

# **Technical Paper**

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Proposed Cultural Events Site, Tweed Valley Way and Jones Road, Yelgun, NSW far north coast

# Cultural heritage assessment

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Prepared for: North Byron Parklands PO Box 517 Bangalow NSW 2479

A project of: Billinudgel Property Pty Ltd (Billinudgel Property Trust)



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# **EXECUTIVE SUMMARY**

#### Introduction

North Byron Parklands proposes to establish a purpose-built venue for a range of events involving the temporary gathering of people for cultural purposes (including temporary on-site camping for some events). The location of events, carparking and camping within the 155.91 hectare site would vary according to the size of the event. In addition to event infrastructure (event laneways, water supply, wastewater services to toilet and shower amenities, camp kitchens, shelter areas etc), the proposal includes the construction of a Conference Centre and a Cultural/Administration Centre, and a spine road connecting the northern and southern parts of the site. The proposed Land Use Structure Plan was designed to avoid all known Aboriginal sites/areas of cultural heritage sensitivity as well as all areas of native vegetation/fauna habitat value, such that most of the study area comprises cleared pasture lands that would require minimal modification.

Approval for the project is being sought under Part 3A of the Environmental Planning and Assessment Act 1979.

This cultural heritage assessment was commissioned by North Byron Parklands on behalf of Billinudgel Property Trust (Billinudgel Property Pty Ltd) and addresses Part 8 of the NSW Department of Planning (DoP) Director-General's Environmental Assessment requirements. The methodology included Aboriginal stakeholder consultation and involvement, literature review, heritage register searches, field survey and archaeological test excavations, to identify impacts on Indigenous and non-Indigenous heritage values and develop management recommendations aimed at preserving these values.

#### Environmental context

The study area is situated at least 2.1 kilometres inland of the ocean, where it straddles an elevated ridge (Marshalls Ridge) that falls from the inland ranges to the coastal sand plain. The undulating crest of Marshalls Ridge is largely followed by Jones Road. The proposed spine road would cross a narrow saddle on the ridge, virtually all of which has been substantially disturbed by the construction and maintenance of Jones Road.

A series of spurs extends to either side of Marshalls Ridge, providing a number of low, well-drained peninsulas of land that interfinger with former wetlands. South of Marshalls Ridge, isolated spurs also extend into former wetlands on the northern and southern boundaries of Yelgun flats. A second ridge system, separated from Marshalls Ridge by the Crabbes Swamp flats, occupies the north-western section of the study area. Most of the elevated lands have been logged and/or cleared in the past and now support either grazing pastures or regrowth forest.

Although some parts of the ridges and spurs would be affected by construction of the spine road, Conference Centre and event area, the study area is overwhelmingly dominated by low-lying floodplains associated with the Crabbes Swamp and Yelgun flats. The flats have been drained, cleared and developed for agricultural purposes, including past sugar cane production and present cattle grazing.

#### Aboriginal cultural heritage

Eight Aboriginal stakeholders/stakeholder groups registered an interest in this assessment as a result of implementation of the *Interim* Aboriginal Community Consultation Requirements for Applicants (DEC 2004) and draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC 2005). One of these subsequently withdrew their stakeholder interest.

The proposed Land Use Structure Plan, Aboriginal cultural heritage issues and significance values, potential impacts of the proposal on these values, and preferred impact avoidance and mitigation strategies were discussed during field inspections conducted with the stakeholder representatives. As a result of these discussions, it was resolved that archaeological test excavations should be undertaken on the proposed spine road corridor inland of the registered Yelgun flat 1 open campsite/artefact scatter. The recommended test excavations were duly completed with stakeholder assistance.

The Aboriginal stakeholders hold Marshalls Ridge to represent a traditional pathway used to access ceremonial sites on the coastal plain at Wooyung. Due to their perceived connection with this traditional transit, artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. However, the stakeholders advised that, to their knowledge, the proposal would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials) the proposed spine road cut and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

The natural environment offered shelter, food and other resources to its traditional inhabitants. The remaining forests at Yelgun provide a physical link with the traditional past, and conservation of these forests and their biodiversity is integral to maintaining contemporary sociocultural values. Development of the cultural events venue would not impact upon any of the natural forest areas and existing biodiversity would be maintained and potentially enhanced by a program of forest restoration and weed removal. Given that appropriate steps would be taken to exclude unauthorised human access during cultural events, the Aboriginal stakeholders agreed that the proposal would not affect the socio-cultural values of the natural environment. Although the Land Use Structure Plan was designed to avoid all registered Aboriginal site locations, the archaeological test excavations revealed a disturbed low-density occurrence of artefacts within the proposed spine road corridor inland of, and associated with, the registered Yelgun flat 1 campsite/artefact scatter. Considering the high level of existing disturbance, low artefact density, and the low (if any) additional impacts likely to be sustained as a result of the spine road construction (to be established on over-ground fill), no Aboriginal cultural heritage constraints to development of the cultural events venue were identified providing the following recommendations are implemented:

- 1, To preserve the socio-cultural significance of the Yelgun flat 1 campsite and its surrounds, it is recommended that the section of spine road subject to the test excavations be constructed on over-ground fill (as proposed by North Byron Parklands) to avoid any further substantial disturbance of Aboriginal artefacts within this area. To avoid impact on adjoining sections of the spur (which are similarly likely to contain subsurface artefacts) all heavy machinery activities should be confined to the spine road corridor itself within this particular area.
- 2. The proposed protection of all registered Aboriginal site locations in close proximity to the study area, and areas containing natural forest both outside and within the study area boundaries (consistent with the Land Use Structure Plan), should be upheld. Given that permanent fencing is not feasible, this protection should include the erection of internal portable human exclusion fencing to separate event patrons from these areas, and the engagement of security officers to ensure that the fences are not breached. Measures to be implemented in this regard should be detailed in the Event Management Manual.
- 3. Any signage referring to Aboriginal sites and values should only be developed, finalised and installed with the agreement of all Aboriginal stakeholders (or their authorised representatives).
- 4. All Aboriginal stakeholders (or their authorised representatives) should be involved in planning and use of the proposed Cultural Centre as far as Aboriginal cultural heritage is concerned.

To address Recommendations 3 and 4, North Byron Parklands should convene meetings with all Aboriginal stakeholders (or their nominated representatives) together (ie same time and place), to arrive at acceptable signage and placement of this signage (if any) within the cultural events site, and to reach a memorandum of understanding (MoU) in regards to development and operation of the Cultural Centre, including the public display and dissemination of Aboriginal cultural heritage information, opportunities for Aboriginal employment, and the content and conduct of any associated activities [eg Aboriginal cultural tours].

- 5. To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks should be advised of their legal and moral obligations with respect to Aboriginal cultural heritage as part of the required site induction. The following measures would need to be implemented in the event of any identified or suspected Aboriginal objects (as defined under the *National Parks and Wildlife Act 1974*) being detected during any stage of works associated with development of the cultural events venue.
  - \* All disturbance in the vicinity of the find should immediately cease and temporary protective fencing be erected around the find to define a 'no-go zone'.
  - \* North Byron Parklands should contact the Aboriginal stakeholders and the project archaeologist to inspect the find so that appropriate actions and management recommendations can be formulated. If the find consists of or includes possible or identified Aboriginal skeletal remains, the DECCW Environmental Line (ph 131 555) and the NSW Police Department should be additionally contacted.
  - \* Work may proceed at an agreed distance from the find, in consultation with the Aboriginal stakeholders and the project archaeologist.
  - \* If the find is identified as an Aboriginal object, work causing any disturbance or destruction of the object should not recommence until appropriate actions and management recommendations have been implemented, and clearance has been given by the Aboriginal stakeholders and the project archaeologist (as well as the DECCW if deemed warranted).
- 6. As requested by the Tweed Byron Local Aboriginal Land Council, the Aboriginal stakeholders should be informed ahead of any soil disturbance associated with the proposed development.

#### Non-Indigenous cultural heritage

Records indicate that lands within the study area were not selected until the early 1890s. Airphotos and the present vegetation structure reveal extensive past land clearance of Marshalls Ridge and its fringing spurs down to the edge of the paperbark wetlands (ie Crabbes Swamp and Yelgun flats), probably for the purposes of dairy cattle grazing. A dairy farm that included a house and milking shed still stood on the south-western spur of the study area in 1947. Historic and more recent documentary, field survey and oral evidence points to a long history of timber harvesting in the study locality, extending into the post-World War II years.

While grown on a small scale from as early as the 1880s, bananas only came to economic importance after World War II, when they compensated for a decline in dairying. Sections of the ridges and spurs adjacent to the study area supported banana plantations into the recent past, at which time the Crabbes Swamp and Yelgun flats were widely planted with sugar cane.

The study area was never substantially developed in terms of the built environment. Rather, historical non-Indigenous uses centred on timber harvesting, dairy farming and agricultural activities that most likely commenced in the last quarter of the 19<sup>th</sup> century, but were not well established until the early 20<sup>th</sup> century. Searches of statutory and non-statutory heritage registers revealed no listed historic heritage sites or places in the study area, and no potentially unregistered significant historic sites/places were identified during the course of background research.

Thirteen items of potential non-Indigenous heritage value were recorded during the field survey. These include planted trees (designated NBP H-1), and twelve standing dead tree stumps (NBP H-2 to H-13) that reflect the hand-felling of large mature trees and use of springboards to reach the cut-off point.

Site NBP H-1 comprises an avenue of eight small-fruited fig tees (*Ficus macrocarpa*) fringing the former driveway to the farmhouse that once stood on the summit of the south-western spur. The trees were most likely planted during the first half of the 20<sup>th</sup> century when the property functioned as a dairy farm. The spine road would be constructed within a gap between the trees, such that the site would not be affected by the proposed development. Although apparently planted by a past dairy farmer, the fig tree avenue is not considered to meet any of the significance criteria advocated by the NSW Heritage Council for local or State heritage listing. Even so, the fig tree avenue is of local historical interest, contributes to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.

The NBP H-2 to H-13 tree stumps feature between one and five springboard notches, and are believed to be the products of late 19<sup>th</sup> and/or early 20<sup>th</sup> century timber extraction. Survey for these items was not exhaustive, and there is little doubt that additional notched stumps will occur within the forested north-western corner of the study area. Although demonstrating incidental characteristics of a class of the local area's cultural places (early timber-getting activities), the degraded condition of most of the stumps detracts from their representative value, and none are assessed to meet the threshold required for heritage listing at either the local or State level. Despite this assessment, the notched tree stumps are of local historical interest, contribute to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.

While there are no known non-Indigenous cultural heritage constraints to development of the cultural events venue it is recommended that:

- 1. To preserve localised historical values and interests, the planted fig trees (NBP H-1) and notched tree stumps (NBP H-2 to H-13, plus any other examples within the north-west forest) be retained *in situ*.
- 2. To facilitate public appreciation of the non-Indigenous historic cultural environment, background historic educational information and information specific to the study area (including timber harvesting history and evidence of this provided by the notched tree stumps) be presented in the Cultural Centre.
- 3. To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks be advised of their legal and moral obligations with respect to non-Indigenous cultural heritage as part of the required site induction. Should any items of potential non-Indigenous cultural heritage value be discovered or exposed during any stage of the proposed development, all works must immediately cease in the vicinity of the find. The NSW Heritage Office should then be contacted for management advice and clearance given before work resumes in the subject locality.

# 1 INTRODUCTION

#### 1.1 Purpose and scope of this assessment

North Byron Parklands proposes to establish a world-class sustainable cultural events venue within an enhanced ecological setting at Yelgun, on the NSW far north coast. This cultural heritage assessment was commissioned by North Byron Parklands on behalf of Billinudgel Property Trust (Billinudgel Property Pty Ltd) in respect of a concurrent Concept Plan and Project Application Environmental Assessment (EA) for the project, to be assessed under Part 3A of the *Environmental Planning and Assessment Act 1979*.

In line with Part 8 of the NSW Department of Planning (DoP) Director-General's EA requirements (issued on the 25<sup>th</sup> of August 2009), this report:

- Identifies whether the site has significance to Aboriginal cultural heritage and recommends appropriate measures to preserve any significance. In doing so, the assessment addresses the information and consultation requirements of the draft *Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation* (DEC 2005) and the *Interim Community Consultation Requirements for Applicants* (DEC 2004).
- 2) Identifies the nature and extent of impacts on Aboriginal cultural heritage values across the site.
- 3) Describes actions that will be taken to avoid or mitigate impacts on Aboriginal cultural heritage values.
- 4) Identifies any items of non-Indigenous heritage significance and, where relevant, provides measures for the conservation of such items.

## 1.2 Location of the proposed cultural events site ('the study area')

The proposed cultural events site comprises 155.91 hectares of land in the north-east corner of the Byron Shire on the NSW far north coast. It is situated east of the Pacific Highway and Tweed Valley Way, and is traversed by Jones Road (Marshalls Ridge). The southern portion of the area lies close to the inland extent of the Billinudgel Nature Reserve (Figure 1).

#### 1.3 Project proposal

The proposal aims to provide a purpose-built venue for a range of events involving the temporary gathering of people for cultural purposes (including temporary on-site camping for some events). The location of events, carparking and camping within the site would vary according to the size of the event, up to the maximum 100 percent capacity shown on Figure 2. Associated infrastructure would comprise event laneways, water supply and wastewater services to amenities, including toilet and shower facilities, and ancillary facilities such as camp kitchens, shelter areas and camp stores. The proposed Land Use Structure Plan (Figure 2) was designed to avoid all known Aboriginal sites/areas of cultural heritage sensitivity as well as all areas of native vegetation/fauna habitat value, such that most of the study area comprises cleared pasture lands that would require minimal modification.

The proposal also includes the construction of a Conference Centre adjoining the event area in the north-west, and a Cultural/Administration Centre adjoining the event area just north of Jones Road (cf Figure 2). The conference building would be located within a precinct that would include an open-air amphitheatre and cabin style accommodation units. The Cultural Centre would service both local Aboriginal and European culture and history, and would comprise a public interactive area, offices, workshop areas for youth training, and a depot for the Madhima Gulgan rainforest restoration team. This centre would also serve as the home base for eco/Indigenous programs, activities and attractions, including ecological and cultural walks and tours. An endemic seed bank and nursery would be developed in conjunction with the Cultural Centre to propagate rainforest and Indigenous 'bush tucker' plants (Connelly 2009:17).

