing our own accommodation nodes and all associated infrastructure and access roads and trails. Professionally qualified wilderness guides effectively manage guest activity both on and off the trail. This significantly reduces the impact of visitation on the environment through the implementation of controlled minimal impact bushwalking techniques. ULW will actively manage all incidents in the field through their highly developed in-house incident and emergency response protocol, thus reducing the need for incident response from Parks management, and other agencies.

b) **Existing infrastructure** (include access routes, toilets and visitor facilities, essential services, park management works; include condition of all built structures)

A small fraction of the ULW utilises existing infrastructure of UKTNP and Yulara including the following;

- Uluru Rd and Kata Tjuta Rd for access around the Park public sights and to access service tracks to ULW accommodation nodes.
- Public carparks in UKTNP including Uluru Kata Tjuta Valley of the Winds, Cultural Centre and Mutijulu Waterhole.
- Uluru Kata Tjuta Cultural Centre and associated shops and art centres.
- Existing UKTNP public walks such as Valley of the Winds, Liru, Mala, Kuniya walking trails.
- Public toilet facilities are Uluru and Kata Tjuta.
- Water refilling of slip-on unit at Yulara.
- Waste disposal site at Yulara.

**c) Education and scientific values** (include research and/or monitoring action, refer to permits as relevant)

ULW is open to receiving scientific research proposals for use of the site if first approved by UKTNP and Traditional Owners. In this way, the ULW offers a full immersive experience to researchers looking to undertake field work in a part of the Park not extensively studied.

The ULW can also become a resource for educational groups to utilise the ULW for training and educational activities. For example, in Tasmania, the Tasmania Walking Company has facilitated and supported the on-going development of the Tasmanian Aboriginal Guide Accreditation and Mentoring Programme. This program was established in 2015, with funding and support provided by Skills Tasmania, TasTAFE, the Tasmanian Walking Company (TWC), the Aboriginal Land Council of Tasmania (ALCT), Tasmanian Parks and Wildlife Service (TPWS), and Qantas. The driving vision behind the programme is to

"provide skills, education and qualifications that lead to environmentally based employment opportunities that align with Indigenous connection to land and nature whilst also establishing a pool of qualified and authoritative Indigenous guides working in Australia's National Parks & World Heritage Areas" (AWC, 2018).

**d) External stakeholders** (identify relevant stakeholders eg Northern Territory Government, Bushfires Council, leaseholders, neighbouring landowners, interest groups, etc)

The following section has been adapted from the Business Case (***Attachment 2***).

There are a number of key external stakeholders that are important for the sustainable development and operation of the ULW project. ULW company has already begun an initial community engagement process, meeting with various stakeholders over the course of their 3-year involvement in the conceptualising of the Uluru Lodge Walk. Subject to further project approvals ULW have proposed to directly establish a project advisory committee (Nguraritja Advisory Committee) or similar other group advisory panel to provide advice and share knowledge and concerns, if the project is approved.

Key stakeholders include:

<u>Nguraritja Traditional Owners and Anangu Community</u>

The Uluru Kata Tjuta National Park has great cultural significance to Nguraritja (Traditional Owners) and the broader Anangu community. Anangu are the people of Uluru-Kata Tjuta National Park and the central desert region who speak Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra. Many Anangu live and work directly within the Uluru Kata Tjuta National Park, and immediate surrounding areas such as Mutitjulu and Yulara. Anangu bring cultural knowledge and experience to jointly manage the Park with Parks Australia, with a combined application of both Tjukurpa (the foundation of Anangu life and society) and Piranpa (western) law systems. Tjukurpa guides the development and interpretation of park policy with a mutual respect for culture and differing perspectives on interpreting the landscape informing how the park is managed. As part of the management partnership between Anangu and Parks Australia, Anangu currently receive 25% of the income earned from visitors to the Park via entry fees and lease payments. ULW acknowledges that Nguraritja and Anangu are proud to share the park with visitors and would like visitors to learn about Tjukurpa. In creating our walk, the direct engagement and inclusion of Nguraritja and Anangu in decision-making and creating positive community and product outcomes, will be crucial in achieving a successful ongoing, working relationships and benefits. ULW also understands that the support and involvement of the local community is important for the sustainable development and ongoing operation of our walks. We will work closely with Traditional Owners, Anangu and Mutitjulu community to identify opportunities and create mutually beneficial partnerships.

<u>Mutitjulu Community (Mutitjulu Community Aboriginal Corporation)</u>

Mutitjulu is a small township on the south-eastern side of Uluru, and is the only town located entirely within the Uluru Kata-Tjuta National Park. Mutitjulu Community Aboriginal Corporation (MCAC) administers the local Mutitjulu Community and is the representative body for the Anangu residents of Mutitjulu. Due to the remote location of the community, there are limited employment opportunities for local Anangu and the local economy relies heavily on tourism. MCAC's objective is to establish and coordinate functional and effective social and community services to develop the local economy, creating jobs and income and provide support and care to disadvantaged residents in the community. ULW has identified a number of opportunities to engage with and create benefits for the community of Mutitjulu. It is hoped that local residents can be directly engaged with our business through employment, supply-chain development, education and interpretation, and through the inclusion of cultural activities in our walk. Possible partnerships with the Ininti Store and Maruku Arts are currently being investigated as part of our product development research.

Central Land Council (Commonwealth Corporate Entity)

The Central Land Council (CLC) represents and provides services to Aboriginal Traditional Owners and residents of Central Australia. The CLC supports them by advocating with them and on their behalf to help with the economic development of their land and promote community development and protect the rights of the Aboriginal people. CLC negotiates on behalf of traditional landowners in relation to the use of Aboriginal land and land under claim to obtain consent. The CLC distributes to Aboriginal associations, statutory payments from the Aboriginals Benefit Account to communities affected by mining, and income received on behalf of landowners under land use agreements assisting Aboriginal people to carry out commercial activities such as resource development, tourism, pastoralism and agriculture in a manner that will not make the land council financially liable or enable it to receive financial benefit. The CLC will negotiate with ULW on behalf of Traditional Owners, on matters relating to our proposal, including license fees and lease arrangements for our operation, and will also lead Consults with Traditional Owners throughout the Approvals phase of our project. Parks Australia and the Director of National Parks Uluru – Kata Tjuta National Park is owned by Nguraritja and Anangu people and leased to the Director of National Parks (DNP). The Park is jointly managed in a cooperative arrangement between the DNP and Traditional Owners with current joint management arrangements being: land rights and legal ownership of the land in communal title; lease-back to the DNP (and related obligations defined in a lease); and the establishment of a Board of Management with an Aboriginal majority.

