PLANNING & Natural systems

ATTACHMENT A

PLANNING PROPOSAL FOR LOTS 1, 2 & 9 DP322272 & LOT 48 DP1090335 COOPERNOOK

ORDINARY MEETING

23 NOVEMBER 2016

MidCoast Council

Planning Proposal

Amendment to the Greater Taree Local Environmental Plan 2010

Pt. Lots 1 & 2 and Lot 9 DP 32272

and Lot 48 DP 1090335

Macquarie and West Streets, Coopernook

October 2016

TABLE OF CONTENTS

1.0 Introduction

This Planning Proposal has been prepared for the subject land to seek changes to *Greater Taree Local Environmental Plan 2010* to provide for expansion of Coopernook village over the land. The planning proposal will provide land for primarily residential development to support services in the Coopernook village.

The proposal delivers outcomes in the area in a manner consistent with the provisions of the Council's local development strategies, as well as the provisions of the *Mid North Coast Regional Strategy.*

The subject land is comprised of elevated cleared land which has been used for low intensity agricultural uses in the past. The land is not subject to significant levels of environmental constraints, with flooding over parts of the land being the key constraint to development.

To facilitate the development of the land, a change is required to the planning controls affecting the land under *Greater Taree Local Environmental Plan 2010*. The change involves changing the zoning of parts of the land from its existing RU1 – Primary Production to RU5 - Village.

This planning proposal has been prepared consistent with the provisions of the Department's document *A Guide to Preparing Planning Proposals*.

1.1 Site details

The subject lands are located adjacent to the Coopernook village, which is located in the Mid-Coast local government area approximately 250km north east of Sydney within the Mid North Coast region. MidCoast Council was created in May 2016 as an amalgamation of the Greater Taree City, Great Lakes and Gloucester Councils' local government areas.

Figures 1-3 show the location of the land and area in a state, regional and local context.

Figure 1 – State Context of Mid-Coast LGA

[Source:_https://en.wikipedia.org/wiki/Local_government_areas_of_New_South_Wales#/media/File:New_South_Wales_Local_Government_Areas.svg]

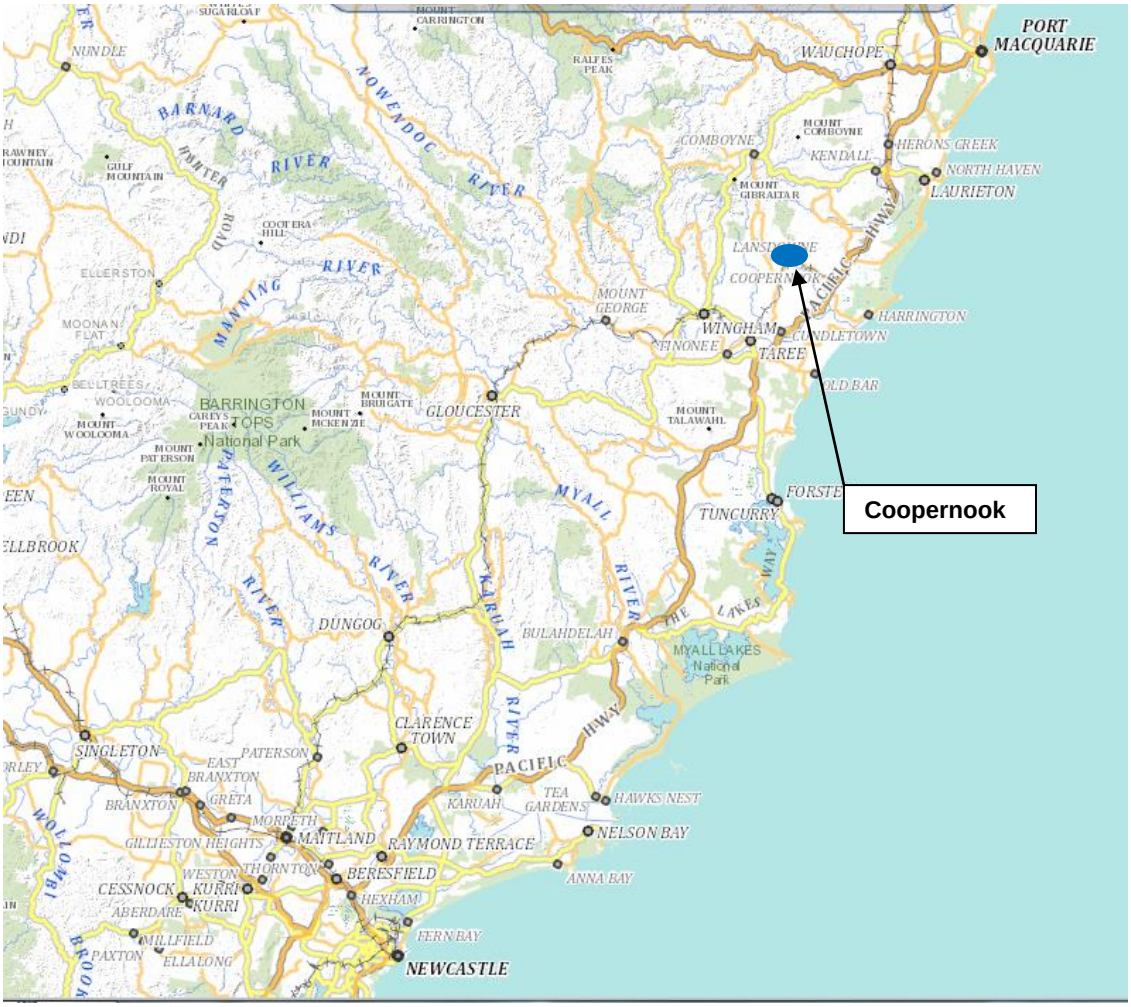


Figure 2 – Coopernook – Regional Context **[Source: LPMA SIX Maps]**

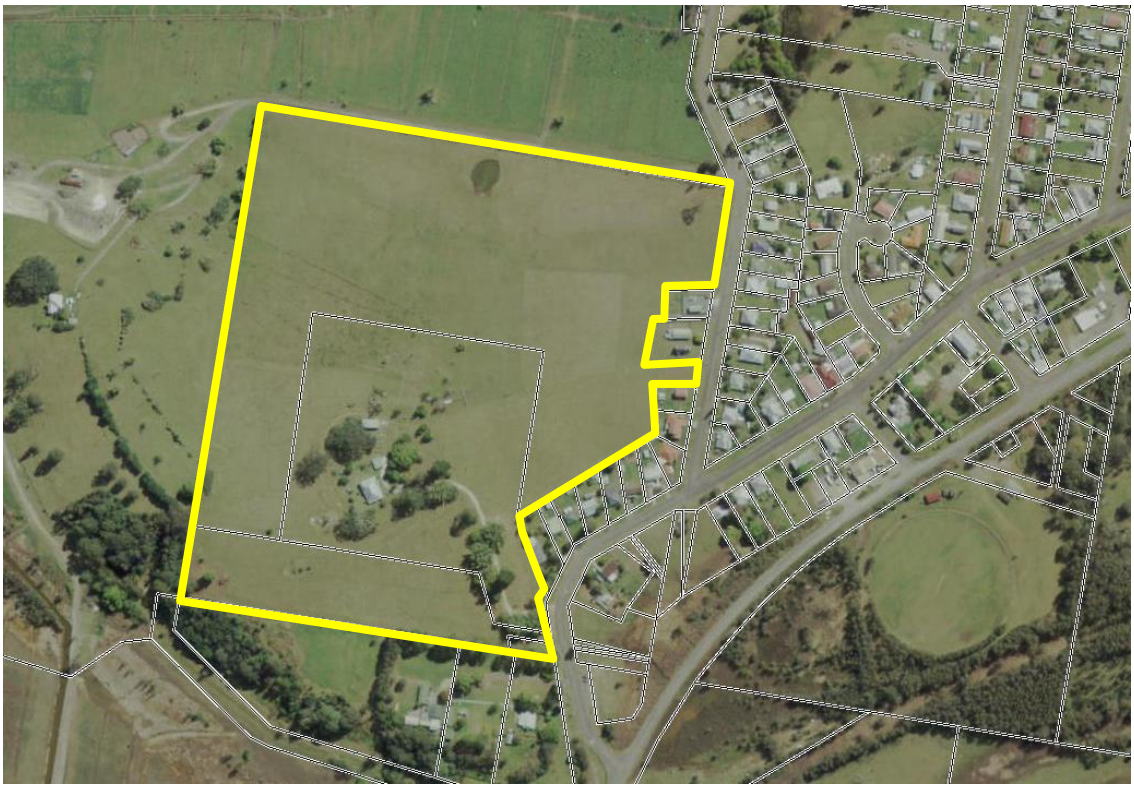


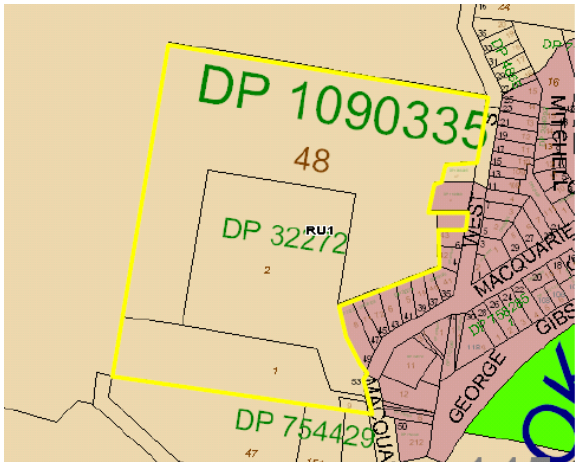
Figure 3 – Site in Local Context **[Source: LPMA SIX Maps]**

The following information is provided to assist in identifying and describing the subject lands.

Addresses	53 Macquarie Street and 8 West Street, Coopernook
Real Property descriptions	Pt. Lot 1 DP 32272 Pt. Lot 2 DP 32272 Lot 9 DP 32272 Lot 48 DP 1090335
Site Area	Combined area approximately 17.6 hectares
Current Controls **Greater Taree LEP 2010**	Zone - RU1 - Primary Production/RU5 – Village Subdivision Lot Size – 40 hectares/1,000m^2 Floor Space Ratio – No Control Height of Buildings – No Control/8.5m

The site is generally elevated with gradual slopes, primarily to the north, toward the floodplain areas. Vegetation consists of grassed paddocks and scattered trees. The vegetation on-site would be very different from what originally existed prior to the current farming activities. There are no natural waterways or other significant topographical features located on the site. A section of land along the northern boundary is identified as flood prone land.

The zone of the site is shown to the right. It is included in the Primary Production (RU1) zone (shown as brown) with a small area of RU5 (shown as pink).



2.0 Objectives

The primary objective of the Planning Proposal is to provide for growth of the village in accordance with the provisions of previous local planning strategies and the Mid North Coast Regional Strategy. The land will provide opportunities for additional residential development in the Coopernook village supporting existing services and facilities.

3.0 Explanation of provisions

To achieve the objectives, the planning proposal will amend *Greater Taree Local Environmental Plan 2010*. The proposed zones and areas have been determined on the basis of constraints identified for the land.

3.1 Zoning Changes

The planning proposal will achieve the objectives by altering the zonings over parts of the land where appropriate and will involve changes over parts of the land from the current RU1 zone to RU5 – Village. The RU1 zone will be retained over parts of the land where it is subject to flooding and to provide a buffer around the adjoining electricity substation.

3.2 Lot Size Controls

To facilitate subdivision of the land in a manner consistent with the proposed zonings, the lot size controls over the land will be modified to provide a 1,000m^2 lot size control for the RU5 zoned areas. The lot size control over the RU1 zoned area will be subject to a 5,000m^2 lot size to allow for small scale agriculture, rather than as a large residue parcel which is unlikely to be used in any sustainable manner.

3.3 Height of Buildings

The land is not currently subject to height of building controls. To facilitate building development on the land in a manner consistent with the proposed zonings, an 8.5 metre height of building control is proposed to be created over the land, consistent with the control over the rest of the Coopernook village.

4.0 Justification

4.1 Need for the planning proposal

The following justifies the need for the planning proposal.

4.1.1. Is the planning proposal a result of any strategic study/report?

Planning for village expansion at Coopernook has been the subject of Council strategies since before 1996 when Council prepared the *Rural Villages Study* which examined the potential for growth at various rural villages in the (former) Greater Taree local government area.

In 2005 the former Greater Taree City Council prepared the *Greater Taree Draft Conservation and Development Strategy* for the entire local government area. The Strategy identified the subject land as a proposed village expansion area.

In 2009 Council and the Coopernook Action Group prepared the *Coopernook Village Plan* which was prepared to provide for the adjustment of the village following the

bypass of the Pacific Highway. The Plan identifies that residential growth in the village is desired and identifies the subject land for village expansion (consistent with previous strategies). The Plan recognises that village expansion and population growth will assist in making existing commercial and public services more viable and possibly providing for an expansion of some commercial services in the town, revitalising its role as a rural community centre.

The village expansion in this area is the subject of ongoing strategic studies which have consistently recommended the village expansion in the manner proposed.

4.1.2 Is the planning proposal the best means of achieving the objectives/ outcomes?

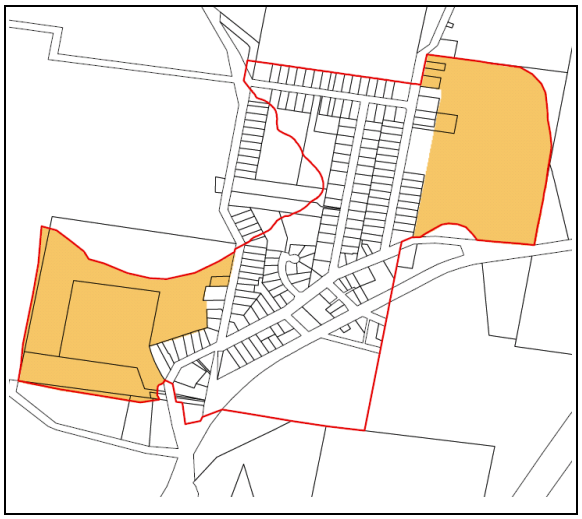
The planning proposal is the only feasible way to achieve the objectives or intended outcomes of providing village growth at Coopernook.

4.2 Relationship to strategic planning framework

4.2.1 Is the planning proposal consistent with the applicable regional strategy?

The proposal is consistent with the aims and objectives of the former Department of Planning and Infrastructure's Mid North Coast Regional Strategy 2006-31 and the Department of Planning and Environment's Hunter Regional Plan.

The Mid North Coast Regional Strategy was prepared in 2009 to guide growth in the Mid North Coast Region. The Strategy includes maps that identify future urban release areas within the region, including those areas in the (former) Greater Taree local government area. The plan for the (former) Greater Taree local government area (map 8) identifies the subject land as a future urban release area. The Department of Planning and Environment's Hunter Regional Plan builds on the vision and objectives of the Mid North Coast Regional Strategy.



The land does not contain any of the high environmental values identified in the Strategy and will not cause any impacts on such areas. The village zoning of the land will provide for future residential development that is consistent with the character of the village and surrounding area, and is consistent with the objectives of the Strategy for such areas.

4.2.2 Is the planning proposal consistent with a council's local strategy/plan?

There are no local strategies or plans that have been endorsed by the Director General. As discussed, the Council had prepared the *Greater Taree Draft Conservation and Development Strategy* in 2005, but the endorsement of the strategy was not completed. The draft Strategy identified the subject land for urban expansion as per the map extracted from the Strategy.

There are no local strategies or plans that have been endorsed by the Director General. As discussed, the Council had prepared the *Greater Taree Draft Conservation and Development Strategy* in 2005, but the endorsement of the strategy was not completed. The draft Strategy identified the subject land for urban expansion as per the map extracted from the Strategy.

The draft Strategy does not identify environmental constraints over the land, other than the flood prone areas in the northern parts of the site, which are addressed through this planning proposal.

4.2.3 Is the planning proposal consistent with applicable State Environmental Planning Policies (SEPP)?

The following provides an assessment of the applicable SEPPS.

(a) Koala Habitat Protection (SEPP 44)

In relation to rezoning of land, Clause 15 of SEPP 44 provides that Council should survey lands within its area and determine if the land constitutes potential or core koala habitat. The subject land is comprised completely of modified habitats and does not contain any native vegetation communities. The tree cover over the land is primarily exotic and introduced species, and would not comprise 'potential koala habitat'. In this case, no further provisions of the SEPP would be applicable to the proposal.

(b) Remediation of Land (SEPP 55)

State Environmental Planning Policy Number 55 (SEPP 55) deals with land that is contaminated and the requirements for remediation of that land. Clause 6 of SEPP 55 requires that when Council is considering zoning changes it must consider if the land is contaminated and, if contaminated, will it be suitable for the use or will it be remediated.

In relation to the subject land, it has been used for generally low intensity agricultural uses. There is no evidence of past uses being significantly contaminating, and the owners advise that they are not aware of any cattle dips or similar on the land. A Site Contamination Assessment has been undertaken by Regional Geotechnical Solutions which included targeted soils sampling and testing. It has been identified that the land is suitable for development in its uncontaminated state as identified in the report prepared by Regional Geotechnical Solutions. A copy of the Site Contamination Assessment is provided in Appendix A.

(c) Rural Lands 2008 [SEPP (Rural Lands)]

The aim of this policy is to facilitate the orderly and economic use of rural lands. The SEPP requires consistency with the Rural Planning Principles outlined in the SEPP, which is provided below.

Clause 7 Principles	Comment
(a) the promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas,	The subject land is not highly productive agricultural land, but does support low intensity agricultural uses including cattle and horse grazing. The change of these lands from agricultural use will not result in significant loss of productive agricultural land or of opportunity for sustainable rural activities.
(b) recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State,	The subject land is not highly productive agricultural land and is not important for agricultural production in the locality.
(c) recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development,	The planning proposal does not provide for the loss of rural land uses which are important for the social and economic benefits of rural communities. The planning proposal provides for growth of the Coopernook community in accordance with the local and regional strategy and provides for maintenance & enhancement of services for the local community.
(d) in planning for rural lands, to balance the social, economic and environmental interests of the community,	The planning proposal is balanced and provides social and economic benefits for the community through growth to support the existing services within the village.
(e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,	The planning proposal affects land which has been completely modified from past activities and has minimal biodiversity values, no native vegetation communities and does not impact on water resources.
(f) the provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities,	The planning proposal provides for housing in a manner identified in local and regional development strategies for the area which adds to the social and economic welfare of the community. Growth in the Coopernook village is important to provide for the ongoing viability of services which serve the local community.
(g) the consideration of impacts on services and infrastructure and appropriate location when providing for rural housing,	The planning proposal will include consultation with relevant service providers. The proposal will have access to reticulated water and sewer. Power and telecommunications are available in the locality and would need to be augmented to supply future development.
(h) ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.	The planning proposal is consistent with the Hunter Regional Plan and the Mid North Coast Regional Strategy and was identified as a future urban area in that Mid North Coast Regional Strategy. The proposal is consistent with the Coopernook Village Plan which was prepared by Greater Taree City Council.

While the proposed site is zoned RU1, it is not highly productive agricultural land and the planning proposal provides for uses which have been identified in development strategies for the area. The proposal facilitates growth in a small village which

previously serviced the highway and represents a suitable use of land to support the local community.

(e) Coastal Protection (SEPP 71)

This policy applies to land in the coastal zone which applies to this site. The proposal has been assessed against the aims of the policy and was considered to be consistent in terms of:

- the site is located approximately 11km from the coast and 500m from the Lansdowne River. As such the proposal does not impact on coastal access, views or processes or the marine environment;
- assessments of heritage, cultural heritage and environmental values are to be undertaken and are outlined in the relevant sections of the planning proposal;
- the development form will be consistent with established development in the Coopernook village and will maintain the character of the area.

4.2.4 Is the planning proposal consistent with Ministerial Directions (Section 117 directions)?

The following Ministerial Directions are applicable to the planning proposal:

- Direction 1.2 – Rural Zones – The subject land is zoned rural (RU1) and involves changes in the zone to RU5 and changes to minimum subdivision lot sizes. The objective of the Direction is to protect the agricultural production potential of land. The proposal is identified as the Northern Precinct Residential Area in the *Coopernook Village Plan 2009* and as future urban area in the *Mid North Coast Regional Strategy*. The *Hunter Regional Plan* and the *Mid North Coast Regional Strategy* include consideration of protecting agricultural production. The proposal does not impact on highly productive agricultural land. As the proposal is in accordance with the strategy and plan, the proposal can be inconsistent with this direction.

