KUR-World

Appendix 15

Indigenous Cultural Heritage Assessment

Environmental Impact Statement

ABORIGINAL CULTURAL HERITAGE STUDY
KUR-WORLD INTEGRATED ECO-RESORT

MYOLA, FAR NORTH QUEENSLAND

Report to Sustainable Solutions Global

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EXECUTIVE SUMMARY

The KUR-World Integrated Eco-Resort is a proposal to construct a tourism facility on existing farmland near Kuranda, approximately 20 kilometres northwest of Cairns, in far north Queensland.

This report describes the Aboriginal cultural heritage issues associated with the proposed development. The methodology used involved; a desktop review of the cultural context, a review of the National Heritage listing of the Wet Tropics for cultural values, site inspections and consultation with the Aboriginal party, meeting with the CRC/KUR-World Sub Committee and their representatives.

The land on which the KUR-World development is proposed is part of a broad cultural landscape that includes significant story places, campsites, plants and animals. Significant story places include those relating to the mythological travels of *Budadji,* the carpet snake and *Boondarah*, the cassowary. Waterways and Aboriginal walking tracks in the project area are particularly significant according to local Aboriginal tradition.

Surveys undertaken reveal a possible occupation site (KUR 4 and KUR 5) and walking tracks that align with sites identified on the DATSIP site database (FN0001). Surveys also located eleven portable nut cracking rocks, a top stone/pounder, an axe blank and five quartz flakes in the project area.

A Cultural Heritage Management Plan (CHMP) is currently being developed with the Aboriginal party. The CHMP includes mitigation measures for the pre-construction, construction and post-construction phases of the project on Aboriginal cultural heritage which will be based on recommendations contained in this report.

The development offers the opportunity to promote a broader understanding of rainforest Aboriginal cultural values to future visitors through culturally appropriate interpretative signage and guided tours.

The highest priority for the Aboriginal party is the opportunities for future employment associated with the project and the proposer management of natural and cultural values during all stages of the project.

A note on spelling: The authors recognise there are multiple spellings of Aboriginal names, for example Budadji is also spelt Bu:dadji or Budaaji. We have chosen to use the spelling provided by the Aboriginal party during site inspections.

ACKNOWLEDGEMENTS

Firstly, the authors wish to thank members of the Cairns Regional Native Title Claim Group (CRC) for their participation in the study. As primary informants, Willie Brim and Mario Williams shared their significant cultural knowledge which was invaluable to understanding the cultural landscape. Willie Brim, Chris Richardson, Mario Williams, Daphne Bounghi and Astro Brim represent the Aboriginal party through the KUR-World Sub-Committee. Willie Brim, Aden Brim, Astro Brim, Elvin Hobbler, Mitchell Brim, Billy Brim, Cecil Brim, Toby Brim, Brandon Richardson, Errol Hunter, Noel Newberry, Peter Donahue, Daniel Bounghi and Warrick Newberry participated in site visits and surveys.

Mark Lawson and Neil Boland provided important background information and led the site visits. Justine Thorpe shared information on aspects of the European history of the Barnwell property.

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Alice Buhrich and Åsa Ferrier's doctoral research has contributed to sections of the literature review and background research.

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Abbreviation	Meaning
ACHA	*Aboriginal Cultural Heritage Act 2003 (Qld)*
ATSIPA	*Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)*
CHMP	Cultural Heritage Management Plan
CRC	Cairns Regional Claim
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships
DNRM	Department of Natural Resources and Mines
EPBC Act	*Environment Protection and Biodiversity Conservation Act* 1999 (Cth)
ICOMOS	International Council of Monuments and Sites
IUCN	International Union for Conservation of Nature
NTA	*Native Title Act 1993 (Cth)*

INTRODUCTION

The KUR-World Integrated Eco-Resort (KUR-World) is a proposal to construct a tourism facility on existing farmland near Kuranda, approximately 20 kilometres northwest of Cairns, in far north Queensland.

A cultural heritage study was conducted with the Aboriginal party with the aim of identifying the heritage issues and informing the Cultural Heritage Management Plan (CHMP) process. The study includes a review of the National Heritage List criteria for the cultural values of the Wet Tropics World Heritage Area, site visits, archaeological surveys of cleared paddocks on the KUR-World property and discussions with the Aboriginal party and their representatives.

1.1 Project Background

KUR-World is a proposed development on the Barnwell Farm property at Myola, in far north Queensland. The development site is located across 10 allotments covering 648.3 hectares. The development vision focusses on four key themes:

- Premium nature and culturally-based-tourism.
- Rainforest, agriculture and environmental education, and business.
- Health, rejuvenation and wellbeing.
- Tropical adventure and recreation.

The property can be divided into the northern and southern sections. The northern Section is centred on the Barnwell Farm property. This area is heavily disturbed from pastoral activities. Aerial photographs indicate extensive clearing of the northern section around the 1970s. The southern section remains densely vegetated with rainforest and sclerophyll forest. Parts of the southern section are covered with remnant vegetation and have never been cleared.

The primary impacts of the proposed development are planned for the northern section and include the following (KUR-World Masterplan, dated 1 March 2017):

- Luxury Resort
- Leisure Resort
- Business Resort
- 372 Private Villa Allotments
- An 18-hole Golf Course, Driving Range and Club House
- A Medical Centre
- A Health Retreat
- University Campus and Professional Offices

- Sporting Facilities
- Fruit Farm
- Northern Australia Innovation Hub (Education, Business and Showcase Precinct)
- Northern Australia Cultural Centre
- Equestrian Centre and Stables
- KUR Cow Tourism Theme Park
- Farmstay Park
- Organic Garden.

Proposed development in the Southern section includes:

- Adventure Park
- Rainforest Education Centre and Accommodation
- Recreational activities including zip line
- Road connecting the southern and northern areas
- Lookout.

KUR-World is deemed a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) (EPBC Act) due to the potential impacts on matters of national environmental significance, meaning an environmental impact statement is required to meet the terms of reference for the project set by the Coordinator-General. The terms of reference include a cultural heritage assessment. Appendix A shows how this report addresses the cultural heritage terms of reference for the environmental impact statement.

An initial advice statement was prepared by Urban Sync Planning Development in 2016. The statement outlined the vision of the KUR-World project incorporating eco-tourism and sustainable residential development.

A Masterplan for the proposed KUR-World Integrated Resort was produced on 9 March 2017 and this version informed the site inspections. The Masterplan, which is a visual design of the project, is an evolving proposal and will be revised over time.

1.2 Scope of Works

The cultural heritage assessment was conducted in two parts. The cultural heritage study was conducted through consultation and site inspections with the Aboriginal party and is documented in this report. The aim of the cultural heritage study was the production of a CHMP, developed with the Aboriginal party, that creates a plan to minimise any potential harm to Aboriginal cultural heritage.

A separate process, consisting of interviews with the broader Aboriginal communities, including residents of nearby Aboriginal townships, Mantaka and Kowowra, contributes to the social impact assessment. This is documented in a Social Issues Paper (Appendix 16).

Native title and an assessment of the impact of this project on native title rights and interest is out of the scope of the cultural heritage assessment.

1.3 Aboriginal party

The applicants to the Cairns Regional Claim (CRC) are the Aboriginal party for KUR-World. The CRC was entered on the Register of Native Title Claims on 12 October 2016 (QUD692/2016). The CRC represents five clan groups, Djabugay, Bulwai, Yirrganydji, Guluy and Nyakali people. The CRC area is roughly from north of Cairns (Freshwater Creek) to south of Port Douglas (Mowbray River) to Mareeba, including the Lamb Range, Emerald Creek and Clohesy River. It excludes Mona Mona, a former Aboriginal Mission, and the Barron Gorge National Park.

Four applicants represent the CRC: Willie Brim, Mario Williams, Jeanette Singleton and Tyrone Canon.

2. LEGISLATION

Cultural heritage is embodied in the values, places and practices that are important for past, present or future generations (Australia ICOMOS 2013). Australia's cultural heritage is protected by legislation at the commonwealth, state and local levels (summarised in Table 1). In Australia, historically land and resource related issues have been within the jurisdiction of the individual states of Australia. With co-operative Federalism developing over the last few decades we have seen a shift to uniform Federal based regimes, however cultural heritage is still within the main purview of the individual states, and the commonwealth legislation will only step in when the states regime is considered inadequate or when the proposed work is over commonwealth land or land of national significance, such as world heritage listed areas.

In Queensland, separate legislation exists for Indigenous and non-Indigenous heritage. The *Aboriginal Cultural Heritage Act* of 2003 (ACHA) is the key legislation for the protection of Aboriginal cultural heritage (the *Torres Strait Island Cultural Heritage Act* of 2003 protects Torres Straits Islander cultural heritage and is not discussed here). The ACHA provides a mechanism of blanket protection to Aboriginal cultural heritage in Queensland and operates by way of an obligation that every land user has a duty of care to prevent harm to Aboriginal heritage. If proposed development is going to damage Aboriginal cultural heritage, agreement must be reached with the Aboriginal party.

Table 1 Aboriginal cultural heritage legislation relevant KUR-World.

Legislation	Description	Relevance	Details
Environment Protection and Biodiversity Conservation Act 1999	Protects Aboriginal places on the world, national and commonwealth registers	Potential	Aboriginal cultural values of Wet Tropics World Heritage Area
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	The Commonwealth can intervene if state or territory legal protection of cultural heritage is considered inadequate	Low	Could be invoked if cultural heritage protections considered inadequate
Native Title Act 1993	Protects rights and interests over lands and waters held by Aboriginal people	Not in scope	Under the ACHA, the native title party is the Aboriginal party
Aboriginal Cultural Heritage Act 2003	Protection of Aboriginal cultural heritage in Queensland	High	Duty of care to protect significant Aboriginal heritage. CHMP with relevant Aboriginal parties will be required

2.1 The Burra Charter

The Burra Charter (Australia ICOMOS 2013) provides non-statutory best practise guidelines on how Australian cultural heritage places are identified, conserved and managed. The Burra Charter identifies the following key principles:

- Significant values and elements of a place should be identified through survey, consultation and research.
- Cultural heritage is the aesthetic, historic, scientific or social values for past, present or future generations.
- Objects, fabric, setting, spaces and views contribute to the cultural significance of a place.
- The heritage values of a place should be understood before making management decisions.
- All stakeholders should be involved in looking after a heritage place, although some may have higher priority than others.

The Burra Charter identifies four key cultural heritage values – aesthetic, historic, scientific and social. *Aesthetic values* refer to the sensory reaction a place invokes. Aesthetic values can be embodied in form, scale, texture, materials, smells and sound. *Historic values* are the association of a place with a significant person, event, phase or activity. *Scientific values* are the potential of place to contribute information not available elsewhere, such as archaeological sites. Places of *social value* are important as the focus of

spiritual, political, national or other cultural sentiment to majority or minority groups (Australia ICOMOS 2013).

2.2 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act) promotes biodiversity conservation and heritage protection. It is the key national heritage legislation and is administered by the Commonwealth Department of the Environment and Energy. Under the EPBC Act places of national heritage significance can be nominated to the National Heritage List or the Commonwealth Heritage List (for places owned by the Commonwealth).

In 2012, the Wet Tropics was placed on the National Heritage List for its Aboriginal cultural values. This listing recognises the role Aboriginal people played in forming the natural landscape of the Wet Tropics and the special association between rainforest Aboriginal people and the Wet Tropics landscape. The listing acknowledges the Wet Tropics as the only place in Australia where Aboriginal people permanently occupied a rainforest environment. Once an area is on the National Heritage List it is recognised as a matter of national environmental significance under the EPBC Act and action that is likely to have a significant impact on the listed heritage place must be referred to the Minister and an environmental assessment and approval process must be undertaken.

2.3 Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)* (ATSIHPA) assists Indigenous people with the preservation and protection of areas and objects that are of significance to Indigenous people. The ATSIHPA gives Indigenous people the right to request the Federal Minister who administers the ATSIHPA to intervene in cases where they consider that their cultural heritage is at risk, and the relevant state legislation is inadequate. The ATSIHPA was introduced in the early 1980s, before the recognition of native title in Australian law. The ATSIHP Act was meant to protect particularly sacred sites and objects as a 'last resort' if protection under the State or Territory law was inadequate.

2.4 Native Title Act 1993 (Cth)

The *Native Title Act 1993 (Cth)* (NTA) provides for the protection of native title rights and interests held by Aboriginal and Torres Strait Islander people. It creates procedural requirements, for the grant of any act by government or a third party that may impact on native title rights and interests, that must be followed to ensure the grant is valid. In many cases the NTA creates a process under the future act regime whereby acts that affect native title will be valid, with any impairment of native title rights and interests giving rise to a right to compensation by the native title holders. In some instances, an act that affects native title can only be validly done through an Indigenous Land Use Agreement with the consent of the native title

holders. The cultural heritage regime in Queensland is separate from the NTA, however the Aboriginal party under the ACHA is identified by reference to the NTA.

2.4 Aboriginal Cultural Heritage Act 2003 (Qld)

The purpose of the *Aboriginal Cultural Heritage Act* 2003 (ACHA) is to recognise, protect and conserve Aboriginal cultural heritage in Queensland. The ACHA seeks to achieve this by establishing a duty of care mechanism for land users to protect significant Aboriginal cultural heritage from activities and ensuring Aboriginal people are involved in processes for managing Aboriginal cultural heritage.

The ACHA defines significant Aboriginal heritage as an area or object significant to Aboriginal people because of Aboriginal tradition or history, including contemporary use. Aboriginal people are responsible for identifying significant Aboriginal cultural heritage. According to the ACHA a significant area does not have to contain physical markings (i.e. it could be a story place, birth place or massacre site), nor does it have to be old. The Department of Aboriginal and Torres Strait Islander Partnerships maintains a database and register of significant Aboriginal and Torres Strait Islander places in Queensland, although many places that are significant to Aboriginal people are not included in either the database or the register.

All land users are responsible for ensuring Aboriginal heritage places are protected from changes in land use under the ACHA. Impacts to cultural heritage are managed through the duty of care guidelines, which require all land users to take reasonable and practicable steps to manage impacts to significant Aboriginal cultural heritage.