The vision of Parks Australia is "healthy and resilient national parks, gardens and marine parks that protect nature and culture and are valued and enjoyed by the community now and into the future". ULW are focused on delivering an ecologically sustainable development that respects, protects and promotes the cultural and natural values and assets of the Uluru Kata Tjuta National Park. Long term business growth, environmentally supportable development and ongoing Operation principles sit at the core of our company. Establishing good working relationships with Parks Australia, and growing advocacy for National Parks both regionally and nationally are key objectives for our project and are integral to the enduring success of our operation.

Uluru Lodge Walk Pty Ltd

Uluru Lodge Walk is a wholly owned subsidiary of ULW and is the proponent of the Uluru Lodge Walk project, and as primary financial sponsors, the ULW Board have a desire to create a long-term sustainable investment, which is financially, environmentally, culturally and socially responsible. Considering that AWC's long-term company vision is to have a portfolio of high quality walking products across Australia, Uluru is an iconic cultural and physical landmark destination that will fit perfectly within our suite of existing walking products. High quality, marketability and unique selling points are key objectives that AWC aim to achieve with its walking products, and the Uluru Kata Tjuta National Park aligns with these values.

ULW Guests

Uluru Lodge Walk will be a superior tourism experience that delivers in line with the current expectations of the AWC/TWC service and hospitality experience. Environmentally sensitive architecture, local food and wine, intimate group size, uncomplicated luxury, knowledgeable and friendly local guides are ingrained in our product DNA to deliver a premium short-stay experience. Our guests have the desire to participate in a 'journey' that has an authentic, moderately challenging, cultural and environmentally driven narrative. They are eager to engage in the prospect to learn about different cultures and the environment, and immerse themselves within the special locations in which we operate. Our current database has over 14,000 walkers who we regularly engage and communicate with. We have found that our customers are extremely loyal to our brand with circa 15% of our guests for the 2016/2017 season being return visitors who had already experienced at least one of our products and 40% of all annual guests reporting positive word of mouth from former walkers as key to choosing to travel with us.

Other potential stakeholders:

Voyages Indigenous Tourism Australia and Indigenous Land Corporation (Australian Government)

Voyages Indigenous Tourism Australia manages Ayers Rock Resort, in the resort town of Yulara on behalf of the Indigenous Land Corporation (ILC). All profits from Voyages business activities are reinvested in the Indigenous Land Corporation's Indigenous training and development programs across Australia. Voyages offers several hospitality training courses and pathways through their Voyages National Indigenous Training Academy, and as such may be a potential partner for ULW for Guide, Host and other tourism related training initiatives. The Indigenous Land Corporation (ILC) is a corporate Commonwealth entity established in 1995 to assist Aboriginal and Torres Strait Islander people acquire and manage land to achieve economic, environmental, social and cultural benefits. The ILC manages the land on which the township of Yulara is built. Should ULW need to develop Staff Accommodation and Operations Base outside of the National Park, in the Yulara area, ULW will negotiate directly with ILC. ULW shares ILC's vision for creating ongoing benefits for Traditional Owners though economic, social, and cultural development, whilst sustainably managing and protecting the environment.

Maruku Arts

Non-for-profit art and craft corporation owned and operated by Anangu. Based in Mutitjulu and the UKTNP Cultural Centre, Maruku has the potential for collaboration with the ULW through providing arts and craft products to guests for purchasing and developing cultural activity events to run alongside the ULW in the evenings.

Tourism NT

Tourism NT is a Northern Territory Government statutory authority responsible for promoting the Northern Territory as a unique travel destination. They are responsible for marketing and influencing development of tourism in the NT and can provide vital information and support to the ULW project.

**e) Aesthetic values** (include scenic and amenity values)

The overall approach to the ULW is over 4 nights and 3 camp settings, delivering 3 distinct memories, in which architecture and site-planning marries with Place. Site development is *wholly* based on retention of site landscape values, and respect for the fragility of the Parks delicate sand terrain – and especially its ancient, characterful dunes. Site interventions are positioned to achieve shelter, nestling with host dunes, whilst connecting with views to the Park's icons, Kata Tjuta and Uluru.

Anangu wiltjas are the starting point for architectural inspiration, and this is married through site-planning and architecture to ensure engagement with the environment, with Country. Camps are developed around journeys to sleeping places, story-telling around fires under the stars, feeling the breeze, and being at one with sunrise and sunset.

The ULW team and Troppo architects have listened to Traditional Owners instructions for the roof level of buildings to not rise above the level of sand dunes and for building to be lower on dunes (not on dune tops). This will preserve the natural visual amenity of the sites.

Overall, ULW will have low to moderate impact on the natural visual amenity values of this pristine southern region of the Park. A design principle has been minimalist and low-disturbance raised buildings (most prefabricated and then assembled onsite). This will assist in the rehabilitation process to return the country back to its original state once the project comes to a close.

## ● 4 REFERENCES, AND BIBLIOGRAPHY

Record all information sources including spoken interviews.