- Direction 1.5 – Rural Lands – This applies as the land involved changes to rural zoned land. The Direction provides that a rezoning must be consistent with the Rural Planning Principles and Subdivision Principles contained in *State Environmental Planning Policy (Rural Lands) 2008*. The Rural Planning Principles are discussed within Section 4.2.3, and the proposed rezoning is consistent with the principles. The Direction provides that a planning proposal may be inconsistent with these requirements where it is justified by a strategy which takes into account the objectives of the Direction. The *Mid North Coast Regional Strategy* is considered to account for the Direction's objectives and identifies the land as future urban.

- Direction 2.1 – Environmental Protection Zones – This Direction applies when a planning proposal is prepared. The Direction provides that a planning proposal must facilitate protection of environmentally sensitive areas. Given the disturbed nature of the site and surrounding areas, there are no environmentally sensitive areas on the site which would require an environmental protection zone.

- Direction Number 2.2 – Coastal Protection – This Direction applies to any planning proposal prepared for land in the coastal zone. The land is located in the coastal zone and the Direction provides that the planning proposal must be consistent with and give effect to the provisions of the *Coastal Policy, Coastal Design Guidelines* and the *Coastline Management Manual*. The proposal is considered consistent with these documents.

- Direction Number 2.3 – Heritage Conservation – This Direction applies whenever a planning proposal is prepared and provides for the conservation and protection of items of environment heritage and items of indigenous heritage significance. The subject land does not contain any listed heritage items. In relation to indigenous heritage, the Direction provides that items of Aboriginal Heritage should be identified by an Aboriginal Heritage Survey. An Aboriginal Assessment of the land has been undertaken over the land by an archaeologist, which included consultation with the Aboriginal community, including the Local Aboriginal Land Council. The assessment did not identify any Aboriginal Heritage values over the land which required protection. A copy of the cultural heritage assessment is provided in Appendix B.

- Direction Number 3.1 – Residential Zones – This Direction applies where a planning proposal will affect land within an existing or proposed residential zone. The proposal affects rural zoned land but does involve the creation of a residential zone. The Direction requires that the planning proposal:

  (a) broaden the choice of building types and locations available in the housing market, and
  (b) make more efficient use of existing infrastructure and services, and
  (c) reduce the consumption of land for housing and associated urban development on the urban fringe, and
  (d) be of good design.

  (5) A planning proposal must, in relation to land to which this direction applies:
  (a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it), and
  (b) not contain provisions which will reduce the permissible residential density of land.

  The existing planning instruments and development controls that would apply to future development of the land contain provisions consistent with the provisions of the Direction. Greater Taree LEP 2010 includes provisions that residential areas must be adequately serviced before subdivision may occur. The proposal will increase permissible residential density on the land.

- Direction Number 3.4 – Integrating Land Use and Transport – This Direction applies as the proposal involves the creation of a residential zone. This Direction requires Council to give effect to policies aimed at improving transport oriented design in urban areas. In the case of the subject land, the housing is in a small village with limited access to public transport. A bus service connects the village with Taree and Harrington and runs three (3) times a day. The subject site is located within 100 metres of this bus route, providing alternatives to cars for transport. In addition, the Direction provides that a planning proposal can be inconsistent with the Direction where it is consistent with a regional strategy (such as the *Hunter Regional Plan* and the *Mid North Coast Regional Strategy*).

- Direction Number 4.1 – Acid Sulfate Soils – This Direction applies where land to which the planning proposal applies has a probability of containing acid sulphate soils. The land is identified as Class 5 on the Planning maps which do not have a probability of containing Acid Sulfate Soils but are

located within 500 metres of lands with a probability of containing Acid Sulfate Soils. As such, this Direction would not be applicable to this proposal.

- Direction 4.3 – Flood Prone Land - This Direction applies as part of the subject site is identified as flood prone. The Direction applies when a planning proposal creates, removes or alters a zone or provision that affects flood prone land. The proposal would retain flood prone parts of the site in the RU1 zone. Minimum Subdivision Lot Sizes may alter to allow a smaller allotments size, however it would not introduce the opportunity for significant development in the flood prone parts of the site. Future development of these areas would be subject to the provisions of Council's Development Control Plans which include flooding controls developed under the *Floodplain Development Manual*. Future development will be considered in relation to the latest flooding information, including any allowance for climate change and sea level rise. The assessment will also consider flood affectation of roads connecting the site with Coopernook village.

- Direction Number 5.1 – Implementation of Regional Strategies – This Direction provides that a planning proposal must be consistent with the Mid North Coast Regional Strategy. This document is discussed within this report, and the proposal is consistent with the Strategy. The land is identified as future residential land within the maps that accompany the Strategy.

5.0 Environmental, social and economic impacts

5.1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The subject land is all highly disturbed and modified lands that do not contain native vegetation communities or significant habitat features. The land is used for low intensity grazing purposes and the vegetation on the site is almost entirely comprised of introduced pasture species, as well as planted exotic trees in the gardens around the existing dwelling. The subject lands are not identified as critical habitat and it is highly unlikely that the proposal would impact on threatened species, populations, ecological communities or their habitats.

5.2 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

Given the disturbed nature of the land and the previous use, few significant environmental constraints have been identified for the land. In relation to the issues identified, the following brief discussion is provided:

- Visual – The subject site is not highly visible in the surrounding visual catchment. The development outcomes that could result from the planning proposal are consistent with the village character of the area.
- Soils – The site is not mapped as having potential for Acid Sulfate Soils to be present. As discussed in relation to SEPP 55, a Site Contamination Assessment has been undertaken for the site. It had been identified that the land is suitable for development in its uncontaminated state as identified in the report prepared by Regional Geotechnical Solutions.

- Stormwater – The proposed development will generate increased stormwater run-off from the land. Future subdivision of the land can provide a suitable stormwater drainage system with controls over flows and water quality.
- Traffic – The proposed subdivision will increase traffic generated from the land. The proposal includes new connections to the existing village streets. Given the low volume of traffic likely to be generated, and the capacity of the existing streets, the proposal is unlikely to impact significantly on traffic in the village.

The subject site does adjoin an electricity substation, and consultation with Essential Energy determined that they required a buffer around the substation. A buffer area as required by Essential Energy, which extends the unbuilt area for the substation to 75m x 75m, has been retained within the RU1 zone. The buffer area will be contained in roadway areas and/or subject to a restrictive covenant limiting the erection of buildings in this area, which will be created over this part of land when subdivision occurs.

5.3 Has the planning proposal adequately addressed any social and economic effects?

The proposal is expected to generally create positive social and economic effects. The planning proposal provides for village growth in the Coopernook area which has been identified as important in the ongoing sustainability of Coopernook as a rural community. The growth in the village has been identified as important to provide for the ongoing viability of the existing businesses and services within the village, especially since the bypass of the highway and the loss to the local economy that occurred with the loss of significant highway trade. The planning proposal therefore provides positive social and economic impacts for the local community. The growth of the village as proposed was identified in the *Coopernook Village Plan* prepared by the community in conjunction with Council.

The subject land is adjacent to existing heritage items, as well as near an existing heritage conservation area. The proposed lot size controls and village zoning will act to ensure outcomes on the land maintain the village character, while the Council's DCP and Character Statements for Coopernook will ensure future built forms on the land respect the established village character of the Coopernook village.

Aboriginal cultural heritage has been investigated by Jackie Collins and has included consultation with the Aboriginal community. The cultural heritage assessment did not identify any Aboriginal Cultural Heritage materials at the site or identify that the site was likely to contain such materials. The report concluded that the rezoning could proceed.

6.0 State and Commonwealth interests

6.1 Is there adequate public infrastructure for the planning proposal?

The proposal provides for a small amount of village expansion and does not involve a significant population increase. These small increases, however, have been identified as important to support existing public services and infrastructure in the area such as schools and other village services.

Service infrastructure required for the proposed subdivision will be for water, sewer, electricity and telecommunications. Water and sewer will be provided by MidCoast Water's reticulated water and sewerage systems for the Coopernook village. The water and sewer strategies for the Coopernook Scheme provide for servicing of the subject land, with an allowance made for 100 ETs from the subject land. The

concept subdivision layout provides for 87 lots (ETs) and is within the planned capacity by the service provider. The site adjoins the zone substation and will have excellent access to electricity services, subject to necessary augmentation and reticulation in construction. Telephone services are available in the area and can be extended to future subdivision on the land.

6.2 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?

As per the Gateway Determination, consultation occurred with:

- Department of Education in regard to the adjoining school.
- Essential Energy in regard to the adjoining substation.
- Office of Environment and Heritage in regard to Cultural Heritage.
- MidCoast Water.

Responses have been received from the Office of Environment and Heritage, and Essential Energy, and their responses are summarised in the table below:

Agency	Matters raised	Action Taken
Office of Environment and Heritage (OEH)	• Proposal will not impact on high environmental values. No further comments required on Biodiversity. • OEH has reviewed Cultural Heritage Investigations and find them satisfactory and has addressed OEH requirements. • Council should consider climate change aspects for flooding at the time of assessment of development of the land.	• Noted • Noted • Noted and changes made in Planning Proposal to reference climate change aspects for flooding.
Essential Energy	Essential Energy is generally satisfied with the buffer proposed surrounding the existing Coopernook ZS although requests details of how the buffer will be enforced	Planning Proposal has been updated to clarify buffer and enforcement methods.

Further responses were received from MidCoast Water and Essential Energy during the public exhibition period. The following table details the responses of these service providers:

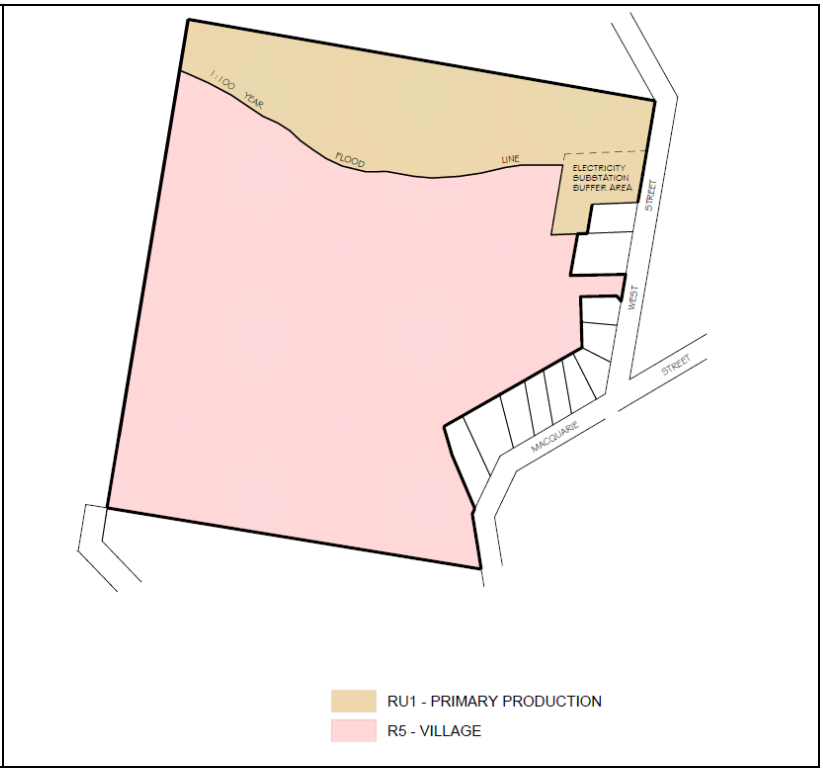
Agency	Matters raised	Action Taken
MidCoast Water	• Site is within water and sewer servicing area and there is sufficient capacity for the proposal. • Water Sewer Strategy will need to be developed for subdivision of the land. • Areas above 29.6m AHD have a water service limitation and areas approaching this level may have pressure issues. Water strategy	• Noted • Water Sewer Strategy will be developed for application to subdivide land. The strategy shall consider any low pressure zones.

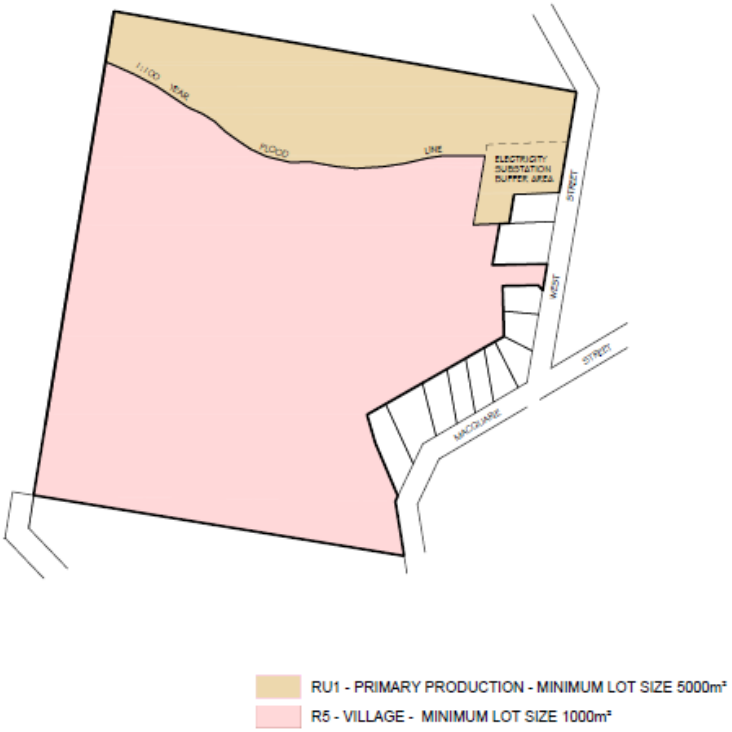
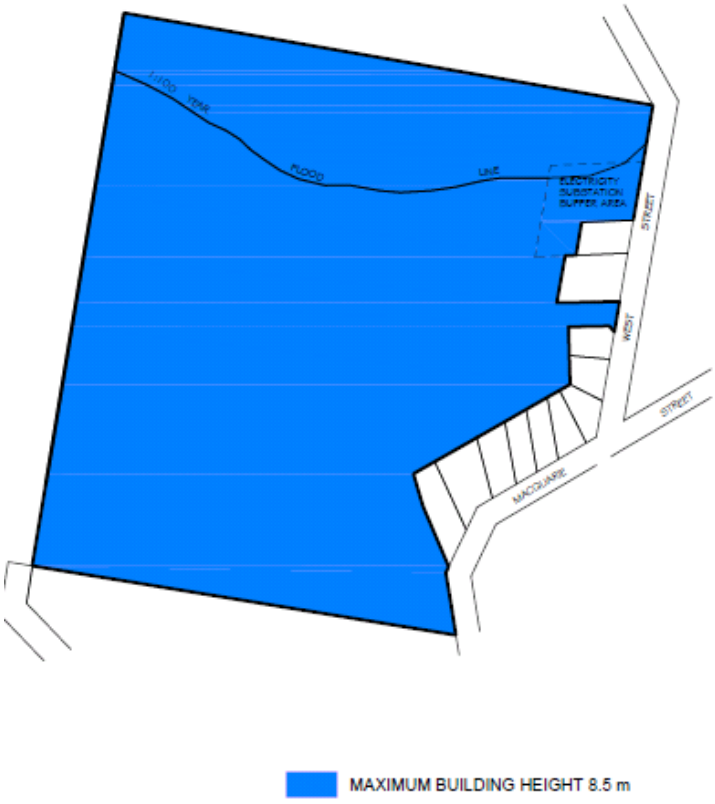
Agency	Matters raised	Action Taken
	shall address these issues. • All infrastructure to be at applicant's cost and constructed to MidCoast Water's standard. • Advises of authority's process for development.	• Infrastructure will be constructed in development phase. • Noted
Essential Energy	• Essential Energy has no objection to the proposal. • Easements for electricity infrastructure to be created as part of any subdivision. • Notice of Arrangement will be required for provision of electricity services to future lots. • Note consultation requirements for development applications under *State Environmental Planning Policy (Infrastructure) 2007*.	• Noted. • Easements created through subdivision approval process. • Noted • Noted

The Department of Education and Training responded to advise that they had no objections to the proposal.

7.0 Mapping

Mapping has been prepared for the planning proposal as shown below. Maps consistent with the LEP have been prepared.

Proposed Zoning **RU1 (Primary Production) to** **RU5 (Village)**	

Proposed Subdivision Lot Size 1,000m^2 and 5,000m^2	
Proposed Height of Buildings Map – 8.5m	

8.0 Community Consultation

Community consultation was undertaken from 31 August to 28 September 2016 and included:

- public notification in the Manning News of the Manning River Times
- letters sent to all adjoining property owners
- information made available on Council's website, the Administration Building and Taree Library
- a number of radio and local television interviews.

Five (5) community submissions were received. Four (4) supported the application, including a submission from the Principal of Coopernook Public School. The Principal identified that the 40km school zone will have to be extended in the future to accommodate this growth area. This will be a future consideration for the traffic committee when the development proceeds.

One (1) submission against the proposal was received from a neighbour. They raised concerns about the impact that their use of the land for dairy operations and cattle farming may have on any new development. Particular concerns were raised about the noise impact that the weaning of cattle would have on future residents.

There is a history to this issue. The subject land was identified in the Greater Taree Draft Conservation and Development Strategy 2005 and the Mid North Coast Regional Strategy 2006-31. In 2008, a Development Application (DA) was approved on the neighbouring property for a dairy and yards, incorporating a 200m boundary setback from the land subject to this planning proposal. When the DA application was lodged the owner of the subject land raised concerns about this potential conflict. At the time of assessment it was determined that the setback would act as a buffer from the boundary and the assessing officer was aware of the future development potential of the land subject to this planning proposal. On this basis of the setbacks the Development Application (DA) was approved. Any future subdivision of the subject site will include the provision of appropriate buffers and setbacks, and subdivide the land in a manner that accommodates neighbouring land uses.

No changes have been made to the planning proposal as a result of the community consultation.

9.0 Project Timeline

The project timeline below will be followed for the Planning Proposal.

Task	Responsibility	Timeframe	Date
Draft Planning Proposal reported to Council for consideration	Greater Taree City Council		June 2015 (actual)
Lodgement of Planning Proposal for Gateway Determination	Greater Taree City Council		June 2015 (actual)
Gateway Determination	Minister for Planning and Environment	4 weeks	July 2015 (actual)
Additional investigations and assessments prepared and	Proponent/ MidCoast Council	12 weeks	June 2016 (actual)

consultation undertaken			
Public Exhibition of Planning Proposal	MidCoast Council	Minimum 28 days	September 2016
Final Planning Proposal reported to Council	MidCoast Council	4 weeks	November 2016
Making of Local Environmental Plan	MidCoast Council (delegation)	6-8 weeks	January 2017

10.0 Attachments

A – Site Contamination Assessment (Regional Geotechnical Solutions)
B – Aboriginal Cultural Heritage Assessment (J.P. Collins)
C – Heritage Assessment and Heritage Impact Statement (INHERITage)
D – Agency and Service Provider Submissions
E – Gateway Determination

Attachment A – Site Contamination Assessment (prepared by Regional Geotechnical Solutions)

John Hogg

Part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 109033; Macquarie and West Streets, Coopernook

Site Contamination Assessment

Report No. RGS01085.1-AB

13 October 2015

REGIONAL
GEOTECHNICAL SOLUTIONS

REGIONAL
GEOTECHNICAL SOLUTIONS

Manning-Great Lakes

Port Macquarie

Coffs Harbour

RGS01085.1-AB

13 October 2015

John Hogg
C/o McGlashan and Crisp Pty Ltd
117 Victoria Street
TAREE NSW 2430

Attention: Greg Crisp

Dear Greg,

RE: Site Contamination Assessment – Part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 109033; Macquarie and West Streets, Coopernook

Regional Geotechnical Solutions Pty Ltd (RGS) has undertaken a site contamination assessment at Part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 109033 Macquarie and West Street, Coopernook where it is proposed to develop residential subdivision.

The assessment found concentrations below the level of reporting or adopted assessment criteria for a 'Residential A' site as detailed in the '*National Environment Protection (Assessment of Site Contamination) Measure (NEPM 2013)*' guidelines.

Presented herein is a summary of the work undertaken, the findings of the site investigation, a review of the laboratory test results compared to the NEPM (2013) guidelines.

If you have any questions regarding this project, or require any additional consultations, please contact the undersigned.

For and on behalf of

Regional Geotechnical Solutions Pty Ltd

Steve Morton

Principal Geotechnical Engineer

Regional Geotechnical Solutions Pty Ltd
ABN 51141848820

44 Bent Street
Wingham NSW 2429
Ph. (02) 6553 5641

Email steve.m@regionalgeotech.com.au
Web: www.regionalgeotech.com.au

Table of Contents

Figures

Appendices

1 INTRODUCTION

Regional Geotechnical Solutions Pty Ltd (RGS) have undertaken a site contamination assessment of an area of land proposed for residential subdivision development at Part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 109033, Macquarie and West Street, Coopernook in accordance with current EPA Guidelines for Consultants Reporting on Contaminated Sites.