The duty of care guidelines outlines the steps for managing impacts to significant Aboriginal places including:

- Consulting with the relevant Aboriginal parties.
- Consulting the cultural heritage database and register.
- Considering the nature of the past use of the area.

The ACHA specifies a process for identifying the relevant Aboriginal custodians for an area. The Aboriginal party is identified through the following hierarchy:

1. The native title holders (where a claim is determined).
2. The registered native title party (where a claim is registered).
3. Failed native title claimants, if no subsequent claim has been made.
4. The person recognised in accordance with tradition/custom as being responsible for the area who is an Aboriginal person with particular knowledge about traditions, observances, beliefs or customs associated with the area.

For KUR-World, the Aboriginal party are the four applicants representing the Cairns Regional Claim group.

3. PHYSICAL ENVIRONMENT

KUR-World is proposed for development at Myola, which is located at an elevation of 330 metres above sea level. The area is characterised by a tropical climate with most of the precipitation falling during the summer months. Prior to European colonisation the vegetation was tropical rainforest, since the 1870s it has been progressively cleared for agriculture.

3.1 Geology in the Kuranda region

The geology of the Kuranda region is dominated by the metamorphic Hodgkinson Formation. There are minor Quaternary alluvium units associated with the Barron River north of the site. Current digital spatial data (DNRM 2011) describes the Hodgkinson Formation as mainly dark grey, thin-bedded mudstone, subordinate thin to thick-bedded arenite with minor chert and basalt units. The Hodgkinson Formation is a metasedimentary unit, rhythmically interbedded with mudstones, sandstones and conglomerates (Withnall & Henderson 2012; Geoscience Australia 2017).

3.2 Past vegetation

The Wet Tropics bioregion of Queensland stretches along the north-east coast of Australia for some 450 km and is made up largely of tropical rainforest. The region is extremely important for its rich and unique biodiversity. The diversity and endemism of the Wet Tropics flora, in addition to the high concentration of primitive taxa, was a key criterion in the World Heritage listing of much of the remaining rainforests of the area in 1988 (IUCN 1988). Vegetation of the region was classified and described by Tracey (1982) based on forest structure, dominant species, and environmental features. Tracey‘s (1982) classification scheme recognizes 24 broad vegetation types in the Wet Tropics region, all still present, comprising various forms of rainforest including types of mesophyll vine forest, notophyll vine forest, microphyll vine and vine-fern forests, and closed forests with sclerophyll emergents or co-dominants, as well as open forests and woodlands, and various other vegetation complexes, mosaics and cleared lands.

At a general level, rainforest is the dominant vegetation type across much of the humid region, being present on the coastal ranges, alluvial plains, escarpment and moist uplands and highlands. Several types of woodland dominated by species of eucalyptus occur throughout the region in areas where rainfall, soil nutrients, or drainage is inadequate to support rainforest. The understorey vegetation in these regions is often largely determined by the frequency of fire, which will generally remove seedlings of rainforest and transitional species and promote grasses, bracken ferns and other more fire tolerant species.

3.3 Historical land use

Analyses of historical and ethnographic records allow identification of the characteristics of Aboriginal use and modification of the rainforest landscape, and the disruption to such use by the arrival of European explorers, miners, timber-getters, and selectors from 1875. In the late 19th and early 20th centuries, European explorers observed Aboriginal campsites and ceremonial grounds located in large grassy eucalypt clearings amongst rainforest on the Atherton Tableland. Swedish explorer Eric Mjöberg described them as "pockets of eucalypt trees interspersed within dense rainforest vegetation; seen from above they appear as light islands in a sea of dark rainforest" (Mjöberg 1918:324). Some oval clearings, or so called 'bora grounds', were used for large gatherings and initiation ceremonies. Europeans quickly took advantage of these pockets as they were open areas that could be used to keep stock and to erect logging camps. Later, many of the towns were established in these eucalypt pockets and used as places from which to cut down and burn the rainforest for agriculture. Analyses of historical survey plans suggest that this pattern of tracks connecting open pockets interspersed with rainforest was also present on the KUR-World site at the time of European arrival in the 1880s.

The Barnwell Farm was originally divided into five separate selections - portions 17v, 18v, 20v, 21v and 22v. The first surveyors recorded land specifications such as permanent water bodies, vegetation patterns, soil conditions and topography. Historical research to date demonstrates that dairy, beef cattle, molasses grass for seed as well as pigs were farmed on the original five selections that is today the KUR-World site.

3.4 Current physical environment

The KUR-World development is proposed over 10 land parcels on 648.3 hectares of land, centred on the Barnwell Farm (Figure 1). The northern lots (Lot 22 on SP296830, Lot 17 on SP296830, Lot 18 on SP296830 and Lot 19 on SP296830) are located on gently undulating to undulating rises dissected by steep gullies. These lots have been predominately clear of vegetation at least since the 1940s (based on aerial photo history), with a period of neglect from about the late 1980s/early 1990s to 2015. Some previously cleared areas are now characterised by advanced rainforest regrowth. There is some remnant vegetation (selected tree clearing would have occurred in the early phase of European occupation) in the northern lots but most of the vegetation is non-remnant. A dam was constructed near the homestead in 2016.

Figure 1: View of Barnwell Farm homestead and surrounding landscape from the edge of the dam.

Two permanent watercourses traverse the northern lots, both are in the western half of the property - Owen Creek (along the western boundary) and its tributary, Haren Creek (Figure 2). These are predominately rocky creeks interspersed with sandy sections. Several ephemeral streams also dissect the landscape. The southern lots (Lot 20 on N157423, Lot 43 on N157359, Lot 95 on N157452, Lot 129 on NR456, Lot 131 on N157491 and Lot 290 N157480) are characterised by generally gently to steeply inclined topography and remnant vegetation comprised of either rainforest or eucalypt forest. Aerial photos suggest these lots have not been cleared (at least since the 1930s), although some historical clearing has occurred on lots 43, 95, 129 and 131. These lots, which are located higher in the Owen and Haren Creek catchments than the northern lots, are dissected by several smaller ephemeral streams.

A protected plant survey and regional ecosystem verification survey took place on the KUR-World property as part of the EIS studies. Three species of endangered plants were identified, including the Myola Palm (*Archontophoenix myolensis*) and the Rat's Tail Tassel-fern (*Phlegmariurus filiformis*), a further five species were listed as vulnerable and two near threatened. Overall, 260 floral species were identified (Venter 2017).

Figure 2: Section on Owen Creek with remnant rainforest and white river gums.

4. LINGUISTIC, ARCHAEOLOGICAL AND HISTORIC CONTEXT

Bama are the rainforest Aboriginal people that occupied the Wet Tropics from Cooktown to Cardwell (Bottoms 1999). *Bama* is the literal translation of 'man' in the Djabugay-Yidinji, Gunggandji and Yalanji languages (Pannell 2008:64). Archaeological evidence suggests Aboriginal people began permanent settlement of the rainforest during the Late Holocene, utilising resources such as toxic rainforest seeds as food sources after developing the technology to leach the seeds of toxins. Rainforest Aboriginal people developed a suite of unique material culture to assist in the processing of toxic plants.

Prior to 1873, and the arrival of Europeans, *Bama* lived in tightly bound linguistic estates that typically incorporated coastal, riverine and tableland environments. *Bama* enjoyed a rich social and ceremonial life, centred around regular *bora's* or *prun's* where groups would come together for feasting, socialising and to

settle disputes. *Bama* maintained walking tracks which connected campsites, bora grounds, resource collection sites and story places (Bottoms 1999; McCracken 1989).

The initial introduction of mining and pastoral activities in the region, and the large influx of European and Chinese that accompanied these activities, was a major disruption to *Bama* lifestyle. The north Queensland frontier was the scene of some of the bloodiest and most intense conflict between settlers and Aboriginal people.

4.1 Linguistic and cultural context

The Djabugay-Yidinji-Gunggandji languages were spoken on the central Wet Tropics area, from around Port Douglas to Babinda. Within each of the three languages were clan groups, each with its own dialect. Djabugay[1], Yidinji and Gunggandji share common story-law and patterns of social structure (Bottoms 1999:11; Dixon 2009). For example, Djabugay, Bulway, Yirrgayndji, Yidinji, Ngadjon-ji and Gunggandji all had a social structure made up of two moieties. Each person was classified into one of the moieties, and could only marry an opposite moiety. These moieties were established and maintained through *Bulerru*, which translated means 'the Story Waters'. This is the local equivalent of what in other Aboriginal societies is known as the dreamtime. *Bulerru* were the laws and protocols which governed the traditional societies which all members of the society were obligated to follow.

In the Cairns region, the moieties were represented by two brothers, *Damarri* and *Guyula*, who were responsible for creating the landscape and establishing law. *Damarri* represents the *Gura-bana* moiety (*bana* means water) and *Guyala* the *Gura-minya* moiety, the dry season (*minya* means meat). According to oral history, *Guyala* wanted to make things easy for the people, providing meat for hunting and a comfortable climate while *Damarri* thought people should work hard and so made the rainforest seeds that were toxic, requiring extensive treatment before they could be eaten, and brought the summer rains and storms (Bottoms 2015). Through the stories, conflict between the brothers established a dual system of wet/dry seasons, plant/animal food and potential marriage partners. The story of *Damarri* and *Guyula* is described by Bottoms (1999:6-7):

> The brothers were always arguing about whether life should be difficult or easy, and, more often than not, *Damarri* got his way. Life was shaped by their arguments, so that, for instance, certain foods became toxic and required much more treatment. Fortunately, *Guyala* had his way over naming of places. *Damarri* wanted to name only a few places on a

[1] 'Tjapukai' is the name used by Tindale in 1938, and this is also the name for the Tjapukai Cultural Park. 'Djabugay' is the current linguistic spelling and the appropriate way to refer to the people (Bottoms 1999:2).

journey; but *Guyala* thought it would be easier for people to follow a route if many places were named.

In the past, *Bulerru* was integrated into every aspect of the lives of *Bama* in the Kuranda district and these stories continue to be a significant component of the living cultural landscape in the Cairns-Kuranda region.

4.2 Archaeology

Archaeological research in north Queensland, particularly in the semi-arid inland areas of Laura, Chillagoe and Ngarrabullgan, has demonstrated occupation of the region for over 30,000 years, (e.g. Morwood & Hobbs 1995:154; Flood 2001:95; David 1993:53). Rainforest archaeology, however, has been limited by poor preservation of cultural material, the inaccessibility of potential archaeological sites and poor visibility due to the dense vegetation (Cosgrove *et al.* 2007:150).

Low level occupation of rainforest environments from 7,500 years ago was recorded on the Atherton Tablelands, coinciding with the expansion of rainforest species from dominant eucalyptus species, as indicated by pollen core analysis (Cosgrove 2005:50). Cosgrove's research suggests that while people have been utilising rainforest environments since rainforest expansion began, and likely influenced these environments through fire regimes, permanent settlement of the rainforest only occurred in the last 1,800 years (2005:52). Cosgrove (2005:53) links permanent settlement to the development of technology for treating toxic nuts, such as black bean (*Castanospermum australe*), cycad (*Lepidozamia hopei*) and particularly yellow walnut (*Beilschmiedia bancroftii*), which formed a staple of Rainforest Peoples' diet in the last 1,800 years.

Excavations at Jiyer Cave, on the upper Russell River, by Horsfall (1987) and Cosgrove & Raymont (2002) illustrate the pattern of cultural deposition of known rainforest occupation. The oldest occupation deposits are seen with low discard rates at a depth of 5100 BP, with an increase in deposits from 2500 BP. The last 1000 years have shown the highest rate of cultural deposition, reflecting a dramatic increase in cultural activity (Cosgrove *et al.* 2007:155).

Further work by Cosgrove and colleagues has located one archaeological site, at the western edge of the rainforest environment, with evidence of Pleistocene deposits dating to 30,000 BP (Before Present) (Cosgrove *et al.* 2007:156). This site was then abandoned from the Pleistocene until 5000 years ago, when occupation is evidenced with the appearance of the remains of cracked nutshell and charcoal at the site.

Cosgrove *et al.* (2007:158) identifies four phases of rainforest occupation:

- Occasional use during the late Holocene around 8000 BP, as seen in a low rate of discard of cultural material, coinciding with initial rainforest expansion.
- A hiatus observed from the late to mid Holocene, with reoccupation around 3300 BP.

- Low activity levels from 3300-2100 BP.
- Extremely elevated levels of activity associated with the appearance of incised grindstones, seed fragments and charcoal from 2000 BP to present.

The archaeological evidence suggests that the Wet Tropics was permanently settled in the last 1800 years.

4.3 Contact history

The first historical reference to the contact of Europeans with *Bama* of the Kuranda area occurred in August 1876, when John Doyle and his companions Smith and Evans encountered Aboriginal people while searching for a track between Trinity Inlet and the Hodgkinson goldfields near present day Dimbulah (Jones 1976:60-61). They camped on the banks of the Barron River, two miles upstream from present day Kuranda and presumably followed Aboriginal walking tracks along the Barron and to the north. Clearly lost, they descended to the coast north of Buchan Point (Jones 1976). Later in 1876, Sub Inspector Douglas and Bill Smith followed Aboriginal walking tracks through the Barron Gorge, establishing the first practical routes from the goldfields to the newly established port of Cairns (Jones 1976).

John Atherton's arrival, and the establishment of his homestead at Emerald End in 1876 and Baan Bero (the Barron River Native Police Camp) that same year, heralded a major change for the *Bama*. Atherton's pastoral and mineral development interests were in direct conflict with the Aboriginal occupation of the area. Atherton worked closely with the Baan Bero native police to kill, kidnap and otherwise control local Aboriginal people (Bottoms 2015:81-82). The use of the Native Police had a devastating effect on local Aboriginal populations. The Native Police were recruited from non-local Aboriginal groups and were employed to use their traditional skills and superior weapons and marksmanship for the "dispersal" of local groups (Kerr 2000; Loos 1982; Reynolds 2013: 130).