The project would require construction of a two-lane spine road across Jones Road/Marshalls Ridge to connect the northern section of the property with the Tweed Valley Way in the south-west. The spine road would provide essential access to the event area and the Conference

and Cultural Centres north of Jones Road, and would facilitate continuing agricultural use of the land over the larger part of the year. To minimise vehicle traffic during cultural events, a grassed walking track would follow the eastern boundary of the spine road between the southern car park and the northern event area. To reduce the width of impact, it is proposed to construct the spine road and adjacent walking track across Marshalls Ridge using a cut and overfill tunnel methodology. Elsewhere, the spine road would be constructed on fill placed over the existing ground surface.





Figure 1. General location of the study area







Legend:



Extents of Application Area (Dashed)

Spine Road (7m wide) \_\_\_\_\_ Event access lane (6m wide) \_\_\_\_ Main pedestrian route





Event Area Conference Centre Uses

Sources | Aerial Photography: Bill Mills (2009) | Cadastre: Ardill Payne (2009) | Major contour = 5m | Minor contour = 1m

Cultural Centre/Administration Uses



1:8000 (@ A3)

Prepared by

#### design team ink

North Byron Parklands | Tweed Valley Way & Jones Road

Figure 2. Proposed Land Use Structure Plan

**IMPORTANT NOTE |** Cadastral information is subject to survey. The alignment of the aerial photograph and vectorial overlays is approximate only. This plan is <u>conceptual only</u> and subject to detailed survey and design.

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# 1.4 Legislative and planning context

Approval for the project is being sought under Part 3A of the *Environmental Planning and Assessment Act 1979*, which provides an approval process specific to major projects in NSW. As a major project, the consent authority is the NSW Department of Planning.

Under the auspices of Part 3A (Section 75U of the EP&A Act), authorisations for an approved project, including Aboriginal Heritage Impact Permits under Part 6 of the *National Parks and Wildlife Act* 1974 (and the *National Parks and Wildlife Amendment Act* 2010, to be fully implemented on the 1<sup>st</sup> of October 2010), and Division 8 of Part 6, Part 4 and Section 139 of the *Heritage Act* 1977 are not required for development-related works that may impact upon cultural heritage. However, the Department of Planning (DoP) will take account of heritage issues and consult with the Department of Environment, Climate Change and Water (DECCW) and the NSW Heritage Council to ensure that any such issues are duly considered prior to granting project approval. In the absence of the requirement for the usual agency authorisations, North Byron Parklands will need to manage cultural heritage issues in accordance with the specific conditions of development approval imposed by the Minister for Planning. These may include the management recommendations presented in Section 9 of this report.

Consistent with the EA requirements advised in correspondence received from Chris Wilson, Executive Director Major Project Assessments on behalf of the DoP Director-General (dated 25<sup>th</sup> of August 2009), the DoP was notified that archaeological test excavations would be necessary on a section of the proposed spine road inland of the registered #4-2-114/115 (Yelgun flat 1) artefact scatter to fully determine project impacts on this site. In line with the Part 3A exemption provisions, an Aboriginal Heritage Impact Permit under Part 6 of the *National Parks and Wildlife Act 1974* was not required to authorise these test excavations.

## 1.5 Assessment personnel

The field investigation and assessment was conducted by qualified cultural heritage consultant/archaeologist Jacqueline Collins (MAACAI), assisted and informed variously by Aboriginal stakeholders/nominated stakeholder representatives Cyril Scott (Tweed Byron Local Aboriginal Land Council), Jackie, Levi and Adam McDonald, Yvonne Stewart (Arakwal Elders Aboriginal Corporation), Todd Browning and Gaven Ivey (Madhima Gulgan Community Association), Troy Anderson (Numbahging Traditional Owners Group), Harry Boyd (Ngaraakwal/Githabul Elder), Athol Compton and Lois Cook. Background non-Indigenous historical research and consultation was undertaken by John Seckold (BA, Dip. Teach) on behalf of the consultant. The report was written by Jacqueline Collins.

# 2 ENVIRONMENT AND LANDUSE EFFECTS

The study area is situated at least 2.1 kilometres inland of the ocean, where it straddles an elevated east-trending ridge (Marshalls Ridge) that falls from the inland ranges to the coastal sand plain little more than a kilometre from the beach. The undulating crest of Marshalls Ridge is largely followed by Jones Road. The proposed spine road and adjacent walking track would cross a narrow saddle on the ridge, virtually all of which has been substantially disturbed by the construction and maintenance of Jones Road.

A series of spurs extends to either side of Marshalls Ridge, providing a number of low, well-drained peninsulas of land that interfinger with former wetlands. South of Marshalls Ridge, isolated spurs also extend into former wetlands on the northern and southern boundaries of Yelgun flats. A second ridge system, separated from Marshalls Ridge by the Crabbes Swamp flats, occupies the north-western section of the study area. This system reaches a maximum elevation of 90 metres AHD on the summit of a prominent rainforested knoll outside the north-western boundary. Spurs radiate into the study area from this summit, but are generally higher than those further south, and descend to the flats almost three kilometres from the beach. The ridges and spurs form part of the Billinudgel soil landscape, a landscape of low rolling hills based on metamorphic rocks of the Neranleigh-Fernvale Group (greywacke, slate, phyllite and quartzite), which have decomposed to produce low fertility yellow podzolic soils (Morand 1996). Natural surface stone is abundant in places, and includes coarse-grained greywacke and quartzite cobbles and tabular fragments. The ridges and spurs offer a wide range of aspects and associated exposure to the sun and prevailing winds (Navin 1990:9). Low-gradient land is generally confined to ridgeline crests and saddles, and the mid and lower

sections of the spurlines. Remnant vegetation suggests that the ridges and south-facing spurs were once covered in a closed, predominantly wet sclerophyll forest (Hogg 1986, Gilmore *et al* 1986 cited in Navin 1990:9), while spurs with a northerly aspect supported a drier open forest and woodland (cf Benwell 2001). While some mature trees remain, most of the elevated lands have been logged and/or cleared in the past and now support either grazing pastures or regrowth forest with an open understorey and ground cover of ferns and grasses. Initial land clearing is believed to have been undertaken to make way for dairying (Benwell 2001).

Although some parts of the ridges and spurs would be affected by construction of the spine road, Conference Centre and event area, the study area is overwhelmingly dominated by low-lying floodplains associated with the Crabbes Swamp and Yelgun flats to the north and south of Marshalls Ridge respectively. The Crabbes Swamp flats form a variant of the Kingscliff soil landscape and are composed of an extremely low, level, Pleistocene sand sheet (which appears to be very thin when present at all) overlying peat and alluvial deposits (Morand 1996). The soil is of low fertility, with a permanently high water table. Prior to the excavation of a network of farm drains, the flats would have been subject to localised waterlogging (Morand 1996). At least some parts of the Crabbes Swamp flats are known to have been cultivated (sugar cane) and are currently grazed by cattle. As a result of agricultural and pastoral activities and drainage management, the flats now support a dense low and even sward of exotic pasture grasses interspersed in places by remnant pockets of regrowth swamp sclerophyll and sub-tropical floodplain forest (Fitzgerald 2007:4).



View west along Marshalls Ridge/Jones Road crest towards saddle to be affected by spine road construction.



Erosion exposure on footslope of spur between Marshalls Ridge and Crabbes Swamp flats (immediately north of site #4-2-167 to be preserved).



Erosion exposure on footslope of spur in north-western section of the study area, to be affected by spine road construction.



Typical landform and drainage, Crabbes Swamp and Yelgun flats.

Yelgun flats south of Marshalls Ridge grade east from alluvial clays associated with the Crabbes Creek soil landscape to the poorly-drained Pleistocene sand depressions of the Pottsville soil landscape (Morand 1996). Permanently high water tables, waterlogging and ponded water are typical characteristics. Yelgun flats have been drained, cleared, and developed for agricultural purposes, including past sugar cane

production and present cattle grazing. Like the Crabbes Swamp flats, Yelgun flats are believed to have once been covered by paperbark wetlands (Benwell 2001) established on accumulating fluvial sediments along the changing channels of Crabbes, Billinudgel and Yelgun Creeks (cf Jarrett 1908).

# 3 ABORIGINAL INVOLVEMENT AND CONSULTATION

# 3.1 Compliance with the Interim Aboriginal Community Consultation Requirements for Applicants and draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation

The Interim Aboriginal Community Consultation Requirements for Applicants (DEC 2004) and draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC 2005) prescribe requirements in relation to Part 3A (EP&A Act) approvals and the preparation of applications for AHIPs under Part 6 of the National Parks and Wildlife Act 1974. In summary, these requirements outline a number of steps that need to be taken to ensure that a transparent and informed Aboriginal consultation process is implemented prior to issue of the relevant approval/s.

Given that North Byron Parklands commenced meetings with Aboriginal people as early as 2008 (cf Connelly 2009:21), and that notification and advertising was completed prior to the 12<sup>th</sup> of April 2010, there was no requirement to implement the recently released *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010; cf 'Transitional arrangements').

#### Notification and registration of interests

In accordance with the consultation requirements, notifications of the development proposal and the consultant's intention to prepare this cultural heritage assessment were mailed to the organisations listed below, inviting the registration of groups and/or individuals wishing to be involved in the assessment process. The list of potential stakeholders was provided by the DECCW on the 19<sup>th</sup> of January 2010 in response to a request by the consultant.

- Tweed Byron Local Aboriginal Land Council
- Arakwal Aboriginal Corporation
- Gold Coast Native Title Group
- Bundjalung Elders Aboriginal Corporation
- Bundjalong Tribal Society
- Jarjum Centre Incorporated
- Cubawee Aboriginal Corporation
- Shared Vision Aboriginal Corporation
- Nunger Aboriginal Corporation
- Nungera Co-operative Society
- Bunjum Co-operative Society
- Tweed Aboriginal Co-operative Society
- Gidabel Aboriginal Corporation
- Numbahging Traditional Owners Group
- Kurracheee Co-operative Society
- Nganduwal Descendents
- Burabi Aboriginal Corporation
- Tweed Shire Aboriginal Advisory Committee
- NSW Native Title Services
- The General Manager, Byron Shire Council
- Registrar of Aboriginal Owners, NSW Department of Aboriginal Affairs
- Department of Environment, Climate Change and Water

On the 4<sup>th</sup> and 9<sup>th</sup> of February 2010 newspaper notices were published in the Tweed Shire Echo and the Byron Shire Echo respectively, inviting interested Aboriginal parties to contact North Byron Parklands to formally register their interest in the assessment by the 25<sup>th</sup> of February 2010.

Responses were received from the following organisations and individuals, who were endorsed as registered stakeholders:

- Tweed Byron Local Aboriginal Land Council (TBLALC)
- Yvonne Stewart (CEO, Arawkal Elders Aboriginal Corporation)
- Jackie McDonald and family (also on behalf of Joyce Summers)
- Troy Anderson (spokesperson, Numbahging Traditional Owners Group)
- Harry Boyd (Ngaraakwal/Githabul Elder)
- Lois Cook (spokesperson, Burabi Aboriginal Corporation)
- Madhima Gulgan Community Association
- Athol Compton

Athol Compton subsequently withdrew stakeholder interest in the assessment.

#### Assessment methodology

As required, the draft assessment methodology (including the methodology subsequently implemented for the archaeological test excavations) was mailed to the registered stakeholders, seeking comments with a view to informing and refining this methodology. The draft methodology was accepted unmodified by all stakeholders.

#### Drafting, review and report finalisation

Draft copies of this report were supplied to the registered stakeholders for review and comment prior to its finalisation.

Correspondence received from the TBLALC (Cyril Scott), Arakwal Elders Aboriginal Corporation (Yvonne Stewart), Jackie McDonald, Numbahging Traditional Owners Group (Troy Anderson), Burabi Aboriginal Corporation (Lois Cook), and Gaven Ivey (Madhima Gulgan Community Association) is reproduced in Appendix C.

Although not raising any verbal objections to the development proposal or the Section 9 management recommendations, Ngaraakwal/ Githabul Elder Harry Boyd advised that he was not willing to provide a written comment on the draft report. If proof of Harry Boyd's involvement in this assessment is required by the Department of Planning, copies of Tax Invoices sent to and paid by North Byron Parklands with respect to his involvement can be supplied. It was not considered appropriate to include copies of the subject Tax Invoices in the report appendices.

#### Aboriginal stakeholder comments

As advised in the Appendix C correspondence, the Arakwal Elders Aboriginal Corporation considers the Tweed Byron Local Aboriginal Land Council to be the 'statutory legal entity for consultation within the Byron Shire region in regards to cultural and heritage issues', such that the final say with respect to planning, use, and the content and presentation of any Aboriginal cultural heritage information within the proposed Cultural Centre should rest with the Land Council (as per phone clarification of the Appendix C letter, Yvonne Stewart pers comm. 16/9/2010).

Comments and (where warranted) further information requested by the Madhima Gulgan Community Association (as per their Appendix C correspondence) has either been written into this final report, or has (eg Fitzgerald 2009) or will be supplied once available (eg EA ecological assessment; Event management manual).

#### 3.2 Native title claims

A search of the National Native Title Register, Register of Native Title Claims, Unregistered Claimant Applications and the Register of Indigenous Land Use Agreements was performed for the Byron Shire on the 3<sup>rd</sup> of February 2010. This search revealed no entries relevant to the study area.

#### 3.3 Field involvement

Detailed field survey of the study area was undertaken with the assistance of TBLALC sites officer Cyril Scott (28<sup>th</sup> and 29<sup>th</sup> of April 2010), Jackie McDonald (28<sup>th</sup> April 2010), Levi McDonald (28<sup>th</sup> and 29<sup>th</sup> April 2010) and Yvonne Stewart (29<sup>th</sup> April 2010). The detailed survey was

followed-up by reconnaissance inspections with Madhima Gulgan representatives Todd Browning and Gaven Ivey (30<sup>th</sup> April 2010), Troy Anderson (3<sup>rd</sup> May 2010), Harry Boyd (4<sup>th</sup> May 2010), and Athol Compton and Lois Cook (5<sup>th</sup> May 2010).