The proposed development is to include the subdivision of the site into 87 lots and construction of new pavements.

The purpose of the work proposed herein would be to provide an assessment of the presence of contamination of the site resulting from past site activities, and to provide an assessment of:

- The potential impacts of such contamination (if any) on the proposed future residential site usage;
- Possible future site remediation or management needs; and
- Potential impacts (if any) on the surrounding environment.

The work was undertaken in general accordance with RGS proposal RGS01085.1-AA.

2 METHODOLOGY

In accordance with the brief, the site was assessed using the following methodology:

- A brief study of site history, with the aim of identifying past activities on or near the site that might have the potential to cause contamination;
- Site walkover to assess visible surface conditions and identify any evidence of contamination, or past activities that may cause contamination;
- Search of Environmental Protection Authority (EPA) website for any contamination notices for the site;
- Discussion with current owners to assess possible past land uses or activities that may present potential sources of contamination or contaminating activities; and
- Excavating eight test pits to a depth of up to 0.4m and the collection of representative samples.

Engineering logs of the test pits are provided in Appendix A. Test locations are shown on Figure 1 and were based on measurements from relative site features.

Samples were collected from the test pits using disposable gloves and hand tools. All sampling equipment was decontaminated between sampling points using Decon90 detergent and deionised water. The samples were collected in laboratory supplied and pre-treated jars or sample bags as appropriate for the intended analysis.

3 SITE CONDITIONS

3.1 Surface Conditions

The site is located adjacent to the village of Coopernook and has frontages to both Macquarie Street and West Street. The lots have a combined area of approximately 17.6 hectares.

The site is located along the crest, upper and mid slopes of a ridgeline on the western side of the existing township of Coopernook. The northern portion of the site is low lying. Residential houses border the eastern and south-eastern sides of the site. The land to the north and west is used for grazing purposes. The site itself was used as grazing land and contains an existing residence and some associated outbuildings in the southern half of the site. The site itself is vegetated almost entirely by introduced pasture species, as well as some exotic trees in the gardens around the existing dwelling.

Location of the site

Typical site photographs are presented below.

Looking west toward existing house from south east

Looking toward south east from TP5 east of shed

Looking north east behind house showing pile containing corrugated iron, wheel and concrete

Looking north east from western part of site

Looking toward cattle yard

Looking toward south west from TP3

3.2 Site History

Aerial photography of the site was reviewed and included the assessment of historical photographs from online sources including Google Earth. The purpose of this review was to assist in the identification of past land use activities that may contribute to site contamination.

In relation to the subject land, it has been used for generally low intensity agricultural uses. There is no visible evidence of past uses being significantly contaminating, and the owners advise that they are not aware of any cattle dips or similar on the land. It is possible that some minor contamination could be possible from agricultural uses of the land, including at yards and stock handling areas where chemical treatments may have been applied, as well as in storage/farm sheds where maintenance and fuelling activities may have occurred.

The owners reported a former above ground diesel tank used for fuelling farming vehicles had been located on the site but was sold 20 to 25 years ago. During the site walkover no odour or visible indication of fuel or similar was observed on or around the tank location.

3.3 Areas of Environmental Concern

Based on the site observations and knowledge obtained about site activities as outlined above, potential Areas of Concern and Chemicals of Concern were identified for the assessment as outlined in **Table 1**.

Table 1: Areas of Concern & Chemicals of Concern

Area of Concern	Mode of Potential Contamination	Chemicals of Concern	Receptor
Soil around the location of the former above ground fuel tank	Leakage of fuels from tanks pipework and/or spillage during fuelling operations.	Heavy metals, TPH, BTEX, PAH.	Surrounding soils or site occupants or construction personnel
Soils in vicinity of stacked old rusted corrugated iron, wheels and concrete materials behind western side of existing house	Potential contact with chemicals from containers including fuel/oils, Disposal of contaminated material including asbestos	Heavy metals, TPH, BTEX, PAH, asbestos	Surrounding soils or site occupants or construction personnel
Area used for treatment of stock with veterinary chemicals, such as around the cattle yards	Splashing and spraying of pesticides during use, Dripping cattle, Split pesticides based on past practices	As, OC,OP	Surrounding soils or site occupants or construction personnel

3.4 Subsurface Conditions

The 1:100,000 Taree Quaternary Map indicates that the site is underlain by the Tertiary to Pleistocene high-level terrace which comprises silt, clay, gravel and fluvial sand on the east, north and north western side of the site. Other portion of the site is underlain by Holocene floodplain which comprises silt, fluvial sand and clay.

Detailed descriptions of the conditions encountered are provided in the engineering logs presented in Appendix A.

Groundwater inflows were not encountered during the investigation. A groundwater bore search on the NSW Water Information website, (http://waterinfo.nsw.gov.au/gw/) indicates that the closest groundwater bore to the site is located beyond 1km to the East.

4 LABORATORY ANALYSIS

Ten soil samples were transported under chain-of-custody to ALS, a NATA accredited specialist chemical testing laboratory. The samples included two duplicates soil sample. The samples were analysed for the following suite of contaminants which was specifically requested within the project brief:

- Polycyclic Aromatic Hydrocarbons (PAH);
- Total Recoverable Hydrocarbons (TRH);
- Benzene, Toluene, Ethyl-benzene, Xylenes (BTEX);
- Polychlorinated Biphenyls (PCB);
- Organochlorine and Organophosphorus Pesticides (OCPs and OPPs);
- Heavy metals (arsenic, cadmium, chromium, cobalt, copper, lead, mercury, and zinc);and
- Presence of Asbestos.

The results are presented in Appendix B.

5 QUALITY CONTROL

Samples were obtained using industry accepted protocols for sample treatment, preservation, and equipment decontamination. Two duplicate samples were submitted to the laboratory for analysis. Comparison of the test results on the primary (TP4, 0.05 – 0.2m and TP8, 0.05-0.2m) and duplicate (TP9, 0.05 – 0.2m and TP10, 0.05-0.2m respectively) samples generally show good correlation.

In addition to the field QC procedures, the laboratory conducted internal quality control testing including surrogates, blanks, and laboratory duplicate samples. The results are presented with the laboratory test results in Appendix B.

All laboratory quality control data is within acceptable limits for the tests carried out. Therefore, on the basis of the results of the field and laboratory quality control procedures and testing the data is

considered to reasonably represent the concentrations of contaminants in the soils at the sample locations at the time of sampling and the results can be adopted for this assessment.

6 SITE CONTAMINATON ASSESSENT

6.1 Guidelines and Assessment Criteria - Soils

The assessment was carried out in accordance with the National Environment Protection (Assessment of Site Contamination) Measure (NEPM 2013). The NEPM document provides a range of guidelines for assessment of contaminants for various land uses. It is proposed to develop the area for residential housing, therefore the investigation levels for "Residential A" land use have been adopted as the primary investigation criteria. In accordance with the NEPM guidelines the following criteria were adopted for this assessment:

- Health Investigation Levels (HILs) for residential land use were used to assess the potential human health impact of heavy metals and PAH;
- Health Screening Levels (HSLs) for coarse textured (sand or gravel) or fine textured (silt or clay) soils on a residential site were adopted as appropriate for the soils encountered to assess the potential human health impact of petroleum hydrocarbons and BTEX compounds;
- Ecological Investigation Levels (EILs) for residential land use were used for evaluation of the potential ecological / environmental impact of heavy metals and PAH;
- Ecological Screening Levels (ESLs) for coarse textured (sand or gravel) or fine textured (silt or clay) soils on a residential site were adopted as appropriate for the soils encountered, to assess the potential ecological / environmental impact of petroleum hydrocarbons and BTEX compounds;

In accordance with NEPM 2013, exceedance of the criteria does not necessarily mean that remediation or clean-up is required, but is a trigger for further assessment of the extent of contamination and associated risks. The adopted criteria are presented in **Table 2**.

Table 2: Adopted Soil Investigation Criteria (mg/kg)

Analyte	Adopted Soil Investigation Criteria	Analyte	Adopted Soil Investigation Criteria
Benzene	0.5	Chlordane	50
Toluene	160	Heptachlor	6
Ethyl-benzene	55	Copper	6,000
Xylene	40	Lead	300
TPH C_6 – C_{10} (F1)	180[1]	Zinc	7,400
TPH C_{10} – C_{16} (F2)	120[1]	Cadmium	20
TPH C_{16} – C_{34} (F3)	300[1]	Chromium (VI)	100

Analyte	Adopted Soil Investigation Criteria	Analyte	Adopted Soil Investigation Criteria
TPH C_{34} – C_{40} (F4)	2800(1)	Arsenic	100
Benzo-a-pyrene	0.7(1)	Nickel	400
Phenol	3,000	Mercury	40
DDT+DDE+DDD	240		
Aldrin / Dieldrin	6		

NOTES:

1. *Based on ecological screening levels (ESL).*

6.2 Test Results

An evaluation of the laboratory test results against the adopted soil assessment criteria as presented in Table B1 in Appendix B is provided below:

- Results of heavy metal analysis revealed concentrations were well below the adopted assessment criteria;
- Results of BTEX analysis revealed concentrations below the level of reporting in all samples tested and therefore below the adopted assessment criteria;
- Results of all TRH analysis revealed concentrations below the level of reporting in all samples tested and therefore below the adopted assessment criteria;
- Results of PAH analysis revealed concentrations for some above the level of reporting but well below the adopted assessment criteria; and
- Results of organochlorine and organophosphorus pesticide analysis recorded values below level of recording for all samples tested; and
- Results of PCB analysis revealed concentrations for some above the level of reporting but well below the adopted assessment criteria.

6.3 Assessment & Conclusions

For all samples tested, analysis found that TPH, BTEX, PAH and OC/OP pesticides were either at concentrations below the laboratory detection limits or at concentrations below the adopted assessment criteria for the proposed land use. No asbestos was encountered in any of the samples.

On the basis of the assessment undertaken, the site is deemed to meet the requirements for a Residential 'A' site as detailed in the NEPM 2013 guidelines. Further assessment regarding site contamination is not required.

7 LIMITATIONS

The findings presented in the report and used as the basis for recommendations presented herein were obtained using normal, industry accepted geotechnical practises and standards. To our knowledge, they represent a reasonable interpretation of the general condition of the site. Under no circumstances, however, can it be considered that these findings represent the actual state of the site at all points. If site conditions encountered during construction vary significantly from those discussed in this report, Regional Geotechnical Solutions Pty Ltd should be contacted for further advice.

This report alone should not be used by contractors as the basis for preparation of tender documents or project estimates. Contractors using this report as a basis for preparation of tender documents should avail themselves of all relevant background information regarding the site before deciding on selection of construction materials and equipment.

If you have any questions regarding this project, or require any additional consultations, please contact the undersigned.

For and on behalf of

Regional Geotechnical Solutions Pty Ltd

Steve Morton

Principal

Figures

Legend

Test Pit Location

REGIONAL GEOTECHNICAL SOLUTIONS

Client	John Hogg	Job No.	RGS01085.1
Project:	Contamination Assessment Residential Subdivision Macquarie Street, Coopernook	Drawn By: Date:	Champak Nag 16-Sep-15
Title:	Test Pit Location Plan	Drawing No.	**Figure 1**

Appendix A

Results of Field Investigations

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP1

CLIENT: John Hogg

PAGE: 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision

JOB NO: RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1

DATE: 7/9/15

EQUIPMENT TYPE: Shovel

SURFACE RL:

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m

DATUM: AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	E 0.10m					**SILT:** Low plasticity, dark brown	M				TOPSOIL
				0.5			0.20m Hole Terminated at 0.20 m					

LEGEND:

Water

- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes

- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density		
V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition	
D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP2

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	0.05m E 0.15m					**SILT:** Low plasticity, dark brown 0.20m	M				TOPSOIL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP3

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		Structure and additional observations
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	
Shovel	Not Encountered	0.30m E 0.40m					**SILT:** Low plasticity, dark brown 0.40m					TOPSOIL
				0.5			Hole Terminated at 0.40 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP4

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	0.05m E 0.20m					**Clayey SILT:** Low plasticity, dark brown, trace of Gravel 0.20m					TOPSOIL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP5

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	E 0.10m					**Gravelly CLAY:** Low plasticity, dark brown to brown, grey, fine grained Gravel 0.20m					TOPSOIL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP6

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	0.10m E 0.20m					**Clayey SILT:** Low plasticity, dark brown 0.20m					TOPSOIL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density		
V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition	
D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP7

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	E 0.10m					**CLAY:** Low plasticity, dark brown, with fine grained Gravel 0.20m					TOPSOIL/FILL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

ENGINEERING LOG - TEST PIT

REGIONAL GEOTECHNICAL SOLUTIONS

TEST PIT NO: TP8

CLIENT: John Hogg | **PAGE:** 1 OF 1

PROJECT NAME: Contamination Assessment Res. Subdivision | **JOB NO:** RGS01085.1

LOGGED BY: CN/JM

LOCATION: Refer to Figure 1 | **DATE:** 7/9/15

EQUIPMENT TYPE: Shovel | **SURFACE RL:**

TEST PIT LENGTH: 0.2 m **WIDTH:** 0.2 m | **DATUM:** AHD

Drilling and Sampling					Material description and profile information					Field Test		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Shovel	Not Encountered	0.05m E 0.20m					**Clayey GRAVEL:** Fine to medium grained, subrounded Gravel, grey, brown to dark brown, medium plasticity Clay 0.20m					FILL
				0.5			Hole Terminated at 0.20 m					

LEGEND:

Water
- Water Level (Date and time shown)
- Water Inflow
- Water Outflow

Strata Changes
- Gradational or transitional strata
- Definitive or distict strata change

Notes, Samples and Tests

U_{50}	50mm Diameter tube sample
CBR	Bulk sample for CBR testing
E	Environmental sample (Glass jar, sealed and chilled on site)
ASS	Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled)
B	Bulk Sample

Field Tests

PID	Photoionisation detector reading (ppm)
DCP(x-y)	Dynamic penetrometer test (test depth interval shown)
HP	Hand Penetrometer test (UCS kPa)

Consistency

		UCS (kPa)
VS	Very Soft	<25
S	Soft	25 - 50
F	Firm	50 - 100
St	Stiff	100 - 200
VSt	Very Stiff	200 - 400
H	Hard	>400
Fb	Friable	

Density

V	Very Loose	Density Index <15%
L	Loose	Density Index 15 - 35%
MD	Medium Dense	Density Index 35 - 65%
D	Dense	Density Index 65 - 85%
VD	Very Dense	Density Index 85 - 100%

Moisture Condition

D	Dry
M	Moist
W	Wet
W_p	Plastic Limit
W_L	Liquid Limit

Appendix B

Laboratory Test Result Sheets

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1530798**	Page	: 1 of 11
Client	: **REGIONAL GEOTECHNICAL SOLUTION**	Laboratory	: Environmental Division Sydney
Contact	: CHAMPAK NAG	Contact	:
Address	: 44 BENT STREET WINGHAM NSW, AUSTRALIA 2429	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: champak@regionalgeotech.com.au	E-mail	:
Telephone	: +61 02 6553 5641	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: CONTAMINATION ASSESSMENT, PROPOSED RESIDENTIAL SUBDIVISION RGS01085.1	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 10-Sep-2015 09:30
C-O-C number	: ----	Date Analysis Commenced	: 11-Sep-2015
Sampler	: ----	Issue Date	: 17-Sep-2015 17:32
Site	: LOTS 1,2 & 9 DP32273 AND LOT 9 DP32272		
		No. of samples received	: 10
Quote number	: ----	No. of samples analysed	: 10

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Pabi Subba	Senior Organic Chemist	Sydney Inorganics
Pabi Subba	Senior Organic Chemist	Sydney Organics
Raymond Commodore	Instrument Chemist	Sydney Inorganics
Shaun Spooner	Asbestos Identifier	Newcastle - Asbestos

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.

- EG005T: Poor precision was obtained for Zinc on sample ES1530988 #005 due to sample heterogeneity. Results have been confirmed by re-extraction and reanalysis.
- **EA200: As only one sample container was submitted for multiple tests, sub sampling was conducted prior to Asbestos analysis. As this has the potential to understate detection, results should be scrutinised accordingly and NATA accreditation does not apply to analysis on these samples.**
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: Negative results for vinyl tiles should be confirmed by an independent analytical technique.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP1 0.0-0.1	TP2 0.05-0.15	TP3 0.3-0.4	TP4 0.05-0.2	TP5 0.0-0.1
			Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit	ES1530798-001	ES1530798-002	ES1530798-003	ES1530798-004	ES1530798-005
				Result	Result	Result	Result	Result
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1	%	28.7	40.7	28.5	23.3	20.3
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	----	No
Asbestos Type	1332-21-4	-	--	-	-	-	----	-
Sample weight (dry)	----	0.01	g	41.6	28.1	51.4	----	51.6
APPROVED IDENTIFIER:	----	-	--	S.SPOONER	S.SPOONER	S.SPOONER	----	G.MORGAN
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	7	8	<5	<5	6
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	5	9	7	4	6
Copper	7440-50-8	5	mg/kg	<5	8	<5	<5	87
Lead	7439-92-1	5	mg/kg	18	22	15	16	112
Nickel	7440-02-0	2	mg/kg	<2	5	3	<2	<2
Zinc	7440-66-6	5	mg/kg	10	11	<5	23	223
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP1 0.0-0.1	TP2 0.05-0.15	TP3 0.3-0.4	TP4 0.05-0.2	TP5 0.0-0.1
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-001	ES1530798-002	ES1530798-003	ES1530798-004	ES1530798-005
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP1 0.0-0.1	TP2 0.05-0.15	TP3 0.3-0.4	TP4 0.05-0.2	TP5 0.0-0.1
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-001	ES1530798-002	ES1530798-003	ES1530798-004	ES1530798-005
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP1 0.0-0.1	TP2 0.05-0.15	TP3 0.3-0.4	TP4 0.05-0.2	TP5 0.0-0.1
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-001	ES1530798-002	ES1530798-003	ES1530798-004	ES1530798-005
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		121	114	124	123	126
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		105	88.4	101	102	108
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		106	93.3	102	106	113
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		106	107	110	103	107
2-Chlorophenol-D4	93951-73-6	0.5	%		95.2	96.5	97.4	92.9	92.6
2.4.6-Tribromophenol	118-79-6	0.5	%		77.3	84.6	82.5	80.7	78.8
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		94.6	95.7	94.0	93.6	98.5
Anthracene-d10	1719-06-8	0.5	%		123	118	112	120	120
4-Terphenyl-d14	1718-51-0	0.5	%		97.0	95.7	101	98.8	97.1
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		89.5	81.5	92.5	84.6	95.8
Toluene-D8	2037-26-5	0.2	%		101	97.0	99.6	96.6	102
4-Bromofluorobenzene	460-00-4	0.2	%		100.0	99.9	101	96.8	103

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP6 0.1-0.2	TP7 0.0-0.1	TP8 0.05-0.2	TP9 0.05-0.2	TP10 0.05-0.2
			Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit	ES1530798-006	ES1530798-007	ES1530798-008	ES1530798-009	ES1530798-010
				Result	Result	Result	Result	Result
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1	%	22.5	28.2	20.3	22.8	30.4
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	----
Asbestos Type	1332-21-4	-	--	-	-	-	-	----
Sample weight (dry)	----	0.01	g	67.8	37.1	70.1	42.1	----
APPROVED IDENTIFIER:	----	-	--	G.MORGAN	G.MORGAN	S.SPOONER	S.SPOONER	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	6	8	<5	5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	5	6	8	5	9
Copper	7440-50-8	5	mg/kg	<5	<5	8	<5	8
Lead	7439-92-1	5	mg/kg	16	14	13	18	15
Nickel	7440-02-0	2	mg/kg	<2	<2	2	<2	2
Zinc	7440-66-6	5	mg/kg	14	22	47	26	48
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP6 0.1-0.2	TP7 0.0-0.1	TP8 0.05-0.2	TP9 0.05-0.2	TP10 0.05-0.2
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-006	ES1530798-007	ES1530798-008	ES1530798-009	ES1530798-010
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP6 0.1-0.2	TP7 0.0-0.1	TP8 0.05-0.2	TP9 0.05-0.2	TP10 0.05-0.2
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-006	ES1530798-007	ES1530798-008	ES1530798-009	ES1530798-010
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	>C10_C16	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP6 0.1-0.2	TP7 0.0-0.1	TP8 0.05-0.2	TP9 0.05-0.2	TP10 0.05-0.2
				Client sampling date / time	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]	[07-Sep-2015]
Compound	CAS Number	LOR	Unit		ES1530798-006	ES1530798-007	ES1530798-008	ES1530798-009	ES1530798-010
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		114	108	108	126	105
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		91.8	66.2	92.2	111	85.5
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		93.9	66.6	95.3	116	90.4
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		102	104	110	102	103
2-Chlorophenol-D4	93951-73-6	0.5	%		91.2	92.3	98.2	99.0	99.8
2.4.6-Tribromophenol	118-79-6	0.5	%		73.4	74.8	82.9	82.2	78.8
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		92.6	88.3	90.2	94.5	93.2
Anthracene-d10	1719-06-8	0.5	%		119	122	110	120	117
4-Terphenyl-d14	1718-51-0	0.5	%		102	101	105	99.0	98.5
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		91.5	95.3	92.6	98.5	87.8
Toluene-D8	2037-26-5	0.2	%		106	105	103	102	91.6
4-Bromofluorobenzene	460-00-4	0.2	%		104	102	103	104	91.6