Table 2: Summary of post-contact Aboriginal use of the Kuranda/Myola area

Date	Post contact Aboriginal use of area
Late 1870s	Europeans using *Bama* walking tracks between the coast and Hodgkinson goldfield e.g. Smith's track and Douglas Track.
1885	European settlement of the Kuranda district.
1886	Construction of the railway from Cairns. Native Police active in the Kuranda district. Railway follows Aboriginal walking track above the Barron Falls.
1888	Kuranda established. European settlement of Clohesy River. Native Police active.
1891	Aboriginal camp at Myola in use, corroboree observed there (Bottoms 1999:42)
1913	Mona Mona Mission opens, populated by local and non-local Aboriginal people.

Date	Post contact Aboriginal use of area
1916	Some Bama continued living outside Mona Mona Mission. Tindale documents corrobboree in 1938 (Bottoms 1999:68).
1962	Mona Mona Mission closes, residents move to Mantaka, Kowowra, Oak Forest, Kuranda, Koah and elsewhere.

By the 1920s many Bama had been removed from their traditional estates to the Mona Mona Mission along with people from the Gulf savannah, Cape York Peninsula and other rainforest tribes. Although they lived reasonably close to their traditional estate, the restrictions placed on Aboriginal people through the *Aboriginal Protection Act 1987* (Qld) meant that Bama had little access to significant cultural sites and resources. In 1962, the Mona Mona Mission closed and many of the residents moved to the nearby townships of Mantaka, Kowrowa, Kuranda and Koah. A small number of people have moved back to Mona Mona in recent years.

5. NATIONAL HERITAGE LIST

On 9 November 2012, the Wet Tropics World Heritage Area's Indigenous heritage values were included as part of the existing Wet Tropics of Queensland National Heritage Listing (Appendix B). The listing identifies Rainforest Aboriginal heritage as unique to the Wet Tropics and as a remarkable and continuous Indigenous connection with a tropical rainforest environment. The listing recognises that:

> The Aboriginal Rainforest People of the Wet Tropics of Queensland have lived continuously in the rainforest environment for at least 5,000 years and this is the only place in Australia where Aboriginal people have permanently inhabited a tropical rainforest environment. The Aboriginal Rainforest People developed a distinctive cultural heritage determined by their dreamtime and creation stories and their traditional food gathering, processing and land management techniques. Reliance on their traditions helped them survive in this at times inhospitable environment. The distinctiveness of the traditions and technical innovation and expertise needed to process and prepare toxic plants as food and their uses of fire is of outstanding heritage value to the nation and are now protected for future generations under national environmental law. (Department of the Environment and Energy, n. d.).

The National Heritage listing is based on four key criteria:

- The use of toxic plants.
- Technical achievements in material culture and use of fire.
- Year-round occupation of rainforest.

- Traditions established by creation beings.

Each of these key values are discussed below through a review of the relevant literature.

5.1 Aboriginal toxic food processing

Aboriginal tropical rainforest occupation and the use of plant foods by Aboriginal rainforest dwellers was extensively recorded in the early contact period by Europeans such as explorers, botanists, Aboriginal Protectors and naturalists (Lumholtz 1889; Meston 1889; Roth 1901-1910; Mjöberg 1918). Historical documents and Aboriginal oral histories demonstrate that plant foods comprised a sizable proportion of the Aboriginal rainforest diet, which included the collection, processing and consumption of many rainforest tree nuts, some of which were toxic (e.g. Mjöberg 1918; Pedley 1993). More than 112 plants have been identified as food sources consumed by Aboriginal rainforest dwellers. Of these, 10% to 13% are toxic and require extensive processing (Horsfall 1987, 1996; Pedley 1993). Most historical descriptions emphasise specific toxic tree nuts that apparently provided an important food source during the wet season (late November through to March). Experimental work (Pedley 1993:179-180; Tuechler *et al.* 2014) has shown that the contribution of toxic nuts to the Aboriginal rainforest diet was significant, being important sources of carbohydrates, protein and fats in various quantities. It has been estimated (Pedley 1993) that toxic nuts comprised around 10% to 14% of the diet of Rainforest People at the time of Aboriginal-European contact. Their total contribution to the Aboriginal diet in prehistory is unknown but considering the early ethnographic observations and estimated nutritional values, it was probably considerable.

Historical descriptions of Aboriginal toxic-nut exploitation in the rainforest mostly refer to two types of walnut, *Beilschmiedia bancroftii* (yellow walnut) and *Endiandra palmerstonii* (black walnut), the 'black pine' nut, *Podocarpus sp*, and the black bean, *Castanospermum australe*. These varieties of toxic nuts have a high food value, high seasonal abundance and storage potential (both above and below ground), and as a result are sought after by both people and rainforest animals. These hard-shelled nuts could be stored for several months below ground for later consumption (Mjöberg 1918; Harris 1975). Based on historical accounts as well as ethnographic observations and oral histories, it is possible to reconstruct the processes involved in detoxification. Elaborate lawyer-cane (*Calamus australis*) baskets were used for the collection of nuts on the ground and lawyer-cane ropes were used for climbing trees to collect fresh nuts (e.g. Roth 1901-1910; Mjöberg 1918). On the Tully River, Aboriginal Rainforest People were observed using a sharp piece of quartz to slice toxic nuts, and in other areas of the rainforest region, snail-shell graters were used (Roth 1900; Pedley 1992:51). Earth ovens were used to steam the toxic nuts and other foods, including meat and fish, sometimes lining the pit with river cobbles as well as ginger leaves, placing the nuts in the pit and covering them with more leaves, and finally placing hot coals on top. Following this baking and steaming

procedure, the nuts were cracked open on a nut-cracking rock with small cobble. The grated pulp was put in lawyer-cane dilly bags and leached for two to three days in a small running creek. Once leached of their toxins, the pulp was chewed and formed into a paste that was eaten raw. Aboriginal Rainforest People were also observed making them into 'johnny cakes', or flat cakes that were baked on hot coals (Mjöberg 1918; Pedley 1992). What remains in the archaeological record are the carbonised fragments of the hard layer of endocarp that enclosed a single seed (nut).

5.2 Aboriginal fire use in the rainforest

Fire management was essential for Aboriginal people's occupation of the rainforest in the Wet Tropics region. Research by Hill & Baird (2003) documented fire practices in the management of carbohydrate resources on the Windsor Tableland in the northern region of the Wet Tropics. Results showed that regular burning promoted seedling recruitment of toxic *Cycas media* in open forest patches and suppressed rainforest on the margins to promote yam development on the clearings (*Dioscorea* spp.). Fire was also used to protect toxic nut trees such as the yellow walnut (*Beilschmiedia bancroftii*) (Hill & Baird 2003).

One of the features of the rainforest Aboriginal cultural landscape was the use of 'pockets' for camping and other activities. Pockets were grassy clearings within the rainforest that were maintained by Aboriginal people and connected by walking tracks. Pockets were found throughout the Wet Tropics and were often the focus of early European settlement. For example, the town of Yungaburra was established on an Aboriginal pocket, known as Allumbah Pocket. Pockets could be camps or places where ritual activities took place. They are sometimes called 'bora grounds'[2], although rainforest pockets differ from the ceremonial bora grounds in southern Australia. Rainforest pockets were camping areas, where large gatherings (*warrama*) could take place.

Palaeoecological analysis of phytoliths, pollen and macroscopic charcoal from sediments derived from two such cleared open pockets, Noopah Pocket and Mooma Pocket in the central region of the Atherton Tableland, was employed to investigate their recent to late Holocene environmental history and association with Aboriginal activity (Steinberger 2014). Results showed that both pockets have been characterised by open vegetation types in the late Holocene, and macro-charcoal records indicate the presence of low levels of burning in the pockets prior to European arrival. It appears likely that Aboriginal use of these spaces included burning of the grass understorey, without further significant effect on vegetation patterns.

[2] In northeast Queensland, the terms 'pocket', 'bora ground' and 'campsite' are often used interchangeably to describe a grassy area maintained by Aboriginal people within the rainforest. Unlike the bora grounds in southern Australia, rainforest pockets were not initiation or closed ceremonial areas and not marked with stone arrangements or carved trees.

Analyses of historical and ethnographic records allow identification of the characteristics of Aboriginal use and modification of the rainforest landscape. The pre-European rainforest was not a homogeneous vegetation type. Human interaction with rainforest appears to have varied across the rainforest region, and this is reflected in the diversity of rainforest landscapes.). The resulting open forest pockets interspersed within rainforest allowed for a much more predictable pattern for human exploitation and created greater biodiversity. The patchy landscape also allowed for the establishment of campsites within clearings, which were maintained by 'gardening' and fire. One Elder described using fire to keep the rainforest floor clear of undergrowth and lawyer vine by brushing it with fire and then whacking it with a branch to put it out (R. Brim pers. comm. 20 April 2017). This method was used to stop 'dirty scrub' from returning.

5.3 Indigenous Tradition

The Wet Tropics region continues to hold great significance for the local Aboriginal communities, who identify as 'Rainforest People'. Aboriginal traditional law and custom provides a conceptual framework that underpins the Rainforest Aboriginal People's technical achievement in processing toxic plants. These traditions describe the characteristics of plants and how to process different plants. Examples of traditions about the creation beings and toxic plants include the Kuku-Yalanji traditions about *Kubirri* and about the two sisters, the Djabugay-Yidinji-Gunggandji tradition about *Damarri* and *Guyala*, and the tradition about *Girugarr* (the eel man) from the southern region of the Wet Tropics. Parts of these stories are inscribed in the landscape of the Wet Tropics as land features or paths formed by the creation beings.

6. POTENTIAL CULTURAL HERITAGE SITES

Potential heritage sites were identified through a combination of published and unpublished sources including the Department of Aboriginal and Torres Strait Islander Protection (DATSIP) Cultural Heritage database and register. The DATSIP Cultural Heritage Database is a list of recorded sites reported to the Cultural Heritage Branch over the last 40 years. Many of these have not been ground-truthed. The DATSIP Cultural Heritage Register contains places recognised as being significant to Aboriginal custom, nominated by an Aboriginal party under Part 5 of the ACHA.

A search of the DATSIP database identified ten sites on the DATSIP database within 5.5 kilometres of the KUR-World property, consisting of six story places/cultural sites, three stone artefacts or scatters and two pathways. This includes one cultural place polygon on the KUR-World property (FN-0001). The database and register only include areas, places or objects that have been reported to the state and is not necessarily a reflection of the actual distribution of significant cultural heritage, but rather the extent of previous archaeological surveys. The high number of story place/cultural sites reflects a strong connection by the *Bama* to the cultural landscape in the Kuranda region.

6.1 Bulwandji bora ground (FN-0001)

A cultural heritage site listed on the database that is within the KUR-World proposed development area was lodged with the DATSIP cultural heritage database in August 2016 (with reference number FN-0001). The database entry, centred on GPS coordinates 351033, 8139968 (UTM 55K) describes walking tracks, bora grounds and the effects of the Mona Mona Mission.

Of note to the KUR-World property are:

- A bora ground, and other pockets, identified in the FN-0001 site. One pocket is identified on the Barnwell Homestead site and another is located to the east of the KUR-property at the current veterinary property (Figure 3). These have been identified through oral history and Google Earth and are likely to represent Aboriginal camping and meeting places rather than ceremonial sites.
- Access to water including creek access and permanent spring (Figure 4).
- Two walking tracks identified on a map created by Bottoms (1990). One of these crosses through the KUR-World property from north to south, the other crosses the southeast corner of the property (Figure 5).

The DATSIP site record indicates the area that includes the KUR-World property is a rich Aboriginal cultural landscape.