Attachments list:

1a – TROPPO – ULW_200908_PART 2 SITE
1b – TROPPO – ULW_200908_PART 1 SITE
1c – TROPPO – ULW_200908_PART 4 INTERNALS
1d – TROPPO – ULW_200908_PART 5 ARTISTS IMPRESSIONS
1f– TROPPO – ULW_200908_PART 6 WELLNESS VIEWS
1e – TROPPO – ULW_200908_PART 7 CONCEPT DESIGN REPORT
2 – AWC – Business Case – MASTER – Final 16102018
3a – AWC – Uluru Timeline + Network Diagram
3b – AWC – ESD Criteria
4 – AWC – Three Capes Lodge Walk – CEMP – REV 4 21.06.2017
5 – AWC ULW Itinerary Logistics
6 – LES – ULW Flora Fauna Assessment 2020_20200314
7 – EARTHSEA – ULW Heritage Impact Report_20200318
8 – SECON – ULW Building Services Report RevB_201008
9a – ULW Maps 1_70000
9b – ULW Track Shapefiles
9c – ULW All tracks with diversions (.KMZ)
10 – AWC – Email to AWC regarding UKTNP resolutions
11 – AWC – Consultation1 – Site visit_14-18May2019
12 – AWC – Consultation2 – Site visit_16-21June2019
13 – AWC – Consultation3 – Site visit_22-26Sept2019
14 – LES – Consultation4 – ULW Meeting Notes_May2019
15 – LES – Consultation5 – ULW EIA Summary Report_June2019
16 – CLC – Consulation6 – AWC copy Meeting Minutes 25-9-10 (002)
17 – LES – Consultation7 – ULW EIA Survey Summary Report_Nov2019

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## ● 5 NATURE AND EXTENT OF THE LIKELY IMPACTS OF THE ACTION

This section is one of the most critical of the EIA and must be completed by all proponents. Its purpose is to describe the likely impacts of actions on UKTNP (as Commonwealth land) and actions taken by the Commonwealth according to the requirements of the EPBC Act.

Proponents must briefly describe the possible impacts likely to occur as a result of the action including consideration of the extent, size, scope, intensity and duration (refer to Guidelines).

A rating is also needed to categorise impacts as:

- low (or negligible), medium or high adverse impact, OR
- positive impact,

taking into account any mitigation measures that have been specified. Boxes should also be marked as N/A where the prompts are not applicable. These ratings made by the proponent for individual aspects of the proposed action, will help UKTNP staff determine whether or not there will be a significant impact from the action overall (refer Section 6.0).

## 5.1 NATURAL HERITAGE

**Physical and chemical impacts during construction and operation**

| | **IMPACT RATING** (N/A, low, medium or high adverse OR positive) | **DESCRIPTION OF IMPACT** taking into account the receiving environment, proposed mitigation measures and proposed monitoring |
|---|---|---|
| 1. Is the action likely to impact on soil quality or land stability? | Low adverse | The ULW proposal will have minor excavation works to construct vehicle access tracks (total 3.7ha footprint) and accommodation infrastructure (total 18.9ha footprint). Soil quality will not be affected due to predominately loose deep sand composition and lack of crusts. ULW has accepted advice by LES in rerouting one section of the walking trail from the dune crest to the adjacent sandplain to mitigate dune erosion. ULW has accepted advice by LES in the appropriate placement of accommodation infrastructure, buildings and walking paths at Camps to maintain the stability of dunes, selecting wide low profile dunes and flat sandplain areas with mature trees. ULW has accepted the advice of LES in the appropriate placement of Vehicle Access Tracks along low profile land and minimising driving over sand dunes as much as practicable.<br>At the Camps there is a small footprint of where people will be walking on dune flanks and crests to reach look-outs. Along these paths and look-outs dunes will be stabilised by laying appropriate dune matting or floating boardwalks in |

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| | | high foot-traffic areas. Guests will be encouraged to stay on designated tracks to limit impacts to within the project footprint. Temporary areas used during construction phase are included in the total accommodation infrastructure footprint, and will be rehabilitated following the construction phase. |
| 2. Is the action likely to affect a waterhole, watercourse, or natural drainage system? | Low adverse | The section of Walking Trail between Camp 2 and Camp 3 is adjacent to a claypan along an ephemeral drainage line. The ULW also utilises UKTNP public walks to Mutitjulu Waterhole and waterholes at Kata Tjuta. Guests expected to be walking these trails past these sites is estimated at 2000 pax per year. It is unlikely that ULW guests walking past these features on designated paths will cause negative impacts on waterholes and watercourses. |
| 3. Does the action involve the use, storage or transport of hazardous substances or the use of chemicals which could be released to the environment? | Low adverse | During construction and operation stages, the hazardous substances on-site will be:<br>o Fuels for machinery and power generators<br>o LPG<br>o Oil<br>o Grease<br>o Solvents (construction only)<br>o Cleaning Products<br>o Sewage and wastewater<br>o Domestic waste<br>All hazardous materials needed in the construction of the ULW will be strictly managed as per the directions a Construction Management Plan that will be formulated following UKTNP approvals.<br><br>***See Attachment 4: AWC Three Capes Lodge Walk Construction Management Plan, section 10.3 Hazardous Material Management, as an example.***<br><br>Key management considerations and strategies will include: |

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|---|---|---|
| | | ○ Keeping copies of Safety Data Sheets (SDS) for all substances on site and include familiarisation of these in staff training<br>○ Appropriate signage on storage containers and storage areas<br>○ Containment strategies such as bunding<br>○ Keep spill kits on site (if required – refer to SDS)<br><br>During the operation stage, all rubbish and recycling will be contained in sealed bins and removed from the site regularly.<br>Greywater from showers, kitchens will be untreated and diverted to deep soakage pit (pipe sleeved). Deep sand substrate will partially filter food solids and suds from water.<br>Toilet systems at camps will have an enclosed pan beneath that is transported off-site every 6 weeks and emptied in Yulara. No raw sewage will be released into the environment.<br>Gas will provide clean and efficient heating, cooking and hot water. Gas bottles will be transported, stored and used as per MSDS directions and ULW's JSA statement.<br>No substances will be directly released into the environment and all precautions and appropriate safety measures of containment and transport will be followed to mitigate any impacts from unforeseen accidents. |
| 4. Does the action involve the generation or disposal of gaseous, liquid or solid waste or emissions? | Low adverse | As above. |
| 5. Will the action involve the emission of dust, odours, noise vibration or radiation in the proximity of housing or other sensitive locations? | N/A | The location of the ULW is remote, with the closest section of Kata Tjuta Road 2 km north of Camp 2 and the Cultural Centre 5.7 km NE of Camp 3. While some dust is expected from construction works over a few months, this is unlikely to travel to public use roads, the cultural centre or Yulara (approx. 18.5 km away from Camp 3). Noise will be managed by having a limited number of pax. Odours from toilets and waste will be managed by removing from site as necessary. |