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	TP10.0-0.1 - [07-Sep-2015]	Dark grey - brown clay soil with grey rocks.
EA200: Description	TP20.05-0.15 - [07-Sep-2015]	Dark grey - brown clay soil with grey rocks.
EA200: Description	TP30.3-0.4 - [07-Sep-2015]	Dark grey - brown clay soil with grey rocks.
EA200: Description	TP50.0-0.1 - [07-Sep-2015]	Mid brown clay soil with grey rocks.
EA200: Description	TP60.1-0.2 - [07-Sep-2015]	Mid brown clay soil with grey rocks.
EA200: Description	TP70.0-0.1 - [07-Sep-2015]	Mid brown clay soil with grey rocks.
EA200: Description	TP80.05-0.2 - [07-Sep-2015]	Mid grey - brown clay soil with grey rocks.
EA200: Description	TP90.05-0.2 - [07-Sep-2015]	Mid grey - brown clay soil with grey rocks.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES1530798**	Page	: 1 of 13
Client	: **REGIONAL GEOTECHNICAL SOLUTION**	Laboratory	: Environmental Division Sydney
Contact	: CHAMPAK NAG	Contact	:
Address	: 44 BENT STREET WINGHAM NSW, AUSTRALIA 2429	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: champak@regionalgeotech.com.au	E-mail	:
Telephone	: +61 02 6553 5641	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: CONTAMINATION ASSESSMENT, PROPOSED RESIDENTIAL SUBDIVISION RGS01085.1	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 10-Sep-2015
C-O-C number	: ----	Date Analysis Commenced	: 11-Sep-2015
Sampler	: ----	Issue Date	: 17-Sep-2015
Site	: LOTS 1,2 & 9 DP32273 AND LOT 9 DP32272	No. of samples received	: 10
Quote number	: ----	No. of samples analysed	: 10

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out ir compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Pabi Subba	Senior Organic Chemist	Sydney Inorganics
Pabi Subba	Senior Organic Chemist	Sydney Organics
Raymond Commodore	Instrument Chemist	Sydney Inorganics
Shaun Spooner	Asbestos Identifier	Newcastle - Asbestos

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA055: Moisture Content (QC Lot: 211509)									
ES1530701-048	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1	%	26.3	26.6	1.09	0% - 20%
ES1530798-003	TP3 0.3-0.4	EA055-103: Moisture Content (dried @ 103°C)	----	1	%	28.5	27.9	1.85	0% - 20%
EA055: Moisture Content (QC Lot: 211510)									
ES1530809-002	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1	%	22.5	22.0	2.21	0% - 20%
ES1530832-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1	%	2.1	2.3	9.89	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 212221)									
ES1530763-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	10	10	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	9	10	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	7	7	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	20	14	32.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	52	56	7.26	0% - 50%
ES1530988-005	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	9	9	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	7	6	28.7	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	6	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	61	86	34.2	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	85	87	3.00	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	778	# 557	33.0	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 212990)									
ES1530798-009	TP9 0.05-0.2	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	4	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	18	16	14.2	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	26	25	0.00	No Limit
ES1530930-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	215	199	7.65	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	168	186	10.6	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	74	68	7.48	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	220	245	10.8	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	41	34	17.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	3080	3400	9.95	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 212220)									
ES1530763-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1530641-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 212989)									
ES1530798-009	TP9 0.05-0.2	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1530930-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	1.1	1.5	34.6	0% - 50%
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 210091)									
ES1530641-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 210090)									
ES1530641-001	Anonymous	EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 210090) - continued									
ES1530798-006	TP6 0.1-0.2	EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 210090)									
ES1530641-001	Anonymous	EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 210090) - continued									
ES1530798-006	TP6 0.1-0.2	EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 210089)									
ES1530641-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 210089) - continued									
ES1530798-006	TP6 0.1-0.2	EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 210051)									
ES1530641-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1530798-002	TP2 0.05-0.15	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 210088)									
ES1530641-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 210051)									
ES1530641-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1530798-002	TP2 0.05-0.15	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 210088)									
ES1530641-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	0.00	No Limit
ES1530798-006	TP6 0.1-0.2	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	<50	0.00	No Limit
EP080: BTEXN (QC Lot: 210051)									
ES1530641-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 210051) - continued									
ES1530798-002	TP2 0.05-0.15	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 212221)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	109	92	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	96.0	87	121
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	89.5	80	136
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	93.8	93	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	93.5	86	124
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	98.7	93	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	101	81	133
EG005T: Total Metals by ICP-AES (QCLot: 212990)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	103	92	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	92.3	87	121
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	98.9	80	136
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	94.6	93	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	91.4	86	124
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	101	93	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	96.5	81	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 212220)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	76.2	70	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 212989)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	76.4	70	105
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 210091)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	90.7	57	117
EP068A: Organochlorine Pesticides (OC) (QCLot: 210090)								
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	76	120
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	69	117
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	107	67	127
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	68	118
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	71	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	69	119
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	100	69	119
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	76	120
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	67	121
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.9	65	113
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	105	66	118
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	60	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 210090) - continued								
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	67	123
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	57	115
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	65	123
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	71	115
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	68	116
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	99.5	68	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	95.0	66	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	108	65	129
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	68	120
EP068B: Organophosphorus Pesticides (OP) (QCLot: 210090)								
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	42	126
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	102	68	116
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	100	67	123
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	86.4	70	118
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	103	68	114
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	92.4	55	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	64	128
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	73	117
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	83.5	56	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	85.2	64	124
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	108	70	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	64	120
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	71	115
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	100	70	120
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	93.9	54	122
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	97.2	68	122
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	94.8	69	123
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	99.2	69	115
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	107	68	116
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 210089)								
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	104	79	123
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	92.8	77	123
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	99.1	79	123
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	92.4	73	121
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	97.3	76	122
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	90.7	70	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	99.0	72	114
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	101	77	123

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 210089) - continued								
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	95.9	81	123
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	87.1	72	113
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	101	79	123
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	99.1	77	123
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	92.1	71	113
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	101	80	124
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	99.8	79	123
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	103	79	125
EP080/071: Total Petroleum Hydrocarbons (QCLot: 210051)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	98.5	68	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 210088)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	102	71	131
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	118	74	138
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	100	64	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 210051)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	94.6	68	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 210088)								
EP071: >C10 - C16 Fraction	>C10_C16	50	mg/kg	<50	250 mg/kg	106	70	130
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	120	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	150 mg/kg	95.4	63	131
EP080: BTEXN (QCLot: 210051)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	87.2	62	116
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	95.6	58	118
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	98.9	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.5	62	138
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	105	60	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	101	62	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005T: Total Metals by ICP-AES (QCLot: 212221)							
ES1530988-005	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	102	70	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 212221) - continued							
ES1530988-005	Anonymous	EG005T: Cadmium	7440-43-9	50 mg/kg	98.0	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.8	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	84.7	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.1	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.4	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	88.7	70	130
EG005T: Total Metals by ICP-AES (QCLot: 212990)							
ES1530798-010	TP10 0.05-0.2	EG005T: Arsenic	7440-38-2	50 mg/kg	97.9	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.3	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	94.8	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	94.0	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	93.9	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.4	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	91.9	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 212220)							
ES1530641-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	98.2	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 212989)							
ES1530798-009	TP9 0.05-0.2	EG035T: Mercury	7439-97-6	5 mg/kg	101	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 210091)							
ES1530641-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	102	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 210090)							
ES1530641-001	Anonymous	EP068: 4.4`-DDT	50-29-3	2 mg/kg	94.7	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	90.2	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	95.2	70	130
		EP068: Endrin	72-20-8	2 mg/kg	96.5	70	130
		EP068: gamma-BHC	58-89-9	0.5 mg/kg	80.3	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	93.1	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 210090)							
ES1530641-001	Anonymous	EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	95.2	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	87.9	70	130
		EP068: Diazinon	333-41-5	0.5 mg/kg	97.5	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	94.7	70	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	103	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 210089)							
ES1530641-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.2	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	102	70	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 210051)							
ES1530641-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	113	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 210088)							
ES1530641-001	Anonymous	EP071: C10 - C14 Fraction	----	523 mg/kg	106	73	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	106	53	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	122	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 210051)							
ES1530641-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	105	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 210088)							
ES1530641-001	Anonymous	EP071: >C10 - C16 Fraction	>C10_C16	860 mg/kg	97.4	73	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	121	53	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	115	52	132
EP080: BTEXN (QCLot: 210051)							
ES1530641-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	85.2	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	96.0	70	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	95.5	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.2	70	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	100	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	98.1	70	130

ALS Environmental

QA/QC Compliance Assessment for DQO Reporting

Work Order	: **ES1530798**	Page	: 1 of 5
Client	: **REGIONAL GEOTECHNICAL SOLUTION**	Laboratory	: Environmental Division Sydney
Contact	: CHAMPAK NAG	Telephone	: +61-2-8784 8555
Project	: CONTAMINATION ASSESSMENT, PROPOSED RESIDENTIAL SUBDIVISION RGS01085.1	Date Samples Received	: 10-Sep-2015
Site	: LOTS 1,2 & 9 DP32273 AND LOT 9 DP32272	Issue Date	: 17-Sep-2015
Sampler	: ----	No. of samples received	: 10
Order number	: ----	No. of samples analysed	: 10

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	ES1530988--005	Anonymous	**Zinc**	7440-66-6	33.0 %	0% - 20%	**RPD exceeds LOR based limits**

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content								
Soil Glass Jar - Unpreserved (EA055-103)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**----**	----	----	**11-Sep-2015**	21-Sep-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Snap Lock Bag - Subsampled by ALS (EA200)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**----**	----	----	**14-Sep-2015**	05-Mar-2016	✓
TP3 - 0.3-0.4,	TP5 - 0.0-0.1,							
TP6 - 0.1-0.2,	TP7 - 0.0-0.1,							
TP8 - 0.05-0.2,	TP9 - 0.05-0.2							
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**14-Sep-2015**	05-Mar-2016	✓	**14-Sep-2015**	05-Mar-2016	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2							
Soil Glass Jar - Unpreserved (EG005T)								
TP9 - 0.05-0.2,	TP10 - 0.05-0.2	**07-Sep-2015**	**14-Sep-2015**	05-Mar-2016	✓	**15-Sep-2015**	05-Mar-2016	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**14-Sep-2015**	05-Oct-2015	✓	**15-Sep-2015**	05-Oct-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**11-Sep-2015**	21-Sep-2015	✓	**14-Sep-2015**	21-Oct-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**11-Sep-2015**	21-Sep-2015	✓	**14-Sep-2015**	21-Oct-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP071)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**11-Sep-2015**	21-Sep-2015	✓	**12-Sep-2015**	21-Oct-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**11-Sep-2015**	21-Sep-2015	✓	**13-Sep-2015**	21-Oct-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
TP1 - 0.0-0.1,	TP2 - 0.05-0.15,	**07-Sep-2015**	**11-Sep-2015**	21-Sep-2015	✓	**15-Sep-2015**	21-Sep-2015	✓
TP3 - 0.3-0.4,	TP4 - 0.05-0.2,							
TP5 - 0.0-0.1,	TP6 - 0.1-0.2,							
TP7 - 0.0-0.1,	TP8 - 0.05-0.2,							
TP9 - 0.05-0.2,	TP10 - 0.05-0.2							

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	2	20	**10.00**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	16	**12.50**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	2	15	**13.33**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	2	15	**13.33**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	20	**10.00**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH - Semivolatile Fraction	EP071	2	16	**12.50**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	15	**6.67**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 Schedule B(3) and ALS QCS3 requirement

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	In-house. A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Asbestos Identification in Soils	EA200	SOIL	AS 4964 - 2004 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 504,505)
TRH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40.
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve.

Preparation Methods	Method	Matrix	Method Descriptions
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

TABLE B1 - RESULTS OF CHEMICAL ANALYSES (concentrations in mg/kg) '**Residential A' Site**.

Client:	**John Hogg**	Report No.	**RGS01085.1-AB**
Project:	**Proposed Residential Subdivision**		
Location:	**Macquarie Street, Coopernook**	Date:	22-Sep-15

Location	DEPTH	TOTAL RECOVERABLE HYDROCARBONS					PAH		OC-OP PESTICIDES	PCB	BTEX	HEAVY METALS							
	(m)	C6-C10	C10-C16	C16-C34	C34-C40	TOTAL 10-40	Total	b-a-p				As	Cd	Cr*	Cu	Pb	Ni	Zn	Hg
TP1	0 - 0.1	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	7	<1	5	<5	18	<2	10	<0.1
TP2	0.05 - 0.15	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	8	<1	9	8	22	5	11	<0.1
TP3	0.3 - 0.4	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	<5	<1	7	<5	15	3	<5	<0.1
TP4	0.05 - 0.2	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	<5	<1	4	<5	16	<2	23	<0.1
TP5	0.0 - 0.1	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	6	<1	6	87	112	<2	223	0.1
TP6	0.1-0.2	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	6	<1	5	<5	16	<2	14	<0.1
TP7	0.0 - 0.1	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	8	<1	6	<5	14	<2	22	<0.1
TP8	0.05 - 0.2	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	<5	<1	8	8	13	2	47	<0.1
TP9 (TP4 duplicate)	0.05 - 0.2	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	5	<1	5	<5	18	<2	26	<0.1
TP10 (TP8 duplicate)	0.05 - 0.2	<10	<50	<100	<100	<50	<0.5	<0.5	<0.05	<0.1	<0.2	<5	<1	9	8	15	2	48	<0.1
CRITERIA (NEPM 2013)																			
Health Investigation Level (HIL):							300	3	6	1		100	20	100	6000	300	400	7400	40
Health Screening Level (HSL):											NL								
Ecological Investigation Level (EIL):																			
Ecological Screening Level (ESL):		180	120	300	2800			0.7			50	**Coarse grained soil in mg/kg**							
		180	120	1300	5600			0.7			65	**Fine grained soil in mg/kg**							

NOTES:

Denotes concentration exceeds health based guideline for Residential land use

Denotes concentration exceeds ecological guideline for Residential land use

Denotes concentration exceeds health and ecological based guideline for Residential land use

NL No Limit available

Attachment B – Aboriginal Cultural Heritage Assessment

(prepared by J. P Collins)

PLANNING PROPOSAL

Part Lots 1 & 2 DP 32272, Lot 9 DP 32272 and Lot 48 DP 1090335,

Macquarie and West Streets, Coopernook NSW, Greater Taree LGA

Aboriginal cultural heritage assessment

March 2016

Prepared for:
John Hogg
53 Macquarie Street
Coopernook NSW 2426

J.P COLLINS CONSULTANT ARCHAEOLOGIST MAACAI
ADISE PTY LTD
ABN: 27 074 129 909
PO Box 6
LAURIETON NSW 2443

CONTENTS

TABLES

FIGURES

PLATES

EXECUTIVE SUMMARY

This assessment was commissioned by John Hogg (landowner and proponent) to satisfy agency requirements for Aboriginal cultural heritage in relation to a Planning Proposal which seeks to amend *Greater Taree Local Environmental Plan 2010* to allow residential development within part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, on the NSW mid-north coast. The LEP amendment would involve changing the land zoning from its existing RU1-Primary Production to RU5-Village. The RU1 zoning would be maintained for the floodplain in the northern section of Lot 48 DP 1090335.

The 17.6ha 'Planning Area' encompasses part of the narrow crest and slopes of an undulating ridge that extends into the floodplain around 350m north of the estuarine reach of the Lansdowne River. The ridge forms a reasonably level elevated crest close to the south-western corner, which continues into the neighbouring rural property. The ridge crest descends through the central part of the Planning Area before leveling out again towards the eastern boundary. The low to moderate gradient simple ridge slopes fall gradually away to the valley flat (floodplain) in the north and Macquarie Street/Coopernook Public School grounds in the south without providing mid-slope benches or basal slope banks. The area is devoid of natural rock outcrops, has been cleared of original trees, and subject to long-term ploughing for crop cultivation, stock grazing and other farming activities that have caused clear and observable land surface changes.

Three Aboriginal parties (Purfleet Taree Local Aboriginal Land Council, Taree Indigenous Development and Employment, and Forster Local Aboriginal Land Council) registered an interest in this assessment as a result of implementation of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a). Representatives of those registered Aboriginal parties electing to divulge cultural information (Purfleet Taree Local Aboriginal Land Council and Taree Indigenous Development and Employment) advised that the Planning Area is not known to contain or encroach upon any sites/places of traditional, historical or contemporary socio-cultural significance or attachment.

No registered Aboriginal sites or places occur within or in the immediate vicinity of the Planning Area, nor were artefacts or Potential Archaeological Deposits (PADs) identified during a field survey of the Planning Area conducted with the assistance of Vienna Maslin (Biripi knowledge-holder and Purfleet Taree Local Aboriginal Land Council senior sites officer). Effective field survey was severely constrained by grass cover, such that conclusions with respect to the Planning Area's undiscovered archaeological record were by necessity largely informed by past nearby assessment/ subsurface investigation results, in conjunction with a consideration of its disturbance history.

On the basis of all available information, this assessment found no evidence to suggest that the Planning Area contains or is reasonably likely to contain Aboriginal cultural heritage materials of scientific/archaeological, historic or aesthetic significance, or sites/places of special Aboriginal socio-cultural value. The undiscovered archaeological resource (if any) will most likely be restricted to a dispersed low-density distribution of stone artefacts on and within the ploughed topsoil. It is concluded that the archaeological potential of the Planning Area is not sufficient to warrant test excavations as permitted without an Aboriginal Heritage Impact Permit (AHIP) under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b), or application for an AHIP to allow more comprehensive subsurface investigations. Given the expected low density of artefacts that might be present, it is further concluded that monitoring of initial development earthworks would be highly unlikely to result in the detection of artefacts.

It is recommended that:

1) The Planning Area be re-zoned as proposed, and that implementation of Recommendations 2 and 3 be required in conjunction with any future development approval.

2) Prior to their on-site involvement, all contractors, sub-contractors and their employees engaged for development-related earthworks should undergo a general site induction that provides information on legal obligations with respect to Aboriginal objects, including 'stop-work' conditions applicable in the event that any identified or suspected Aboriginal objects are discovered at any time (cf Recommendation 3). A register should be kept of all persons inducted. The register should include dates, names and signatures of those inducted, the name of the person carrying out the induction, and an acknowledgement that Aboriginal cultural heritage requirements have been explained and understood.

3) In the event that any identified or suspected Aboriginal objects are detected at any time, all disturbance work should immediately cease within 20m of the find and temporary protective fencing erected around this 'no-go zone' pending further management advice from the OEH (Planning and Aboriginal Heritage Section, Hunter Central Coast Region). If the find consists of or includes human remains, the NSW Police Department and the OEH Environmental Line (ph 131 555) should also be notified as soon as practicable. Works may not recommence within the designated 'no-go zone' until formal written clearance to do so has been given by the OEH in consultation with the registered Aboriginal parties and the NSW Police Department (if applicable).

1 INTRODUCTION

1.1 Purpose and scope of this assessment

The Planning Proposal subject of this assessment has been accepted for determination under the 'Gateway' process. This process relates to the preparation of Local Environmental Plans (LEPs) and any changes to current LEPs, which require concurrence from the Department of Planning and Environment following consultation with other agencies, including the Office of Environment and Heritage (OEH). The OEH advised that all planning proposals must be accompanied by an Aboriginal cultural heritage assessment report (Appendix A).