The proposed Land Use Structure Plan, Aboriginal cultural heritage issues and significance values, potential impacts of the proposal on these values, and preferred impact avoidance and mitigation strategies were discussed on-site with the stakeholder representatives. As a result of these discussions, it was resolved that archaeological test excavations should be undertaken on the proposed spine road corridor inland of the registered site #22-1-114/115 (Yelgun flat 1) open campsite/artefact scatter. The recommended test excavations were completed on the 1<sup>st</sup> of July 2010, with the assistance of Aboriginal stakeholder representatives Cyril Scott, Jackie McDonald, Adam McDonald, Todd Browning, Gaven Ivey and Harry Boyd. Yvonne Stewart, Lois Cook and Troy Anderson were unable to attend as previously arranged.

#### 3.4 Aboriginal cultural heritage values

Navin (1990) referred to contemporary Aboriginal knowledge of trade routes and songlines associated with the major ridgelines (including Marshalls Ridge) at Yelgun-North Ocean Shores, and a Bora/ceremonial ground, mythological site (NPWS 2000:9) and a stone arrangement have been recorded within the Billinudgel Nature Reserve at Wooyung, on the coastal sand plain east of Marshalls Ridge (east of the study area). An additional significant place associated with the Wooyung Bora ground has since been identified by Aboriginal informants, towards the eastern end of Marshalls Ridge (Collins 2006a:8; 2006b:12; also east of the study area). Radiocarbon dating of shell samples collected from surrounding middens suggests that the Wooyung Bora ground may well have been used over a period of some 150 years spanning first European contact (TBLALC and SCU Joint Initiative 2006).

Consistent with past consultation (Fox 2003; Collins 2006a, 2006b), the Aboriginal stakeholders involved in this assessment hold Marshalls Ridge to represent a traditional pathway used to access the Wooyung ceremonial sites further east Due to their perceived connection with this traditional transit, the artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. During consultation for this assessment, Ngaraakwal/Githabul Elder Harry Boyd outlined the sacred/spiritual importance of the Brunswick to Tweed River area, including the presence of a traditional songline, and the interconnection between natural events and initiation and other gatherings (to maintain privacy of cultural information, any further advice should be sought directly from Harry Boyd). However, the Aboriginal stakeholders advised that, to their knowledge, development of the proposed cultural events venue would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials) the proposed spine road cut and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

The natural environment offered shelter, food and other resources to its traditional inhabitants. Although no longer subject to resource gathering activities, the remaining forests at Yelgun provide a physical link with the traditional past, and the Aboriginal stakeholders advised that conservation of these forests and their biodiversity is integral to maintaining contemporary socio-cultural values. As illustrated on Figure 2, development of the cultural events venue would not impact upon any of the natural forest areas and existing biodiversity would be maintained and potentially enhanced through forest restoration and weed removal. A comprehensive four-year program of on-site fauna monitoring has been conducted, and all internal permanent fencing, portable human exclusion fencing to be erected for the duration of cultural events, and back-up event security measures are founded on the principle of free fauna movements. Given that appropriate steps would be taken to exclude unauthorised human access during cultural events, the Aboriginal stakeholders agreed that the proposal would not affect the socio-cultural values of the natural environment.

Although the Land Use Structure Plan was designed to avoid all of the registered Aboriginal site locations (cf Figures 2 and 3), archaeological test excavations revealed a disturbed low-density occurrence of stone artefacts within the proposed spine road corridor inland of, and associated with, the registered Yelgun flat 1 (#4-2-115/115) campsite/artefact scatter (see details, Section 7). Considering the high level of existing disturbance, low artefact density, and the low (if any) additional impacts likely to be sustained as a result of the spine road construction, the Aboriginal stakeholders advised that they have no cultural heritage objections to development of the cultural events venue providing the recommendations made in Section 9 of this report are implemented.

# 4 ABORIGINAL HERITAGE CONTEXT

# 4.1 Traditional background

According to ethno-historical research conducted in south-east Queensland, the extended family formed the basic socio-economic unit of traditional Aboriginal life, and several of these would often co-operate as a highly flexible band, gathering and dispersing in response to social and economic demands. Groups of 'bands' then made up loose 'clans', which regularly exploited a specific range or territory (Lilley 1984). Clans were in turn inter-linked by way of a common language (though dialects differed) and reciprocal marriage arrangements (Calley 1959).

Coastal groups, including the Du-rung-bil people of the Brunswick River (Harper 1894), relied heavily on marine resources, with the diet supplemented by a range of terrestrial species. Written records describe the collection of various roots, fruits and nuts, but the most important vegetable staple appears to have been the rhizome of the bungwall fern, which is likely to have been common across the Crabbes Swamp and Yelgun flats. Early European settlers referred to the Brunswick traditional owners as 'the Bungawalla people' (Clarke 1931 cited in Mitchell 1978:152), reinforcing the notion that this food was of prime importance. Fern rhizomes were eaten on a daily basis and carried in bundles from campsite to campsite to ensure a ready supply (Pamphlett 1825 cited in Piper 1976:62). Bevelled stone pounders used in preparation of the fern rhizomes have been recorded at one site east of the present study area (#4-2-114/115), representing the southernmost known extent of these implements (Piper 2002).

Aboriginal landuse models suggest that geographical access routes both along and across the coastal plain were important areas of traditional occupation (Navin 1990:3). Long-distance travel was undertaken to attend social and ceremonial gatherings (eg Bray 1901), but during the course of everyday life clans remained within their own well-defined territories, moving in tune with prevailing weather conditions and the availability of specific resources. Coastal groups seem to have been reasonably sedentary, with "all of them building comfortable huts ... capable of holding a number of persons" (Cunningham 1827:185).

The first European sighting of Aboriginal people in the Brunswick region was recorded by Captain Cook in the vicinity of Wooyung Beach, where he observed "about twenty of the natives who each had a large bundle upon his back which we conjectured to be palm leaves for the covering of their houses" (Cousins 1933:9). Later explorers reported groups of Aboriginal huts near the mouths of the larger north coast rivers (Coleman 1982:6; Lang 1847:49-50) and on the islands of Moreton Bay (Steele 1984:88-99).

Most of the region's traditional material items were shaped from the wood or bark of various trees. These included shields, spears, boomerangs, clubs, digging sticks, containers and canoes. A range of stone knives, blades, scrapers, grinding and chopping tools were also produced (Dawson 1935:202; Flick 1934:6; Piper 1999:21). Edge-ground axes have been recorded at sites #4-2-053/110, #4-2-114/115 and #4-2-167 near the study boundary, suggesting that bark and/or wood was exploited by its original inhabitants.

One of the distinctive characteristics of traditional Aboriginal culture was the unity of secular and sacred life. Initiation ceremonies involved the gradual revelation of sacred information, and a corresponding growth in social and economic status. The major initiation ceremonies involved the use of Wandaral (now commonly called Bora) grounds. Ethno-historical accounts describe groups of up to 1,000 people assembled in the vicinity of Bora grounds for periods of between two days and three weeks (Sullivan 1977). Due to the exhaustion of localised resources that these gatherings caused, several Bora grounds are thought to have been used on a rotational system (Satterthwait and Heather 1987:48). A Bora ground (#4-2-021) with an associated stone arrangement (#4-2-095) still survives on the coastal plain at Wooyung, approximately one kilometre east of the study area.

Owing to its direct geographical connection with the inland ranges, Marshalls Ridge has long been considered "a likely access corridor for the various social groups involved" in ceremonial activities at Wooyung (Navin 1990:11). This proposition was explored by Fox (2003), who concluded on the basis of Aboriginal consultation (primarily with Ngaraakwal/Githabul Elder Harry Boyd) and other oral history research, literature review and field surveys, that Marshalls Ridge did form part of a traditional pathway between Wooyung and sacred/significant sites and places in the Mount Warning/Wollumbin locality 35 kilometres to the west.

# 4.2 Registered sites

#### DECCW Aboriginal Heritage Information Management System

As plotted on Figure 3 and listed in Table 1, nine site locations have been registered on the DECCW Aboriginal Heritage Information Management System (AHIMS) database within 500 metres of the study area. These sites comprise disturbed, generally low-density stone artefact occurrences (one with a small quantity of mollusc shell) found in level-low gradient contexts along the spine of Marshalls Ridge, or on the crests and footslopes of spurs projecting into the former coastal flat wetlands.

No sites have been registered on the floodplain, although an edge-ground axe fragment is reported to have been found and collected from Yelgun flats (cf Fox 2003:51).

#### Table 1. Sites registered on the DECCW AHIMS database within 500 metres of the study area

DECCW site #	Site name	Site type	Landscape context	Recorded site contents
4-2-053 & 4-2-110	NOS 14 Yelgun 2	Artefact scatter	Mid and lower ridge slope- near former swamp	Navin 1990- 3 artefacts. NPWS 2002- 1 edge ground axe. Piper 2002- above axe only. Collins 2006- above axe, 2 flake tools.
4-2-054	NOS 15	Artefact scatter	Ridge crest- Jones Road surface	Navin 1990- 54 artefacts over 40m of road- small quantity of cockle shell associated. Bonhomme Craib 2001- no artefacts detected. No shell. Piper 2002- no artefacts detected. No shell. Collins 2006- no artefacts detected. No shell.
4-2-096	NOS 23	Artefact scatter	Spur crest- north of Jones Road	NPWS 1997- 4 artefacts. Piper 2002- no artefacts detected. Collins 2006- no artefacts detected.
4-2-097	NOS 24	Artefact scatter	Spur crest- south of Jones Road	NPWS 1997- 6 artefacts. Piper 2002- no artefacts detected. Collins 2006- no artefacts detected.
4-2-114 & 4-2-115	Yelgun flat 1	Artefact scatter	Low spur crest to footslope- near former swamp	NPWS 2001- artefact scatter. Piper 2002- 18 artefacts, manuports- includes several formal artefact types. Collins 2006- >60 artefacts, manuports.
4-2-116	NOS 25	Artefact scatter	Spur crest- north of Jones Road	CONOS 1998- unspecified # artefacts. Piper 2002- no artefacts detected. Collins 2006- no artefacts detected.
4-2-121	GMY-1	Artefact scatter	Spur knoll crest- above former swamp	Piper 2002- 3 artefacts. Collins 2006- no artefacts detected.
4-2-167	Yelgun 3	Isolated find	Lower spur slope- near former swamp	Collins 2006- edge ground axe.
4-2-168	Yelgun 4	Artefact scatter	Spur crest- north of Jones Road	Collins 2006- 3 artefacts.

The largest and most complex artefact occurrence so far registered in the vicinity of the study area is site #4-2-114/115 (Yelgun flat 1), situated on the eastern end of a spur that extends into Yelgun flats south of Marshalls Ridge. This has been interpreted as a "permanent campsite visited at regular intervals during times of seasonal abundance ... The range of implements and raw stone materials suggest a variety of economic activities took place on a repetitive basis. It is impossible to imagine this range of implements being discarded in a single or even a few visitations" (Piper 2002:49).



Figure 3. Aboriginal sites registered on the DECCW AHIMS database in the study locality (excerpt from Pottsville 1:25,000 scale GDA map, Land and Property Information NSW 2002)

#### Other heritage registers

Searches of the Commonwealth and National Heritage Lists, the NSW State Heritage Register, and heritage schedules of the North Coast Regional Environmental Plan 1988 and the Byron Shire Local Environmental Plan 1988 (as amended 2009) revealed no listed Aboriginal heritage sites or places in or near the study area.

Due to the number of known Aboriginal sites and the relatively undisturbed character of what is now the Billinudgel Nature Reserve, the area bounded by the Tweed Valley Way in the west, the coastline in the east, Jones Road and the village of Wooyung in the north, and Marshalls Creek and the village of Golden Beach in the south (encompassing the study area south of Jones Road) is listed as an Indigenous Indicative Place (not on the register, but identified as important) on the Register of the National Estate (database No 19494). This same area is also listed as a Natural Indicative Place due to its unique ecosystem values (database No 19922).

# 4.3 Unregistered sites/artefacts

In addition to the edge-ground axe fragment collected from Yelgun flats, Fox (2003) reports the identification of several flaked artefacts and 'stone axes' on the terminal end of the spur in the immediate vicinity of the registered #4-2-167 isolated edge-ground axe (outside the study area). While this locality is now covered by reasonably dense regrowth forest, oral information indicates that it previously supported a banana plantation (Fox 2003:52).

## 4.4 Past archaeological surveys

Land incorporating Marshalls Ridge/Jones Road and its fringing spurs, the southern portion of Crabbes Swamp flats, Yelgun flats and ridges and spurs to the south, has been sampled for archaeological evidence on several occasions, commencing with a survey by Barz (1982) in response to a residential/tourist development proposal over a wider 900 hectare area. This survey was severely constrained by dense vegetation and recordings were restricted to a series of small pipi midden lenses behind the Crabbes Creek Beach foredunes.

The 1982 survey area was subject to a more successful inspection in 1989, using a sampling strategy weighted in favour of reasonably undisturbed landforms of predicted archaeological sensitivity. This inspection was conducted by Navin (1990), and resulted in the detection of 22 Aboriginal sites- 10 small foredune middens; five middens (one associated with the Wooyung Bora ground) on old beach and inner dune deposits; one scarred blackbutt tree on the valley flats; and one midden and five scatters of between three and 54 stone artefacts on the ridges and spurs. Two of the recorded sites, both disturbed artefact scatters, are located within 500 metres of the present study area, one on Jones Road (#4-2-054), and the other on the northern fall of the ridge just beyond the south-western corner (double registered as #4-2-053 and #4-2-110). Navin (1990) identified the spine of Marshalls Ridge, and elevated and well-drained areas adjacent to wetlands, especially spurs that provide level ground, as being of high archaeological sensitivity.