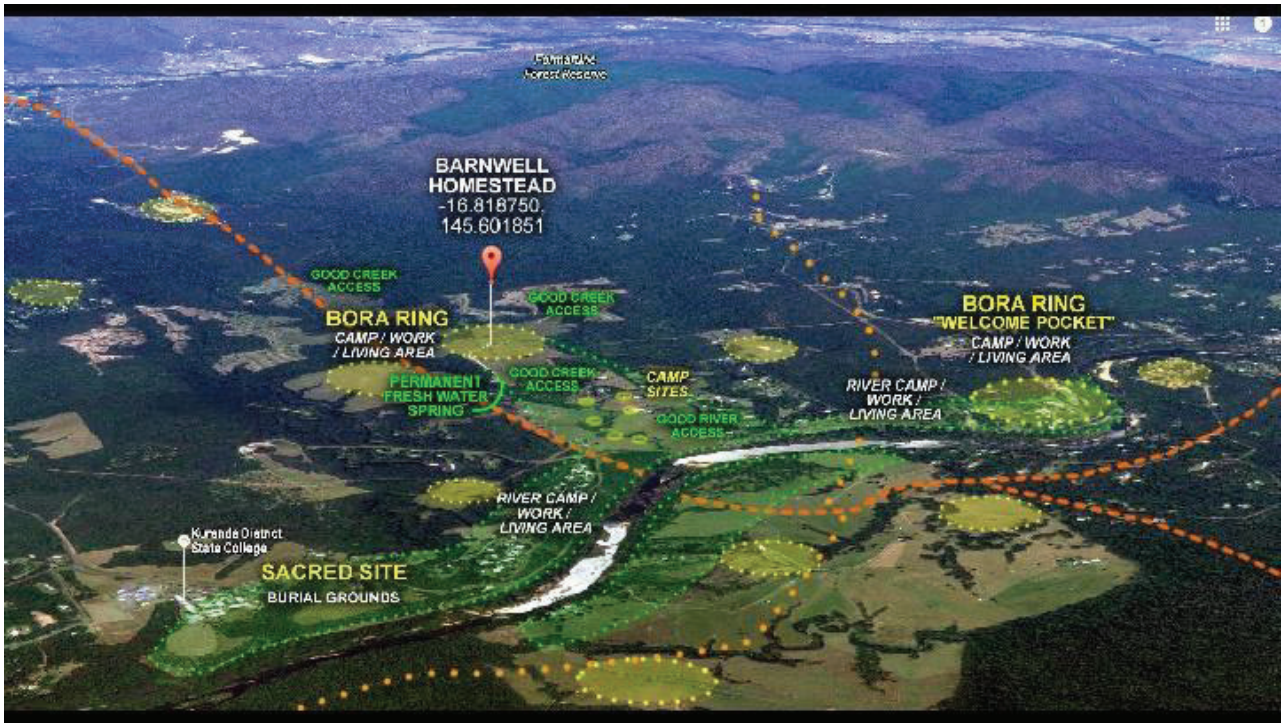

Figure 3: Aboriginal sites near Barnwell Farm documented in DATSIP Site FN-0001

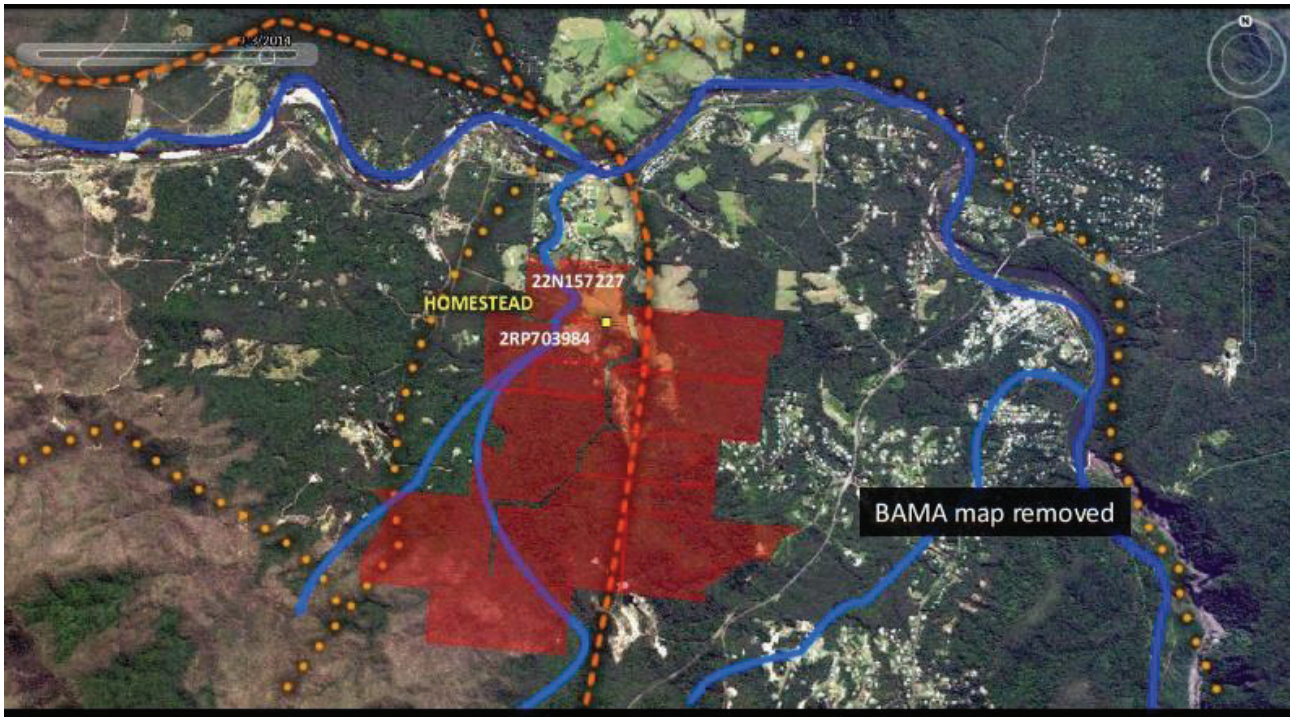

Figure 4: Location of the walking tracks documented in DATSIP site FN-0001. The orange dashed line represents major tracks, the dotted orange line represents minor tracks

6.2 Story places/cultural sites

While there are multiple Story Waters or Dreaming stories associated with the coast around Cairns and the adjacent interior, one Djabugay story is pertinent to the trade route/Dreaming track associated with Kuranda, the Barron River and the adjacent Barnwell property.

Bottoms (1999) details a Dreaming story concerning the Barron River and its important trade and travel link between the coast and the Tableland interior. Bottoms (1999:5) describes the Djabugay story of *Gudju-Gudju*, the rainbow serpent. *Gudju-Gudju* originates in the ocean, rising from the sea near Double Island, at Palm Cove north of Cairns, covered in nautilus shells (*miya-miya*). In the form of *Budadji* (the carpet snake), he then travels up the Barron Gorge to trade his shells with the people on the Tablelands for dilly bags (*yimbi*) (Bottoms 1999:5). After a successful trade, he returns to the coast and the ocean, promising to bring more shells. On his return journey to the Tablelands, he was attacked by "greedy bird-men who wanted his shells" (Bottoms 1999:5). *Budadji* was killed and his shells were stolen.

In Aboriginal Australia, it is common for walking tracks and trade routes to trace the movement of Ancestral Beings along designated pathways, depicting the spiritual journey of various totemic entities through the physical geography of an area. The routes along which people and goods move were, and still are, traditionally ordained in the paths of travel of these Ancestral Beings when, in the Dreaming, they created the land and its features, at the same time establishing the law governing human actions within them. These lines of travel, or cultural routes, are often called Dreaming Tracks, or, if associated with

mythology or song cycle, Story Lines or Song Lines. These travels of the Ancestral Beings, often link spiritually, socially or economically important geographical locations such as waterholes, quarries and hunting grounds. These spiritual routes may mirror trade routes, corridors of movement of people, ideas and material.

The ancestral presence and power is maintained by ceremony and by singing the stories of the Dreamtime events at the relevant locations, regarded as places of power. This also maintains and disseminates cultural knowledge of the routes, their distant components and the geography of the landscape (McBryde 2000: 157).

6.3 Aboriginal walking tracks

Aboriginal walking tracks are a feature of the rainforest cultural landscape. Walking tracks linked story places, campsites, resources and tribal groups. In 1989 Charlie McCracken recounted his knowledge of walking tracks in the Mossman area. McCracken lived on a farm near Mossman from the 1920s and described the 500km of the walking tracks he had documented in his local region:

> The tracks were used by Aborigines in the daily gathering of food. They led along streams to good fishing places, to campsites, to places where water and firewood could be obtained, and to different areas for the hunting of special animals and seafood. They also went to places where spear sticks grew in rich sheltered areas on the edges of rainforest, or where there were special fruit and nut trees that were gathered once a year. The tracks were also used as travelling routes for social gatherings or meetings of the tribes. (1989:103)

Walking tracks are significant because they guided access through the dense impenetrable rainforest and linked campsites, bora grounds and resources as well as providing links between coastal and tableland resources and into neighbouring estates. Tracks through the Barron Gorge and Freshwater Creek (Crystal Creek) linked Tableland and coastal Djabugay speakers (Buhrich & Djabugay Tribal Aboriginal Corporation 2009). Rainforest walking tracks had a key role in linking traditional land-holding estates, sites and resources in the often-impenetrable rainforest.

McCracken (1989) delineated two main ‘highways’. He describes an eastern highway which ran along the coast from the Bloomfield River (and probably further north near Cooktown) to Cairns. The western highway ran along the base of the Great Dividing Range, branching off the Mitchell River tributaries south to Kuranda and the Barron River (Bottoms 1990:26, 1995, 1999:13; McCracken 1989). The western, inland route, identified by McCracken, then continued over the Barron Gorge to the coast, following the Dreaming track of the rainbow serpent story. This major trade route up the Barron Gorge was also identified by Roth

(1901 -1910:18-19): “the Barron River Natives wander up the coast as far as Port Douglas and inland up to Kuranda and Mareeba.” McCarthy (1939) also mentions the connection of the coast around Cairns and the Tablelands, and the associated movement of trade goods and people along this corridor. These trails were also the network by which early European explorers traversed the landscape and the present Kuranda railway follows one of these major pathways (Bottoms 1990, 1999).

This western ‘inland’ route, described in the physical and cultural landscape, is significant because this major corridor of people, trade and travel runs directly in front of the Barnwell property, along the Barron River. The Barron River frontage, less than a kilometre north of the property, was intensively used, not only because its proximately to the major settlements of *Ngunbay* (modern Kuranda) and Streets Creek Camp approximately three kilometres downstream to the east (see below), but also because it forms a section of the major ‘western highway’, the travel and trading route leading from the coast, up the Barron Gorge, and then further northwest, eventually linking with another northern access route back down to the coast near the Mowbray River and Port Douglas. Another major branch of this trade route also skirts the Barnwell property to the east, heading towards the Bare Hill locality, along the Kennedy Highway. The Barnwell property is located near a significant crossroads and junction of the trade routes of the area. The Barron River in the Barnwell Road area snakes along a plain through a bottle neck of two ridgelines, with Rainy Mountain to the north of the river and an unnamed ridge to the south. These two ridges create a narrow funnel where the movement of people would be restricted and concentrated, following the path of the Barron River. The Barnwell property sits adjacent to this bottleneck and was likely to have been a locality of concentrated use.

6.4 Aboriginal stone tools of the Wet Tropics

The stone toolkit of rainforest Aboriginal people included a suite of objects not found elsewhere in Australia as well as unusually large numbers of common artefacts including ground edge axes and hand sized pebbles. Horsfall (1987:195) estimates that, based on the numbers of ground edge axes in museum collections, up to 40,000 large stone artefacts could have been taken from the Wet Tropics region. Large bodies of artefacts are stored by landholders and Aboriginal custodians in the Wet Tropics and continue to be found in cultural heritage surveys across the region (Buhrich 2015).

McCracken (1989:105) reported the presence of discarded artefacts such as stone axes, nut cracking stones and hammers are indicators of Aboriginal walking tracks.

7. METHODS

The methodology involved consultation with the Aboriginal party and site surveys of the KUR-World property.

7.1 Consultation

Consultation with members of the Aboriginal party took place over approximately one month and included phone calls, face-to-face meetings and site inspections. The aim of consultation was to introduce the project, identify relevant people to conduct site surveys and prepare a CHMP. A detailed list of communications with the Aboriginal party is presented in Appendix C.

During the consultation process it was revealed that there are some internal issues with the identification of the appropriate representative of the Aboriginal party regarding the KUR-World property. Two groups of Aboriginal people, represented by Willie Brim and Glen (Mario) Williams were consulted separately. Both groups agreed to the primary terms of the CHMP.

Interviews were conducted with each of the two representative groups during site visits. The semi-structured interviews, combined with conversations throughout the site visits, provided important insights into potential opportunities and impacts from the proposed development as well as the broader Aboriginal cultural landscape.

7.2 Site inspections

Site inspections were conducted with two groups. The first group conducted ground surveys over previously cleared areas. The second group had a tour of the environmentally sensitive areas led by Neil Boland, the principal environmental consultant.

Table 3: Activities conducted during site inspections

Day	Activity
Wednesday	Tour of general site. Surveyed the dam and northern paddock – highly disturbed.
Thursday	Surveyed below the dam and the main paddock.
Friday	Surveyed the paddocks on the NE side of property. Inspected areas were cleared in 2014.
Monday	Surveyed western paddocks, and the slashed area at the northeast of the property.
Tuesday	Brief inspection of southern area.

Day	Activity
Wednesday	Tour of general site including the frog habitat and a natural spring.
Thursday	Brief inspection of southern area. Inspected previously identified sites.

The first group consisted of six Bulwandji representatives and two archaeologists who carried out cultural heritage site surveys over previously cleared areas. The participants walked in a line, between 3 and 10 metres apart, participants walked closer together where there was a higher likelihood of cultural material being found, e.g., near creeks, and further away where there was a low likelihood of cultural material, where there was little rocky material. Creek beds were investigated opportunistically. No systematic surveys of creeks or vegetated areas were conducted.

Site locations were recorded using a Garmin hand held GPS, a sketch of each artefact was made and measurements taken. Photographs recorded the objects *in situ* and general view of the site. Artefacts were left *in situ* and marked with pink flagging-tape. Some portable nut cracking rocks were marked with a pink flagging-tape.

The second team inspected the recorded sites and located additional stone artefacts.

8. RESULTS

Nut cracking rocks were the primary site type located, most of which were portable stones with circular pits used for holding round nuts for cracking. Two nut cracking processing sites were recorded in creek beds, these were rocks that formed the creek bed with large numbers of circular pits used for cracking rocks. Processing sites also include edible and medicinal plants and running water possibly used for leaching.

Throughout the site inspections Aboriginal people consistently talked about the cultural landscape – the stories, plants, waterways and animals that link the tangible and intangible heritage. One important aspect of the cultural landscape was the use of plants, as food, medicine and markers of environmental health.

Cultural and environmental health of the broad environment were identified as highly significant to the Aboriginal party, and through our discussions several markers to identify cultural and environmental health were noted.

8.1 Ground surveys

The locations of the sites recorded during surveys are presented in Figure 6 followed by a summary of each site.

Eight individual sites were recorded. These consisted of:

- 11 portable nut cracking rocks;
- 5 quartz flakes associated with portable nut cracking rocks;
- 2 nut cracking holes in the creek bed;
- 1 axe blank; and
- 1 circular top stone/pestle.

For details on individual artefacts refer to Appendix D.