This assessment was commissioned by John Hogg (landowner and proponent) to satisfy agency requirements for Aboriginal cultural heritage in relation to the Planning Proposal, including compliance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a) and the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011). As such, this report presents:

- details of the process and outcomes of Aboriginal consultation;
- the results of heritage register searches and other background research to determine the location of known Aboriginal sites/objects and places, and establish a context for the assessment of any previously unidentified sites or potential archaeological deposits (PADs) that may occur within the Planning Area;
- details and results of a field inspection of the Planning Area; and
- management recommendations appropriate to the extent and significance of the Aboriginal cultural heritage resource, including advice as to further actions warranted or required by legislation prior to and/or during future development works.

1.2 Planning Proposal and location

The Planning Proposal seeks to amend *Greater Taree Local Environmental Plan 2010* to allow residential development within part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook. These allotments together comprise the approximate 17.6ha 'Planning Area' assessed in this report.

The Planning Area is situated approximately 20km north of Taree and 12km inland of the Crowdy Bay coastline on the NSW mid-north coast (Figure 1). It is generally bounded by small residential blocks fronting West Street to the east, Coopernook Public School grounds to the south, and rural allotments to the north and west (Figure 2).

The LEP amendment would involve changing the land zoning from its existing RU1-Primary Production to RU5-Village. The existing RU1 zoning would be maintained for flood-prone land (part Lot 48 DP 1090335) in the northern section of the area and to provide a buffer around an adjoining electricity substation that fronts West Street (Figure 3). To facilitate subdivision of the land consistent with the proposed zonings, a minimum 1,000m^2 lot size is proposed for the RU5 (re) zoned land. The RU1 zoned land to be retained would be subject to a minimum 5,000m^2 lot size to allow for small-scale agriculture (Coastplan Group Pty Ltd 2015:6).

1.3 Potential development impacts

Initial residential development of the elevated section of the Planning Area would require significant landscape modification for the construction of roads, buildings and driveways, and the installation of drainage, sewerage, water, electricity and telecommunications infrastructure. Over the longer term, the residential blocks themselves would no doubt suffer additional surface and subsurface impacts (eg landscaping, swimming pool construction, building extensions etc). Unless identified and protected or salvaged, it is anticipated that any Aboriginal sites/artefacts occurring on the RU5 (re) zoned land would eventually be destroyed.

The RU1 zoned land to be retained for small-scale agriculture in the north has been subject to similar past uses that are expected to have already caused the dispersal (and potential breakage) of any Aboriginal artefacts that may be present within the ploughed topsoil. As such, it is considered that the only real threat to the integrity of Aboriginal cultural materials on the flood-prone land would be posed by any plan to excavate this land below the base of the existing plough zone.

Figure 1. General location of Coopernook on the NSW mid-north coast
(Source: Six Maps, NSW Land and Property Information 2015)

Figure 2. Detailed location of the Planning Area
(Source: Six Maps, NSW Land and Property Information 2015)

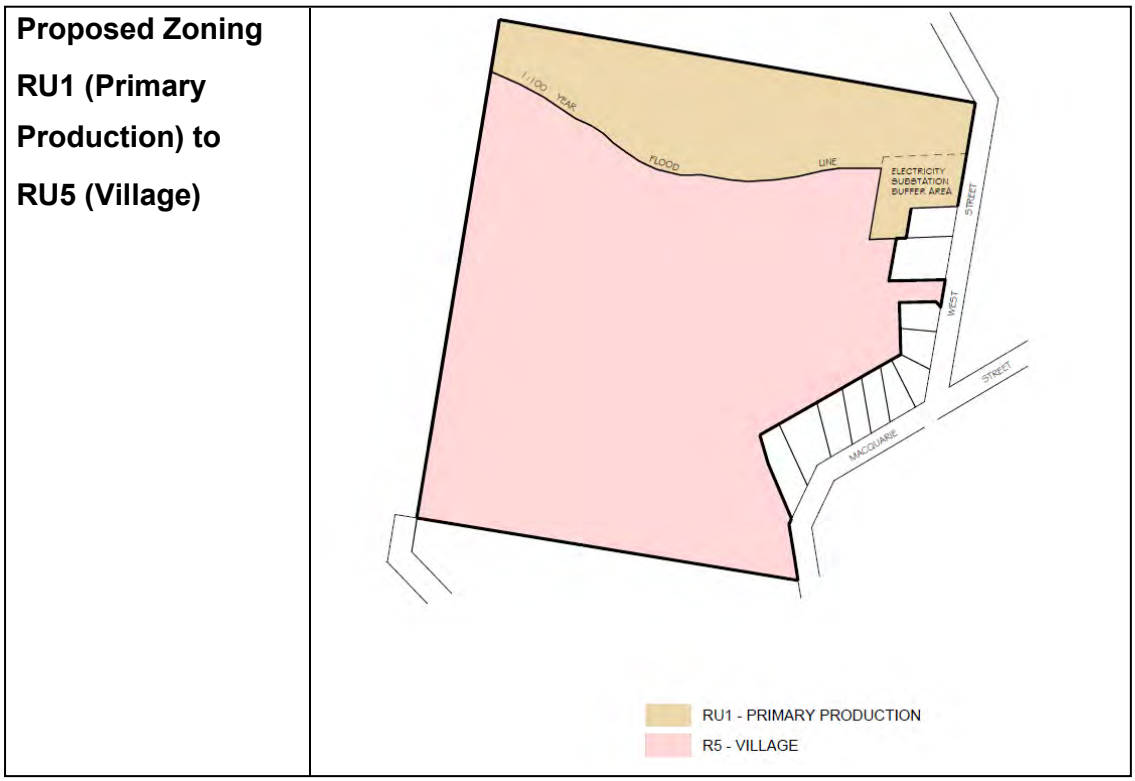


Figure 3. Proposed zoning
(Source: Coastplan Group Pty Ltd 2015)

1.4 Report authorship and contributors

This report was researched and written by Jacqueline Collins (Adise Pty Ltd, t/a J.P. Collins Consultant Archaeologist), a full member of the Australian Association of Consulting Archaeologists Inc. with 26 years' experience as an independent cultural heritage consultant.

The assessment was assisted and informed by Vienna Maslin (Biripi knowledge-holder and highly experienced Purfleet Taree Local Aboriginal Land Council senior sites officer) and John Clark (Biripi knowledge-holder and CEO of Taree Indigenous Development and Employment). The field survey was undertaken with Vienna Maslin.

2 ABORIGINAL CONSULTATION AND PARTICIPATION

2.1 Compliance with the ***Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010***

The *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a) proscribe Aboriginal community consultation requirements in relation to applications for Aboriginal Heritage Impact Permits (AHIPs) made under the *National Parks and Wildlife Act 1974*, and test excavations consistent with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b). The OEH (2011:2) also recommends following the consultation requirements "wherever there is any uncertainty a proposed activity could potentially harm any Aboriginal objects or places and the proponent is required to undertake a cultural heritage assessment".

The *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a) were implemented for this assessment. A full record of Aboriginal consultation is presented in Appendix B.

2.1.1 Stage 1 – Notification of project proposal and registration of interest

In accordance with Stage 1, Step 4.1.2 of the consultation requirements, letters (with an attached map) and/or a search request were sent to the following organisations, requesting the names and contact details of any known Aboriginal parties who may have a cultural attachment to Coopernook, and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places that might occur within the Planning Area:

- Office of Environment and Heritage, Hunter Central Coast Region
- Purfleet Taree Local Aboriginal Land Council
- The Registrar, *Aboriginal Land Rights Act 1983*
- National Native Title Tribunal
- Native Title Services Corporation Ltd
- Greater Taree City Council

Copies of these letters and responses are reproduced in Appendix C and D respectively. A summary of all responses is presented in Table 1 (note that under its current charter, cultural heritage concerns of the Hunter-Central Rivers Catchment Management Authority are managed by the OEH, such that a Stage 1 letter was not sent to the CMA).

As a result of lists of potential knowledge-holders supplied by the OEH and Greater Taree City Council, letters inviting registration of interest (as per Stage 1, Step 4.1.3 of the consultation requirements), including all required project information, were mailed to:

- Saltwater Tribal Council
- Ghinni Ghinni Youth and Culture Aboriginal Corporation
- Bindi Aboriginal Heritage and Cultural Centre Inc.
- Sunrise Guiwan Biripi Elders Corporation
- Doo-wa-kee Cultural Heritage Services
- Lakkari NTCG
- Purfleet Taree Local Aboriginal Land Council
- Birpai Local Aboriginal Land Council
- Forster Local Aboriginal Land Council
- Kamarah Aboriginal Corporation
- Mid North Coast Indigenous Broadcaster Association
- Minimbah Elders Group Inc.
- Taree Indigenous Development and Employment

Copies of these letters are reproduced in Appendix E.

A newspaper notice was published in the *Manning River Times* on the 28th of October 2015, inviting interested Aboriginal parties with cultural attachments to and knowledge of the Planning Area to contact the consultant to formally register their interest in the assessment (Appendix E).

Table1. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. Summary of Stage 1 responses

Contact	Response
Office of Environment and Heritage NSW	Contact list of known Aboriginal stakeholders for the Taree area provided.
The registrar, *Aboriginal Land Rights Act 1983 NSW*	The Planning Area does not appear to have Registered Aboriginal Owners pursuant to Division 3 of the Act.
National Native Title Tribunal	Search of NNTT registers revealed no unregistered claimant applications, registered or approved Native Title claims, or registered or notified Indigenous Land Use Agreements within the Greater Taree City Council LGA.
Native Title Services Corporation	Will forward correspondence on to any individuals, groups and organisations that NTSCORP is aware assert traditional interests within or hold cultural knowledge about the Coopernook area. Responses to be sent directly to the consultant by 28/10/2015.
Greater Taree City Council	Contact list of Aboriginal groups and individuals for consultation within the LGA provided.
Purfleet Taree Local Aboriginal Land Council	Register of interest received by email (contact person CEO Glen Rennie).
Taree Indigenous Development and Employment	Register of interest received by email (contact person CEO John Clark).
Forster Local Aboriginal Land Council	Register of interest received by phone (contact person sites officer Rob Yettica). Verbally confirmed by acting CEO Pauline Tatam.

Emails registering interest were received from the Purfleet Taree Local Aboriginal Land Council (LALC) and Taree Indigenous Development and Employment (TIDE) (Appendix F). A verbal (phone) registration of interest was also lodged by Rob Yettica (sites officer) on behalf of the Forster LALC (Table 1).

As required, the names and contact details of the three registered Aboriginal parties, along with copies of the Stage 1, Step 4.1.3 notification letters and newspaper advertisement, were forwarded to the OEH and the Purfleet Taree LALC.

2.1.2 Stage 2 – Presentation of information about the proposed project

Upon their registration of interest, phone discussions were held with Purfleet Taree LALC CEO Glen Rennie, TIDE CEO John Clark and Forster LALC spokesperson/sites officer Rob Yettica explaining the Planning Proposal and purpose of this assessment. Additional project information was supplied via the provision of the Planning Proposal document (Coastplan Group Pty Ltd 2015).

2.1.3 Stage 3 – Gathering information about cultural significance

Assessment methodology

A draft methodology for this assessment was provided to the registered Aboriginal parties for comment and amendment prior to its implementation, and included the proponent's advice that only one Aboriginal representative would be paid/engaged to assist with the field survey (Appendix G).

An email response was received from TIDE CEO and traditional Biripi owner John Clark, "expressing a keen interest in the proposed survey on Biripi Tribal Land", and advising that due to likely non-consensus, the Aboriginal field representative should be chosen by the proponent or consultant rather than the registered parties themselves, as proposed in the draft methodology (Appendix H). In a follow-up phone call, John Clark confirmed that there were no other concerns with respect to the draft assessment methodology.

Response to issues raised by TIDE CEO John Clark:
Advice provided by John Clark re: the selection of an Aboriginal field representative was adopted, resulting in the proponent electing to engage Purfleet Taree LALC senior sites officer and Biripi knowledge-holder Vienna Maslin (nee Bungie). When informed of this decision, John Clark made it clear that although he had no objection to Vienna Maslin's field assistance, he remained completely impartial in regard to selection of the field representative.

In the absence of responses within the requested timeframe, phone contact was made with Purfleet Taree LALC CEO Glen Rennie and Forster LALC spokesperson/sites officer Rob Yettica. Both of these registered parties verbally supported the draft assessment methodology, with the exception of the issue of field survey involvement.

Glen Rennie objected to the registration of interest lodged by the Forster LALC and advised that it would not be appropriate for a representative of another Land Council to participate in any field survey within Purfleet Taree LALC territory. Glen Rennie further advised that be best person to assist would be long-term and highly experienced Purfleet Taree LALC senior sites officer Vienna Maslin, who is also a traditional Biripi owner with cultural and archaeological knowledge of the Coopernook locality.

Response to issues raised by Purfleet Taree LALC CEO Glen Rennie:
The 'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010' (DECCW 2010a:6) aim to facilitate "an open and honest two-way communication process between the proponent and Aboriginal people who have cultural heritage knowledge relevant to a proposed project area". To meet this objective, Stage 1, Step 4.1.3 of the DECCW 2010a document requires that all Aboriginal parties whose names were obtained in Step 4.1.2 be invited to register an interest in a proposed project, on the provision that the respondents "hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project" (DECCW 2010a:11). The Forster LALC was included on the contact list supplied by Greater Taree City Council (Appendix D), and was thus invited to register an interest in this assessment. In the absence of any call for anthropological investigation to explore registered Aboriginal party claims to cultural knowledge, the Forster LALC was acknowledged to have the right to register an interest, irrespective of cultural and Land Council boundaries.

Rob Yettica objected to the proponent's decision to engage a single sites officer for the field survey. In response to the consultant's proposal to meet in Forster to discuss the socio-cultural values and significance of the Planning Area, Rob Yettica advised that he would not meet or divulge any cultural information unless under the auspices of a field survey engagement.

Response to issues raised by Forster LALC spokesperson/sites officer Rob Yettica:
As stated in the 'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010' (DECCW 2010a:9) "the consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes… Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement; however, this is separate from consultation. … The proponent is not obliged to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people".

Whilst the Forster LALC expression of interest was duly considered, the proponent elected to engage Purfleet Taree LALC senior sites officer and traditional Biripi knowledge-holder Vienna Maslin to assist with the field survey.

Cultural significance of the Planning Area

Consistent with past information revealed by several now deceased Biripi Elders (Collins 1997:20), Biripi knowledge-holders John Clark and Vienna Maslin advised that the Planning Area is not known to contain or encroach upon any sites/places of ceremonial, mythological, other sacred/spiritual, historical or contemporary socio-cultural significance or attachment.

A number of sites/places of high cultural value have been reported/registered in the wider Coopernook locality, including South Brother Mountain (10.5km north of Coopernook), traditional transit routes (approximately one kilometre to the north and south of Coopernook) (Collins 1997:20), and the Cattai Wetlands (3km east of Coopernook) which contain a possible (but nonetheless registered) burial and massacre site, an historic and story place, stone artefact occurrences, and a recent corroboree ground (Gondwana Consulting 2014:31-34; assorted documents and photographs lent by John Clark). None of these sites/places would be affected by development of the Planning Area.

2.1.4 Stage 4 – Review of draft report

In accordance with Stage 4 of the consultation requirements, draft copies of this report were supplied to the registered Aboriginal parties for review and written feedback ahead of finalisation. Considering the relatively small size of the Planning Area and lack of project complexity, the Aboriginal parties were requested to provide responses within 28 days (ie by the 26th of February 2016).

- TIDE CEO John Clark expressed "no problem" with the draft report (email, Appendix I).
- Forster LALC spokesperson/sites officer Rob Yettica advised "no qualms" with the draft report but declined to provide a written response due to lack of field survey engagement (phone communication).
- The Purfleet Taree LALC advised that the draft report would be reviewed at a board meeting and comments sent after the 15th of February 2016. The anticipated date for this review and comment was since postponed, and is currently expected by the 30th of March 2016 (emails, Appendix I). No response has been provided to date.

3 ENVIRONMENT AND LANDUSE

The Manning valley has a sub-humid temperate climate. Rainfall is summer-dominant, and climatic effects are sufficient to support both warm and cool season vegetation (Launders 2009:9). Periods of excessive rainfall associated with summer cyclones and winter depressions often cause flooding of the Manning River and its tributaries, including the Lansdowne River (Birrell 1987:18), where the floodplain may be inundated to a depth of around a metre every five years (Connell Wagner 1997:6-6).

Coopernook sits within a transitional zone of low inter-stream hills, ridges and valleys sandwiched between the coastal plain and the Lorne Basin, the rim of which forms a prominent escarpment some 5km further north-west. Hills and ridges at Coopernook are based on the Carboniferous Byabbara Beds. These beds comprise lithic sandstone, tuff, shale and limestone and have decomposed to form brown podzolic soils (GTCC and Coopernook Action Group 2009:16). Although the Lansdowne escarpment offers habitable rockshelters and conglomerate pebbles suitable for the production of traditional stone tools (cf Connors 1985:91; Stewart 1953:9; Voisey 1939:257), the Planning Area is devoid of natural stone outcrops. Stone materials observed during the field survey were restricted to some angular fragments of lithic sandstone and tuff brought to the surface during ploughing, and imported (primarily quartz) gravel/pebbles used on tracks and as a foundation platform for a shed in the vicinity of the existing farmhouse.

As illustrated in Figure 4, the Planning Area encompasses part of the narrow crest and simple slopes of an undulating ridge that extends into the floodplain around 350m north of the estuarine reach of the Lansdowne River. The ridge reaches a maximum elevation of 28m AHD, forming a reasonably level crest close to the south-western corner, which continues into the neighbouring rural property (Plate 1). The ridge crest then descends though the central part of the Planning Area before leveling out to an elevation of less than 10m AHD at West Street on the eastern boundary (Plate 2).

Plate 1. View east along elevated ridge crest in south-west

Plate 2. View north-east along lower ridge crest to West Street

Plate 3. View south across northern simple slope

Plate 4. View south-east across southern simple slope

Plate 5. View south across northern valley flat (floodplain)

Plate 6. View south-east across northern valley flat (floodplain)

Figure 4. Planning Area landforms
(Base map source: McGlashan & Crisp Pty Ltd 2015)

The low to moderate gradient simple ridge slopes fall gradually away to the valley flat (floodplain) in the north (Plate 3) and Macquarie Street/Coopernook Public School grounds in the south (Plate 4) without providing mid-slope benches or basal slope banks. No well-drained level land like that fringing Lansdowne River backswamp at the southern foot of the ridge (Plate 10) occurs.

The northern section of the Planning Area is elevated at and below 3m AHD and lies within the 1:100 year ARI flood level. This valley flat (Plates 5 and 6) forms part of an extensive (drained) alluvial floodplain that stretches between the Lorne Basin in the north and the Melinga hills in the west. Early historical accounts indicate that off the rainforest margins of the Manning and Lansdowne Rivers and Ghinni Ghinni Creek, the floodplain was originally partly swampy and almost devoid of trees (cf Birrell 1987:59-62).

Although no detailed soil data is available for the Planning Area itself, geotechnical testing elsewhere in the Coopernook locality indicates the presence of a surface layer of sandy clay loam overlying light clay at a depth of around 25cm on the hillslopes, and black silty loam and/or fine sandy clay loam overlying light clay at a variable depth of between 30cm and 55cm on the valley flats. The tested soils were all of low or moderate acidity (www.evironment.nsw.gov.au/eSpadeWebapp/23/).

The Planning Area was first purchased by cattle grazier Michael Caffrey in the mid-1850s (Land and Property Information:Historical Parish Map, Lansdowne; Gow and Gow 2010; Birrell 1987:Appendix 1), and is likely to have been cleared of natural tree cover at this time to supply hardwoods for the local sawmilling and shipbuilding industries, and to facilitate agricultural pursuits, including beef cattle, corn growing and later dairying (Gow and Gow 2010; Hannah 1988:76). The area now supports open grassland with some planted fig, pine, eucalypt and fruit trees, and bamboo.

The proponent has owned the Planning Area for around 40 years. Over this time it has been repeatedly ploughed for the cultivation of corn, oats and improved pasture, and variously used for stock (cattle, horse and sheep) grazing and pig and poultry raising (J. Hogg pers comm. 17/12/2015). The uneven ground surface micro-topography still evident, including the vestiges of row-mounds on the elevated ridge crest in the south-west, testifies to widespread past ploughing/cultivation activities on the crest, slopes and valley flat.

Additional disturbance has been caused by the construction of an existing farmhouse with associated sheds, landscaping/surface downcutting, gardens, driveway etc on the descending ridge crest and its adjacent slopes (Plates 7 and 8), construction and demolition of a former house situated on the ridge crest north-east of the present farmhouse, construction of a former tennis court on the ridge crest at the West Street boundary (J. Hogg pers. comm. 17/12/2015), the construction and maintenance of several unformed vehicle tracks, fencing, and the excavation of a farm dam on the valley flat.