In 1994, Davies surveyed the route of a proposed motorway that roughly bisected the study area in a north-south direction. No cultural materials were detected, but ground surface visibility was generally poor. Davies (1994:28,32) assessed forested spurs on the north-west study boundary (which would not be affected by the current proposal) to have archaeological potential. The more recent recording of sites #4-2-097, #4-2-114/115 and #4-2-167 within and/or very close to the motorway corridor is no doubt attributable to improved exposure/survey conditions, and is illustrative of the constraints to surface site detection imposed by vegetation cover.

Two of the upper spur crests flanking Marshalls Ridge were later inspected by National Parks and Wildlife Service personnel, resulting in the recording of two small low-density artefact scatters on a cleared power line easement north (#4-2-096) and south (#4-2-097) of Jones Road. Several other sites have been detected on the ridges and spurs by members of 'Conservation of North Ocean Shores' (CONOS), including the site #4-2-116 artefact scatter between sites #4-2-054 and #4-2-096 (cf Figure 3).

In 2001, Bonhomme Craib and Associates inspected a five metre wide easement targeted for construction of a fence between the Billinudgel Nature Reserve and the south-eastern boundary of the study area. This survey included Jones Road reserve east from the Nature Reserve boundary, the slopes and foot of two south-trending spurs, and paperbark wetlands on the fringe of Yelgun flats. No cultural materials were detected despite search of the stretch of Jones Road previously identified by Navin (1990) as containing 54 stone artefacts and a small quantity of shell (#4-2-054). Subsequent to the archaeological survey, the project botanist observed artefacts on the mechanically-disturbed footslope of the spur that extends into Yelgun flats south of Billinudgel Creek. This site was duly registered (double registered as #4-2-114 and #4-2-115) and the subject artefacts collected by a National Parks and Wildlife Service officer (Bonhomme Craib 2001:19).

In 2002, Piper re-assessed the area incorporating the southern half of the study area to provide input to a Property Management Plan that sought to authorise selective crop production and cattle grazing. In addition to the Jones Road reserve, Piper inspected all spurs north of Jones Road, and least three ridges/spurs south of Jones Road, as well as some 53 hectares of the Crabbes Swamp flats and 58 hectares of Yelgun flats (Piper 2002:39-40). Two previously undetected sites were recorded. The first of these (#4-2-121) comprised a scatter of three stone artefacts within a disused banana plantation on a remnant spurline knoll north of Jones Road. The other site, an isolated bevelled pounder (#4-2-122), was found on a spur slope at the eastern end of Jones Road.

In conjunction with his study, Piper (2002) attempted to re-locate the previously registered sites. Of the three artefact scatters reported by Navin (1990) along the length of Jones Road (#4-2-054 [54 artefacts and shell], #4-2--055 [4 artefacts], and #4-2-056 [32 artefacts and shell]), no archaeological evidence was apparent with the exception of a single flake tool at site #4-2-056. Site #4-2-053/110, on the ridge slope above Yelgun flats just outside the present south-west study boundary, was found to contain one artefact (an edge-ground axe), where three others had been detected in 1990.

Re-inspection of sites #4-2-096, #4-2--097 and #4-2-116 revealed no visible artefacts on the Marshalls Ridge spurs. However, site #4-2-114/115 on the low spur on the north-western margin of Yelgun flats revealed 18 surface artefacts and a number of pebble manuports scattered across the eastern end of the spur, with materials concentrated on the footslope close to the Billinudgel Nature Reserve. The artefacts included bevelled pounders, edge-ground axes, flake tools and manufacturing debris. Considering the variety of activities reflected in this assemblage, Piper (2002:49) suggested that site #4-2-114/115 was probably used on a repetitive basis. Despite substantial mechanical disturbance and erosion, the site was assessed as locally and regionally unique, with a moderate to high level of scientific/ archaeological significance (Piper 2002:51).

With respect to the undetected archaeological record, Piper (2002:56-57) concluded that:

- The floodplain flats/former wetlands would have been unsuitable for Aboriginal occupation, but would have provided
  resources for the occupants of sites on the ridges/spurs. A low level distribution of stone artefacts lost or discarded during
  resource exploitation activities can be expected on the flats.
- There is the potential for further archaeological materials within the Jones Road reserve, but the potential for sites with concentrated *in situ* materials is low.
- There is low potential for sites with concentrated *in situ* materials on spurs previously used for banana cultivation, although isolated artefacts and pebble manuports may be randomly scattered.

The overall low sensitivity of the floodplains (Crabbes Swamp and Yelgun flats) is further promoted by the results of test excavations conducted on three creekline terraces west of Orana Road, approximately three kilometres south of the study area. Although initially assessed to have archaeological potential, each of the terraces yielded isolated artefact finds only (Mills 1998:12).

A more recent inspection of the 500 metre western end of Marshalls Ridge/Jones Road and selected spurs and flats north of Jones Road revealed no archaeological evidence (Collins 2006a). This inspection was closely followed by a comprehensive assessment of a 240 hectare land parcel that encompassed all of the present study area (Collins 2006b). In addition to Aboriginal consultation, the latter assessment comprised field survey of some 50 hectares of land, including all ridge/spur crests and footslopes, and transects of Crabbes Swamp and Yelgun flats. The survey resulted in the recording of two previously unregistered sites- a low-density scatter of three stone artefacts (#4-2-168) on the elevated level crest of a spur that runs north off Marshalls Ridge (reported by members of CONOS [pers comm. 2006] to contain many more undetected artefacts), and an isolated edge-ground axe (#4-2-167) on the low terminal end of a similar north-trending spur (reported by Fox [2003:52 and pers comm. 2006] to also contain several undetected flaked artefacts and axes). Neither site lies within the present study boundaries. Consistent with Piper's (2002) findings (plus those of Bonhomme Craib 2001 where applicable), no archaeological evidence was detected on previously registered sites #4-2-054, #4-2-096, #4-2-097 or #4-2-116. Additional artefacts were identified on sites #4-2-053/110 and #4-2-114/115.

# 4.5 Archaeological potential of the study area

As discussed by Navin (1990:11) and supported by Piper (2002) and Collins (2006a, 2006b), Crabbes Swamp and Yelgun flats comprise swampy floodplains that would have been densely vegetated and difficult to access during traditional Aboriginal times. As outlined by Piper (2002:24), "it is highly unlikely that any part of the lowlands ... would be suitable for occupation sites, as they would be too low-lying and covered in dense melaleuca forest. Evidence on the lowlands is likely to be minimal, having been completely cleared of vegetation, levelled and ploughed for many years. Isolated artefacts cannot be ruled out".

In contrast, the bedrock ridges, particularly Marshalls Ridge, would have offered comparatively easy and direct through travel. The Wooyung Bora ground close to the eastern end of Marshalls Ridge points to the likely importance of this ridge as a transit route between Wooyung and ceremonial/significant sites and places further inland (cf Fox 2003). As detailed in the preceding sections, a number of open artefact occurrences have been recorded on ridges and spurs close to the study area. With the exception of site #4-2-114/115 (identified as a possible permanent campsite [Piper 2002:49]), these are held to reflect transitory rather than more sustained camping activities. With respect to individual landform elements, survey results have confirmed the sensitivity of low-gradient locations along the spines of the ridges and spurs. With the exception of rockshelters, scarred trees, lost or randomly discarded isolated artefacts and specialised sites like stone quarries, archaeological evidence has been rarely found on slopes above ten degrees in any part of the north coast.

As reviewed in Section 4.4, all or parts of the study area have been included in at least four detailed archaeological field surveys, none of which have resulted in the identification of any sites within the study area itself. Even though undetected sites/artefacts could well survive, this result suggests that the undiscovered archaeological resource is unlikely to be large.

Considering the study area's topography, disturbance history, and the likely pattern of traditional Aboriginal landuse in conjunction with past survey results, it was predicted that:

- Stone artefacts (possibly in association with a low-density shell scatter) may occur on the Marshalls Ridge/Jones Road saddle to be affected by construction of the spine road. Any archaeological evidence will be in a disturbed condition owing to past road construction and maintenance.
- Stone artefacts associated with the site #4-2-114/115 open camp may extend west across that section of the spur crest targeted for construction of the spine road south of Billinudgel Creek. Given that the subject section of spur crest was once traversed by a property driveway, *in situ* surface materials or archaeological deposits are unlikely to survive.
- Evidence of Aboriginal stone quarrying and preliminary stone processing may occur in association with outcrops of metasedimentary stone materials on the ridges and spurs.
- Evidence of Aboriginal bark and/or wood removal may occur on the trunks of any surviving mature trees within the study area, but will be most likely associated with eucalypt species.
- Isolated stone artefacts may occur in any topographic or disturbance context.

# 5 NON-INDIGENOUS HERITAGE CONTEXT

#### 5.1 Historic background

Following initial 1840 survey, cedar-getters arrived on the Brunswick River in 1849, and within 30 years Brunswick Heads had become the chief cedar-trading centre in NSW (Keats 1988:221). Subsequent depletion of cedar, hoop pine and other floatable softwoods, coupled with the difficulty of loading and shipping the logs, encouraged the establishment of local sawmills directed towards local timber consumption. By the early 20<sup>th</sup> century, hardwoods such as ironbark, tallowwood, messmate, stringybark and red gum had become increasingly important, and were hauled by bullock teams to the local mills, or to railway yards for transport to mills further afield (Stubbs 2006:26). Historic and more recent documentary, field survey and oral evidence points to a long history of timber harvesting within the study locality, extending into the post-World War II years (J. Borrowdale pers comm).

Although preceeded by unauthorised settlement, first European land selections in the Parishes of Brunswick and Billinudgel were not recorded until 1881 (Brokenshire 1988:40). Historical records indicate that lands within the study area itself were not selected until the early 1890s, when ownership of Marshalls Ridge and adjoining Crabbes Swamp and Yelgun flats fell to J.A. and E.J. Jones and others, including J.F. Marshall (Land and Property Information NSW, Parish of Billinudgel). The initial selectors were required to pay a deposit of one quarter of the purchase price, occupy the land for three years, and add improvements to the value of one pound per acre. The balance of the purchase price could be paid over an extended period. Failure to satisfy these conditions saw many NSW north coast selections repossessed by banks, including the north-western section of the study area.

Maize was the first 'staple' crop grown by the free selectors, but this was soon overtaken by sugar production and later by dairying and banana cultivation (Stubbs 2006). By 1919, approximately 800 dairies had been established across the Tweed-Byron region, centred on fertile river and creek flats. The dairy industry reached its peak in the 1930s, after which time small farms became uneconomic as the industry consolidated into large co-operatives (Thorp 1994:11). Airphotos and the present vegetation structure indicate extensive past land clearance of Marshalls Ridge and its fringing spurs down to the edge of the paperbark wetlands (Crabbes Swamp and Yelgun flats), probably for the purposes of dairy cattle grazing (Benwell 2001). A dairy farm that included a house and milking shed (owned by Danny Simkins) still stood on the south-western spur of the study area in 1947 (Tweed Heads Airphoto Run 1, 27/5/47).

While grown on a small scale from as early as the 1880s, bananas only came to economic importance after World War II, when they compensated for a decline in dairying. "In the early 1950s, the Brunswick valley briefly surpassed the Tweed to become the greatest bananaproducing district in the country" (Stubbs 2006:54). Sections of the ridges and spurs adjacent to the study area supported banana plantations into the recent past, at which time the Crabbes Swamp and Yelgun flats (within the study area) were widely planted with sugar cane (cf Piper 2002:12).

# 5.2 Registered sites

Searches of the State Heritage Register maintained by the NSW Heritage Office, the Register of the National Estate, the National Trust of Australia (NSW) Register, the RTA Heritage and Conservation Register, and heritage schedules of the North Coast Regional Environmental Plan 1998 and Byron Shire Local Environmental Plan 1988 (as amended 2009) revealed no listed historic heritage sites or places in the study area.

An area of approximately 850 hectares, which includes the study area south of Jones Road, is listed as a Natural Indicative Place (not on the register, but identified as important) on the Register of the National Estate due to its unique ecosystem values (database No 19922).

#### 5.3 Other heritage records and information

The Brunswick Valley Historical Society holds a collection of primary and secondary source material relating to the non-Indigenous settlement of the Brunswick district. In conjunction with an examination of this material, oral information was kindly provided by local resident John Borrowdale, a fifth generation timber-cutter with extensive knowledge of the Yelgun locality. Review of records held by the Brunswick Valley Historical Society and consultation with John Borrowdale revealed no known or potential historic sites, items or PADs within the study area.

#### 5.4 Past heritage assessments

An historical assessment of a proposed motorway corridor between Billinudgel and Chinderah was prepared by Thorp in 1994. Thorp's (1994) assessment included one kilometre wide strips along three alternative corridor options, and involved archival research, community consultation, and a complete visual survey of the options. The assessment was supplemented by a detailed survey of the preferred option,

which bisected the present study area (north-south). No sites of known or potential historic heritage significance were identified in or near the study area.

More recently, a comprehensive assessment of sites and places of non-Indigenous cultural heritage significance has been undertaken in conjunction with preparation of the Byron Shire Community-Based Heritage Study. This study included a thematic history (Stubbs 2006), along with extensive community consultation to identify, record and assess historic heritage significance within the Shire (Ellsmore 2007). The thematic history (Stubbs 2006) identified the following main themes that have influenced non-Indigenous development of the Byron Shire and its present identity.

- Discovery and exploration.
- Transportation and communication.
- Forest industry and forest conservation.
- Agriculture, dairying and related industry.
- Fishing and whaling.
- Quarrying, mining and mineral processing.
- Towns and villages.
- Leisure and tourism.

The Community-Based Heritage Study resulted in the production of a detailed inventory of over 400 items of potential local heritage significance. Of these, 200 individual items, five conservation areas, and eight serial listings, were recommended for inclusion on the Byron Shire LEP heritage schedule. The remaining items were recommended for recording only, pending further research or new information that would establish local significance values. None of the items recommended for LEP listing or further research are located within the study area.