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| | | The project is not expected to emit vibrations or radiation in either construction or active phases of the project. |
| **Biological impacts** | | |
| 1. Is any vegetation to be cleared or modified? | Low adverse | Camp 1, 2, 3 – Estimated footprint per site is 6.3ha. Of that only 0.13ha at Camp 1, 0.15ha at Camp 2 and 0.26ha at Camp 3 of actual ground disturbance is estimated for buildings and walkways. Vegetation modification of small shrubs and grasses will be limited to buildings and walkway footprints. Removal of large trees will be avoided and if required, permission will be requested following the appropriate protocols for CLC and UKTNP. Over the project lifetime, permission will be sought from CLC and UKTNP to manage small desert oak saplings and other tree saplings that are in direct view of Kata Tjuta and Uluru from campsites.<br><br>Three Vehicle Access Tracks –Tracks will be one lane (up to 5m wide), cleared of vegetation and graded where necessary, with a total footprint of approximately 7.2km in length and an area of 3.7ha. Tracks will be planned to avoid the removal of large trees as much as possible. If removal of large trees is required, appropriate protocols from CLC and UKTNP will be followed.<br><br>Walking Trail – Approx. 1.5m wide path for foot-traffic only. The path runs from Camp 1 for approximately 40km through predominately spinifex sandplains and open woodlands. The track will meander around trees and will remove grasses and small shrubs as required. Under the initial recommendation of LES, ULW has applied for 200m corridor lease area within which a suitable walking trail path will be selected. The corridor allows for the possibility of the walking path to be shifted to minimise environmental impacts such as potential boggy tracks through mulga groves, or possible migration of threatened species in proximity to the path.<br><br>See Table 1 and Table 2 for total footprints for project area and estimated ground disturbance at Camp sites. |

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| 2. Is the action likely to introduce weeds, increase weed distribution or otherwise impact on existing weed infestations? | Low adverse | During EIA surveys, buffel grass (*Cenchrus ciliaris*) infestation in the majority of the Project Area was found to be minor, confined to a few tussocks at three locations, and can be easily managed by hand removal during the construction phase. Significant infestation exists where the Walking Trail passes through the piedmont plains approaching Mutitjulu waterhole at Uluru and at public walks around Kata Tjuta and Uluru. A total of 38 additional introduced flora have been identified previously in UKTNP.<br><br>Within the Flora and Fauna Assessment a number of mitigation measures are recommended to reduce the spreading of weeds by ULW activities. (***See Attachment 6; p. 87***). There is a low risk of the ULW introducing weeds into the UKTNP if these mitigation measures and a control plan for buffel grass and other potential weed species is adopted throughout the longevity of the project in accordance with UKTNP existing policies and procedures. |
| 3. Will the action affect fire sensitive vegetation communities? | Low adverse | Fire sensitive vegetation communities within the ULW project area include mulga woodlands and dune crests. Fuel reduction burns and maintenance around camps will ensure dune crest communities and neighbouring mulga stands will be protected by maintaining fire breaks. |
| 4. Is the action likely to affect a vegetation community or flora species of conservation significance? | Low adverse | The LES ULW Flora and Fauna Assessment 2019 (***Attachment 6***) concludes that there is a very low risk of the ULW impacting negatively on any flora or fauna of conservation significance. No threatened fauna or flora were detected during the field surveys and geographic mapping of the conservation significant species' preferential habitats only coincides with a small percentage of the project area for the Great Desert Skink and a few migratory bird species. Within the report it recommends a number of mitigation measures towards protecting these species if detected at a later date and minimising habitat disturbance by maintaining guests on designated paths. |

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|---|---|---|
| 5. Does the action have the potential to endanger, disturb or permanently displace native fauna? | Low adverse | The project has a small footprint in relation to existing Park public infrastructure and is in a pristine section of the Park. As a result, it is surrounded by extensive habitat for native fauna to utilise. The infrastructure is low impact in that it is minimalist design, with designated paths and ecologically appropriate green services. Infrastructure will be easily removed once the project has reached its life span, allowing rehabilitation of the land to pre-disturbance conditions. It is not expected that the ULW will endanger or displace native fauna. |
| 6. Is the action likely to affect threatened or regionally significant fauna? | Low adverse | The LES ULW Flora and Fauna Assessment 2019 highlights that the project is unlikely to affect conservation significant fauna. The sandplain habitat of the Great Desert Skink (GDS) is present in over 30% of the project area but is predominately located along the 1.5m wide walking track. The track and walkers will cause minimal disturbance to the habitat of the Great Desert Skink, and, if present, animal tracks, scats and latrines can be easily spotted during project operations and an alternative route selected to avoid the area. One threatened fauna species, a Southern marsupial mole, was detected during field surveys. Pre-construction sweeps have been recommended as a mitigation measure to ensure the GDS and marsupial mole protection, along with a number of additional mitigation measures.<br>***See Attachment 6 pg. 84 for further mitigation measures addressing this matter.*** |
| 7. Is the action likely to affect habitat values for threatened or regionally significant fauna? | Low adverse | It is highly unlikely that the ULW will affect the habitat values for threatened fauna due to minimal footprint within appropriate habitat of significant species, low-impact walking and camping activities and extensive matched habitat surrounding. |
| 8. Is the action consistent with any applicable Recovery Plan or threat abatement plan for listed or threatened fauna? | Yes | The GDS Recovery Plan states that actions involving the siting of new roads, tracks or built infrastructure within 2km of known populations of the Great Desert Skink may negatively impact on population viability and recovery of the Great Desert Skink. From desktop and field surveys, no known populations have been found within 2km |