Given that is has been subject to clear and observable land surface changes, the Planning Area is considered to constitute ‘disturbed land’, as defined by the OEH (DECCW 2010c:18).

Plate 7. Downcut upper slope near the existing farmhouse

Plate 8. Gravel vehicle track on upper slope near the existing farmhouse

Plate 9. Sheep pen enclosure on ridge crest near the existing farmhouse

Plate 10. View north-west across drained Lansdowne River backswamp to ridge foot, south of the Planning Area

4 ABORIGINAL CULTURAL HERITAGE BACKGROUND

4.1 Ethno-history

Coopernook lies within the traditional country of the Biripi people, who spoke a closely-related variant of the Kattang language (Holmer 1966). The Biripi comprised several distinct but inter-related clan groups, each associated with a separate geographical area. These clans shared economic resources, trading and ceremonial occasions, intermarried, and spoke a mutually intelligible language, even though differences of dialect, local territorial association and some cultural practices varied from one group to another.

A wide variety of material items traditionally used by the Biripi people were made from bark or wood, including spears, boomerangs, clubs, shields, digging sticks, canoes, nets and bags, and residential shelters. The natural fracture properties of fine-grained stones were controlled to produce a variety of chopping, scraping and other tools, many of which were used to manufacture and maintain the bark and wooden items (cf New 1851; Fitzpatrick 1914:35; Ramsland 1987:185). Specialised fishing spears were "always pointed with a piece of flint or quartz" (Fitzpatrick 1914:41). Canoes, fashioned from a single large sheet of stringybark, swamp mahogany or river gum bark cured over an open fire and bound at the ends with vine or rush fibre, were extensively used for fishing and general travel. Each family had one or two canoes and these were seen in large numbers on the Manning River during the early years of European settlement (Fitzpatrick 1914:35). Shelters "were constructed in a simple manner, by putting up a fork or two, and leaning a sheet or two of stringy bark against them. If stringy bark could not be secured (they) fell back on tea-tree bark" (Fitzpatrick 1914:62). 'Red raddle' (ochre) used for body painting, decorating wooden implements and fibre dyeing was obtained from the "Lansdowne or Johns Rivers" (Fitzpatrick 1914:38).

During the course of everyday life, a seasonal landuse system appears to have been followed. In summer, when fish and shellfish were plentiful, traditional occupation centred on lowlands along the Manning River and its tributaries, or close to the sea. In autumn or early winter, groups migrated to the higher parts of their territory to exploit terrestrial foods (Simon undated, in Ramsland 1987:180). According to New (1851), traditional camps were rarely occupied for periods longer than a week at a time.

Connors (1985:41, 87) reports that the 'Wallaby Clan' laid claim to the Lansdowne River area and camped on a low ridge at Melinga 10km west of Coopernook, and in caves at Mount Cross on the south-western rim of the Lorne Basin north of the village of Lansdowne (8km north-west of Coopernook), where initiation ceremonies were also held. The clan's burial ground was situated near Koolah Creek (Connors 1985:91), a small tributary of the Lansdowne River that meanders though the floodplain 2km east of Lansdowne. In early contact times there were "about four different tribes" on the alluvial Jones Island south of Coopernook, one of which was centred near Croki (Gill 1998:37) and inhabited by 'Jimmy McKay Cookie, King of Croki' (Hannah 1988:22).

The intrusion of Europeans into Biripi country was initiated in 1824, when the Australian Agricultural Company began pastoral activities between Port Stephens and the Manning River. Land north of the Manning was explored by Henry Dangar in 1825

(Andrews 1992:263). By 1860 new settlers were "ekeing out a living on small farms bordering the major creeks and islands of the lower Manning" (Hannah 1988:19).

Deprived of their economic base, the Biripi clans were forced to depend on blanket and food hand-outs, and returns from unskilled employment "first as guides, then as axemen to clear the land, and, finally, for many years as farm labourers. Aboriginal women sometimes worked as part time household helpers, or did the clothes washing for European women" (Hannah 1988:21). Aboriginal fringe camps were established on the outskirts of the new pastoral properties and settlements, including on the bank of the Lansdowne River at Lansdowne (Connors 1985:92). In response to work opportunities provided by the growth of Croki village and farming, many Aboriginal people continued to live and work on Jones Island up until about the 1930s (Gill 1998:38). Some residents of the Croki camp "would go up Cattai Creek by pulling boat, robbing the wild bees hives. They would bring the honey back in tubs and sell it for two shillings" (Hannah 1988:22). At least one Aboriginal couple lived on the northern end of Jones Island, opposite Coopernook (Gill 1998:37). A group of 40-50 Aboriginal people also took up semi-permanent residence of a parcel of Crown Land beside Pipeclay Creek near the village of Moorland (6km north of Coopernook), and remained there until at least 1908 (Mooney 1990:13; Collins 1999a:23).

As documented by Byrne and Nugent (2004), the Biripi people have a continuing attachment and connection with their lands, and maintain knowledge of a range of culturally significant sites/places including first contact sites, ceremonial sites, burials, warfare and massacre sites, reserves, institutions, places of employment, resource places and occupation sites. The last known 'corroboree', attended by "many local Biripi Elders" was held on Spring Hill ridge (c.2km east of Coopernook) in September 2009 in conjunction with a meeting to discuss the cultural value of the Cattai Wetlands and the area's future (Gondwana Consulting 2014:33; John Clark pers comm. 9/12/2015).

4.2 Archaeological context

4.2.1 Registered Aboriginal sites and places

An extensive search of the OEH Aboriginal Heritage Information Management System (AHIMS), performed on the 1st of October 2015 (Client service #193455), revealed 11 registered Aboriginal sites within 5km of the Planning Area (Appendix J). These sites comprise four open campsites containing between four and nine identified stone artefacts (including artefacts re-deposited at site #30-6-0228), six isolated stone artefacts (one with associated PAD), and an Aboriginal burial and conflict (massacre) site (Table 2). Whilst also associated with elevated sections of the floodplain and a ridgeline crest, most of the sites are located on low gradient basal hill slopes. Sites registered sites in the immediate Coopernook locality are plotted on Figure 5.

Table 2. Sites registered on AHIMS within five kilometres of the Planning Area

AHIMS ID	Site name	Site type	Landform	# identified artefacts
30-6-0117	CTRR 1	Open campsite	Floodplain rise	9
30-6-0124	CTRR-2	Open campsite	River levee	5
30-6-0198	Henry's Lane 1	Open campsite	Basal slope of knoll	4
30-6-0222	Cattai Creek C-5	Isolated stone artefact	Basal hillslope	1
30-6-0223	Cattai Creek C-2	Isolated stone artefact	Basal hillslope	1
30-6-0224	Cattai Creek C-4	Isolated stone artefact	Basal hillslope	1
30-6-0225	Cattai Creek C-1	Isolated stone artefact	Basal hillslope	1
30-6-0226	Cattai Creek C-3	Isolated stone artefact	Basal hillslope	1
30-6-0227	CW1	Isolated stone artefact; PAD	Ridge crest	1
30-6-0228	CW2	Re-deposited artefacts	Ridge mid-slope	9
30-6-0229	Skeleton Ridge	Artefact, burial, conflict, PAD	Ridgeline knoll	(site CW2)

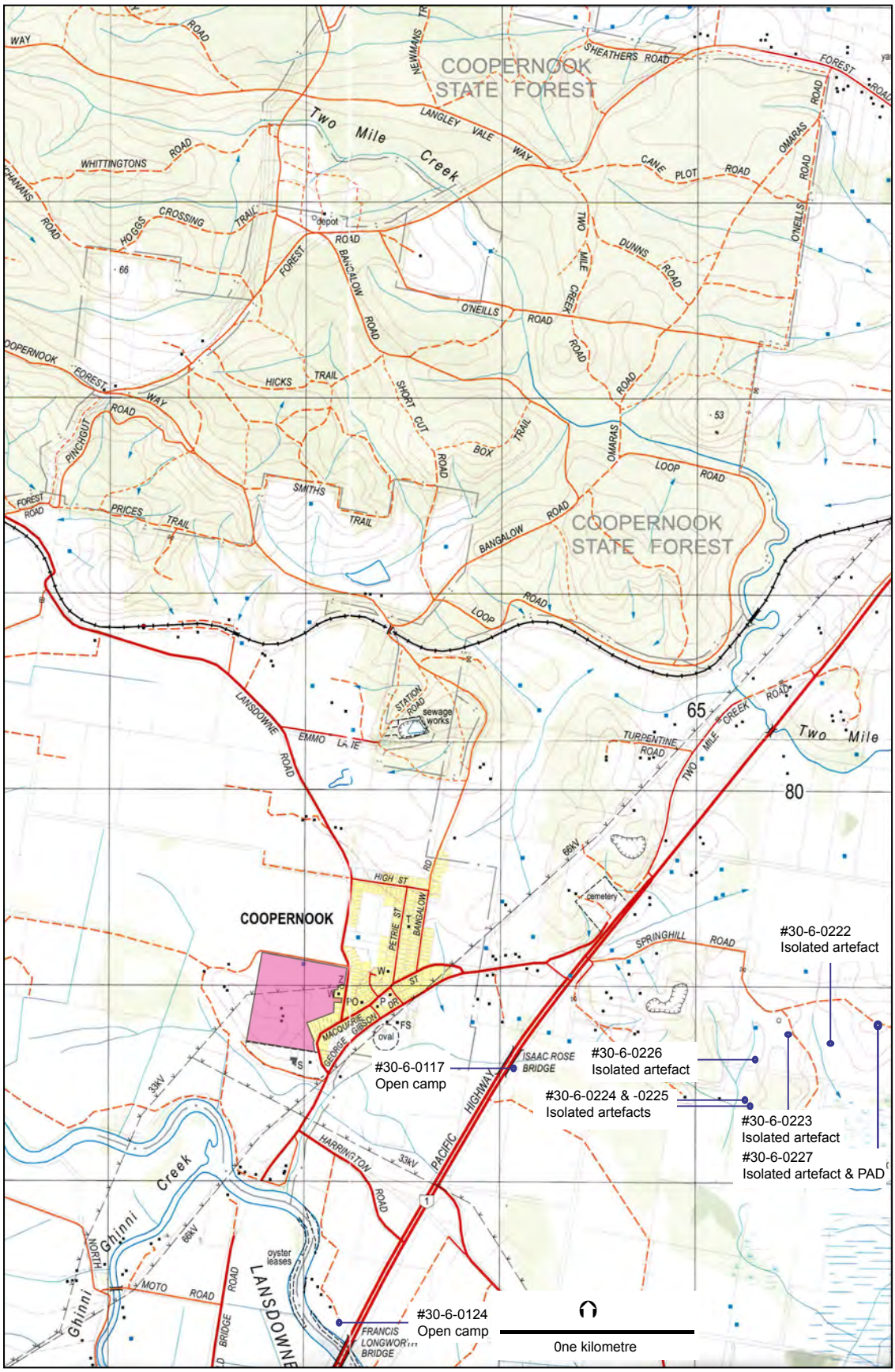


Figure 5. Sites registered on AHIMS in and near Coopernook
(Base map source: Coopernook 9434-3N 1:25,000 topographic map [Department of Lands 2008])

On-line searches of the Australian Heritage Database, NSW State Heritage Register and Schedule 5 (Environmental heritage) of Greater Taree Local Environmental Plan 2010, performed on the 21st of October 2015, revealed no registered/listed Aboriginal sites or places within or close to the Planning Area.

4.2.2 Summary of relevant past Aboriginal cultural heritage/archaeological assessments

Klaver, J. and Heffernan, K.J. 1991 and Gay, L. 2000

In 1991, Klaver and Heffernan completed an Aboriginal heritage study of the Greater Taree LGA. This study included a comprehensive review of literary sources, Aboriginal site registers and archaeological survey reports, Aboriginal consultation, and field surveys that included small samples of the four broad terrain units and five broad vegetation types represented within the LGA.

The Planning Area is situated within Klaver and Heffernan's 'undulating to hilly terrain' unit, which encompassed undulations and low hills/ridges in coastal, mid-valley, up-river and plateau contexts. Ten Aboriginal sites were recorded on the 2.67ha sample of 'undulating to hilly terrain' effectively inspected, half of which were open scatters of stone artefacts. The other sites comprise two scarred trees, one Bora/ceremonial ground, one burial area, and a natural mythological feature (coastal cave). On the basis of their results, Klaver and Heffernan (1991) predicted that Aboriginal sites are likely to occur at a density of around 3.74 per hectare on 'undulating to hilly terrain', with a bias towards sclerophyll forest locations in the non-coastal environment.

In summary, the archaeological and ethnographic data compiled by Klaver and Heffernan demonstrated traditional occupation and/ or use of all parts of the Greater Taree LGA. The sample surveys pointed to a similar likelihood for Aboriginal site occurrence across all broad terrain units, irrespective of inland distance. Although a number of site types were recorded on the 'undulating to hilly terrain', small low-density scatters of stone artefacts, located in sclerophyll forest environments, appeared to be the most common.

The broad predictive model of Aboriginal site location developed by Klaver and Heffernan (1991) was revised and updated in the Aboriginal Cultural Heritage Management Plan prepared for Greater Taree City Council (Gay 2000). The revised model (Gay 2000:25) predicts that:

- Areas with the highest environmental productivity such as- margins of riverine and woodland vegetation communities adjacent to rivers and major creeks, or protected bays and beaches adjacent to estuaries, rock platforms and swamps- would have been the primary focus of domestic occupation;
- Primary focuses of domestic occupation would be reflected in the archaeological record through the presence of large artefact assemblages with some areas of high density and more complex assemblages in those areas;
- Low hills, hills and mountains away from major water sources would have been occupied on a less intensive basis. Occupation would have been associated with group movement, hunting parties and short-term camps that related to the gathering of particular resources such as stone or medicines for transport to larger camps;
- Narrow and steep sided sections of river and creek valleys would not have been used for extended occupation or avoided;
- Ridgelines would have been used by Aboriginal people as travel routes between river valleys, plateau, lookouts and peaks;
- Level sections of broad valley would have been preferred camping places.

Collins, J. 1997 and 1999a

In 1997, Collins assessed the 4.2km long Pacific Highway Coopernook Bypass corridor, which traversed the Lansdowne River floodplain and a ridge system on the northern end. One archaeological site (nine stone artefacts exposed by ploughing) was located on a floodplain rise between Coopernook Creek and backswamp just outside the construction impact zone. The artefacts comprised four unmodified flakes, two flake tools, two nuclear tools (a split pebble with usewear and a bifacially flaked axe with usewear), and a flaked piece, made on quartz, chert, chalcedony, greywacke and mudstone. While it was anticipated that many additional artefacts would remain concealed within the ploughed topsoil, the number, distribution and character of the recorded items suggested that the site was most likely the product of a short-term camping event that centred on the preparation of plant resources (Collins 1997:31).

A natural levee to be impacted by the northern abutment of a bridge over the Lansdowne River was identified as having subsurface archaeological potential. Further investigation of the levee (Collins 1999a) involved the excavation and sieving of 99 (mechanical) auger holes, each 45cm in diameter, and one 50 x 50cm shovel test pit. Five stone artefacts (four unmodified flakes and a flaked piece made on siltstone, mudstone, quartzite and chalcedony) were recovered. On the basis of their distribution, density and types,

it was concluded that the recovered artefacts were probably discarded during a single transient stop-over, made during the course of gallery rainforest exploitation or canoe transit along the river (Collins 1999a:33).

Collins, J. 1998 and 2000

No Aboriginal cultural heritage materials were detected during a field survey of the 7.2km length of Pacific Highway upgrade corridor between the Taree Bypass and Coopernook Bypass (Collins 1998), which crossed low-lying Jones Island and Ghinni Ghinni Creek south of Coopernook. However, an owner of floodplain land just south of Jones Island reported finding several Aboriginal pebble axes over many years of ploughing. 'Aboriginal items' had apparently also been uncovered on the southern end of Jones Island (Collins 1998:43). In addition to the likelihood of isolated artefact finds, a natural levee on the southern bank of Ghinni Ghinni Creek was assessed to have the potential to contain subsurface archaeological material.

Investigation of that section of the Ghinni Ghinni Creek levee to be affected by construction of a bridge abutment was undertaken by Collins in 2000, via the excavation and sieving of 25 (mechanical) 45cm diameter auger holes, and three 50 x 50cm shovel test pits. Three stone artefacts (two unmodified flakes and a flaked piece) were recovered in association with introduced gravel and rusted metal and nails, indicating a low level of traditional Aboriginal use and extensive disturbance.

An Aboriginal informant identified a fig tree on the northern end of Jones Island as marking an historic campsite location, used from time to time by small groups travelling between the coast and inland. However, due to its relatively young age it was concluded that this was not likely to be the same tree that served as a focus for the reported historical occupation (Collins 1998:47,54). No cultural materials were detected during Aboriginal monitoring of removal of the fig tree or initial surrounding Pacific Highway upgrade earthworks (V. Maslin pers. comm.).

Collins, J. 1999b and ERM 2007

In 1999, Collins assessed the 10km long Pacific Highway upgrade corridor between the Coopernook Bypass and Moorland (North). The corridor traversed a series of low undulating hills separated by wide low-gradient valleys comprising the floodplains of small stream channels. No Aboriginal sites were recorded during the field survey or reported by Aboriginal informants. On the basis of historical reports (Mooney 1990:13 and pers. comm.; Moorland School Centenary undated:71), a parcel of Crown Land fronting Pipeclay Creek between Moorland (North) and Moorland (South) was identified as a PAD, with the potential to contain subsurface evidence of post-contact Aboriginal camping activities (this PAD was avoided by highway construction works).

ERM (2007) assessed design refinements later made to the Pacific Highway Coopernook-Moorland upgrade proposal. No Aboriginal sites or PADs were identified on the gentle hillslopes, valley flats or creeklines to be affected by the deisgn refinements.

Navin Officer Heritage Consultants 2001 and 2004

The 21.9km Pacific Highway upgrade corridor from Moorland (North) to Herons Creek was assessed by Navin Officer Heritage Consultants, commencing with selective field surveys within a broad area to inform the design of feasible route options. The initial surveys resulted in the recording of six isolated stone artefacts, three artefact scatters, three possible scarred trees, a reported PAD, a reported corroboree ground, and a reported stone arrangement. Of the nine stone artefact occurrences recorded, four were situated on low spur or knoll crests and their upper slopes, three on the elevated edges of alluvial terraces, one (an isolated artefact) on a basal slope, and one (an isolated artefact) on a mid-slope.

Navin Officer Heritage Consultants (2004) subsequently conducted a comprehensive inspection of the preferred Pacific Highway Moorland to Herons Creek upgrade corridor. In addition to the sites recorded during the route selection study, the 2004 assessment resulted in the recording of one possible scarred tree and six PADs "expected to contain traces of Aboriginal occupation based on predictive site location modeling, but where poor ground surface visibility precluded an adequate assessment of archaeological sensitivity" (Navin Officer Heritage Consultants 2004:26-27). All of the identified PADs were associated with the larger streams (Stewarts River, Camden Haven River and Herons Creek), and comprised locally-elevated alluvial landforms such as bank levees and terraces.

Virtus Heritage 2013

In 2013, Virtus Heritage assessed the cultural heritage values of the Cattai Wetlands, an area of approximately 509ha managed by Greater Taree City Council, situated north-east of Coopernook and the Pacific Highway at the confluence of Coopernook and Cattai Creeks. The area encompasses the terminal end of a ridge flanked by floodplain wetlands.

Whilst the report produced by Virtus Heritage (2013) is confidential, available information indicates that the survey and related Aboriginal consultation resulted in the recording of five Aboriginal sites. These sites comprise three small stone artefact scatters (two with PAD), one isolated stone artefact, and a possible massacre and burial site, all of which are situated on the crest and slopes of the central ridge (Gondwana Consulting 2014:31-35; AHIMS site cards).

5 ARCHAEOLOGICAL POTENTIAL OF THE PLANNING AREA

5.1 Synthesis of available information

Like the rest of the Manning River coast and mid-valley, Coopernook sits within a well-watered landscape that experiences mild climatic conditions. The Planning Area itself includes part of a formerly forested sub-coastal ridge fringed by an extensive low-lying floodplain containing pockets of swamp. The ridge does not "afford effective through-access across, and relative to, the surrounding landscape" (Navin Officer Heritage Consultants 2004:22), is devoid of natural stone outcrops, has been cleared of all original trees, and subject to long-term agricultural activities that have caused clear and observable land surface changes.