#### 5.5 Potential heritage items in the study area

Background research indicates that the study area was never substantially developed in terms of the built environment. Rather, historical uses centred on timber harvesting, dairy farming and agricultural activities that most likely commenced in the last quarter of the 19<sup>th</sup> century, but were not well established until the early 20<sup>th</sup> century. In view of these landuses and the extent of modern land modification, it was anticipated that any surviving items of non-Indigenous cultural heritage value would probably be limited to:

- Items and features associated with the theme 'Forest industry and forest conservation'. These may include notched tree stumps, saw pits, and movable artefacts employed in timber felling and extraction.
- Items and features associated with the theme 'Agriculture, dairying and related industry'. These may include old post and rail fences, farm dwellings, outbuildings and dairies, historic drainage channels and tree plantings, and movable domestic and rural artefacts.

# 6 FIELD SURVEY

#### 6.1 Strategy and coverage

As outlined in Section 4.4, parts of the study area have been inspected for archaeological evidence on several occasions, most recently in 2006, when at least five percent of the ridges and spurs (crests, slopes and footslopes) were subject to effective survey coverage (Collins 2006b:24-26). Considering the extent of past survey both within and near the study area, the present field survey was directed towards reinspecting the recorded Aboriginal sites and their surrounds to facilitate the formulation of management strategies/recommendations in consultation with the registered Aboriginal stakeholders, and towards supplementing effective survey coverage on the ridge/spur and floodplain landforms in the event that survey conditions had improved since 2006. Areas covered during the present assessment are highlighted (along with approximate areas known to have been surveyed in the past) on Figure 4.



Slope > 33%



Author Reference SDR 09\_120 100

1:8000 (@ A3) IMPORTANT NOTE |

Slope = 0-20% (no hatch)

of the aerial photograph and vectorial overlays is approximate only.

Approximate section of study area surveyed by Collins (2006a,b)

Section of study area covered during the present assessment

Sources | Aerial Photography: Bill Mills (2009) | Cadastre: Ardill Payne (2009) | Slope Analysis : Balanced Systems Planning (2009)

North Byron Parklands | Tweed Valley Way & Jones Road

Figure 4. Surveyed land within the study area, and general location of archaeological test excavations (black rectangle)

Slope = 20-33%



# 6.2 Method and details

The field survey was undertaken on foot by the consultant with the assistance of TBLALC sites officer Cyril Scott, Jackie McDonald, Levi McDonald and Arakwal Elders CEO Yvonne Stewart on the 28<sup>th</sup> and 29<sup>th</sup> of April 2010. The detailed survey was followed-up by wider reconnaissance with Harry Boyd, Troy Anderson, Athol Compton, Lois Cook and Madhima Gulgan representatives Todd Browning and Gaven Ivey between the 30<sup>th</sup> of April and the 5<sup>th</sup> of May 2010 (see Section 3.3 for further details).

The survey proceeded via a combination of parallel transects and single traverses, with the distance between team members tailored to suit the type and extent of the exposure being inspected. Along drains and vehicle/cattle tracks, the team members walked abreast, checking the surface, verges, cuttings and any adjacent exposures. Elsewhere, team members walked up to ten metres apart, inspecting all exposed ground and the trunks of any mature trees within their line of sight.

Survey for potentially significant non-Indigenous heritage items was conducted concurrently with the Aboriginal field survey, such that the field team also visually scanned surrounding areas to determine the presence/absence of these sites, which were subsequently recorded by the consultant on the 2<sup>nd</sup> of May 2010.

## 6.3 Aboriginal cultural heritage sites and issues

No Aboriginal sites are listed on heritage databases as occurring within the study area, the only reported find being an isolated edge-ground axe fragment found and collected from Yelgun flats (cf Fox 2003:51). Consistent with past results, no archaeological evidence was detected during the present field survey. As reported by Athol Compton, Todd Browning and Gaven Ivey, nor has any such evidence been detected during the course of bush regeneration or weed removal works (undertaken on behalf of the Madhima Gulgan Community Association) over the past two years.

Despite the high significance attributed to Marshalls Ridge and its associated archaeological sites as well as areas of natural forest, the Aboriginal stakeholders advised that no known socio-cultural values would be compromised by development of the cultural events venue, which would entail impact upon a narrow section of Marshalls Ridge (now inspected for archaeological evidence at least four times with a nil result) and avoidance of all of the registered artefacts and natural forest. This advice is contingent upon the development being confined to the area shown on the Figure 2 Land Use Structure Plan, and that no unauthorised access is allowed to the registered archaeological sites or their immediate surrounds, or to the natural forest.

Because permanent human exclusion fencing is not feasible due to the constraints that this fencing would impose on fauna movements, portable fencing and back-up security measures would be needed to prevent access and disturbance of sites #4-2-114/115, #4-2-121 and #4-2-167 (cf Figure 3) as well as the natural forest areas during the course of cultural events. Measures to be implemented in this regard are detailed by Fitzgerald (2009:31-33), and will be included in the Event Management Manual. Under the auspices of the Event Management Manual, event patrons would not be permitted access to any areas outside the approved cultural events venue. As advised by North Byron Parklands, on-site workers would be subject to an induction process that would address the importance of maintaining the exclusion areas, such that the events venue would be highly controlled at all times.

As also advised, any signage or other information referring to Aboriginal cultural heritage sites and values should only be developed, finalised and installed/displayed with the approval and agreement of all Aboriginal stakeholders. As documented by the Madhima Gulgan Community Association (Appendix C), any artists to be involved in preparation of Aboriginal cultural heritage signage should be first sourced from the TBLALC membership, in particular those people with cultural ties to the proposed cultural events site/Yelgun locality.

All Aboriginal stakeholders would need to be involved in planning and use of the proposed Cultural Centre as far as Aboriginal cultural heritage is concerned. No Aboriginal cultural heritage information should be disclosed or displayed in the Cultural Centre unless authorised by the Aboriginal stakeholders. Where a unanimous agreement cannot be reached between the stakeholders, the Arakwal Elders consider

that the final say should rest with the Tweed Byron Local Aboriginal Land Council in its capacity as 'the statutory legal entity for consultation within the Byron Shire region in regards to cultural and heritage issues' (cf Appendix C correspondence).

Irrespective of the above, it remained possible that cultural materials associated with registered site #4-2-114/115 (Yelgun flat 1, assessed by Piper [2002:51] to be locally and regionally unique) could extend west along the spur to be traversed by the spine road south of Billinudgel Creek. In consultation with the Aboriginal stakeholders, it was determined that test excavations should be undertaken on this section of the proposed spine road corridor to assess archaeological and cultural values and formulate impact mitigation strategies (if warranted) ahead of development activities. The recommended test excavations were subsequently conducted in line with the methodology approved by the Aboriginal stakeholders, and are reported in Section 7.

#### Discussion

In view of their low-lying and naturally poorly-drained character, and the extent of clearing and former cultivation, it is concluded that Crabbes Swamp and Yelgun flats (the primary landforms to be affected by development of the cultural events venue) have a low level of archaeological sensitivity. While it is conceded that artefact detection probabilities were substantially impaired by grass and sediment cover, this conclusion is supported by the present and past survey results, which failed to detect anything more than a single (unregistered and collected) isolated artefact on the study area's flats (cf Fox 2003), despite search of drain cuttings and ploughed fields that exposed surface sediments up to a depth of some 30 centimetres (Piper 2002; Collins 2006b).

Concerns have been expressed in the past by one Aboriginal informant regarding the potential for traditional burials on the Crabbes Swamp and Yelgun flats (Collins 2006b:13). Alluvial clays in the western section of Yelgun flats are strongly acid (Morand 1996), such that burial remains are unlikely to survive in this area unless interred in relatively recent times. Permanently waterlogged soils like those characteristic of Crabbes Swamp flats and the balance of Yelgun flats do provide conditions conducive to the preservation of organic materials, including human bone. However, the implementation of drainage (leading to intermittent wetting and drying) and later cultivation of these flats will have reduced the survival probability of burials. Even in the event that Aboriginal burials do survive on the flats, it is not possible to predict their location (in the absence of any surface indications, such as localised depressions), nor is it likely to be possible to effectively detect burials using non-invasive technologies (eg ground penetrating radar) alone. A potential burial site would first need to be identified, and any subsurface anomaly detected by non-invasive means would in any case then need to be subject to archaeological test excavations to determine the nature of the anomaly (whether a buried tree root, a landfill trench, burial etc). In the absence of plans to undertake any substantial excavations on either the Crabbes Swamp or Yelgun flats, it is considered highly unlikely that Aboriginal burials or any other archaeological materials would be affected by the proposed development.

Piper's (2002:46) assertion that "a general archaeological sensitivity exists over all of the elevated landform features, with particular focal points where archaeological sensitivity is significantly higher", and that Marshalls Ridge represents one of these focal points, is not without foundation. Even so, repeated inspection of that section of Marshalls Ridge/Jones Road to be affected by construction of the spine road has yielded no archaeological evidence despite 80-90 percent exposure on the road and its graded verges, and an average five percent exposure across the narrow balance of the saddle. On the basis of the present and past survey results (Navin 1990; Piper 2002; Collins 2006a, 2006b) it is concluded that this section of the ridge is not archaeologically sensitive.

Unlike sites along the crest of Marshalls Ridge, several edge-ground axes and fern processing tools (beveled pounders) have been recorded at sites on the terminal ends and footslopes of the spurs, suggesting that these sites may have been established to allow residential groups convenient access to wetland resources. However, no archaeological evidence or PADs have been detected/ recorded on the elevated lands in the north-western section of the study area during any of the three surveys so far conducted there (Davies 1994; Collins 2006b and the present survey). While it is conceded that undetected sites may exist within this area, the nil result is believed largely attributable to a combination of the higher elevation of, and higher gradient footslopes around most of these spurs (compared with the Marshalls Ridge and Yelgun flat spurs), the lack of direct through access to the coast, and the widespread extent of wetlands, which could have been exploited from any number of spurs between Wooyung Road and Ocean Shores.



Figure 5. Non-Indigenous sites recorded within the study area (excerpt from Pottsville 1:25,000 scale GDA map, Land and Property Information NSW 2002)

#### 6.4 Non-Indigenous cultural heritage sites and issues

Thirteen items of potential non-Indigenous heritage value were recorded during the field survey. These include planted trees (designated NBP H-1), and twelve standing dead tree stumps (NBP H-2 to H-13) that reflect the hand-felling of large mature trees (probably brush box) and use of springboards to reach the cut-off point. The recorded site locations are plotted on Figure 5.



Fig tree avenue: Site NBP H-1



Notched tree stump: Site NBP H-4



Notched tree stump: Site NBP H-7



Notched tree stump: Site NBP H-2



Notched tree stump: Site NBP H-5



Notched tree stump: Site NBP H-13

Site NBP H-1 is traversed by the proposed spine road (GDA grid reference 550549 E 6849421 N) and comprises an avenue of eight smallfruited fig tees (*Ficus macrocarpa*) fringing the former driveway to a farmhouse that once stood on the summit of the spur south of Billinudgel Creek (between the spine road corridor and the registered Yelgun flat 1 [#4-2-114/115] Aboriginal campsite/artefact scatter). Although tall and of moderate girth, the trees are not fully mature, and were most likely planted during the first half of the 20<sup>th</sup> century when the property functioned as a dairy farm. The spine road would be constructed within a gap between the trees, such that the site would not be affected by the proposed development.

The NBP H-2 to H-13 tree stumps feature between one and five springboard notches (cf Table 2), and are believed to be the products of late 19<sup>th</sup> and/or early 20<sup>th</sup> century timber extraction. While some are in a very good state of preservation, most of the recorded stumps have been partially or substantially affected by timber rot. Survey for these items was not exhaustive, and there is little doubt that additional notched stumps will occur within the forested north-western corner of the study area. None of the recorded stumps, nor any potential unrecorded stumps that may occur in the north-west, would be affected by the proposed development.

Table 2. Details of notched timber-getters tree stumps recorded in the study area
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Site ID	GDA grid refere Easting	ence Northing	Stump height (m)	Girth 1m above ground (m)	# Springboard notches	Fabric condition
NBP H-2	550698	6850461	2.5	3.7	3	Good
NBP H-3	550699	5850525	2.0	3.2	4	Fair
NBP H-4	550915	6850577	3.2	4.4	4	Poor
NBP H-5	550966	6850507	1.8	3.4	2	Poor
NBP H-6	550974	6850503	3.2	2.8	4	Poor
NBP H-7	551071	6850745	3.9	2.6	4	Good
NBP H-8	551088	6850806	2.2	3.6	2	Poor
NBP H-9	551139	6850850	3.5	3.0	3	Poor
NBP H-10	551172	6850933	2.5	4.5	3	Poor
NBP H-11	551153	6850930	3.5	2.2	5	Fair
NBP H-12	551175	6850932	2.5	2.3	1	Fair
NBP H-13	551199	6851003	2.4	2.4	1	Good

# 7 ARCHAEOLOGICAL TEST EXCAVATIONS, PROPOSED SPINE ROAD CORRIDOR INLAND OF REGISTERED ABORIGINAL SITE #4-2-114/115 (YELGUN FLAT 1)

## 7.1 Aims

From a development-related perspective, the primary purpose of the subsurface testing was to determine whether or not Aboriginal objects associated with the registered site #4-2-114/115 (Yelgun flat 1) open campsite/artefact scatter (located on the eastern end of the spur, outside the study area) extend west into that section of the spur to be traversed by the spine road, and if so, to assess whether the significance of these objects is sufficient to warrant site avoidance, salvage, or special construction or other management procedures. To this end, the test excavations aimed to investigate a representative sample of the subject area in order to characterise the nature of any archaeological materials/cultural deposits that might be present.

# 7.2 Method and procedure

The archaeological test excavations were confined to the potentially sensitive section of spur crest and its adjoining slopes to be affected by construction of the proposed spine road inland of site Yelgun flat 1 (cf Figure 4). Given the expectation that the investigation area would probably contain a low density of artefacts (if any), it was resolved (in consultation with Aboriginal stakeholder representatives) that the investigation should involve the excavation of reasonably large test pits at intervals close enough to detect a low-density artefact distribution if this was indeed present. In this light, the excavation of one square metre test pits on a systematic five metre spacing was seen to offer an appropriate compromise between artefact detection capabilities, the ability to recover a representative sample of artefacts/cultural materials for analysis, and provide for preservation of a substantial proportion of the site in the event that significant deposits were identified.