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|---|---|---|
| | | buffer of the ULW project area. To further ensure the conservation of the species, the ULW environmental management procedures will follow the recommendations in the GDS Recovery Plan. This includes cultural patch burning on the spinifex sandplains in the project area to encourage ideal habitat conditions and hence reducing intense wildfires. Also, staff will be trained in identifying GDS burrow systems, latrines and tracks if a population migrates into the project area over time.<br>***See Attachment 6 pg. 84 for further mitigation measures addressing this matter.*** |
| 9. Is the action likely to have an impact on migratory fauna species or their habitat? | Low adverse | Preferred habitat for migratory species is minimal in the ULW project area including ephemeral claypan by-passed by the walking track and the permanent waterholes and adjacent mulga woodlands along public walks at Uluru and Kata-Tjuta sites. It has been assessed that it is unlikely that the ULW will affect migratory species. A number of mitigation measures are suggested such as reducing noise when visiting waterhole sites to minimise disturbance to birds using the sites.<br>***See Attachment 6 pg. 85 for further mitigation measures addressing this matter.*** |
| 10. Is the action likely to have an affect on dangerous fauna? | Low adverse | The ULW is unlikely to affect dangerous fauna distribution and abundance, such as snakes and spiders. |
| 11. Is the action likely to introduce feral animals, change their distribution or otherwise impact on feral populations? | Low adverse | The ULW will plan control measures into the construction and operations procedures of the development as recommended in the ULW Flora and Fauna Assessment report. These measures will minimise the attraction and proliferation of introduced feral animals to the project area.<br>***See Attachment 6 pg. 86 for further details.*** |

| **5.2 ABORIGINAL CULTURAL HERITAGE** (to be completed by UKTNP in consultation with CLC) | | |
|---|---|---|
| 1. Will the action affect places of significance or other cultural value of importance to Traditional Owners? | | |
| 2. Is the action likely to affect bush resources or access to bush resources which are used by Traditional Owners? | | |
| 3. Will the action affect a listed sacred site? | | |
| 4. Will the action affect an area subject to a Native Title Claim? | | |
| **5.3 NON-ABORIGINAL CULTURAL HERITAGE** | | |
| 1. Will the action alter or disturb places or built structures which have cultural heritage significance? | Low adverse | The Heritage Impact Assessment states that the walking trail in these areas are unlikely to impact on the two historic water bore sites from circa 1970's. These sites are of relatively low heritage value and are unlikely to meet any of the heritage significance criteria outlined in the EPBC Act or the Burra Charter.<br>***See Attachment 7: Earth Sea ULW Heritage Impact Assessment 2019.*** |
| **5.4 COMMUNITY** | | |
| Visitors | | |
| 1. Is the action likely to affect visitor access routes to or within the Park? | Low adverse | The ULW is located remotely from public access routes and therefore will not interfere with general tourist activities. The use of the main sealed roads (Uluru Rd and Kata Tjuta Rd) by up to two buses daily to transport |

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| | | guests to Kata Tjuta and Camp 1, and luggage and supplies to all Camps will be the extent of added traffic to the public roads. |
| 2. Is the action likely to affect visitor services within the Park? | Low adverse | The visitors expected to participate in the ULW tours is unlikely to exceed the limits of capacity of using the Parks visitors' services.<br>Use of Park infrastructure will be minimal including cultural centre, toilets, public walks around Kata Tjuta and Uluru, with the majority of the operations taking place on the ULW infrastructure. |
| 3. Is the action likely to have an impact on the safety of visitors, Traditional Owners or staff? | Low adverse | The ULW construction and operations will follow an OHS and emergency response plan that will ensure that the activities uphold the OHS standards and emergency protocols to ensure the safety of guests, TO's and staff. Particular safety risks include wildfire, camels (bulls), poisonous snakes, dehydration, etc. While the risk strategy will focus on mitigation and minimisation, response plans will be developed to aid in management of incidents that do occur. The critical elements of the ULW safe operating procedures have been captured in the Commercial Activity Licence, such as necessary emergency management equipment to be carried, qualification levels required and notification protocols. |
| Existing Infrastructure | | |
| 4. Is the action likely to affect essential or municipal services or infrastructure for people who reside in Mutitjulu? | N/A | The ULW does not involve Mutitjulu community services or infrastructure use. |
| 5. Is the action likely to affect visitor infrastructure? | Low adverse | The visitors expected to participate in the ULW tours is unlikely to exceed the limits of capacity of using the Parks visitors' services.<br>Use of Park infrastructure will be minimal including cultural centre, toilets, public walks around Kata Tjuta and Uluru, with the majority of the operations taking place on the ULW infrastructure. |

| | | |
|---|---|---|
| **Aesthetics** | | |
| 7. Does the activity affect a site(s) of importance to the broader community for their recreational or other values or access to these values? | Low adverse | To the best of our knowledge the site' aesthetic value and recreational use to the broader community is minimal, restricted to aerial views of the area from an aircraft. There are no access tracks through majority of the project area and minimal scientific studies have been conducted. As a result, the ULW will not hinder values but has the potential to increase the aesthetic and recreational values through increasing visitor, TO and scientific accessibility. |
| 8. Will the action affect the visual or scenic landscape? | Low adverse | The ULW has a small footprint of Camps and natural walking tracks. The architectural pod structures are low-impact, ecologically designed to blend in with the surrounding bush environment to minimise detracting from the natural aesthetics of the country. |
| **Economic impacts** | | |
| 9. Is the action likely to have an impact on employment for Nguraritja? | Positive | The ULW project has a strong commitment to supporting long-term sustainable economic development benefits to Nguraritja and Anangu. These include revenue from Lease agreement, development of an Anangu Business Program, Employment and Training Program and direct and indirect employment.<br>See Attachment 2: Australian Walking Company Business Case Uluru Lodge Walk 2018, pg. 37-44 for further details. |
| 10. Will the action affect economic factors within the Park? | Positive | The ULW will attract tourists to the Park seeking a unique experience with the outback. This will have economic benefits for the Park by increasing revenue from park Entry fees, the purchase of additional gods and services available at the Cultural Centre businesses and support local businesses through the purchase of goods and services for the operation of the ULW. |
| **Scientific and Education Value** | | |
| 11. Will the action impact on research priorities or activities? | Positive | There are no current research activities in the region of the ULW project area. The ULW proponents are open to having visiting scientists or education groups negotiate to |

| | | |
|---|---|---|
| | | use the site for accessing this region of the Park for research or educational purposes. |
| 12.Will the action impact on education priorities or activities? | Positive | Increasing accessibility in this southern area of the Park is an opportunity for education and research to be conducted in this area which may support Nguaratija and Parks cultural and conservation priorities. |
| Stakeholder Interests | | |
| 13. Will the action impact on other relevant Aboriginal people within the Park? | Positive | See above Question 9. Flow on benefits to the wider Anangu community is expected through business collaborations with the ULW operations. For example, Aboriginal art centres providing art works for guests to purchase ill support local Indigenous artists income stream. |
| 14. Will the action impact on other relevant Aboriginal people outside of the Park? | Positive | The ULW has the potential to positively influence the development of ventures between national parks, eco-tourism businesses and Indigenous businesses through providing an example of successful collaborative model. |
| 15. Will the action impact on other stakeholders? | Positive | The ULW is likely to boost the visitation to UKTNP, expanding the rage of activities on offer. This will have flow on benefits for airlines, Voyages and local community businesses. |