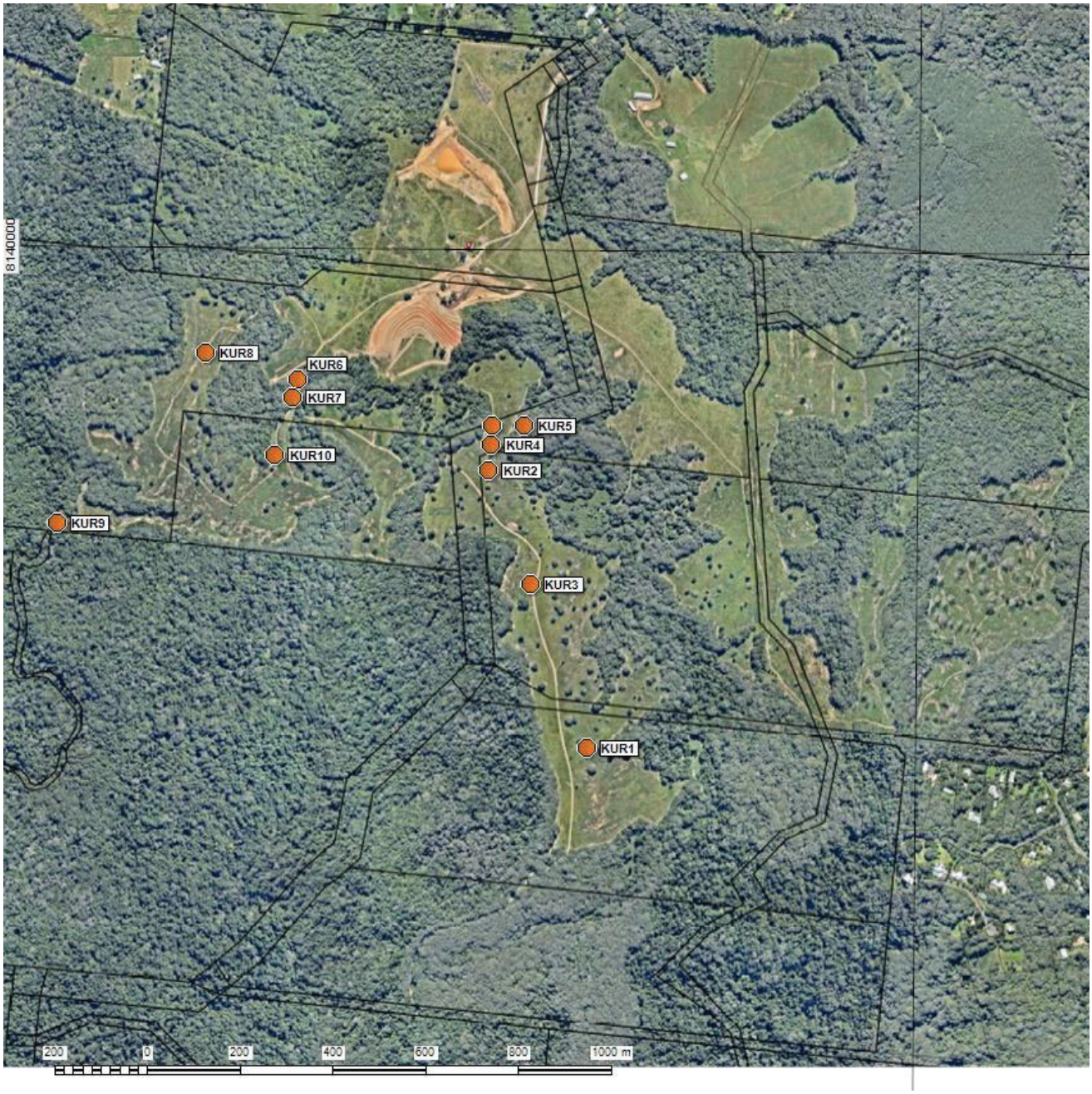

Figure 5: Sites recorded during survey

KUR 1	
Description	Single nut cracking rock (granite)
Location	Grassy paddock (UTM 55K 0351297, 8138922)
Comment	Association with European occupation means may have been moved here. Unlikely to be *in situ.*
Recommendation	Remove to location identified by Aboriginal party prior to disturbance.

Figure 6: Nut cracking rock, KUR 1

KUR 2	
Description	Single tool blank (granite)
Location	Grassy paddock (UTM 55K 0351081, 8139525)
Comment	Size and shape indicates possible waisted axe. Left *in situ*
Recommendation	Remove to location identified by Aboriginal party prior to disturbance

Figure 7: Axe blank, KUR 2. Note start of 'waist' on bottom edge

KUR 3	
Description	Single nut cracking rock (granite) and 3 flakes (quartz)
Location	Within dirt road in grassy paddock (UTM 55K 0351170, 8139280)
Comment	Moved off road. Remove to location identified by Aboriginal party prior to disturbance
Recommendation	Remove to location identified by Aboriginal party prior to disturbance

Figure 8: Removing nut cracking rock from dirt road, KUR 3

Figure 9: Quartz flakes at KUR 3

KUR 4, 5	
Description	Nut processing site in creek bed. Three nut cracking rocks and a pestle found in cleared paddock
Location	Haren Creek and grassy paddock
Comment	Possible camp site/ pocket and Aboriginal walking track. Objects left *in situ*
Recommendation	Detailed archaeological investigation. Remove to location identified by Aboriginal party prior to disturbance

Figure 10: View of KUR 4,5. Pink flagging tape in foreground marks artefacts.

Figure 11: Top stone or pestle from KUR 4,5. Note flattened end used for pounding.

Figure 12: Portable nut-cracking rock, KUR 4,5.

Figure 13: Nut processing site on Haren Creek, over 30 nut cracking holes were counted.

KUR 6, 7	
Description	3 nut cracking rocks (granite) and 2 flakes (quartz)
Location	Within Owen Creek and on ridge to the east
Comment	Left *in situ*
Recommendation	Remove to location identified by Aboriginal party prior to disturbance

Figure 14: Nut cracking rock on Owen Creek, KUR 7

Figure 15: Inspecting nut cracking rocks above Owen Creek

Figure 16: Owen Creek, KUR 8

KUR 8	
Description	Two nut cracking rocks (granite)
Location	Grassy paddock (Within 15m of UTM 55K 0350467, 8139773)
Comment	Left *in situ*
Recommendation	Remove to location identified by Aboriginal party prior to disturbance

Figure 17: Nut cracking rock, KUR 8

KUR 9	
Description	Nut processing site. Over 15 pits on 2 rock faces and edible plant species
Location	In Owen Creek, below natural rock bar (UTM 55K 0350150, 8139403)
Comment	Area not surveyed in detail
Recommendation	Develop management plan with Aboriginal party

Figure 18: Nut processing site at Owen Creek

Figure 19: Black pine nuts in nut cracking holes, KUR 9

Figure 20: Glen (Mario) Williams with Black Pine (*Podocarpus sp*), KUR 9

KUR 10	
Description	Single nut cracking rock (granite)
Location	Grassy paddock (UTM 55K 0350620, 8139554)
Comment	Left *in situ*
Recommendation	Remove to location identified by Aboriginal party prior to disturbance

Figure 21: View of KUR 10

8.2 Oral history

The stories related by the Aboriginal party during site visits emphasise the Kuranda area, including the KUR-World site, as a living cultural landscape. Three specific themes were identified.

Bulerru

Bulerru is highly significant to the Cairns Regional Claim applicants and was consistently raised during site surveys and interviews. As previously described (see 4.1), *Bulerru*, the Story Waters, link people to place, to the Ancestors and links the past with the present. Interviewees especially pressed the role of *Bulerru* in shaping the cultural landscape, the KUR-World property is a part of this broader landscape created by *Bulerru*.

Gudju Gudju / Budadji

Gudju Gudju / Budadji in physical form, is the snake who transformed from *Gudju Gudju* on the coast to *Budadji* at *Din Din* (Barron Falls). The *Budadji/Gudju Gudju* story connects Djabugay, Bulway, Yirrganydji, Yidinji and Gunggandji people as he travelled from Yarrabah, up the Barron River, to Atherton.

In the metaphysical form, *Gudju Gudju /Budadji* is present in all waterways: the rivers, creeks, waterfalls, lagoons and rainbows. The Aboriginal party identified the presence of *Budadji* in the waterways on the

KUR-World property and emphasised the importance of healthy waterways because of the presence of *Budadji*.

Boondarah

Boondarah, the cassowary has a specific totemic significance to Aboriginal people from the Kuranda area. According to the Aboriginal party, while *Budadji* was responsible for establishing walking tracks and trade routes along the Barron River, *Boondarah* made the walking tracks in the forest and showed the people which rainforest foods were edible (W. Brim pers. comm., 22 March 2017). The Aboriginal party identified the presence of the cassowary as an important indicator of cultural health of an area.

8.3 Ethnobotany

Plants of cultural significance were identified during the site inspections (Table 4). Some of these plants are important as indicators of the general environmental health of the areas, such as *wuyan* (*Lomandra*), which grows on healthy waterways. Some plants had significant medicinal qualities (e.g. native mangosteen) or were used in basket making (e.g. lawyer cane, pandanus, *wuyan*). Two edible rainforest nut species were noted, the *Gurundu* (*Eliocarpus bancroftii*) and *Ku-lun-guy* (*Podocarpus sp*). Glen (Mario) Williams noted that the size of the nut cracking pits found during surveys indicated they were used to open *Ku-lun-gay* nuts.

Table 4: Important plant species noted during site inspection

Common name	Local Aboriginal name	Latin name	Use
Black pine	*Kul – lun – guy*	*Podocarpus*	Edible seeds. They were cracked, smashed, soaked in a dilly bag to remove toxicity, ground into flour and baked. Medicinal, can eat to get rid of flu symptoms.
Kuranda quondong	*Gurundu*	*Eliocarpus bancroftii*	Edible seeds. Flesh of the fruit could be eaten. Then thrown on fire, then cracked, the nut inside eaten.
Native mangosteen	*unknown*	*unknown*	Medicinal
Lawyer cane	*unknown*	*Calamus australis*	Medicinal and basket weaving
Bullrush	*Wuyan*	*Lomandra*	Weaving, calendar plant, medicinal, edible
Blackbean	*Yirwada*	*Castanospermum australe*	Edible seeds

8.4 Markers of cultural health

Links between the natural and cultural environment in the Wet Tropics is a key component of the National Heritage listing of the Wet Tropics of Queensland. During the site visits the Aboriginal party did not separate the natural and the cultural environment. They identified markers of environmental health as evidence of the health of the cultural landscape. In our discussions, during site visits and interviews, water quality, plant and animal biodiversity and the preservation of sites and artefacts were identified as important (Table 5).

Table 5: Markers of environmental health noted during site visits and interviews

Item	Significance	Indicator – healthy	Indicator - unhealthy
Water health	Links people to *Budadji/ Gudju Gudju*	Colour, flowing, animals (fish, turtle, frogs), sand in creek beds, erosion control (including effects of cattle)	Stagnant water, no life in waterways, eroding creek banks, access by cattle and other introduced animals
Wuyan (*lomandra*)	Bush food, medicinal use, weaving, calendar plant, sign of good environmental health	Presence on creek banks	No *wuyan* growing
Boondarah (cassowary)	Totemic association	Presence of cassowary, cassowary corridor from southern area to Barron River	No cassowaries
Preservation of sites and artefacts	Tangible link to occupation of the area by Ancestors	No disturbance / uncontrolled visitation	Sites disturbed, rubbish, unmanaged tracks
Species diversity		Platypus, turtle, small and big fish, ferns	Lack of species diversity
Access by Traditional Owners	Ongoing physical presence	Opportunities to visit significant cultural places	No Traditional Owner presence

8.5 Ancillary issues raised by the Aboriginal party

Several ancillary issues were raised during the site inspections and interviews with the two groups representing the Aboriginal party. These are summarised below in four key themes. Definitions of ‘caring for country’ and ‘community’ were also discussed and included below. Employment opportunities and caring for country were the highest priority issues.

As one interviewee stated: “if they embrace our existence it could be beneficial for us – for employment but number one for caring for country” (A. Brim, pers. comm., 23 March 2017).

Employment and other opportunities

The Aboriginal party identified employment and training opportunities from the KUR-World development for local Aboriginal people as a top priority. One suggestion was for a skills audit in the local Aboriginal community (see below for definition of 'Aboriginal community') as many individuals have existing skills that could be used in the construction, maintenance and management stages of the development. There was a suggestion that local Aboriginal people with existing skills could be placed 'at the top of the pile' for contracting jobs.

There was general agreement from the Aboriginal party that the development should bring benefits to the local Aboriginal community (see below for definition of 'local Aboriginal community').

Broad environmental issues

The broad environmental issues raised relate to the continued access and use of the Barron River and the quality and volume of groundwater aquifers being sufficient for cultural purposes.

Issues on KUR-World property

Creating and managing cassowary corridors on the KUR-World property were identified as a priority. The aim of cassowary corridors would be to connect the known habitat on the southern end of the site with the known habitat on the Barron River. The Aboriginal party saw employment opportunities in the restoration of cassowary corridors. Cassowary corridors could be established through:

- Replanting creek edges with food eaten by the cassowary.
- Not obstructing access to creeks with fences.
- Excluding dogs from the proposed residential areas.
- Forming partnerships with Landcare groups e.g. Cassowary Care.

The Aboriginal party raised concerns about the potential destruction of rainforest and noted that even regrowth was important from a cultural perspective. However, they recognised there may be a need to remove trees and requested opportunities to use the timber that needed to be felled. The harvested timber could then be used by local woodworkers in the production of Aboriginal artefacts. This could be achieved by:

- Selective logging by the Aboriginal party prior to full clearing of the area.
- Using a mobile sawmill to remove useful timber.
- Engaging a tree lopper to assist with the process.
- Transporting the timber to a place identified by the Aboriginal party.

The approval and development process

The Aboriginal party raised the importance of transparency in the approval and development process and the benefits of working together in the initial stages of the project.

One interviewee raised the possibility of developing a Memorandum of Understanding for employment of the local Aboriginal community.

Definitions

"Caring for country" - the interviewees were asked about how 'caring for country' is defined. The following points were discussed:

- The presentation of sites and artefacts.
- Being able to visit sites and having a physical presence at cultural sites.
- Having responsibility to ensure places are maintained for future generations and that responsibility gets passed down through generations.

The process for identifying Traditional Owners was raised by the representatives of the Aboriginal party. It became clear that there is not consensus on this issue at the time this report was written. This may be clarified in the future. Willie Brim and Glen (Mario) Williams (applicants to the Cairns Regional Claim) made the following points:

- Willie Brim asserts the Bulwandji clan groups are the Traditional Owners of the area that includes the KUR-World property.
- Glen (Mario) Williams identified the Newberry and Donahue families as spokespeople for the area.

"Local Aboriginal community" - the local Aboriginal community was defined as Aboriginal people living in Kuranda, Koah, Kowowra, Mantaka, Oak Forest and Mona Mona. A Social Impact Study was developed with Aboriginal people living in these communities (Appendix 16 of the EIS).

The history of removals to Mona Mona Mission and the subsequent movement of people out of Mona Mona Mission means there is a complex network of Aboriginal communities around the Kuranda area. While the Aboriginal party represents the native title claim group, the local Aboriginal community includes people living in the local area that have custodial links to Cape York Peninsula, Georgetown and elsewhere, however these people still have interests in the local area because of their historical and ongoing association with the region.