The investigation involved the excavation of 12 one square metre test pits spaced at five metre intervals along the proposed spine road corridor. The locations and recording code of the test pits are presented in Figure 6. Based on the findings, no further subsurface investigation was deemed necessary. All test pits were dug using a rubber-tracked five ton mechanical excavator mounted with a one metre wide toothless bucket. Sediments were removed from each test pit in approximate 10 centimetre spits into the upper portion of the underlying (B) clay soil horizon. Each spit was dry sieved separately through a (mechanically agitated) six millimetre mesh screen. Sieve residues were carefully examined for cultural materials, and identified and potential Aboriginal objects individually bagged and labeled for later analysis. Soil samples were taken from selected spits for Munsell determinations. Test pits were then backfilled with their own sterile spoil as the investigation progressed.



General view west across test excavation area



Typical test excavation procedure- excavated sediments placed directly onto sieve



Typical sieving procedure- excavated sediments and residue inspected by entire field team to facilitate artefact recovery



Mixed topsoil and basal clay, TP A3. Mixed sediments also present in TPs A1, A2 and A4  $\,$ 



Tweed Valley Way

Proposed grassed walking track He

Registered Aboriginal artefact site #4-2-114/115

Figure 6. Location and recording code of archaeological test pits (test pits not to scale)



Tweed Valley Way

2 2 📕 🔂 2 Proposed spine road

Registered Aboriginal artefact site #4-2-114/115



Figure 7. Number of stone artefacts recovered from archaeological test pits (test pits not to scale)

- Test pit with stone artefacts (number shown)
- Test pit with no stone artefacts or other Aboriginal cultural heritage material

The test excavations were undertaken by the consultant with the assistance of Aboriginal stakeholder representatives Cyril Scott, Jackie McDonald, Adam McDonald, Todd Browning, Gaven Ivey and Harry Boyd on the 1<sup>st</sup> of July 2010. The mechanical excavator was operated by Steve Ryan (Tweed Heads Mini Excavator Hire).

On completion of the excavations, a basic analysis of all recovered Aboriginal stone artefacts was conducted to a level concomitant with the small size and restricted information potential of the assemblage. This included raw material, size and spatial distribution, and any distinctive technological attributes. Stone artefact identification was based on the definition developed by Hiscock (1984:128), which maintains that an artefact is a fragment of stone that generally possesses one or more of the following characteristics:

- A positive or negative ring crack.
- A distinct positive or negative bulb of force.
- A definite eraillure scar in position beneath a platform.
- Definite remnants of flake scars (ie dorsal scars and ridges).

With the exception of ground artefacts, these traits indicate the application of an external force to a core, and are characteristic of the spalls removed by humans using direct percussion.

Following analysis, the recovered artefacts were placed in appropriately labeled resealable plastic bags. As agreed by the Aboriginal stakeholders, the artefacts will be handed to the Tweed Byron Local Aboriginal Land Council for temporary care and control until such time as they can be deposited in the North Byron Parklands Cultural Centre (if/when development of this Cultural Centre proceeds) for permanent curation (including possible display for public educational purposes; to be approved by the stakeholders).

#### 7.3 Results

Twenty four stone artefacts were recovered during the test excavations, demonstrating Aboriginal use of the spur inland of the previously identified Yelgun flat 1 (#22-1-115/115) campsite. Locations of the artefact-bearing test pits are mapped on Figure 7.

#### Stratigraphy and disturbance

As outlined above, the test pits (TPs) were taken down incrementally in approximate 10 centimetre spits into the upper portion of the basal (B) clay soil horizon. The investigation revealed a topsoil layer of black (Munsell 5Y/2.5/1) loam, overlying stiff yellowish brown (Munsell 10YR/5/8) clay at a depth of between 20 and 35 centimetres. Mixing of the topsoil and basal clay was apparent in four of the test pits (TPs A1, A2, A3 and A4), and a graveled road/track covered in topsoil was intercepted in TP B6 (Appendix A).

The widespread incidence of European materials (plastic, metal, and glass, china and ceramic shards) throughout the topsoil is indicative of considerable disturbance. The extent of this disturbance is suggested by the recovery of shards of distinctive dark green glass (apparently from the same vessel) in TP A1 at a depth of 10-20 centimetres and TP A3 (10-12 metres further north) at a depth of 20-30 centimetres; and the recovery of shards of distinctive brown glazed ceramic (apparently from the same vessel) in TP A3 at a depth of 20-30 centimetres, TP B2 at a depth of 0-10 centimetres, and TP B3 at a depth of 0-30 centimetres (Appendix A). Assuming the brown glazed ceramic vessel (or its broken remnants) were discarded in the same place at the same time, the distribution of the recovered shards points towards horizontal displacement over an area of at least 18 square metres and a depth of up to 30 centimetres.

#### Stone artefact density and distribution

The test excavations revealed a widespread but overall low density of Aboriginal stone artefacts within the investigation area. As shown on Figure 7, artefacts were recovered from eight of the 12 test pits, representing an average density of two artefacts per square (horizontal) metre.

All 24 of the recovered artefacts were confined to the topsoil and are not considered to have been chronologically stratified. Only two of the artefacts did not occur in a spit that was either demonstrably redeposited, or which also contained recent or reasonably recent European materials. Artefacts were intercepted at highest frequency on the level crest of the spur represented by TPs A3, A4, B3 and B4 (Figure 6), where a density of up to six artefacts per square metre was identified in TP A4 (Figure 7). As outlined under 'Stratigraphy and disturbance'

above, however, there are good grounds to conclude that the artefact distribution has been both vertically and horizontally disturbed by modern landuses, and that none of the artefacts on the proposed spine road corridor are in a primary depositional context.

#### The stone artefact assemblage

As detailed in Appendix B and summarised in Table 3, the recovered artefact sample was restricted to unmodified flakes and flake fragments (#18), flaked pieces (#4), a single bipolar core and a nuclear tool (scraper). The artefacts are made on a range of stone materials, primarily silcrete (#6), chert (#6) and milky quartz (#5). Only two of the artefacts retained any stone cortex, suggesting a general absence of on-site primary stone reduction.

The flake component of the assemblage is dominated by simple feather-terminated examples with broad flaked platforms. Of the 16 intact flakes recovered, two displayed evidence of platform preparation, and one featured a dorsal ridge. Dorsal negative flake scars indicated use of both bipolar and multi-platform core reduction. Analysis of the plan shapes of the intact flakes, achieved by dividing flake length by width (after Phagan 1976), revealed an average index value and mode of 1.2. According to Phagan (1976:40), significant proportions of this index value above 1.5 point to the high levels of knapping control necessary for blade production, and values of 2.0 and above only occur in well-controlled blade industries. Two (12.5 percent) of the intact flakes returned values above 1.5 (both 1.6), and none returned values of 2.0 or more.

Raw material	Flake/fragment	Flaked piece	Core	Nuclear tool	Total	%	Artefacts with cortex
Silcrete	5	0	0	1	6	25.0	1
Quartz	3	1	1	0	5	20.8	1
Chert	4	2	0	0	6	25.0	0
Jasper	1	1	0	0	2	8.3	0
Chalcedony	3	0	0	0	3	12.5	0
Greywacke	1	0	0	0	1	4.2	0
Other meta-sedimentary	1	0	0	0	1	4.2	0
Total	18	4	1	1	24	100.0	2
%	75.0	16.7	4.2	4.2	100.0		8.3

#### Table 3. Summary of recovered raw material and artefact types

#### 7.4 Conclusions

Test excavations on the spur crest and slopes to be traversed by the proposed spine road inland of the registered Yelgun flat 1 campsite/artefact scatter (#22-1-114/115) revealed a low-density distribution of Aboriginal stone artefacts within the highly disturbed topsoil. The excavations directly sampled 5.5 percent of the 217 square metre investigation area, suggesting that this area may contain as many as 412 additional unrecovered artefacts.

Given the systematic test excavation methodology, it is considered that the recovered artefacts provide a reasonably accurate representative sample of the investigation area as a whole. In contrast to the registered Yelgun flat 1 campsite (#22-1-114/115) on the eastern extremity of the spur, which contains edge-ground axes, beveled pounders, cores, retouched flakes, large flaked pieces and pebble manuports (Piper 2002:44-46, 49), artefacts within the investigation area reflect a more restricted range of traditional activities, and were probably discarded during peripheral occupation and/or transit to and from the Yelgun flat 1 campsite. The generally unspecialised characteristics of the recovered artefact sample places it within the 'core and flake tool industry' as defined by Witter (1992:28), the chief function of which was to provide edged tools for a variety of cutting and chopping tasks. This finding is consistent with the types of artefacts reported on site Yelgun flat 1 proper.

# 8 SIGNIFICANCE ASSESSMENT

Unlike aspects of the natural environment, cultural heritage sites and places are social constructs that have no intrinsic significance- "cultural heritage places are not alive in themselves, people give them 'life' and meaning by the way they treat them and by the way they think and feel about them. ... their value lies entirely within human culture" (Byrne *et al* 2001:22-23).

The degree and type of value of a place will be different for various groups and individuals. All places are not equally significant or important, and consequently are not equally worthy of conservation and management (Pearson and Sullivan 1999:17). Assessments of significance thus form the basis for management decisions and guide the development of impact mitigation strategies where these are warranted.

## 8.1 Aboriginal cultural heritage

Aboriginal sites and places may have educational, tourism and other public values, but their primary values are generally those relating to their social/cultural significance to Aboriginal people, and scientific significance from an archaeological perspective (NPWS 1997:25). While sites considered to be scientifically significant are usually also significant to the Aboriginal community, others may be of outstanding Aboriginal cultural/social significance but have little or no scientific value.

#### Aboriginal cultural/social significance

This type of significance relates to the cultural values held by and manifest within the contemporary Aboriginal community. Aboriginal cultural heritage is by no means confined to physical (archaeological) evidence. The cultural landscape contains an invisible overlay of attachments and meanings, and Aboriginal people can and do hold equally strong and equally legitimate attachments to natural, unmodified, features of the landscape, and to entire landscapes themselves. The preservation of sites and places of social/cultural significance can be fundamental to maintaining an Aboriginal community's integrity, sense of place and unique cultural identity.

The level of significance that an individual site or place may hold for the Aboriginal community is often dependent upon a variety of factors, including the nature, type and integrity of the site/place, the spiritual, emotional, historical and/or contemporary attachments attributed to it, its setting and importance within the traditional and/or current landscape, and the perceived value of the site/place in connecting past, present and future generations.

#### Scientific/archaeological significance

Scientific/archaeological significance is essentially an assessment of a site's potential to add to our understanding of past human behaviour. Such assessment is made not only with regard to currently available knowledge, theories and data retrieval methods, but with consideration of likely future scientific developments. Sites have particular potential, and thus greater scientific significance, if there are few other sites that can contribute similar types of information, if they are in a good state of preservation, if they can provide a chronology extending back into the past, and/or if they form part of a larger site complex (NPWS 1997:26-28).

From a management and research perspective it is desirable that a representative sample of Aboriginal sites be maintained for the future. This means that not only are rare and unusual types of sites scientifically significant, but that a well-preserved archaeological site that provides a characteristic example of other sites common to its specific type, content and setting may also be of scientific significance. Any determination of representativeness must, by necessity, be based on the known sites in a region. Clearly, this will depend on the extent to which a region has been surveyed and as more work is completed and additional sites recorded, site representation (and significance) can change.

#### Significance of the study area and its wider environment

The study area is set within a wider environment that contains an inter-related complex of traditional ceremonial, mythological and other important sacred/spiritual sites/places, camping places (shell middens and stone artefact occurrences) and resource-use places. Together, these form a cultural landscape of high and enduring socio-cultural significance. This significance extends to and includes the existing forests, which provide a tangible link with the traditional past. The known site complex is unique in the local and regional archaeological record, and is thus of high scientific/archaeological significance.
Of the known archaeological sites within the immediate study locality, Yelgun flat 1 (#22-1-114/115) is of especially high socio-cultural and scientific/archaeological significance in that it represents a likely permanent or regularly-used traditional campsite, with evidence of a range of on-site activities as well as the southern-most recorded extent of beveled pounders (Piper 2002). The test excavations reported in Section 7 indicate that the proposed spine road would traverse the apparently less-used periphery of this site. This peripheral area has been highly disturbed, contains a low density and diversity of Aboriginal cultural heritage materials, and is assessed to have little further research potential or scientific/archaeological significance in its own right.

The Aboriginal stakeholders involved in this assessment advised that development and use of the cultural events venue would not affect the significance values attributed to the wider cultural landscape or its archaeological sites (including Yelgun flat 1), providing the impact mitigation measures recommended in Section 9 are implemented.

# 8.2 Non-Indigenous cultural heritage

The NSW *Heritage Act 1977* (as amended) is designed to conserve the environmental heritage of the State. Environmental heritage is broadly defined under Section 4 of the Act as:

'those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance.'

Section 4(1) of the *Heritage Act* 1977 (as amended 2009) defines a 'relic' as any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and
- (b) is of State or local heritage significance.

### Assessment criteria

The NSW Heritage Council has outlined a set of criteria and a methodology for assessing the significance of individual elements of a place/item. The NSW guidelines follow the nationally recognised Australia ICOMOS Charter for the Conservation of Places of Significance (*The Burra Charter*), which defines 'cultural significance' as meaning:

'aesthetic, historic, scientific and social value for past, present and future generations.'

To simplify the assessment process, the NSW Heritage Council advocates the use of only two levels of significance- local and State. An item is considered to be of State (or local) significance if, in the opinion of the Heritage Council, it meets one or more of the following criteria (NSW Heritage Office 2001:9):

- Criterion (a) An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);
- Criterion (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);
- Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);
- Criterion (d) An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;
- Criterion (e) An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);
- Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);
- Criterion (g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's) cultural and natural places, or, cultural and natural environments.