**5.5 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE** (these matters are determined by the EPBC Act and should be completed only if relevant by referring to Appendix 1)

| | **DESCRIPTION OF IMPACT** (taking into account the receiving environment and proposed mitigation measures) | **SIGNIFICANT IMPACT** (Yes / No) |
|---|---|---|
| 1.Listed threatened species and communities | | |
| **Great desert skink (*Liopholis kintorei*)** | Currently, the great desert skink's area of occupancy is not known to be within the project area as shown by field survey results. Scattered populations of great desert skink persist in the UKTNP and Yulara periphery, and are regularly monitored (Director of National Parks, 2010a; Eldridge & Paltridge, 2019). Individuals may migrate into the project area in the future, so a precautionary principle is applied. The the ULW will only be marginally reducing habitat availability and will not negatively impact known existing populations.<br><br>The most severe threats to the species are being killed by road traffic, predation from cats and foxes and habitat destruction from burning "wrong way" (summer bushfires) (Threatened Species Network, 2002). In addition, individuals may be impacted directly if they are present in topsoils during the construction phase.<br><br>Invasion of buffel grass into sandplain habitat sites is a risk due to threat of fire to the skink. Acceptable weed management strategies will be implemented to reduce the risk of weed invasion. Additionally, the ULW will increase accessibility into this southern section of the park allowing for monitoring and management of the species to be undertaken if they migrate into the area.<br><br>The following mitigation measures need to be implemented to reduce any impacts of this tourism development on the species: | No |

| | | |
|---|---|---|
| | ➢ Avoid sandplain spinifex habitat for proposed Camps. All Camps at this stage are proposed for dune flank locations.<br>➢ Employ suitably experienced naturalists, such as Traditional Owners, to traverse the proposed vehicle tracks and Camps prior to construction, and confirm this species is not present i.e. no lizards have migrated into the region. They can also remove or frighten away any other fauna individuals encountered on the construction path.<br>➢ Reduce direct impacts throughout the life of the development by regulating visitor movements so that they keep to assigned paths (refer to erosion mitigation section).<br>➢ Educate ULW guides to recognise evidence of skink populations (burrow systems with up to 10 entrances and a central latrine) along the Walking Trail, Camps and along Vehicle Access Tracks. If discovered, record the details (location, quantity, scats) and report the information to the UKTNP Rangers immediately.<br>➢ Drive slowly on off-road tracks to Camps to minimise possibility of collision with skinks and other fauna. | |
| **Night parrot (*Pezoporus occidentalis*)** | From results of the on-ground targeted survey and desktop assessment, Night Parrot is not currently occupying the Project Area or surroundings to the best of our knowledge. Contributing factors include frequent widespread fire through the Project Area and an observed lack of ideal habitats i.e. mature stands of spinifex, saltpans and chenopod grasslands. Protecting existing pockets of mature spinifex on the sandplain (around Camp 2 Vehicle Access Track) using cultural patch burns will ensure they are able to grow larger and become suitable habitat for the species to migrate to and utilise in the future. In conclusion, ULW poses little risk to reducing occupancy area or population size of the species and appropriate fire management conducted in association with the project should improve the quality of habitat to encourage their return.<br>LES suggests adopting the following mitigation strategies for night parrots: | No |

| | | |
|---|---|---|
| | ➢ Educate ULW guides to recognise the very distinct night parrot calls. If thought to be in the area, deploying a song meter at the site will enable verification of the species' presence.<br>➢ Avoid burning all mature spinifex patches; instead, follow recommendations of Fire Ecologists and Traditional Owners who can orchestrate a traditional patch burning regime, to maintain a diversity of habitat ages. | |
| **Princess parrot (*Polytelis alexandrae*)** | The princess parrot was not detected during on-ground surveys. Whilst available feeding areas of open spinifex sandplains with emergent hakeas and grevilleas were identified in the Project Area, there are no tall hollow-bearing eucalyptus which this parrot needs for nesting sites. The irruptive nature of this species following high rainfall seasons when food availability is high, yields a small possibility of it occurring in the Project Area periodically in the future. However, the high mobility of the species and extensiveness of similar habitat in the region, mean it is unlikely the proposed ULW development and hiking activities will have an impact on the species. There is a low risk of impact at a population level. Recommended mitigation strategies for this species include:<br>➢ Avoid removing any large mature eucalyptus or trees with hollows.<br>➢ Educate ULW guides to visually recognise the princess parrot. If thought to be in the area, deploying a song meter at the site will enable verification of the species presence and subsequent notification of the UKTNP Rangers. | No |
| **Southern marsupial mole (*Notoryctes typhlops*)** | While the mole is not an EPBC Act listed species, its verified presence in the Project Area calls for caution in the construction stage of the ULW. LES recommends:<br>➢ Employing suitably experienced naturalists, such as Traditional Owners, to traverse the proposed vehicle tracks and Camps, prior to construction and confirm no habitation by the species by looking for surface signs. | No |