9. SIGNIFICANCE

This section presents the significant tangible and intangible heritage components of the KUR-World property. Tangible heritage means physical objects and items that can be touched, such as artefacts. Intangible heritage relates to heritage values that may have no physical presence. It refers to the practices, representations, expressions, knowledge and skills as oral histories and memories (Australia ICOMOS 2013). Both tangible and intangible heritage are recognised in the *Aboriginal Cultural Heritage Act 2003* and in the National Heritage Listing of the Wet Tropics of Queensland. The Burra Charter defines heritage as those places important because of social, archaeological, aesthetic or historic values. The primary Aboriginal heritage values on the KUR-World are social and archaeological.

9.1 The sites and artefacts

Nut cracking rocks were the primary site type identified on the KUR-World property. These artefacts located are common throughout the Wet Tropics and reflect the seed-based diet of rainforest Aboriginal people. Circular hand sized pebbles, like the one found at KUR 4, were also part of the common suite of stone tools in the Wet Tropics. Waisted axes are another common feature of rainforest tools; however, none were located during surveys except for the single axe blank located at KUR 2, which appears to have been abandoned after it cracked. It is possible that any axes that were present and visible on the site were collected by former landowners prior to the Reever and Oceans purchase. Quartz was a popular raw material for artefact use in the Wet Tropics, being both a readily available and useful material. The five flakes located during our surveys are the waste products of quartz artefact production.

Out of the 135 nut cracking holes recorded on artefacts and nut processing sites on the KUR-World property, each had a diameter between 1.5 and 3cm, except for a single hole at KUR 9 which has a diameter of 5cm. We were advised by Glen (Mario) Williams that holes of this size were used for processing black pine (*Podocarpus sp*.) and Kuranda quondong (*Eleocarpus bancroftii*). Both trees were found growing in vegetation around the creek at KUR 9.

The cluster of artefacts at KUR 4 and KUR 5 suggests this was a rainforest pocket, possibly a pre-European campsite. An open ‘pocket’ of grass can be seen in the 1942 aerial of the area, indicating this was maintained using fire as an open campsite (Fig 20). The location of further nut cracking stones to the south (KUR 1, 2, 3), and a known pocket to the north (at the current veterinarian property, recorded as part of FN-0001) provides tangible evidence for the intensive occupation of this area and supports the presence of the walking track identified by Bottoms (1990).

European explorers often used the existing Aboriginal walking tracks to ‘open’ up the rainforest. Some examples are the Palmerston Highway, a major route that linked coastal and Tableland Mamu groups, and

the Mowbray River 'Bump Track'. Historical survey plans of what is now the KUR-World property include a survey of a proposed road that ran through the five original selections (see Appendix E). This road appears to have continued in contemporary survey plans, although it was never constructed. Overlaying the location of the surveyed road with the sites located during the survey reveals this road followed the existing Aboriginal walking tracks that incorporates KUR 2, 4 and 5 (the surveyed road can be seen in black outline in Figure 20). Several Mantaka Aboriginal residents remembered accessing the Barnwell Property up until the early 1960s, using an old walking track that crossed through the centre of the property and continued to Bare Hill (Ferrier in prep). Thus, despite all the changes that have occurred on the KUR-World site since European occupation, the property provides an excellent example of the value of ethnographic and oral history information in the reconstruction of a past Aboriginal cultural landscape. A landscape which is still valued by contemporary Aboriginal people, this in turn contributes to interpretations of past Aboriginal rainforest use and occupation in the Wet Tropics.

The sites and artefacts recorded on the KUR-World property are an example of the use of toxic food processing by rainforest Aboriginal people. The potential campsite at KUR 4 and 5 presents an opportunity for archaeological investigation, to determine whether this was an Aboriginal pocket/occupation site. It was recognised by the Aboriginal party that the portable artefacts located in the cleared paddocks have lost their context and may be removed for safekeeping. However, the nut processing sites in the Owen and

Haren Creek beds should be preserved. Elements of the nut processing sites include the plants and the water as well as the pits embedded into the rocks.

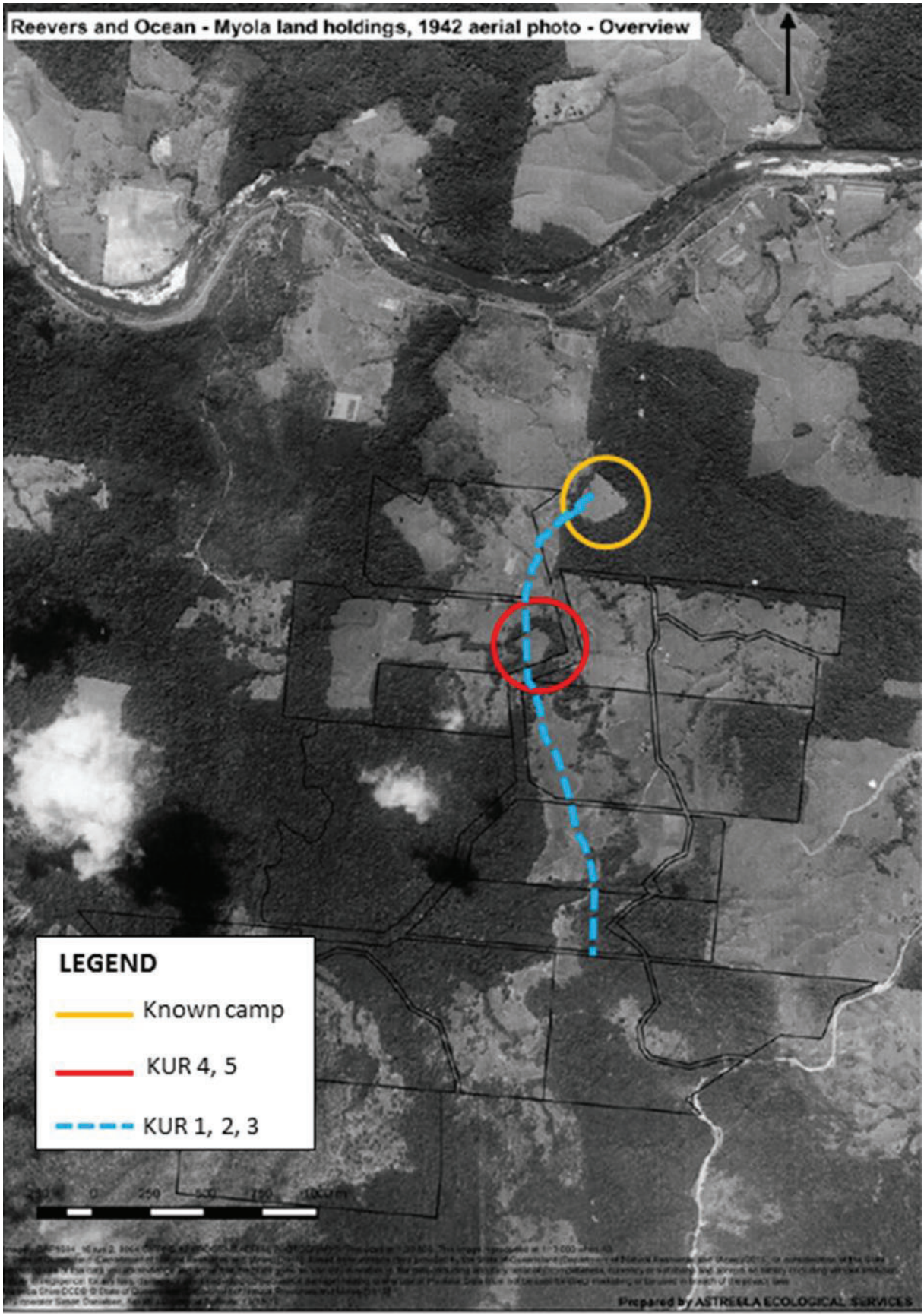

Figure 22: Sites observed in the survey overlain on 1942 aerial photograph. The known camp (yellow) is the pocket identified in FN-0001, the current veterinarian property. KUR 4,5 (red) may represent a second pocket.

9.2 The storied landscape

Over thousands of years, Aboriginal Rainforest People developed a distinctive cultural heritage that was determined among other things by the creation stories; the law of the land embedded in the landscape that the creation beings established; the ceremonial practices, the traditional food gathering; processing and land management techniques. Aboriginal Rainforest People's reliance on their oral traditions helped them survive in a sometimes inhospitable environment. Rainforest Aboriginal people developed a unique material culture that enabled them to utilise toxic plants and other resources on which they relied for their survival. In addition to the use of a unique material culture, fire was used to convert patches of rainforest into open forest and to keep walking tracks and campsites clear. These techniques were exclusive to the Wet Tropics region and have survived to the present day through stories passed on by Elders to younger generations of Aboriginal Rainforest People.

During our site surveys and interviews with the Aboriginal party and their representatives, it became clear that there are strong links between people, land and stories, some of which relate to the KUR-World property.

Of overarching significance is the presence of *Budadji*, the rainbow serpent, in all the waterways. Also, of great significance is *Boondarah*, the cassowary, whose ancestral tracks guided people across the land while showing them which foods to eat. The ancestral brothers, *Damarri* and *Guyala*, have significant links to the observance of cultural activity including details on the origin of toxic nut processing.

Stories relating to Indigenous tradition are one of the four values in the National Heritage List of the Wet Tropics of Queensland. The listing recognises the stories that link people's use of plants foods, toxic nut processing and identification of edible foods. These are considered to have outstanding heritage value to the nation. The KUR-World property, like the surrounding area, is part of the living cultural landscape and we recommend that further options are explored, with the relevant people, about how these values can be preserved throughout the proposed development. Some ideas discussed during site visits include: interpretive material, protection of environmental features of the storied landscape such as the toxic nut processing sites and, the preservation of existing species and the planting of ethnobotanical species that would once have been prevalent on the property.

One Bulwandji representative saw the KUR-World project as "an opportunity to educate people about cultural values", and raised concerns that "if people don't understand, our values could be degraded". Future work with the Aboriginal party should focus on opportunities to preserve these values in culturally appropriate ways.

10. RECOMMENDATIONS

The KUR-World property should be recognised as part of the living cultural landscape that includes significant story places, campsites, plants and animals.

10.1 High, medium and low potential for cultural heritage

There is no need to repeat ground surveys of areas that were surveyed in the production of this study where no areas of interest were found. Ground surveys have concentrated on the cleared grassy paddocks, however, not all cleared areas were inspected, as long grass restricted ground visibility in some areas. These areas still need to be surveyed. Future surveys may identify no-go zones for construction. At present the two nut processing sites identified in surveys will be protected as they are within the riparian zone. A management plan for KUR 9 should be developed that includes plants, water health and management of the nut cracking holes.

Low, medium and high priority areas for cultural heritage potential were identified using results of the surveys and oral history and consideration of past land use and are illustrated in Appendix F.

Low priority areas are places where there has been extensive land disturbance and the presence of cultural heritage material is unlikely.

One low priority area is identified. It includes the homestead, dam and market garden. Extensive ground disturbance in this area means it is unlikely that Aboriginal cultural material remains.

It is recommended that work in the low priority area can proceed without further cultural heritage consideration. However, if cultural material is found in a low priority area, the area should be cordoned off and the Aboriginal party contacted within 48 hours for advice.

Medium priority areas have had some level of disturbance, usually in association with the past pastoral and agricultural activities. Aboriginal stone tools were found on medium potential areas during ground surveys, which suggests that Aboriginal cultural heritage remains despite disturbance such as the removal of vegetation and grazing.

As shown in Appendix F, most of the paddocks in the northern part of the KUR World are considered a medium potential for Aboriginal cultural heritage. There is the potential for Aboriginal cultural material to be located under the surface in these areas. Monitoring ground disturbance is recommended.

High priority areas are the ‘hotspots’ identified during ground surveys and areas where there have been no pre-construction surveys.

High priority areas include:

- The unsurveyed southern section of the KUR World property. Ground surveys should be completed prior to construction and advice taken from the Aboriginal party on how to protect the cultural heritage values identified in this area.
- All creeks and natural water bodies. These are linked to *Gudju Gudju Budadji* and form a significant component of the Aboriginal cultural landscape.
- The possible pocket identified during ground surveys (incorporating KUR 2, 4, 4A, 5) should be disturbed as little as possible. If impacts to this area cannot be avoided, salvage excavations are recommended to locate and collect sub-surface archaeology deposits prior to construction.
- A nut cracking site on Owen Creek (KUR 9). This site should be managed in consultation with the Aboriginal party.

10.2 Develop a Cultural Heritage Management Plan

A Cultural Heritage Management Plan (CHMP) was developed with the Aboriginal party to meet the requirements of the duty of care guidelines under the *Aboriginal Cultural Heritage Act 2003* (Qld). The CHMP contains the following mitigation measures:

- Complete surveys on unsurveyed areas including all creeks and the southern side of the property.
- At least one test site for archaeological sampling of a high-risk area such as KUR 4, 5, if it will be disturbed.
- The monitoring of ground disturbance by representatives of the Aboriginal party to a depth of 300mm.
- To include the Aboriginal party in ongoing monitoring of environmental health.
- Move portable artefacts within the development zone or at risk to a place identified by Aboriginal party. This should only be done with the approval of each of the Endorsed parties to the CHMP.

'Monitoring' means Aboriginal party representatives (Monitors) are present during ground disturbance activities. The intention is that Monitors can identify Aboriginal cultural material and decide how such material should be managed. There are dual benefits in having Monitors present during ground disturbance. For the Aboriginal party, it ensures that obligations to protecting cultural heritage values are met. For the developer, it means that if Aboriginal cultural material is located, in most cases it can be dealt with on the spot and construction shut downs can be avoided,

The CHMP recommends one Monitor is engaged for each machine performing ground disturbance activities. The Monitoring Team should include at least one representative of the Aboriginal party endorsed

by the Aboriginal party to perform surface salvage collection of minor finds (defied as less than 10 artefacts, in CHMP) and who can notify the Aboriginal party of any Significant Aboriginal Areas.