No registered Aboriginal sites or places are located within the Planning Area. Whilst Biripi knowledge-holders consulted for the present and nearby past assessments revealed the presence of sites/places of traditional, historical and contemporary socio-cultural significance in the wider locality, the Planning Area is not known to contain or encroach upon any of these sites/places.

Past archaeological assessments and subsurface investigations in the vicinity of Coopernook have failed to find evidence of the large and complex artefact assemblages predicted to occur in conjunction with intensive domestic occupation of areas with high environmental productivity (Gay 2000). With the possible exception of a PAD on 'Skeleton Ridge' (#30-6-0228 and -0229) within the Cattai Wetlands, which has not been further investigated, registered archaeological sites in the local area are confined to small low-density open campsites/stone artefact scatters and isolated stone artefacts reflecting short-term or itinerant use of elevated sections of the floodplain and the low gradient basal slopes and crests of ridgelines.

5.2 Effects of past European landuses

As outlined in Section 3, the Planning Area has been subject to complete tree clearing and long-term crop cultivation/tillage (including mechanised ploughing). Clearing in the early years of European settlement involved the 'grubbing out' of small tree stumps, and the extraction of large stumps by bullock team or burning as a last resort, the latter requiring the excavation of a trench around the stump and for "several feet along the main roots" (Connors 1985:63-64). This clearing is likely to have caused intensive disturbance of both the surface and subsurface soil layers from place to place in all topographic contexts, including the topsoil/basal clay interface where stone layers (incorporating stone artefacts) tend to accumulate (Hughes *et al* 2014:35).

Mechanised ploughing typically results in the mixing of soil layers to a depth of 20-25cm (Gaynor undated:17; Bowen 2014:19), but may reach up to a depth of 40cm depending on equipment used (van Vliet-Lamoe *et al* 1992). On the basis of known open artefact distributions and the likely depth of topsoil, it is anticipated that any Aboriginal cultural heritage materials on the Planning Area ridge crest and slopes will have been displaced by ploughing, and that any materials within at least 25cm of the surface on its constituent valley flat (floodplain) will have been similarly affected. This expectation is supported by the results of archaeological excavations in the Hunter valley (Hughes *et al* 2014:35) and on the mid-north coast (eg Davies 2006, 2007; Collins 2010; Brooke *et al* 2012:Appendix J), which have rarely recovered artefacts below the topsoil (A horizon) of bedrock-derived soils.

The horizontal displacement and degradation of stone artefacts within the plough zone is a function of many factors, especially the number of cultivation events, the types of farming implements used, and the size and raw material of artefacts. Experiments point to differential artefact dispersal of between 22m and 268m after 30 years of using the types of farming implements typical of the circular, single-direction cultivation practiced on the NSW western slopes between 1930 and 1970 (Gaynor undated). Where multi-directional cultivation is the norm, spatial dispersion through tillage is thought to quickly approach "an equilibrium point at which the probability of an object being transported further away from its initial location approaches the likelihood of it being moved nearer the initial location" (Dunnell and Simek 1995:306). Given that artefact displacement can be factored into analyses, plough zone artefacts

(including any within the Planning Area) have the potential to retain horizontal patterning sufficient to determine the general location of primary deposition and associated behavioral activities, and may be of scientific/archaeological research value.

Stone artefacts, especially large artefacts, are broken by ploughing. Breakage includes shear damage caused by direct contact with cultivation machinery (creating a straight sharp edge) and pressure damage caused by weight of the machinery (creating a convex or concave edge) (Gaynor undated:15). Observations suggest that artefact size reduction is rapid at first, declining over time until a stable size is reached (Dunnell and Simek 1995:308-309). In light of the extent of past cultivation, it is highly likely that any large stone artefacts discarded within the Planning Area will have been broken, and that minimal further breakage would be sustained by the small-scale agricultural activities proposed on the northern valley flat (floodplain).

Ploughing exposes a non-random sample of the archaeological record that might otherwise go undetected. Rates of surface stone artefact exposure can vary widely, and may be linked to the density of the parent soil (Gaynor undated:18). Overseas studies have shown that, on average, between 2% and 5% of any plough zone assemblage is exposed in each cultivation episode (Shott 1995:478), but that this may reach a rate of up to 16% (Reynolds 1982, cited in Gaynor undated:11). Gaynor's (undated:11) results from an experimental plot containing a thin layer of loose topsoil returned an average exposure of 7.9%, 13.6% and 16% per cultivation episode. In the event that any substantial scatter of Aboriginal stone artefacts is present within the Planning Area, it is considered that at least some evidence would be represented at the surface.

5.3 Predictive model of archaeological site type and location

Taking all available information into account it was predicted that:

- Isolated stone artefacts may occur anywhere within the Planning Area. Considering the high level of existing disturbance, any such artefacts will have been dispersed from their original place of deposition and may not be evident at the surface due to grass cover, alluvial sedimentation on the northern valley flat (floodplain), and surface churning caused by ploughing.
- Small open campsites/stone artefact scatters reflecting short-term use by traditional groups engaged in forest resource exploitation may occur within the Planning Area, particularly on the generally level sections of the ridge crest. Considering the high level of existing disturbance, any artefact scatters will have been dispersed from their original place of deposition and may not be evident at the surface due to grass cover and surface churning caused by ploughing.
- In the absence of known shell middens in the wider Coopernook locality, including on the Lansdowne River and Ghinni Ghinni Creek levees subject to subsurface investigation, middens are unlikely to occur within the Planning Area.
- The valley flat (floodplain) in the northern section of the Planning Area offers a possibly deep layer of relatively soft surface alluvium that might have been suitable for the placement of traditional Aboriginal burials. However, in the absence of any evidence of burials being intercepted by Pacific Highway upgrading works anywhere on the wider Manning River (including the Lansdowne River) floodplain, in conjunction with the distribution of registered burial site locations and Aboriginal stakeholder knowledge, the Planning Area is considered to have low potential to contain Aboriginal burials.
- Owing to past vegetation clearance, the Planning Area has no potential to contain scarred or carved trees.
- In the absence of any natural rock (or ochre) outcrops, the Planning Area has no potential to contain stone or ochre quarries, axe-grinding grooves, rock art, stone arrangements or occupation shelters.

6 FIELD SURVEY

6.1 Conduct and method

Field survey of the Planning Area was undertaken by Jacqueline Collins (J.P. Collins Consultant Archaeologist), assisted by Vienna Maslin (Biripi knowledge-holder and Purfleet Taree LALC senior sites officer) on the 17th of December 2015. The proponent (John Hogg) and surveyor Greg Crisp (McGlashan and Crisp Pty Ltd) also attended to answer any questions in relation to the rezoning proposal. Fine sunny weather provided conditions conducive to the detection of surface artefacts.

Although a full pedestrian search was initially intended, it was soon evident that dense grass cover prevented any effective survey coverage over most of the Planning Area. As such, the detailed survey was necessarily restricted to the few areas that provided exposures sufficient to reveal surface evidence, supplemented by a general reconnaissance to confirm the extent of past disturbance, absence of natural rock outcrops, and assess potential archaeological sensitivity.

For reporting purposes, the Planning Area was divided into the three survey units (SUs) described below and mapped on Figure 6. The survey units were delineated on the basis of their topography (after Speight 1998).

6.1.1 Survey Unit 1

This Survey Unit (SU) comprised the ridge crest. Apart from denuded tree bases and a sheep pen near the existing farmhouse (Plate 9), ground exposure was essentially zero owing to dense pasture grass (cf Plates 1 and 2).

6.1.2 Survey Unit 2

SU 2 included the northern and southern ridge slopes. Survey exposures were restricted to areas around and under trees on the upper northern and southern (Plate 4) slopes near the existing farmhouse, and an unformed vehicle track traversing the northern slope. Off these exposures, the slopes supported dense pasture grass (Plate 3), with parts downcut (Plate 7), graveled (Plate 8) and/or sealed to provide access to the farmhouse, sheds and their adjacent land.

6.1.3 Survey Unit 3

SU 3 comprised the northern valley flat (floodplain) targeted for future small-scale agriculture. In face of dense pasture grass, the overburden margins of a farm dam offered the sole source of survey exposure.

6.2 Effective survey coverage

To provide data suitable for evaluating the effectiveness of the survey, variables constraining site obtrusiveness were estimated for each of the survey units. These include an estimation of the mean frequency with which surface exposures were encountered, as well as an estimation of the quality of visibility on those exposures (mean frequency of bare ground with a likelihood of revealing surface artefacts or deposits). Once the variables of exposure and visibility are taken into account, it is estimated that approximately 0.4 percent of the Planning Area was subject to effective surface coverage (Table 3).

Although only a very small proportion of the Planning Area was available for effective surface coverage, the survey and associated general reconnaissance were sufficient to confirm that the area has suffered extensive past cultivation disturbance (cf Section 3).

Table 3. Effective coverage data

Survey unit	Landform	Total area (m^2)(approx.)	Area of exposure (m^2)	Exposure % of total	Visibility % on exposures	Effective coverage area (m^2)	Effective coverage % of total	Number of recorded sites/PADs
SU 1	Ridge Crest	18,500	400	2.2	90	360	1.9	0
SU 2	Ridge slopes	122,100	180	0.1	90	162	0.1	0
SU 3	Valley flat	35,400	150	0.4	100	150	0.4	0
Total		176,000	730			672	0.4	0

6.3 Results

No Aboriginal sites/artefacts or PADs were detected during the field survey. The proponent advised that he had never found stone artefacts or other evidence of Aboriginal occupation on the property despite some 40 years of repeated ploughing and other landuse activities (J. Hogg pers. comm. 17/12/2015).

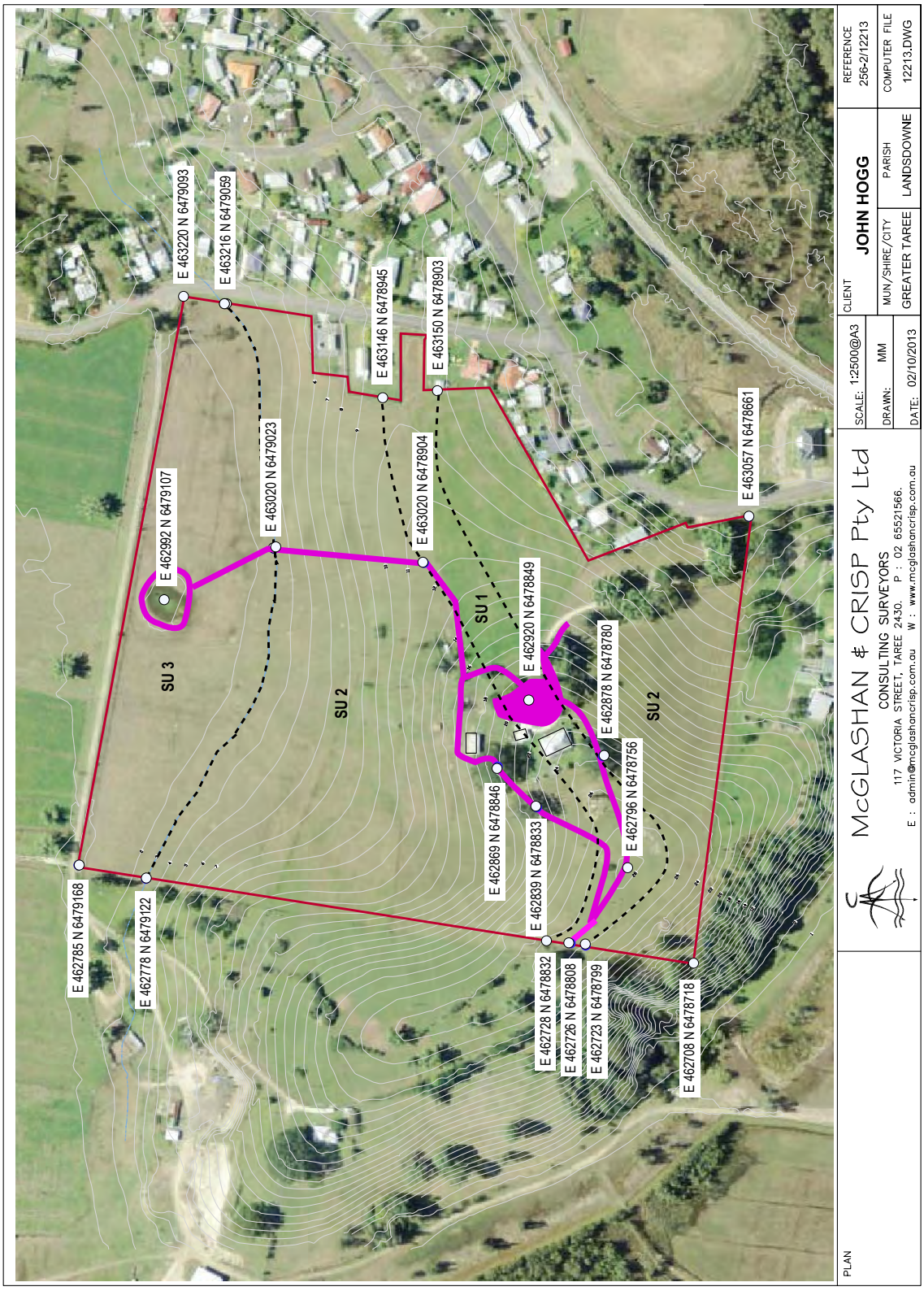


Figure 6.GDA 94 geographic coordinates of survey unit boundaries and areas subject to detailed surface inspection (pink)
(Base map source: McGlashan & Crisp Pty Ltd 2015)

7 SIGNIFICANCE ASSESSMENT

7.1 Assessment principles and process

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.

Significance assessments in Australia are guided by the nationally recognised *Australia ICOMOS Charter for the Conservation of Places of Significance 1999* ('The Burra Charter'), which defines 'cultural significance' as meaning "aesthetic, historic, scientific and social value for past, present and future generations".

As outlined by the OEH (2011) in relation to Aboriginal cultural heritage:

- Social/cultural value can only be identified through consultation with Aboriginal people, and refers to the spiritual, traditional, historical or contemporary associations and attachments that a place or area has for these people.
- Historic value refers to the associations of a place with an historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance.
- Scientific/archaeological value refers to the importance of a landscape, area, place or object because of its rarity, representativeness, and the extent to which it can contribute to further understanding and information.
- Aesthetic value refers to the sensory, scenic, architectural and creative aspects of the place.

Each of the above criteria is then assessed in terms that allow a significance level (high, moderate or low) to be assigned.

OEH management policies support the objective of conserving all significant Aboriginal sites/places as resources for research, vehicles for interpreting history and culture, and as elements in landscapes. The *National Parks and Wildlife Act 1974* (as amended) is designed to ensure that the Aboriginal cultural heritage resource is carefully managed, and that unmitigated destruction of archaeological material does not occur.

7.2 Significance of the Planning Area

This assessment found no evidence to suggest that the Planning Area contains or is reasonably likely to contain Aboriginal cultural heritage materials of scientific/archaeological, historic or aesthetic significance, or sites/places of special Aboriginal socio-cultural value.

8 IMPACT ASSESSMENT AND CONCLUSIONS

8.1 The Planning Area

As outlined in Section 1.3, it is anticipated that any Aboriginal sites/artefacts occurring on the RU5 (re) zoned land would be destroyed by future residential development, either during initial development and construction works, or during the course of residential occupation over the long term. It is also anticipated that the continued agricultural use of the RU1 zoned land on the northern valley flat (floodplain) would be unlikely to pose an additional threat to the integrity of Aboriginal cultural heritage materials unless excavations are undertaken below the existing plough zone.

It is acknowledged that the effective field survey coverage achieved was not high enough to reliably determine the presence or absence of archaeological sites. As per background evidence (Section 4) and the resulting predictive model (Section 5.3), it is nevertheless considered highly unlikely that the undiscovered archaeological resource of the Planning Area will comprise anything more than a dispersed low-density distribution of stone artefacts (some broken by machinery) on and within the ploughed topsoil.

While the presence of large and dense artefact occurrences on Manning valley ridgelines is not unprecedented, this type of site has been confined to landforms on and in the immediate vicinity of sources of raw stone materials used for tool manufacture (Collins 1994).

Despite that disturbance processes caused by ploughing can be factored into artefact distribution analyses to inform reconstructions of traditional Aboriginal landuse (Section 5.2), it is concluded that the archaeological potential of the Planning Area is not sufficient to warrant test excavations as permitted without an Aboriginal Heritage Impact Permit (AHIP) under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b), or application for an AHIP allow more comprehensive subsurface investigations. Owing to the expected low density of artefacts that might be present, it is further concluded that monitoring of initial development earthworks would be highly unlikely to result in the detection of significant (if any) artefacts.

8.2 Inter-generational equity

This assessment revealed no reasonable expectation that significant Aboriginal objects are likely to occur within the Planning Area, and that the proposed re-zoning and future development would not affect unmodified sites/places of Aboriginal socio-cultural value or attachment. On the basis of all available information it is concluded that the Planning Proposal would be unlikely to compromise the maintenance of 'inter-generational equity' in terms of the Aboriginal cultural heritage environment.

Considering all currently known socio-cultural, archaeological and environmental factors, it is recommended that the proposed re-zoning (Figure 3) be allowed to proceed contingent upon compliance with the management recommendations presented in Section 9.2.

9 MANAGEMENT RECOMMENDATIONS

9.1 Statutory basis for recommendations and implications

The *National Parks and Wildlife Act 1974* (as amended) is administered by the OEH, and forms the primary basis for the statutory protection and management of Aboriginal cultural heritage in NSW. Part 6 of the Act provides specific protection for Aboriginal objects and declared Aboriginal places by making it an offence to harm them unless authorised by a duly approved Section 90 Aboriginal Heritage Impact Permit (AHIP). As per Section 90(3) of the *National Parks and Wildlife Amendment Act 2010,* an AHIP "may be issued in relation to a specified Aboriginal object, Aboriginal place, land, activity or person or specified types or classes of Aboriginal objects, Aboriginal places, land, activities or persons."

The *National Parks and Wildlife Act 1974* (NPW Act) defines a protected 'Aboriginal object' as-

> "any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains)."

The provisions of the NPW Act apply to all Aboriginal objects, regardless of whether or not they have been registered on the AHIMS database, or whether they occur on private or public land. Except where destruction of an Aboriginal object is or will be demonstrably unavoidable, it is OEH policy to require conservation in its original location and context.

The *National Parks and Wildlife Amendment Act 2010* made significant changes to the provisions of the *National Parks and Wildlife Act 1974*, including the introduction of a 'strict liability' offence (Section 86[2]) for instances where impacts to Aboriginal objects/places are not covered by an AHIP and objects/places are accidentally or otherwise unknowingly harmed. It is a defence to prosecution under the Act if the defendant can demonstrate that they exercised 'due diligence' to reasonably determine that no Aboriginal objects would be harmed by the activity.

This assessment has concluded that an AHIP under Part 6, Section 90 of the *National Parks and Wildlife Act 1974* is not required or warranted to authorise the proposed development impacts within the Planning Area addressed in this report, and demonstrates that the proponent has taken reasonable and practical measures ('due diligence') to determine whether the re-zoning and subsequent development will or is likely to harm Aboriginal objects. This assessment, in conjunction with implementation of the Section 9.2 management recommendations, would constitute a defence against the strict liability offence introduced by the *National Parks and*

Wildlife Amendment Act 2010.

This assessment provides no defence against prosecution for causing knowing harm to an Aboriginal object. To comply with the conditions of the NPW Act, Section 9.2 Recommendation 3 must be strictly adhered to if any suspected or identified Aboriginal object/s are detected at any stage of future development.

9.2 Recommendations

1) It is recommended that the Planning Area be re-zoned as proposed (cf Figure 3), and that implementation of Recommendations 2 and 3 be required in conjunction with any future development approval.

2) Prior to their on-site involvement, all contractors, sub-contractors and their employees engaged for development-related earthworks should undergo a general site induction that provides information on legal obligations with respect to Aboriginal objects, including 'stop-work' conditions applicable in the event that any identified or suspected Aboriginal objects are discovered at any time (cf Recommendation 3).

   A register should be kept of all persons inducted. The register should include dates, names and signatures of those inducted, the name of the person carrying out the induction, and an acknowledgement that Aboriginal cultural heritage requirements have been explained and understood.

3) In the event that any identified or suspected Aboriginal objects are detected at any time, all disturbance work should immediately cease within 20m of the find and temporary protective fencing erected around this 'no-go zone' pending further management advice from the OEH (Planning and Aboriginal Heritage Section, Hunter Central Coast Region). If the find consists of or includes human remains, the NSW Police Department and the OEH Environmental Line (ph 131 555) should also be notified as soon as practicable.