| | | |
|---|---|---|
| | ➢ Reduce earth-moving activities as much as possible, especially on dune upper flanks and crests. | |
| **Listed migratory birds** (Not relevant for UKTNP as per Appendix 1 description) | Most of the listed migratory birds have a strong preference for wetland habitats and are likely to roost around permanent waterholes surrounding Uluru and Kata Tjuta monoliths or those south of the Park and adjacent areas. These sites are far from the proposed Project Area, except where the walk approaches Mutitijulu waterhole carpark and a small ephemeral claypan which is passed on the Walking Trail between Camp 2 and Camp 3. Appendix 10 details a full migratory bird assessment of risk of impact at population level, and mitigation strategies. Recommended mitigation strategies for these species include:<br>➢ Instruct ULW guides to request guests reduce noise on approach to Mutitjulu waterhole and when passing the claypan area between Camp 2 and Camp 3 following rain. | No |
| 2. World Heritage | The World Heritage Properties of UKTNP include both the natural landscape including the geological, biological and ecological processes, and cultural landscape involving the continuing traditional land management practices, living Anangu culture and Tjukurpa (law).The Uluru Lodge Walk project will not cause any alterations, degradation or lose of value of the World Heritage Properties within the Uluru Kata Tjuta National Park. The ULW will ensure that visitors to the Park will have an authentic cultural experience and develop a deeper understand of these World Heritage values, particularly relating to Anangu culture by walking and camping out On Country and also talking with Anangu guides. | No |

1. **6.0 SUMMARY OF ENVIRONMENTAL IMPACTS** (do not complete this section if you completed Section 5.5)

This section requires a synthesis of the findings of Section 5.1 to 5.4.

The purpose of the Overall Impact Rating column is to allow for an assessment of the cumulative impact associated with each category and therefore, rapid identification of which aspect(s) of the environment of the Park could experience a significant impact as the result of the proposed action. To fill out this column, consider all impacts in each individual section and provide an overall assessment of the likely impacts as low, medium, or high.

The Sensitive Aspects column should not duplicate the findings of Section 5 above, but be used to highlight features which may require special attention.

| CATEGORY OF IMPACT | Overall impact rating | Nature of key impacts | Sensitive aspects |
|---|---|---|---|
| Physical & chemical | | | |
| Biological | | | |
| Aboriginal cultural heritage | | | |
| Non-Aboriginal cultural heritage | | | |
| Community | | | |

- **7.0 CONSULTATION** (to be completed by POTB)

7.1 Traditional Owners (include date of consultations concerns, and requests for changes to proposal as relevant; attach CLC/UKTNP consultation records and Board Minutes if available).

The following LES Field Trip, AWC Site Visit Reports and CLC Meeting Minutes demonstrate various consultations with Traditional Owners and engagement in the planning and environmental surveying process. CLC and UKTNP will have additional consultation records and Board Minutes on file.

See the following attachments:
10 – AWC – Email to AWC regarding UKTNP resolutions
11 – AWC – Consultation1 – Site visit_14-18May2019
12 – AWC – Consultation2 – Site visit_16-21June2019
13 – AWC – Consultation3 – Site visit_22-26Sept2019

14 – LES – Consultation4 – ULW Meeting Notes_May2019
15 – LES – Consultation5 – ULW EIA Summary Report_June2019
16 – CLC – Consulation6 – AWC copy Meeting Minutes 25-9-10 (002)
17 – LES – Consultation7 – ULW EIA Survey Summary Report_Nov2019

7.2 External Stakeholders

1. Voyages – ULW met with, Voyages Chief Infrastructure Officer, and other staff to discuss working with them and potential lease of property for office, accommodation and vehicle storage in Yulara. Further communications with other Voyages senior management staff (including , Director of Revenue Management & Distribution) via email.
2. NT Tourism – email and phone conversations to give initial overview of our proposal.
3. Mutitjulu Community Aboriginal Corporation – initial phone and email communication with CEO of MCAC, and meeting at Mutitjulu with On-site Coordinator and board members of MCAC to provide initial overview of proposal and discuss opportunities to work together in future.
4. Maruku Arts – planning conversations held regarding working together and engagement in punu workshop on one of ULW site visits.

- **8.0 CONCLUSION OF ENVIRONMENTAL IMPACT ASSESSMENT** (to be completed by UKTNP)

Complete one of the following:

_____

☐ The proposal is likely to have no impact or no more than a negligible impact on the Park's environment and natural and cultural values and on Nguraritja.

**RECOMMENDATION -The proposal is recommended for approval.**

_____

☐ The proposal will have more than a negligible impact but not a significant impact on the Park's environment and natural and cultural values or on Nguraritja and does not affect a matter of national environmental significance.

**RECOMMENDATION -The proposal is recommended for approval (subject to conditions) by the Director and the Board.**

_____

☐ The proposal is not likely to have a significant impact on the Park's environment and natural and cultural values, or a significant impact on Nguraritja but is not supported.

**RECOMMENDATION - The proposal is recommended for refusal by the UKTNP Board of Management for the following reasons:**

**The Board's reasons for refusal will be forwarded to the Director of National Parks who will consider whether or not the proposal should be referred under the EPBC Act.**

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☐ The proposal will have, or is likely to have, a significant impact on the Park's environment and natural and cultural values, and a significant impact on Nguraritja

**RECOMMENDATION - CATEGORY 3 ASSESSMENT is required. The Director of National Parks will consider whether or not the proposal should be referred under the EPBC Act.**

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☐ The proposed action involves a Matter of National Environmental Significance under the EPBC Act but a decision about whether or not there is a significant impact has not been determined.

**RECOMMENDATION - The proposal is to be referred to the UKTNP Board of Management, for advice prior to referral to the Director of National Parks for determination of whether the action constitutes a controlled action under the EPBC Act.**

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☐ The proposed action is likely to have a significant impact on a Matter of National Environmental Significance under the EPBC Act.

**RECOMMENDATION - The proposal is to be referred to the UKTNP Board of Management for advice, prior to referral to the Director of National Parks for determination of whether the action constitutes a controlled action under the EPBC Act.**

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- **9 Endorsement of the Conclusion & Recommendation in 8**
  - (to be completed by UKTNP)

The Conclusion and Recommendation ticked in Section 8.0 above is supported/not supported as follows:

| **POSITION** | **DECISION**<br>**Supported/Not supported *** | **SIGNATURE/DATE** |
|---|---|---|
| UKTNP Work Unit supervisor (if not he author of the EIA) eg Chief Ranger | | |
| Relevant Manager (Operations/VTS/NCP) | | |
| UKTNP Planning Officer (if relevant) | | |

| | | |
|---|---|---|
| Park Manager | | |
| Assistant Secretary PAN (as needed) | | |
| Director of National Parks (as needed) | | |

*** provide comments as necessary** (eg considerations which should be included in conditions, reasons why the proposal should be forwarded to the Assistant Secretary etc)

- **APPENDIX 1 - Significance Test of NES Values** (complete this section and transcribe the results to the table in Section 5.5)

This section allows an assessment of whether the proposed action will have a significant affect on the following matters of national environmental significance (NES) under the EPBC Act:

- listed threatened species and communities (each species must be addressed separately so as to provide a thorough assessment of the potential impacts of the proposal);
- World Heritage.