The CHMP defines 'Ground disturbance' as the removal of more than 1m x 1m topsoil. Small areas of ground disturbance in medium priority areas may not require monitoring. For example, geophysical testing which typically drills holes of 10cm diameter, soil sampling and installation of underground services (such as pipes when disturbance is less than 1 metre in width) and are unlikely to impact the Aboriginal cultural resource. However, as standard practise, if Aboriginal cultural material is located during any works activities in that area should cease until advice is sought from the Aboriginal party.

Most of the Aboriginal cultural material will be in the top layer of soil. In cases where no Aboriginal cultural material has been located to a depth of 300mm, no further monitoring should be required. However, if cultural heritage material is found in the top 300mm of ground disturbance, monitoring should continue until no further material is been located.

10.3 Recognise the living cultural landscape

Consideration should be given as to how the Aboriginal cultural heritage values contained in the storied landscape can be protected, and even enhanced, through the KUR-World development. Some ideas discussed with the Aboriginal party include:

- Interpretative displays that incorporate details and use of portable nut cacking rocks found on the KUR-World property.
- Guided tours by relevant Aboriginal people of the nut processing sites, bush foods and other places of cultural interest.
- Planting of medicinal and bush tucker species.
- Expansion of the riparian zone to encourage cassowary corridors.

Involvement of Aboriginal people in the ongoing monitoring of environmental health would recognise the links between the natural and cultural landscape. It is recommended that the Aboriginal party has a presence on site that extends beyond the construction phase. The markers of cultural health described in section 8.4 could be used as a starting point to develop systems for monitoring the health of the cultural landscape in the long term.

10.4 Ancillary issues

In addition to the cultural heritage protection measures discussed, several ancillary issues were raised during site visits. Consideration should be given to:

- Facilitating the provision of timber to local Aboriginal artists for artefact production.

- Conducting a skills audit of local Aboriginal people and providing a mechanism for local Aboriginal people to apply for contracts during the management, construction and maintenance phases of the project.
- Encouraging partnerships between local Landcare groups and the Aboriginal party in environmental restoration.

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APPENDICES

Appendix A: Terms of Reference and relevant sections in this report

Section	ToR	Addressed through	Section of this report
10.5c	the location of known cultural significance on the site	DATSIP search, literature review and preliminary surveys	6
11.33f	Indigenous social and cultural characteristics, such as native title rights and interests, cultural heritage	Site survey, interviews, literature review	4, 5, 6, 7, 9
11.38c	Indigenous cultural use of the land and flora and fauna	Interviews	8
11.40	a. the outcomes of community engagement including the response of the affected communities, including Indigenous people	Interviews	8
	b. potential impacts on affected Indigenous and non-Indigenous communities including - the ability to live in accordance with individuals' own values and priorities	Social Issues Paper	-
	- the use of and access to culturally important areas and landscapes	Social Issues Paper	-
	- the ability to participate in regional and local employment and training opportunities	Social Issues Paper	-
12.8	The construction and operation of the project should aim to ensure that the nature and scale of the project does not compromise the CH significance of a heritage place or object	CHMP	9, 10
13.18	Details of any consultation with Indigenous stakeholders	Site visits, interviews, Social Issues Paper	7, 8 Appendix C
13.37	Assess and discuss all potential and likely impacts to the National Heritage values of the Wet Tropics national heritage pace including both natural and Indigenous heritage values. This must also include consultation with the Indigenous community	Desktop and consultation	5, 9, 10
13.38	Analyse the direct, indirect and consequential impacts of the action on the value of the Wet Tropics national heritage place	Surveys and interviews	9

Section	ToR	Addressed through	Section of this report
13.39	Describe mitigation and management measures proposed to protect the values of the Wet Tropics national heritage place	Developed during surveys and interviews, write up in report	9, 10
13.40	Demonstrate the project will not be inconsistent with national heritage principles, EPBC Act, Commonwealth agreement	Address in report	9, 10

Appendix B: National Heritage List Wet Tropics of Queensland World Heritage Area (Cultural Values)

Commonwealth of Australia **Gazette**

No. S169, Monday, 12 November 2012
Published by the Commonwealth of Australia

SPECIAL

Environment Protection and Biodiversity Conservation Act 1999; and
Environment Protection and Biodiversity Conservation Regulations 2000

INCLUSION OF ADDITIONAL VALUES FOR A PLACE
LISTED IN THE NATIONAL HERITAGE LIST

Wet Tropics of Queensland

I, Tony Burke, Minister for Sustainability, Environment, Water, Population and Communities,

- noting that the place known as the Wet Tropics of Queensland was included in the National Heritage List on 21 May 2007 by *Gazette* instrument under the provisions of item 1A of Schedule 3 of the *Environment and Heritage Legislation Amendment Act 2003*; and
- being satisfied that the place has additional National Heritage values as specified in the Schedule following,

under 10.01 BH of the *Environment Protection and Biodiversity Conservation Regulations 2000* include in the National Heritage List the additional National Heritage values for the Wet Tropics of Queensland as specified in the Schedule below.

Dated 9 November 2012

Signed

Tony Burke
Minister for Sustainability, Environment,
Water, Population and Communities

SCHEDULE

Name
Criteria / Values

Wet Tropics of Queensland:

	Criterion	Values
(f)	the place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period.	The technical achievements that allowed rainforest Aboriginal people to utilise toxic plants are of outstanding heritage value to the nation. They used at least 14 toxic plants as foods, an unusually large number in the Australian context. While most of these plants are distributed throughout the rainforest, each tribal group used toxic plants found within their own country. Evidence of the diverse and complex range of techniques used to process these plants remain, including ground ovens to soften toxic nuts and certain streams to leach out the toxins. These technical achievements were based on a unique material culture that made it possible to live year round in the rainforest of the Wet Tropics. Rainforest Aboriginal people developed a specialised and unique material culture to process toxic and other plants including bicornual baskets made from lawyer vine, grooved grinding slabs, crushing stones, anvils pitted with small hollows, hammerstones and polished waisted stone axes called ooyurkas. They also developed specific uses of fire to manage and alter their rainforest home, including the purposeful use of fire to alter vegetation communities and plant-specific techniques to control the lawyer vine. These cultural practices are the expression of the technical achievements that made it possible for Aboriginal people to live year-round in the rainforest of the Wet Tropics.
(i)	the place has outstanding heritage value to the nation because of the place's importance as part of Indigenous tradition	Traditions established by creation beings about the toxicity of plants and the techniques used to process toxic plants are unusual in an Australian context and are of outstanding heritage value to the nation. There are a number of traditions that describe how creation beings created and instructed rainforest Aboriginal people about the foods found in the rainforest and how to make them edible. These traditions are inscribed in the landscape at particular named places. These places and traditional law provide the conceptual framework that underpins the rainforest Aboriginal people's technical achievement in processing toxic plants.

For more information on the place search the Australian Heritage Database at http://www.environment.gov.au/cgi-bin/ahdb/search.pl using the name of the place.

Appendix C: Record of consultation

Date	Name	Discussed
3/1/17	Willie Brim	Made plan to meet next weekend.
3/2/17	Jeannette Singleton	Willie Brim best contact
3/2/17	DTAC	DTAC Board not represented on CRC, but want to be part of project.
4/2/17	Willie Brim	Willie unwell, meeting postponed.
13 & 13/2/17	Willie Brim	Left message
16/2/17	Greg Bell, Solicitor NQLC	NQLC can organise a Working Group & applicant meeting in 2-3 weeks.
16/2/17	Willie Brim	Meeting postponed, Willie unwell.
19/2/17	Willie Brim	Meeting, Kuranda, introduction to project.
21/2/17	Glen Mario Williams, CRC applicant, (call him Mario)	Phone call introduction to project.
6/3/17	Mario Williams	Notification that not coming to meeting. Might be in Kuranda on Friday. Will call me to meet up some time.
7/3/17	CRC Working Group	Nominated sub-committee to work on CHMP.
12/3/17	KUR CHMP Sub Committee	Present: Willie, Billie, Astro Brim. CRC to nominate 4-6 field workers per day.
17/3/17	Chris Richardson	Organise field work
20/3/17	KUR fieldwork – Willie+ 5, Chris + 1	Organise field work
20/3/17	Willie Brim	Said he would talk tomorrow.
20/3/17	Chris Richardson	Suggests splitting into 2 teams and working in separate weeks.
21/3/17	Willie Brim	Discuss fieldwork
21/3/17	Mario Williams	Discuss field work
21/3/17	Willie Brim	Discuss field work
23/3/17	Willie Brim	Discuss field work

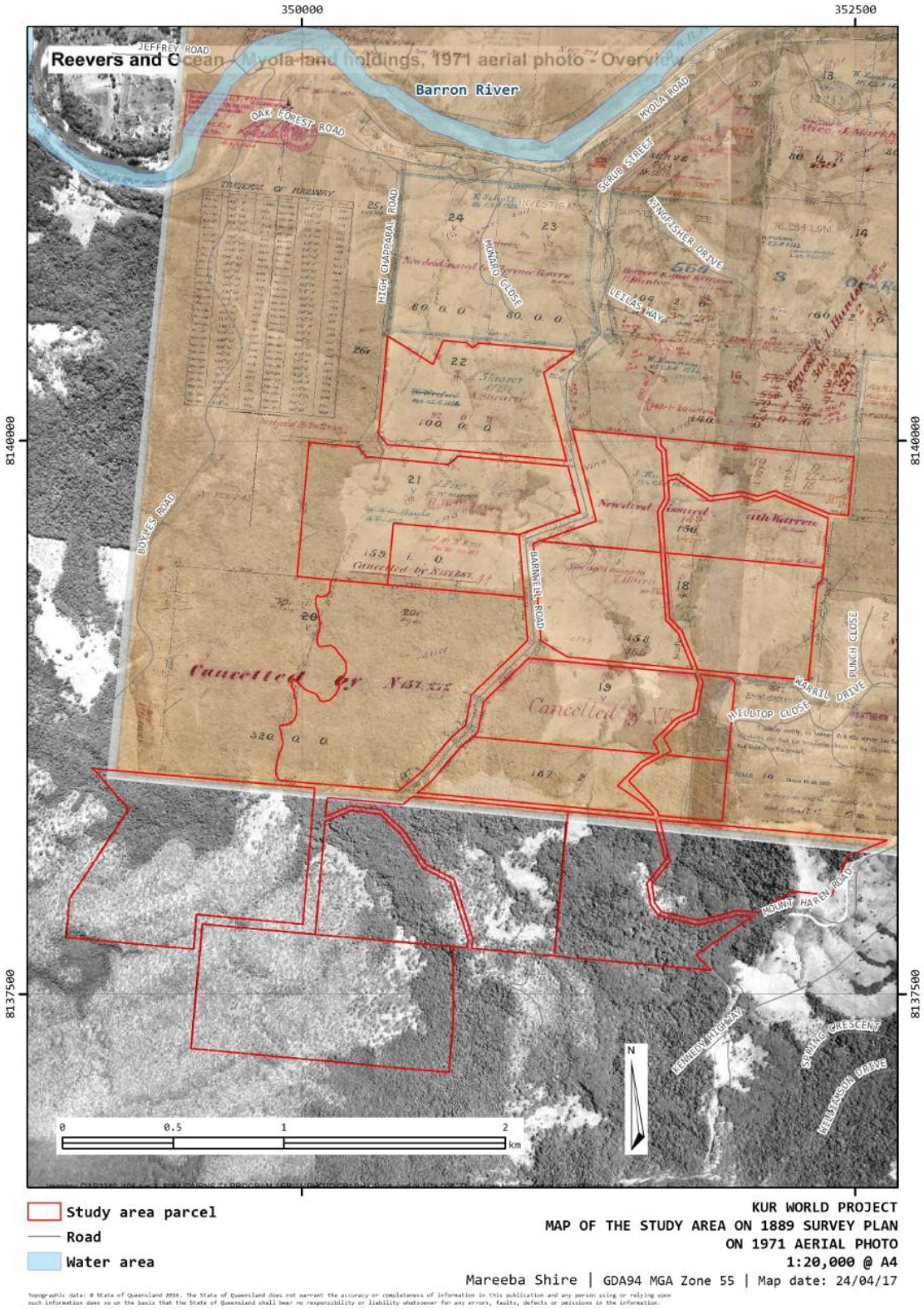
25/3/17	Mario Williams	Discuss field work
22-24 27-28 March	Willie Brim, Aden Brim, Astro Brim, Elvin Hobbler, Mitchell Brim, Billy Brim, Cecil Brim, Toby Brim	Surveys of paddocks Went through CHMP in detail
29-30 March	Chris Richardson, Mario Williams, Brandon Richardson, Errol Hunter, Noel Newberry, Peter Donahue, Daniel Bounghi, Warrick Newberry	1. Tour of property by Neil Boland 2. Went through CHMP