In using these criteria, the value of a place or item (cf Table 4) is first assessed, then the context (State or local) in which it is significant. Different components of a place may make a different contribution to its heritage value. Loss of integrity or condition, for instance, may diminish significance.

## Significance of the study area sites

### NBP H-1: Planted fig trees

Although apparently planted by a past dairy farmer, the fig tree avenue is not considered to meet any of the significance criteria advocated by the NSW Heritage Council for local or State listing. Even so, the fig tree avenue is of local historical interest, contributes to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.

### NBP H-2 to H-13: Notched tree stumps

Each of the twelve notched tree stumps recorded in the field (Table 2) was evaluated in relation to the NSW Heritage Council assessment criteria and significance gradings (Table 4). Although demonstrating incidental characteristics of a class of the local area's cultural places (early timber-getting activities) (Criterion g), the degraded condition of most of the stumps detracts from their representative value, and none are assessed to meet the threshold required for listing at either the local or State level. Despite this assessment, the notched tree stumps are of local historical interest, contribute to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.

Grading	Justification	Status Fulfils criteria for local or State listing Fulfils criteria for local or State listing		
Exceptional	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.			
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.			
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing		
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing		
Intrusive	Damaging to the item's heritage significance.	Does not fulfil criteria for local or State listing		

### Table 4. Gradings of significance advocated by the NSW Heritage Council

# 9 MANAGEMENT RECOMMENDATIONS

# 9.1 Aboriginal cultural heritage

The management recommendations presented in this section were developed in liaison with the Aboriginal stakeholders and are designed to avoid and/or mitigate impacts of the proposed development on cultural heritage resources and values.

### **Recommendation 1:**

To preserve the socio-cultural significance of the Yelgun flat 1 (#22-1-114/115) campsite and its surrounds, it is recommended that the section of spine road highlighted on Figure 8 be constructed on over-ground fill (as proposed by North Byron Parklands) to avoid any further substantial disturbance of Aboriginal artefacts within this area. To avoid impact on adjoining sections of the spur (which are similarly likely to contain subsurface artefacts) all heavy machinery activities should be confined to the spine road corridor itself within the highlighted Figure 8 area.

### **Recommendation 2:**

The proposed protection of all registered Aboriginal site locations (off the area subject of Recommendation 1) and potentially sensitive spurs in close proximity to the study area, and areas containing natural forest both outside and within the study area boundaries (consistent with the Land Use Structure Plan), should be upheld. Given that permanent fencing is not feasible, this protection should include the erection of internal portable human exclusion fencing to separate event patrons from these areas, and the engagement of security officers to ensure that the fences are not breached during the course of cultural events. Measures to be implemented in this regard should be detailed in the Event Management Manual.

#### **Recommendation 3:**

Any signage referring to Aboriginal sites and values should only be developed, finalised and installed with the agreement of all Aboriginal stakeholders (or their authorised representatives). It is desirable that any artist/s to be involved in the preparation of signage be first sourced from the Tweed Byron Local Aboriginal Land Council membership (particularly those with cultural ties to the Yelgun locality).

#### **Recommendation 4:**

All Aboriginal stakeholders (or their authorised representatives) should be involved in planning and use of the proposed Cultural Centre as far as Aboriginal cultural heritage is concerned.

To address Recommendations 3 and 4, North Byron Parklands should convene meetings with all Aboriginal stakeholders (or their nominated representatives) together (ie same time and place), to arrive at acceptable signage and placement of this signage (if any) within the cultural events venue, and to reach a memorandum of understanding (MoU) in regards to development and operation of the Cultural Centre, including the public display and dissemination of Aboriginal cultural heritage information, opportunities for Aboriginal employment (including youth training) and the content and conduct of any associated activities [eg Aboriginal cultural tours].

#### **Recommendation 5:**

To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks should be advised of their legal and moral obligations with respect to Aboriginal cultural heritage as part of the required site induction. The following measures would need to be implemented in the event of any identified or suspected Aboriginal objects (as defined under the *National Parks and Wildlife Act 1974*) being detected during any stage of works associated with development and/or operation of the cultural events venue.

1) All disturbance in the vicinity of the find should immediately cease and temporary protective fencing be erected around the find to define a 'no-go zone'.

- 2) North Byron Parklands should contact the Aboriginal stakeholders and the project archaeologist to inspect the find so that appropriate actions and management recommendations can be formulated. If the find consists of or includes possible or identified Aboriginal skeletal remains, the DECCW Environmental Line (ph 131 555) and the NSW Police Department should be additionally contacted.
- 3) Work may proceed at an agreed distance from the find, in consultation with the Aboriginal stakeholders and the project archaeologist.
- 4) If the find is identified as an Aboriginal object, work causing any disturbance or destruction of the object should not recommence until appropriate actions and management recommendations have been implemented, and clearance has been given by the Aboriginal stakeholders and the project archaeologist (as well as the DECCW if deemed warranted).

### Recommendation 6:

As requested by the Tweed Byron Local Aboriginal Land Council (cf Appendix C correspondence), the Aboriginal stakeholders should be informed ahead of any soil disturbance associated with the proposed development.

### 9.2 Non-Indigenous cultural heritage

#### **Recommendation 7:**

To preserve localised historical values and interests, the planted fig trees (NBP H-1) and notched tree stumps (NBP H-2 to H-13, plus any other examples within the north-west forest) should be retained *in situ*.

#### **Recommendation 8:**

To facilitate public appreciation of the non-Indigenous historic cultural environment, background historic educational information and information specific to the study area (including timber harvesting history and evidence of this provided by the notched tree stumps) should be presented in the Cultural Centre.

#### **Recommendation 9:**

To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks should be advised of their legal and moral obligations with respect to non-Indigenous cultural heritage as part of the required site induction. Should any items of potential non-Indigenous cultural heritage value be discovered or exposed during any stage of the proposed development, all works must immediately cease in the vicinity of the find. The NSW Heritage Office should then be contacted for management advice and clearance given before work resumes in the subject locality.



Tweed Valley Way

Registered Aboriginal artefact site #4-2-114/115



Figure 8. Section of proposed spine road recommended for overfill only to preserve unrecovered artefacts associated with the Yelgun flat 1 (#4-2-114/115) Aboriginal campsite

Proposed spine road

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# GLOSSARY

#### ALLUVIUM

General term for detrital deposits made by rivers or streams (Lapidus 1987:18).

#### ARCHAEOLOGICAL SITE

A place containing cultural materials of sufficient quality and quantity to allow inferences about human behaviour at that location (Plog *et al* 1978:383).

#### ARTEFACT

Any object having attributes as a consequence of human activity (Dunnell 1971).

#### ASSEMBLAGE

A set of artefacts found in association with each other and therefore assumed to belong to the one phase or one group of people (Champion 1980:11).

### BASALT

A dark-coloured, fine-grained basic volcanic rock (Lapidus 1987:53).

#### **BEVELLED POUNDER**

A stone tool that is generally triangular in transverses cross-section, with an acute working edge bevelled to a width of between three and 13 millimetres. The sides are major fracture faces, and the butt either original cortex, a fracture face, or a retouched surface (Kamminga 1981:31).

#### **BIFACIAL FLAKING/GRINDING**

Flaking or grinding which has been undertaken on two opposing faces of an artefact (McCarthy 1976).

#### BORA/CEREMONIAL GROUND

While there are a number of different types of Bora ground, most common on the north coast is that composed of one or a pair of raised earth circles ranging in size from two to 40 metres in diameter. The Bora ground functioned as a stage for various initiation rites (Byrne 1989:18).

#### **BROAD PLATFORM**

A platform which, when viewed from above, obscures the body of the flake. Usually produced by detaching the flake by striking well behind the platform margin (Witter 1992:110).

#### CHERT

A dense, extremely hard, microcrystalline or cryptocrystalline siliceous sedimentary rock, consisting mainly of inter-locking quartz crystals, submicroscopic and sometimes containing opal (amporphous silica). Chert occurs mainly as nodular or concretionary aggregations in limestone and dolomite, and less frequently as layered deposits (banded chert). It may be an organic deposit (radiolarian chert), an inorganic precipitate (the primary deposit of colloidal silica), or as a siliceous replacement of pre-existing rocks. Flint is a variety of chert occurring as nodules in chalk and having a conchoidal fracture (Lapidus 1987:102).

#### CORTEX

The natural weathered surface of rock, not the result of human activity (McCarthy 1976:101).

#### CREST

Landform element standing above all or most points in the adjacent terrain. Usually smoothly convex (Speight 1990:13).

#### DISTAL

The opposite end of an artefact to the platform end. The blade of an edge-ground axe or the working edge of other implements form the distal end (McCarthy 1976:101).

#### DORSAL

The face of a flake that was exposed on the core before removal of the flake (Phagan 1976:39).

#### EDGE-GROUND AXE

Axes containing two abraded surfaces which meet at a bevel (Hiscock 1988:87).

#### FEATHER TERMINATION

Is identified on the distal end of a flake which terminates in a sharp edge with a minimal margin. Feather terminations are an indicator of good knapping control (Crabtree 1972:64).

#### FLAKE

A piece of stone detached from a larger mass by the application of force and having a feather, hinge or step termination and a bulb of percussion. A platform may be present if the proximal end is unbroken (Crabtree 1972:64).

#### FLAKE TOOL

A flake which has been sharpened through deliberate retouch or which exhibits other evidence (eg usewear) to indicate that it has been used as a tool (Witter 1992:35).

#### FOCAL PLATFORM

A platform having a small area such that when viewed from above, most of the remaining body of the flake can be seen. Focalised platforms are produced by striking close to the platform edge (Witter 1992:110).

#### GREYWACKE

Sedimentary rock. A very hard, dark grey or greenish-grey, coarse-grained sandstone characterised by angular particles and rock fragments embedded in a clayey matrix (Lapidus 1987:265).

#### JASPER

A compact, microcrystalline variety of quartz. Its colours are variable, including white, grey, red, brown and black (Lapidus 1987:308).

#### LANDFORM ELEMENT

A topographic feature of 40m. or more in maximum dimension which forms part of a larger unit, the landform pattern (Speight 1990:9).

#### LATERAL MARGINS

The sides of an artefact- between the proximal and distal ends (McCarthy 1976:101).

#### LENGTH

Maximum dimension of a core or flaked piece in any direction; maximum distance along the percussion axis of a flake from the platform to the distal margin (Witter 1986:2).

#### NEGATIVE FLAKE SCAR

Concave surface resulting from the removal of a flake (Phagan 1976:39).

#### OVERPASS TERMINATION

Is identified on the distal end of a flake whose fracture plane (ventral surface) curves markedly away from the core face (dorsal surface) and continues directly into the core, removing the base of the core and giving the flake a J shape in longitudinal cross section (Hiscock 1988:86).

#### PEBBLE

Stone worn and rounded by water and other natural forces (McCarthy 1976:101).

#### PLAIN

A large very gently inclined or level element, of unspecified geomorphological agent or mode of activity (Speight 1990:32).

#### PLATFORM

The plane or surface against which force is applied in order to detach a flake from a core. The platform may be the natural surface of the stone, or cortex, it may be a surface produced by the prior removal of one or more flakes, or a surface produced by grinding or abrading (Phagan 1976:11).

#### PLEISTOCENE

The lower division of the Quaternary Period dating from two million to 10,000 years ago (Lapidus 1987:96,411).

#### PODZOLIC SOIL

Soils with a strongly bleached eluvial horizon (Charman 1978:108).

#### PROXIMAL

The butt or platform end of an artefact (McCarthy 1976:102).

### QUARTZ

Crystalline silica having no cleavage but a conchoidal fracture (Lapidus 1987:429).

#### QUARTZITE

A metamorphic rock consisting mainly of quartz grains. Formed through the recrystallization of sandstone by thermal or regional metamorphism (Lapidus 1987:430).

### RETOUCH

The alteration to the primary termination of a flake caused by deliberate secondary flaking in order to resharpen or modify the edge (Crabtree 1972:89).

#### RIDGE

A compound landform element comprising a narrow spine crest and its immediately adjoining slope with the spine length being greater than the width (Packard 1992:100).

#### SADDLE

Landform element comprising a lower, relatively level point along the spine of a ridge or spur (Packard 1992:100).

#### SPUR

Landform element comprising a lower, subsidiary ridge leading down from a locally dominant ridge or crest (Packard 1992:100).

#### STONE ARTEFACT

Fragment of stone which generally possesses one or more of the following characteristics:

- Positive or negative ring crack
- · Distinct positive or negative bulb of force
- Definite eraillure scar in position beneath a platform
- · Definite remnants of flake scars (i.e.dorsal scars and ridges)

These traits indicate the application of an external force to a core, and are characteristic of the spalls removed by humans using direct percussion. Stone artefacts which have none of the above may be identified as such if they possess ground facet/s characteristic of human industry (Hiscock 1984:128).

#### THICKNESS

The greatest dimension perpendicular to both the length and width of an artefact (Witter 1986:2).

#### UPPER SLOPE

A slope landform element adjacent below a crest or flat but not adjacent above a flat or depression (Speight 1990:11-34).

#### VALLEY FLAT

A small, gently inclined to level flat, aggraded or sometimes eroded by channelled or over-bank stream flow, typically enclosed by hillslopes (Speight 1990:34).

#### WIDTH

The maximum distance between the lateral margins of an artefact, measured at right angles to the length (Witter 1986:2).