(The following matters of NES are not relevant to UKTNP: the Commonwealth marine environment, Listed Migratory Species, RAMSAR Wetlands of International Importance, National Heritage places, and nuclear actions).

**1. Listed threatened species and ecological communities**

a) In the case of **extinct-in-the-wild species**, state whether the action will
   - adversely affect a captive or propagated population or one recently introduced/reintroduced to the wild
   - or interfere with the recovery of the species or its reintroduction into the wild.

**☐Yes** **☒No**

**Explanation:**.

There are no current or future plans to carry out extinct-in-the-wild species recovery projects in the UKTNP. There is a predator free enclosure called the mala paddock where mala have been breeding for the last decade. There are no known plans to release these mala within the park. If this were to be done a significant amount of work would be first needed to reduce predator numbers (foxes and cats) within the Park. The ULW would improve accessibility to the southern region of the Park to enable a predator management program and also for the monitoring of mala reintroduced. Additionally, the ULW by-passes at a distance to the mala paddock and will not disturb in any way the population.

b) In the case of **critically endangered or endangered species** will the action lead to:
   - a long-term decrease in the size of a population,
   - reduce the area of occupancy of the species,
   - fragment an existing population into two or more populations,
   - adversely affect habitat critical to the survival of a species,
   - disrupt the breeding cycle of a population,
   - modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline,
   - result in invasive species that are harmful to a critically endangered or endangered species becoming established in the habitat,
   - introduce disease that may cause the species to decline or interfere with the recovery of the species.

**☐Yes** **☒No**

**Explanation:**
From results of the on-ground targeted survey and desktop assessment, Night Parrots are not currently inhabiting the area and no known populations live in the vicinity. During field surveys there was an observed lack of ideal habitats i.e. mature stands of spinifex, saltpans and chenopod grasslands, and frequent widespread fire through the Project Area. Where mature spinifex hummocks occur surrounding Camp 2, cultural patch burning to preserve these existing pockets of habitat that will grow larger will ensure there is suitable habitat for the species to migrate to and utilise in the future. In conclusion, ULW poses little risk to reducing occupancy area or population size of the species and appropriate fire management conducted in association with the project should improve the quality of habitat for the species to encourage their return.

c) In the case of **vulnerable species** will the action lead to:
   - a long term decrease in the size of an important population of a species,
   - reduce the area of occupancy of an important population,
   - fragment an existing important population into two or more populations,
   - adversely affect habitat critical to the survival of a species,
   - disrupt the breeding cycle of an important population,
   - modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline,
   - result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat,
   - introduce disease that may cause the species to decline,
   - or interfere substantially with the recovery of the species.

**☐Yes** **☒No**

**Explanation:**
Two vulnerable species listed under the EPBC Act; great desert skink and princess parrot have been considered in this impact assessment. Targets field surveys involving active searches, tracking and trapping (skink only) found no occupancy of these species in the project area. There is zero ideal habitat of large Eucalyptus trees for the princess parrot within the project area therefore it is highly unlikely they will utilise the area. At sandplain habitat sites in the Park and surrounding Yulara, scattered populations

of great desert skink persist and are regularly monitored (Director of National Parks, 2010a; Eldridge & Paltridge, 2019). Habitat for the skink is marginal within the project area, but there is a small possibility that individuals may migrate to the limited sandplain sections of the walking trail in the future. Suitable sandplain habitat for the great desert skink is expansive within the Park and the Katiti-Petermann IPA, therefore the ULW is only marginally reducing available suitable habitat relative to its surrounds.

We conclude that the ULW action is not situated in the occupancy areas for these species currently, nor within critical habitat areas. It will not negatively impact on these species existing populations in the vicinity due to expansive available quality habitat surrounding. Invasion of buffel grass into sandplain habitat sites is a risk due to threat of fire to the skink. Acceptable weed management strategies will be implemented to reduce the risk of weed invasion. Additionally, the ULW will increase accessibility into this southern section of the park allowing for monitoring and management of conservation significant species to be undertaken if they migrate into the area.

d) In the case of **critically endangered and endangered ecological communities** will the action:
   - reduce the extent of an ecological community,
   - fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines,
   - adversely affect habitat critical to the survival of an ecological community,
   - modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns,
   - cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting,
   - cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:– assisting invasive species, that are harmful to the listed ecological community, to become established,
   - or – causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community
   - or interfere with the recovery of an ecological community.

**☐Yes** **☒No**

**Explanation:**

There were no critically endangered or endangered ecological communities identified in the desktop assessment and during field work.

**2. World Heritage**

e) In the case of **World Heritage Properties**[3] will the action cause
- one or more of the World Heritage values to be lost;
- one or more of the World Heritage values to be degraded or damaged; or
- one or more of the World Heritage values to be notably altered, modified, obscured or diminished.

☐**Yes** ☒**No**

**Explanation:**

The World Heritage Properties of UKTNP include both the natural landscape including the geological, biological and ecological processes, and cultural landscape involving the continuing traditional land management practices, living Anangu culture and tjukurpa (law). The ULW will not negatively impact on these World Heritage Properties of UKTNP. The project is predominately in the southern section of the Park, at a great distance from the Uluru and Kata Tjuta landforms and Anangu sacred sites. The ULW will ensure that visitors to the Park will have an authentic cultural experience and develop a deeper understand of these World Heritage values, particularly relating to Anangu culture by walking and camping out On Country and also talking with Anangu guides.

[3] Note - For a full description of significant impacts on World Heritage Properties refer to EPBC Act Policy Statement 1.1 Significant Impact Guidelines.