Appendix D: Sites recorded

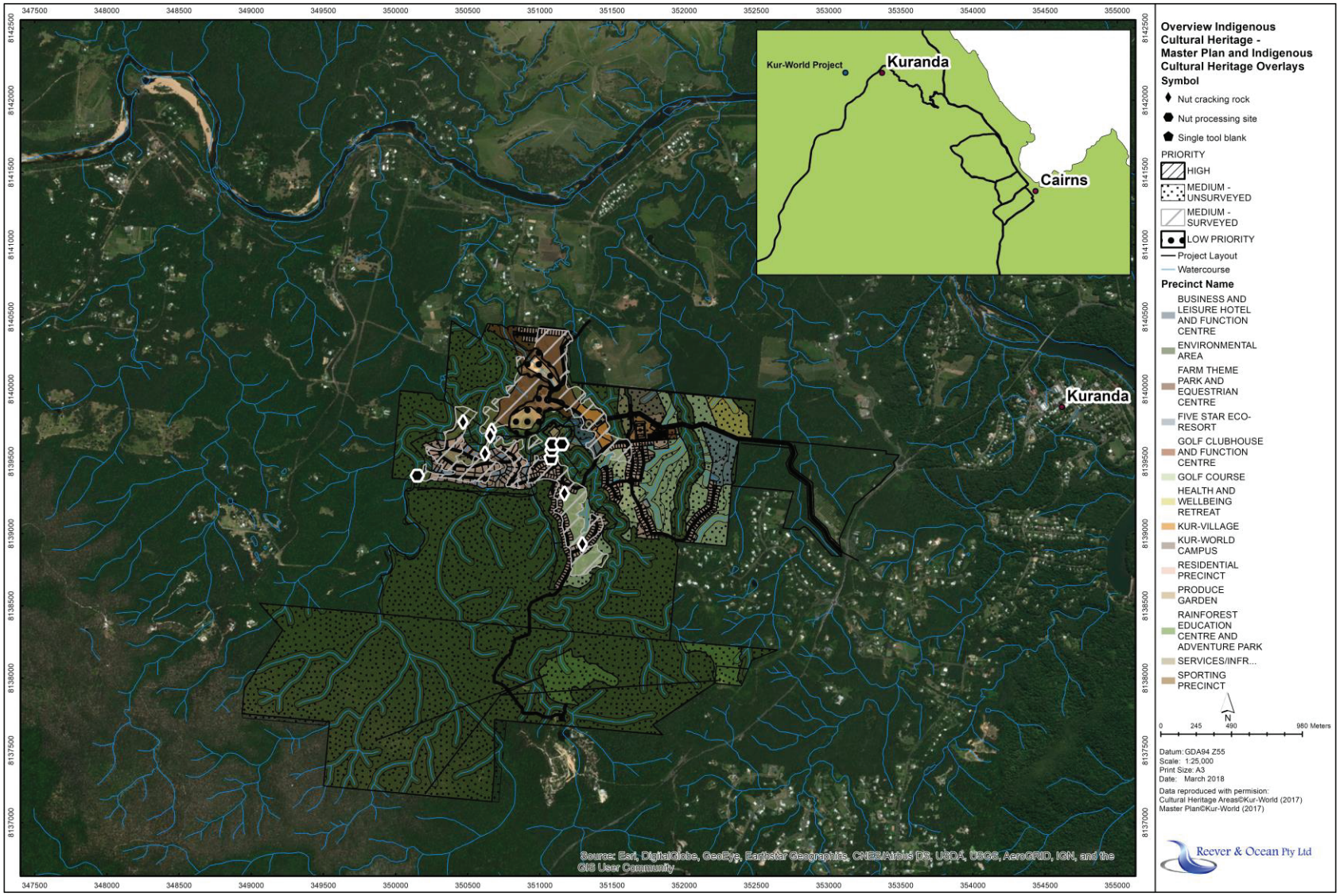
ID	Attribute	Location	Description	Dimensions	Comment
KUR1	Nut cracking rock	0351297 8138922	Single rock, 8 pits one side, each 2-3cm diameter. Located near 2 mango trees with evidence of European occupation.	21.5 x 13 x 9cm	Association with European occupation site means may have been moved here.
KUR2	Tool blank	0351081 8139525	Looks like a waisted tool was started but the rock cracked and the rock discarded.	15max width 19.5 length 5cm thick	Size and rough shape matches a typical waisted rainforest axe.
KUR3	Nut cracking rock	0351170 8139280	2 pits on one face, one 2cm, one 3cm diameter.	26 x 19.5 x 8cm thick	Found set into the road, on a ride in highly disturbed landscape.
	3 quartz artefacts		Artefacts are a flake, a bipolar core and an angular fragment		Found a few metres uphill of nut cracking rock.
KUR4	**A.** Top stone - manuport	0351081 8139580	Near circular, fits neatly into hand, one edge flattened	8.5 x .5 max dimensions, 4cm thick	River stone, moved here. Looks like came up when tree ripped out. Typical rainforest pounder
	B. Nut cracking stone	0351085 8139621	Triangular shaped, 10 pits on one face (max 3cm, min 1.5cm. most 2cm) 6 pits on 2nd face (5 are 2cm 1 is 1.5cm diameter) in poor condition.	14 x 19.5 x 19.5 x 4.5cm and 7.5cm thick	20m downhill of Top stone
	C. Nut cracking stone		In 2 pieces, hit by machinery and split. One face has 8 pits all between 1.5 and 3cm diameter. 2nd face has 5 pits, 2-3cm in diameter.	Together the pieces measure 23 x 15cm	
	D. Nut cracking stone		Square shaped with 8 pits. Buried in ground, only top bit poking out. Pits 2-2.5cm diameter	26 x 24cm and between 4 and 14cm thick	Found on subsequent inspection, with 2nd group

ID	Attribute	Location	Description	Dimensions	Comment
KUR5	Nut cracking site in creek bed	0351153 8139620	Over 40 pits in the rocky creek bed of Haren Ck. 2 possible grinding grooves. 35 pits on main rock ledge, 5 pits on opposite side of creek	Rocky platform at 5m across, 7m long.	Pandanus, running water, river gum, *lomandra* and raspberry. Pits fairly weathered. Sedimentary rock. Flat areas on either side of creek. Appears to be same raw material as nut cracking rocks.
KUR6	**A.** Nut cracking rock	0350667 8139715	4 pits on one face, all 2.5-3cm diameter. 2nd face, pits very faint and edges hard to discern – 5 pits	27 x 18 x 5cm thick.	
	B. Nut cracking rock		5 pits, 2 x 3cm, 2 x 2.5cm	14 x 22cm	3m towards creek from 6A
	C. 2 quartz flakes				15m uphill/upstream from nut crackers
KUR7	Nut cracking rock in creek bed	0350655 8139678	3 pits on one face, 2 x 2.5cm, 1 x 3cm	28 x 27 x 6.5 thick	Close to KUR6. Found on creek bank downstream of weir
KUR8	**A.** Nut cracking rock on ridge in cleared paddock	0350467 8139773	8 pits on one face in 'daisy' shape 2 pits on side edge. Pits on top face 4 x 3cm 3 x 2cm	17.5 x 14.5 x 5 cm	
	B. Nut cracking rock	15m east	2 pits, one 2.5cm, one 1.5cm	17 x 16cm	
KUR9	Nut cracking rock in creek bed below natural rock bar	0350150 8139403	We counted 13 holes on main rock, 2 holes on a smaller adjacent rock downstream (south). Most pits measure 2.5-3cm diameter, one is 5cm diameter	Not measured, main rock face approx. 4 x 2 m	Plants noted nearby: *podocarpus* (black pine), *lomandra*, lawyer cane, and Kuranda quondong (*Endiandra bancroftii*). Slate and quartz naturally in creek
KUR10	Nut cracking rock	0350620 8139554	Two pits on one face, measure 2cm diameter.	20 x 17 x 6.5cm	

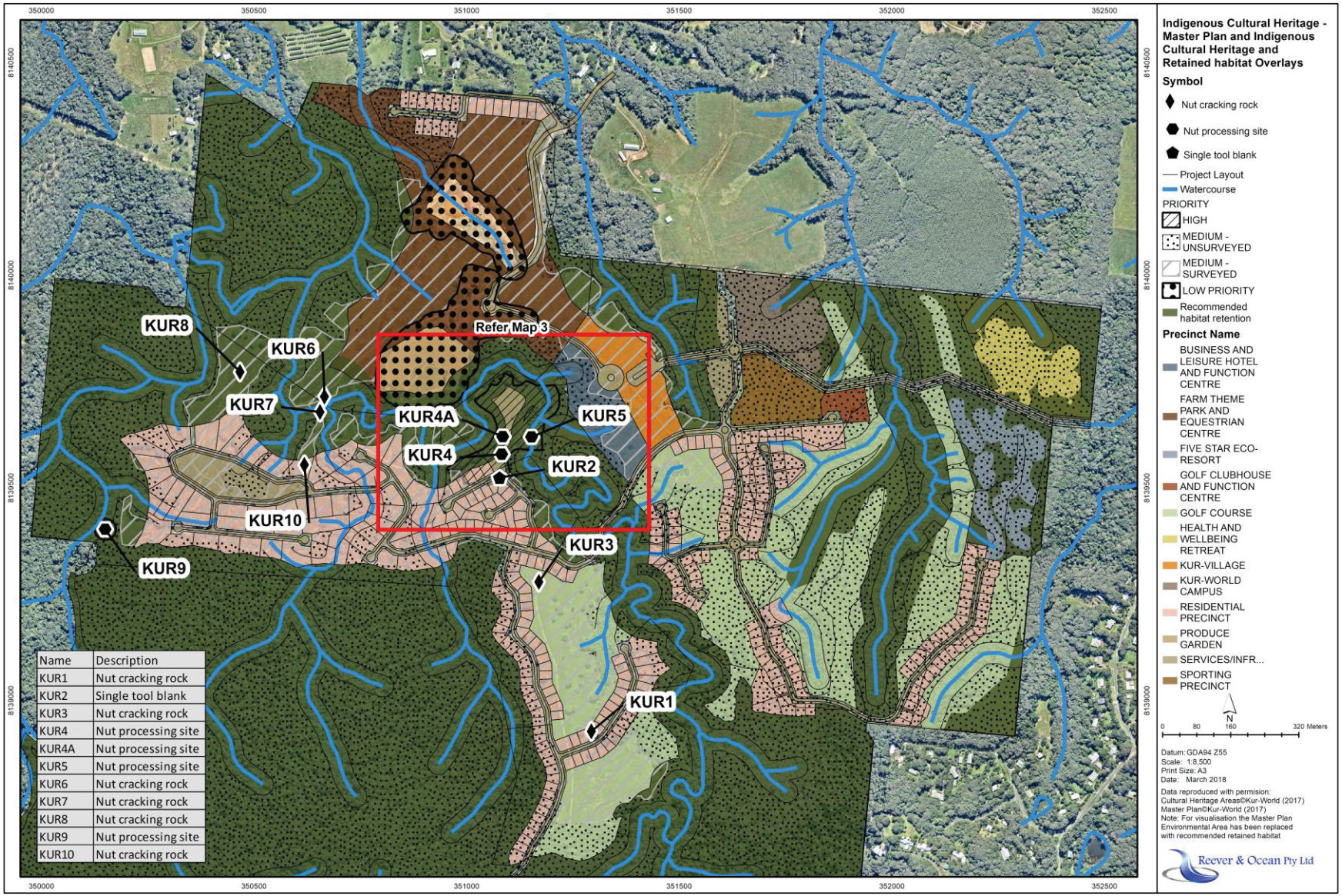
Appendix E: Survey plan dated 1889 showing original selections, proposed access road, overlayed on aerial photograph, dated 1971



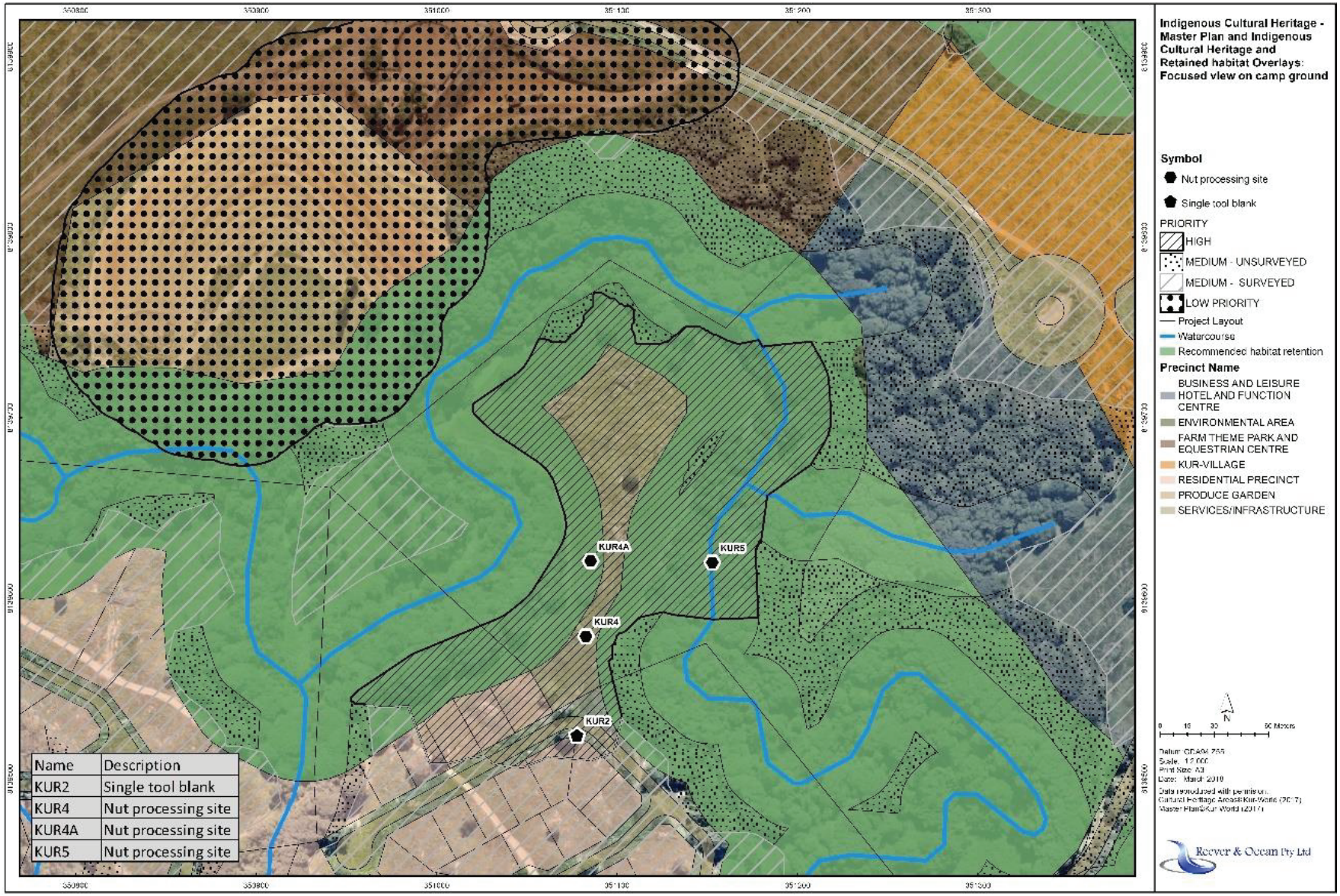
Appendix F: Location of KUR-World recorded sites and low medium and high priority areas



Map 1. Location of KUR-World recorded sites and low medium and high priority areas- Regional Context



Map 2. Location of KUR-World recorded sites and low medium and high priority areas- Development Context



Map 3. Detail of potential camp ground.