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# **APPENDIX A**

# Content of test excavation pits

fest pit	Depth (cm)	Sediment description	Disturbance indicators	# stone artefact
A1	0-10	Dense black loam with basal clay nodules	Mixed sediments.	0
	10-20	Dense black loam with basal clay nodules	Mixed sediments. Glass & plastic fragments.	2
	20-30	Stiff yellowish brown clay		0
A2	0-35	Mixed black loam and stiff yellowish brown clay	Mixed sediments. Glass fragments.	0
	35-45	Stiff yellowish brown gravelly clay		0
A3	0-10	Stiff yellowish brown gravelly clay	Basal clay on surface.	0
	10-20	Mixed black loam and stiff yellowish brown clay	Mixed sediments. Glass, plastic and nail.	2
	20-30	Mixed black loam and stiff yellowish brown clay with imported siltstone gravel	Mixed sediments. Dark green glass fragment- appears to be from same vessel as fragments in TP A1 10-20. Brown glazed ceramic fragments- appear to be from same vessel as	2
			fragments in TP B2 0-10 and TP B3 0-30.	
	30-40	Stiff yellowish brown gravelly clay		0
A4	0-10	Black loam with basal clay nodules and introduced siltstone gravel	Mixed sediments. Gravel, plastic and glass.	3
	10-20	Black loam with basal clay nodules	Mixed sediments. Metal and white glass	3
			fragments, possibly from 'Vicks' jar.	
	20-30	Black loam with basal clay nodules	Mixed sediments. White glass fragment,	0
	30-40	Stiff yellowish brown clay	possibly from 'Vicks' jar above.	0
A5	0-20	Black loam	Glass, plastic and aluminium can fragments.	0
	20-30	Stiff yellowish brown clay		0
A6	0-10	Black loam		0
	10-20	Black loam	Glass fragments and nail.	1
	20-30	Stiff yellowish brown clay		0
B1	0-10	Dense black loam	Glass and china fragments	2
	10-20	Dense black loam	Glass fragments	0
	20-30	Stiff yellowish brown clay		0
B2	0-10	Black loam	Brown glazed ceramic fragments- appear to be from same vessel as fragments in TP A3 20-30 and TP B3 0-30. White glass fragments possibly from same 'Vicks' jar as in TP A4 10-30.	0
	10-20	Black loam	Glass and china fragments.	2
	20-30	Stiff yellowish brown clay		0
B3	0-10	Black loam	Glass and brown glazed ceramic fragments.	0
	10-20	Black loam	Glass, brown and green glazed ceramics.	2
	20-30	Black loam with basal clay nodules	Brown and green glazed ceramic fragments.	2
	30-40	Stiff yellowish brown clay		0
B4	0-35	Black loam	Large tree roots	0
	35-45	Stiff yellowish brown clay	Large tree roots	0
B5	0-10	Black loam	China fragments.	0
20	10-20	Black loam	onna nagmono.	0
	20-30	Stiff yellowish brown clay		0
B6	0-10	Black loam	Over gravel road.	1
	10-15	Orange graveled road/track	Introduced clay and gravel.	0
	15-20	Black loam	5 G	2
	20-30	Stiff yellowish brown clay		0

# APPENDIX B

# Catalogue of stone artefacts recovered during test excavations

Artefact	Depth	Artefact	Raw	Length	Width	Thickness	Platform	Termination	Cortex	# -ve	Comment
#	(cm)	type	material	(mm)	(mm)	(mm)	type	type	(%)	scars	
TP A1											
1	10-20	flake	silcrete	28	22	3	broad	feather	0	3	
2		flake	milky quartz	25	25	9	focal	feather	0	1	
TP A3											
3	10-20	flake	white chert	15	15	3	focal	feather	0	2	lateral snap
4		flake	chalcedony	13	20	1	nil	feather	0	1	
5	20-30	nuclear tool	pink silcrete	29	26	15			10		unifacial retouch all margins
6		flake	brown silcrete	11	21	2	nil	feather	0	3	
TP A4											
7	0-10	flake	milky quartz	15	14	3	nil	step	0		
8		flake	chalcedony	12	11	2	broad	hinge	0	2	
9		flaked piece	jasper	12	7	3			0		
10	10-20	flake	jasper	21	12	2	nil	feather	0	4	
11		flake	pink silcrete	31	20	11	broad	feather	0	3	split cone
12		flake	white chert	15	13	4	broad	hinge	0	3	
TP A6											
13	10-20	flaked piece	white chert	14	13	3			0		heat crazed surface
TP B1											
14	0-10	flake	pink silcrete	30	32	8	nil	overpass	0	7	platform preparation
15		flake fragment	milky quartz	12	16	6	focal			3	proximal fragment
TP B2											
16	10-20	flake fragment	pink silcrete	23	19	4	broad		0	3	proximal fragment, dorsal ridge
17		flaked piece	milky quartz	20	20	5			0		
TP B3		-									
18	10-20	flake	greywacke	39	37	8	focal	plunge	0	6	from multi-platform core
19		flake	brown chert	21	18	6	broad	overpass	0	3	from bipolar core, lateral snap
20	20-30	flake	chalcedony	33	22	8	nil	overpass	5	2	from bipolar core, plat. preparation
21		flaked piece	black chert	17	12	2			0		
TP B6											
22	0-10	bipolar core	milky quartz	55	20	16			5	10	
23	10-20	flake	meta-sediment	36	29	10	broad	feather	0	5	dorsal ridge
24		flake	grey chert	22	14	2	focal	feather	0	3	

# APPENDIX C

# Aboriginal stakeholder correspondence

Jacqueline Collins 11 Camden Head Road Dunbogan NSW 2443

Dear Jacqueline

# RE: Proposed Cultural Events site at Yelgun Byron Shire: (North Byron Parklands)

The Tweed Byron Local Aboriginal Land Council has been consulted throughout the course of the Aboriginal Heritage Assessment of the North Byron Parklands undertaken by your office on behalf of Billinudgel Property Trust. Briefings and discussions have been held between you, Jackie McDonald, Yvonne Stewart and Myself.

We have reviewed a draft copy of the Aboriginal Heritage Assessment Report entitled Proposed Culture Events Site at Yelgun, Byron Shire (North Byron Parklands). We are pleased to support the management plan for the Aboriginal heritage artefact sites in the development area.

# **Recommendations are as follows:**

The Tweed Byron Local Aboriginal Land Council supports the recommendations made in the Jacqueline Collins Aboriginal Cultural Heritage Assessment report.

Any soil disturbance on the proposed site the Aboriginal Stakeholders be contacted.

Any Questions please don't hesitate to contact us on the above number

Cyril Scott Cultural Sites Officer Tweed Byron LALC



BUNDJALUNG OF BYRON BAY ABORIGINAL CORPORATION (ARAKWAL) ICN: 2663 Po Box 1555, Byron Bay NSW. 2481. Phone: 0266 858746 Fax: 0266 858726 Mobile: 0433609716 ABN: 99 508 925 629

Monday, 6 September 2010

Jacqueline Collins – Consultant Archaeologist 11 Camden Head Road Dunbogan. NSW. 2443.

Dear Jacqui,

# <u>Re: Proposed Cultural Events Site At Yelgun, Byron Shire (North Byron</u> <u>Parklands).</u>

Thank you Jacqui in respect to the site surveying and monitoring of the above named estate, I have read the recommendations put forward from your report and feedback from the surveying and agree with all of the recommendations put forward except recommendation (4) and (7), which involves the building of a cultural Centre on site.

Even though the land is private owned the Tweed Byron Aboriginal Land Council are the statutory Legal entity for consultation within the Byron Shire Region in regards to Cultural and Heritage issues.

If you need to speak to me further regarding this please don't hesitate to call the above numbers.

Yours in Unity,

Yvonne Stewart CEO 10-JUN-2010 17:44 LEE & CRAIG

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P.01

#### Numbahging Group

Of the

# Birrom People of the Lower Richmond

Jacqueline Collins- Consultant Archaeologist

11 Camden Head Road Dunbogan N.S.W. 2443

Dear Jaqueline, firstly I would like to thank you for the opportunity, to include the Numbahging traditional owners group of the Birrom people(Three Brothers Legend) in the proposed music festival site, Yelgum.

I attended a field survey at Yelgum 3<sup>rd</sup> May 2010 with archaeologist Jacky Collins. We covered all area's to be developed, and was updated on previous reports and field inspections by other stakeholders. There is clear indication of previous farming activities, such as cane farming and banana plantations, which would have had major impacts on any sites that may have been insitu within the low lying area's.

We spoke extensively to the development proposal and the strong association our people have to the Tweed Byron area. Along with the strong intrinsic cultural association, surrounding customary beliefs of the Numbahging people, especially music and festival which has been influential to indigenous people.

I have spoken to Doug Anderson and his sisters Susan, Vivian, Precilia Marcia Anderson along with other locally born elders that have close cultural association to the Numbahging group. They have stated they are happy with the proposed development and the methodology used in assessing the site. However, they do have concerns regarding the area associated with initiation events, as a lot of these locally born elders are very spiritual people in their beliefs and customs associated with past, present, and future.

Regarding the test pitting we would like to be involved in the sub surface testing, as we have seen much destruction of sites within our own boundaries especially our own self appointed representatives within Jali L.A.L.C.. We support the salvaging of any artifacts if present for future reference and culturally based recognition that, with permission, would compliment the festival site during any cultural events.

Faithfully Yours Troy Anderson Jie Juncher Son of Doug Anderson

Cultural Heritage Officer (John Cook Foundation), Spokesperson for the Numbahging Group.

From: "Jackie McDonald" <mctogo@austarnet.com.au> Date: 25 August 2010 6:27:07 AM AEST To: <jpollins@optusnet.com.au> Subject: Draft CHA North Byron Parklands,Yelgun

Dear Jackie,

Thank you for providing me with a copy of the Draft Cultural Heritage Assessment for North Byron Parklands at Yelgun.

I have read the document and I am satisfied that it identifies and records Aboriginal Cultural Heritage contained within the development area.

I am also satisfied that the assessment's 5 recommendations is aimed to protect Aboriginal Cultural Heritage values and will protect these values as long as they are strictly complied with. In particular, Recommendation 2, that if permanent fencing is not feasible, strong portable human exclusion fencing be erected to separate patrons from areas of Aboriginal Cultural Heritage significance and the engagement of security officers to ensure the fences are not breached and that these measure be recorded in the event Management Manual.

Jackie McDonald

From: "burabi aboriginal corporation" <burabi2477@bigpond.com> Date: 27 August 2010 10:26:55 AM AEST To: "Jacqueline Collins" <jpollins@optusnet.com.au> Subject: RE: NB Parklands draft heritage assessment

Hi Jacqui,

I recommend that the North Byron Parklands report (Yelgun) be endorsed and all recommendation in section 9 be adhered to in the report.

Yours truly

Lois Cook

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# Response to Draft Cultural Heritage Assessment for North Byron Parklands As prepared by Jacqueline Collins

Thank you for the opportunity to participate in the Cultural Heritage Assessments on both the 30<sup>th</sup> April 2010 and the 1<sup>st</sup> of July 2010 at North Byron Parklands proposed cultural events site in Yelgun. It is always exciting for Madhima Gulgan Community Association Incorporated (MGCA) members to be involved in such events. I personally would like to thank Jacqueline Collins and the owners/organisers for the interest, initiative and respect shown in regards to the local Indigenous community, plus Aboriginal and non-Indigenous cultural heritage.

After looking over the Draft Cultural Heritage Assessment, I have noted in no particular order a number of points;

- Gavin Ivy to be correctly spelt as Gaven Ivey.
- In regards to the fencing of forest and/or archaeological sites on the property, are 'internal portable human exclusion fencing, portable fencing and back-up security measures' conducive to free fauna movements during proposed cultural events. More detail of permanent fauna friendly fencing would be helpful, and how fencing is made more so. What fauna on site has been documented by surveys and such. Adding this in the Cultural Assessment would be helpful. Also, if permanent fencing is deemed suitable for some sites, will the use of fauna friendly fencing reduce the ability of said fencing to protect cultural heritage sites from the general public.
- In respect to Aboriginal cultural heritage protection (sites #4.2.114/115, #4.2.121, #4-2-167 and #4.2.10), is it possible at all to request a detailed copy of Fitzgerald (2009:31-33), and the Event Management Manual (draft and/or final), as well as copies of all surveys done relating to Aboriginal cultural heritage on the proposed cultural events site. After reading these documents we could make a more informed response to any suggestions and/or recommendations these documents make.
- It would be a fine initiative to implement further and more intense cultural heritage assessments of the proposed cultural events site by Tweed Byron Local Aboriginal Land Council (TBLALC) and MGCA representatives to include the entire property. This would be extremely important, especially so in cases such as the suspected Aboriginal traditional burial grounds on Crabbes Swamp and Yelgun Flats. Are there facilities and technologies to secure archaeological information that are less or non-intrusive to highly sensitive/developed/degraded cultural heritage sites such as that mentioned above.
- A register of any Aboriginal cultural heritage sites with the relevant departments, on and immediately surrounding the cultural events site within an appropriate distance. As the events proposed may involve a massive number of customers, how are/will the

organisers aim to protect unregistered & registered Aboriginal cultural heritage sites immediately surrounding the cultural events site in Yelgun. A management plan for this issue is important.

- Signage All signage relating to Aboriginal cultural heritage on site, and in any other medium off site, should be approved by TBLALC in consultation with other Aboriginal stakeholders. Furthermore, any artist/s to be involved in signage should be first sourced from TBLALC membership (particular those with cultural ties to the proposed cultural events site/surrounds and area).
- TBLALC and appropriate Aboriginal stakeholders should be involved in the planning of any business relating to Aboriginal cultural heritage on site. What will the level of Indigenous involvement be in relation to a Cultural Centre and/or Depot. With Youth Training and the like, how do the organisers aim to implement this. Are there management plans, and has there been any consultation with TBLALC, Aboriginal stakeholders and the relevant Government departments relating to Youth Training.
- Site #22-1-114/115 Most important that this site be acknowledged and protected through the Property Management Plan and Event Management Manual. It would be great for a site such as this to be somehow shared with the greater community via the proposed cultural centre and/or depot.

As a non-profit community organisation, MGCA supports the continued protection and acknowledgement of Aboriginal and non-Indigenous Cultural Heritage sites/artefacts within the study area and the proposed cultural events site as a whole.

MGCA would also like to take this time to express that we as an organisation unanimously practice the guidance and advice of the TBLALC in all matters relating to Aboriginal cultural heritage.

MGCA thanks you again for your past support, and look forward to future opportunities with North Byron Parklands.

Sincerely

Gaven Ivey