   Works may not recommence within the designated 'no-go zone' until formal written clearance to do so has been given by the OEH in consultation with the registered Aboriginal parties and the NSW Police Department (if applicable).

REFERENCES

Andrews, A.E.J. 1992, *Major Mitchell's Map 1834. The Saga of the Nineteen Counties.* Blubber Head Press, Hobart.

Australia ICOMOS 2013, *The Burra Charter. The ICOMOS Charter for Places of Cultural Significance 2013.* ICOMOS Incorporated, Australia.

Birrelll, W.K. 1987, *The Manning Valley: Landscape and Settlement 1824-1900.* Jacaranda Press, Sydney.

Bowen, A. 2014, Proposed rezoning: Sutton Road and Faithfull Street, Gundaroo, NSW. Archaeological due diligence assessment. Report to R. and M. Meischke.

Brooke, J., Jenkins R., Costello A., Edmonds V. and A. Goldfarb 2012 Upgrading the Pacific Highway, Woolgoolga to Ballina upgrade. Working paper. Aboriginal cultural heritage assessment, Woolgoolga to Wells Crossing section. Report to NSW Roads and Maritime Services.

Byrne, D. andf M. Nugent 2004, *Mapping Attachment. A Spatial Approach to Aboriginal Post-contact Heritage.* Department of Environment and Conservation NSW, Hurstville.

Byrne, D., H. Brayshaw and T. Ireland 2001, *Social Significance. A Discussion Paper.* Research Unit, Cultural Heritage Division, NSW National Parks and Wildlife Service, Hurstville.

Coastplan Group 2015, Planning proposal. Amendment to the Greater Taree Local Environmental Plan 2010. Pt. Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335 Macquarie and West Streets, Coopernook. Report to Greater Taree City Council.

Collins, J. 1994, Report on the archaeological salvage of open campsites #30-5-22 and #30-5-43 on the Taree traffic relief route. Report to the NSW Roads and Traffic Authority.

Collins, J. 1997, SH-10 Pacific Highway, Proposed Coopernook traffic relief route. Aboriginal archaeological assessment. Report to Connell Wagner.

Collins, J. 1998, SH-10 Pacific Highway. Proposed upgrade Taree bypass to Coopernook bypass. Aboriginal heritage assessment. Report to Connell Wagner.

Collins, J. 1999a, Pacific Highway Coopernook traffic relief route. Archaeological investigation of the area to be affected by the northern abutment of Lansdowne River bridge. Report to Connell Wagner.

Collins, J. 1999b, Pacific Highway upgrade Moorland. Aboriginal heritage assessment. Report to Connell Wagner.

Collins, J. 2000, Pacific Highway Taree bypass to Coopernook bypass. Archaeological investigation of the area to be affected by the southern abutment of Ghinni Ghinni Creek bridge. Report to Connell Wagner.

Collins, J. 2010, Pacific Highway, Sapphire to Woolgoolga upgrade. Project implementation phase. Archaeological test excavations. Report to the NSW Roads and Traffic Authority.

Connell Wagner 1997, Pacific Highway Coopernook traffic relief route. Environmental impact statement. Report to the NSW Roads and Traffic Authority.

Connors, F.W. 1985*, Pioneering Days Around Taree: A Factual History of Exploration and Earliest Settlement of the Manning River Valley*. Classic Printers, Taree.

Davies, S.J. 2006, Archaeological salvage. Lot 13, DP 882816 north Sapphire Beach Coffs Harbour, northern NSW. Report to Sapphire Beach Properties Pty Ltd.

Davies, S.J. 2007, Archaeological salvage. Lot 2 DP 136932 and Lots 224 and 225 DP 218540 Fiddaman Road, Emerald Beach, northern NSW. Report to Sapphire Beach Properties Pty Ltd.

Department of Environment, Climate Change and Water NSW (DECCW) 2010a, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. Department of Environment, Climate Change and Water NSW, Sydney.

Department of Environment, Climate Change and Water NSW (DECCW) 2010b, *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*. Department of Environment, Climate Change and Water NSW, Sydney.

Department of Environment, Climate Change and Water NSW (DECCW) 2010c, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW.* Department of Environment, Climate Change and Water NSW, Sydney.

Dunnell, R.C. and J.F. Simek 1995, Artifact size and plowzone processes. *Journal of Field Archaeology*, 22(3):305-319.

Environmental Management Resources (ERM) 2007, Pacific Highway Coopernook to Moorland upgrade- RTA design refinement. Aboriginal and historical heritage assessment. Report to the NSW Roads and Traffic Authority.

Fitzpatrick, F.A. 1914, *Peeps into the Past. Pioneering Days on the Manning.* Cumberland Argus Ltd, Parramatta.

Gay, L. 2000. Greater Taree Local Government Area: Aboriginal cultural heritage management plan. Report to Greater Taree City Council.

Gaynor, P.J. 2008, Experimental plough zone technology. Poster exhibited at World Archaeological Congress Conference, Dublin. http://www.archeo.com.au/experimental.html. Accessed 10/11/2014.

Gaynor, P.J. undated, Three seasons of cultivating stone artefacts with farming implements in northwest NSW. http://www.archeo.org/fxp.html. Accessed 01/11/2014.

Gill, D. 1998, *The Jones Island Story. Tales and Stories About Croki, Jones Island and Lower Manning*. Dallas Gilll.

Gondwana Consulting 2014, Cattai Wetlands future directions strategy. Report to Greater Taree City Council.

Gow, R. and W. Gow 2010, *Coopernook- Chronicles of the Early Days*. Rod and Wendy Gow, Cundletown.

Gow, R. and W. Gow 2013*, Cundletown, Ghinni Ghinni and Jones' Island, Manning River. Chronicles of the Early Days 1829-1880.* Rod and Wendy Gow, Cundletown.

Greater Taree City Council and Coopernook Action Group 2009, Coopernook village plan.

Hannah, H. 1988, *Voices. A Folk History of the Manning Valley.* Newey and Beath, Newcastle.

Holmer, N. 1966, An attempt towards a comparative grammar of two Australian languages. *Occasional Papers in Aboriginal Studies*, No 5, Linguistics Paper No 3. Australian Institute of Aboriginal Studies, Canberra.

Hughes, P., N. Spooner and D. Questiaux 2014, The central lowlands of the Hunter Valley, NSW: Why so few early sites have been found in this archaeologically-rich landscape. *Australian Archaeology*, 79:34-44.

Klaver, J. and K.J. Heffernan 1991, Greater Taree Aboriginal heritage study. Report to Greater Taree City Council.

Launders, T. 2009, *The Manning Valley*. Proceedings of the 24th Annual Conference of the Grassland Society of NSW. http://www.grasslandnsw.com.au/FreeContent/2009Conference_invited.pdf. Accessed 10/11/2014.

Mooney, D. 1990, *Over the Years*. Sunne Printing Services, Taree.

Moorland School Centenary undated, *Moorland School Centenary, 1882-1982*. Manning River Times, Taree.

Navin Officer Heritage Consultants 2001, Moorland to Herons Creek Pacific Highway upgrade, route selection study. Cultural heritage assessment. Report to Ove Arup and Partners.

Navin Officer Heritage Consultants 2004, Pacific Highway upgrade Moorland to Herons Creek EIS working paper. Cultural heritage assessment. Report to Ove Arup and Partners.

New, T.W. 1851, An essay on the manners and customs of the Australian blacks. Typescript, Manning Valley Historical Society, Wingham.

Office of Environment and Heritage NSW (OEH) 2011, *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW.* Office of Environment and Heritage, Sydney.

Pearson, M. and S. Sullivan 1999, *Looking After Heritage Places. The Basics of Heritage Planning for Managers, Landowners and Administrators.* Melbourne University Press.

Ramsland, J. 1987, *The Struggle Against Isolation: A History of the Manning Valley.* Library of Australian History, North Sydney.

Shott, M.J. 1995, Reliability of archaeological records on cultivated surfaces: a Michigan case study. *Journal of Field Archaeology*, 22(4):475-490.

Speight, J.G. 1998, Landform. In R.C. McDonald, R.F. Isbell, J.G. Speight, J. Walker and M.S. Hopkins, *Australian Soil and Land Survey Field Handbook*. Edition 2, Inkata Press, Melbourne and Sydney.

Stewart, J.R 1953, The geology of the Camden Haven district of NSW. B.Sc. (Hons) thesis, University of New England, Armidale.

Van Vliet-Lamoe, B., Helluin, M., Bellerin, J. and B. Valadas 1992, Soil erosion in western Europe: From the last interglacial to the present. *Oxbow Monograph*, 22:101-114.

Virtus Heritage Pty Ltd 2013, Cattai Wetlands cultural heritage values and constraints report. Confidential report to Gondwana Consulting and Greater Taree City Council.

Voisey, A.H. 1939, The Lorne Triassic Basin and associated rocks. *Proceedings of the Linnean Society of NSW*, Vol. LXIV, Parts 3 and 4.

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
An object or specimen produced by human agency. An artefact can usually be collected without being destroyed. This is in contrast to features, which are destroyed or dismantled after collection. All lithic debitage and tools are considered artefacts (Andrefsky 2005:252).

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).

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 40m. in diameter. The Bora ground functioned as a stage for various initiation rites (Byrne 1989:18).

CARBONIFEROUS
The time interval between 360 and 290 million years ago (Lapidus 1987:90).

CARVED TREE
Carved trees carry figures or patterns carved into the bark or wood and are generally found in direct association with either Aboriginal burial or ceremonial grounds. The designs which were carved into the trees were symbolic of totemic groups (Byrne 1989:15).

CHALCEDONY
A cryptocrystalline variety of silica, having a compact fibrous structure and a waxy lustre. It may be translucent or semi-transparent and occurs in a variety of colours. Chalcedony is often found as a deposit, lining or filling cavities in rocks (Lapidus 1987:99).

CHERT
A dense, extremely hard, microcrystalline or cryptocrystalline siliceous sedimentary rock, consisting mainly of inter-locking quartz crystals, sub-microscopic and sometimes containing opal (amorphous 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 a siliceous replacement of pre-existing rocks (Lapidus 1987:102).

CONGLOMERATE
A coarse-grained clastic sedimentary rock, composed of rounded fragments or particles at least 2mm. in diameter (granules, pebbles, cobbles, boulders), set in a fine-textured matrix of sand or silt and commonly cemented by calcium carbonate, silica, iron oxide or hardened clay (Lapidus 1987:119).

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

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).

FLAKED PIECE
Chipped artefacts with negative flake scars which cannot be classified as a flake, core or retouched flake (Hiscock 1988:64).

FLOODPLAIN
An alluvial plain characterised by frequently active erosion and aggradation by channelled or overbank stream flow (Speight 1990:51).

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).

HILLSLOPE
A gently inclined to precipitous slope, commonly simple and maximal, eroded by sheet wash, creep, or water-aided mass movement (Speight 1990:31).

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).

LEVEE
A very long, very low, nearly level sinuous ridge immediately adjacent to a stream channel, built up by over-bank flow. Levees are built, usually in pairs bounding the two sides of a stream channel, at the level reached by frequent floods (Speight 1990:31).

LIMESTONE
A sedimentary rock composed almost entirely of calcium carbonate (Lapidus 1987:324-325).

MIDDEN (SHELL)
Middens are Aboriginal open campsites which are dominated by shellfish remains. They are generally found near water and differ from natural shell beds in that they comprise predominantly mature specimens of edible mollusc species. They may also contain animal bone, stone artefacts, and charcoal and ash from cooking fires. Middens vary considerably in size. Some are thin surface scatters which have constituted little more than a meal for a small group gathering food away from a main camp, while others are well consolidated deposits several metres deep representing consistent use by large groups of people over hundreds of years (Byrne 1989:10).

MUDSTONE
A commonly-used synonym for Mudrock. A fine-grained sedimentary rock composed chiefly of particles in the silt-clay size range. Mudrock/mudstone is a general term used to distinguish the finer-grained sedimentary rocks from sandstones or limestones (Lapidus 1987:362).

NUCLEAR TOOL
A core which, rather than being specifically used to supply flakes to be used as tools, is itself the tool. A nuclear tool is thus a core-like tool that did not originate as a flake (Witter 1992:30).

POTENTIAL ARCHAEOLOGICAL DEPOSIT (PAD)
An area where subsurface stone artefacts and/or other cultural materials are likely to occur (DEC 2005:67).

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

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).

RIDGE
A compound landform element comprising a narrow spine crest and its immediately adjoining slope with the spine length being greater than the width (Speight 1990:19).

SANDSTONE
A sedimentary rock composed of sand-sized grains, mainly of quartz, in a matrix of clay or silt, and bound together by a cement that may be carbonate (Lapidus 1987:449).

SCARRED TREE
Aboriginal scarred trees are trees that have been scarred by Aboriginal people through the removal of bark or wood for a variety of commonplace tasks, including the construction of bark shelters, watercraft and containers. Other forms of Aboriginal tree wounding include deliberate marking (such as tree carving), the removal of wood for artefact manufacture, and cuttings made to collect food and assist with tree climbing (toe-holds). Early European settlers also stripped bark from trees, though for a more limited range of uses, especially the weather-proofing of buildings and other structures (Long 2005:6-7).

SHALE
A fine-grained sedimentary rock formed by the compaction of silt, clay or sand that accumulates in deltas and on lake and ocean bottoms (Lapidus 1987:467).

SILTSTONE
A fine-grained sedimentary rock principally composed of silt-grade material. Intermediate between sandstone and shale, siltstone contains less clay than shale and lacks its fissility and fine laminations (Lapidus 1987:474).

SIMPLE SLOPE
Landform element comprising a slope adjacent below a crest, spur or ridge, and above a flat or depression (Speight 1990:15).

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

STONE ARRANGEMENT
Aboriginal stone arrangements typically consist of groups of stone cairns or alignments of single or grouped stones. Although there are no documented accounts of their use, stone arrangements are believed to have been of ceremonial significance and were situated at points of mythological importance or near ceremonial grounds (Byrne 1989:16-17).

STONE ARTEFACT
Fragment of stone that 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 (ie 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).

STONE QUARRY (ABORIGINAL)
As the locations of stone sources exploited by Aborigines, quarry sites usually show evidence of procurement and preliminary processing activities, and may be found where outcrops of suitable siliceous or igneous rocks occur. While quarry sites may be represented by as little as one or two flaked boulders or a single extraction pit, most contain a cluster of quarry pits and/or flaking floors where the stones have been trimmed to sizes suitable for transport (NPWS 1988:18-19).

TUFF
A pyroclastic rock composed mainly of volcanic ash. Tuffs may be crystal (composed mostly of crystal fragments), vitric (composed mostly of glass and pumice fragments) or lithic (composed mostly of rock fragments) (Lapidus 1987:519-520).

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).

GLOSSARY REFERENCES

Andrefsky, W. 2005, *Lithics. Macroscopic Approaches to Analysis.* Cambridge University Press, Cambridge.

Byrne, D. 1989, Aboriginal Heritage of the North Coast. A Discussion Paper. NSW Department of Planning, Grafton.

Champion, S. 1980, *A Dictionary of Terms and Techniques in Archaeology*. Facts on File Inc, New York.

Charman, P.E.V. 1978, Soils of NSW. Their characterisation, classification and conservation. *Soil Conservation Service, Technical Handbook*, No.1.

Crabtree, D. 1972, An introduction to the technology of stone tools. Part II. *Occasional Papers of the Idaho State Museum*, No. 28.

Department of Environment and Conservation (DEC) 2005, Comprehensive coastal assessment: Aboriginal cultural heritage data audit, Report to the Coastal, Rural and Regional Strategy Division of DIPNR.

Hiscock, P. 1984, A preliminary report on the stone artefacts from Colless Creek Cave northwest Queensland. *Queensland Archaeological Research,* 1:120-151.

Hiscock, P. 1988, Technological change at Platypus rockshelter (KB:A70), southeast Queensland. *Queensland Archaeological Research,* 5:63-89.

Lapidus, D.F. 1987, *Dictionary of Geology*. Collins, London.

Long, A. 2005, *Aboriginal Scarred Trees in NSW. A Field Manual.* Department of Environment and Conservation, Sydney.

National Parks and Wildlife Service (NPWS) 1988, *Aboriginal Sites of New South Wales*. National Parks and Wildlife Service, Hurstville.

Packard, P. 1992, An archaeological assessment of State Forests in the Kempsey and Wauchope Forestry Management Areas. Report to the NSW Forestry Commission.

Plog, S., Plog, F. and W. Wait 1978, Decision making in modern surveys. In M. Schiffer (ed.*), Advances in Archaeological Method and Theory,* 1:383-421.

Speight, J.G. 1998, Landform. In McDonald, R.C., Isbell, R.F., Speight, J.G., Walker, W. and M.S. Hopkins, *Australian Soil and Land Survey Field Handbook*. Edition 2, Inkata Press, Melbourne and Sydney.

Witter, D.C. 1992, Regions and resources. Unpublished Ph.D. Thesis, Australian National University, Canberra.

APPENDIX A. OEH advice in relation to Aboriginal cultural heritage requirements for the Planning Proposal

NSW GOVERNMENT Office of Environment & Heritage

Your reference: PP-2015-GTARE-004-00
Our reference: DOC15/310057-1
Contact: Ziggy Andersons, 4927 3151

Mr Ron Posselt
General Manager
Greater Taree City Council
PO Box 482
TAREE NSW 2430

Attention: Michael Griffith

Dear Mr Posselt

RE: PLANNING PROPOSAL – LOTS 1, 2 & 9 DP 32272, AND LOT 48 DP 1090335, MACQUARIE AND WEST STREETS, COOPERNOOK

I refer to your email dated 12 August 2015 seeking consultation under Section 56(2)(d) of the *Environmental Planning and Assessment Act 1979* and advice regarding Section 117 Direction 2.3 Heritage Conservation. The Office of Environment and Heritage (OEH) understands that the proposal involves the rezoning, from RU1 Primary Production to RU5 Village, of various lots at Macquarie and West Streets Coopernook. The following advice relates to Aboriginal cultural heritage assessment.

The importance of identifying and protecting Aboriginal cultural heritage in planning proposals is reflected in Local Planning (section 117) Direction 2.3 Heritage Conservation which states that a planning proposal must contain provisions that facilitate the conservation of Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes.

As a minimum, an assessment of whether Aboriginal cultural heritage values are known or are likely to occur in the area of the planning proposal should be undertaken by a suitably qualified person. The initial assessment of the likelihood of Aboriginal cultural heritage values should include the following:

- a search the Aboriginal Heritage Information Management System (AHIMS) database and any other sources of information available
- determination of whether the planning proposal includes landscape features that indicate the likely presence of Aboriginal objects
- a site inspection
- consultation with the Aboriginal community.

Note: *The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (2010) should not be used to support a planning proposal. Due diligence is a voluntary process that provides a person with a defence against prosecution for the strict liability offence if they later unknowingly harm an Aboriginal object without an Aboriginal Heritage Impact Permit. Due diligence is not an assessment of Aboriginal cultural heritage values.

Where Aboriginal objects are known or are likely to occur in the area of the planning proposal, further investigation should be undertaken by a suitably qualified person. The identification of cultural heritage values should be guided by the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in*

Locked Bag 1002 Dangar NSW 2309
Level 4/26 Honeysuckle Drive Newcastle NSW 2300
rog.hcc@environment.nsw.gov.au
ABN 30 841 387 271
www.environment.nsw.gov.au

NSW (DECCW, 2011) available at www.environment.nsw.gov.au/licences/investassessreport.htm and consultation with OEH regional officers.

Consultation with Aboriginal people should be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW, 2010)* available at www.environment.nsw.gov.au/licences/consultation.htm.

The significance of cultural heritage values for Aboriginal people who have a cultural association with the land should be documented in the planning proposal. These results should be considered in addition to any archaeological values that the land may retain.

Impacts to Aboriginal cultural heritage should be avoided. Where impacts cannot be avoided, they should be minimised and managed. The planning proposal must include provisions to facilitate the conservation of Aboriginal cultural heritage values. Such provisions may include:

- appropriate land use zoning (e.g. E2 conservation)
- redesign of future development to avoid harm
- incorporating areas into passive open space
- recommendations for a Development Control Plan.

Note: Where impacts to Aboriginal objects or places cannot be avoided, an Aboriginal Heritage Impact Permit will be necessary for that impact to occur.

If you have any enquiries concerning this advice, please contact Ziggy Andersons, Conservation Planning Officer, on 4927 3151.

Yours sincerely

14 AUG 2015

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

APPENDIX B. Aboriginal consultation log

Coopernook Planning Proposal- Aboriginal consultation log

Date	Stakeholder/other contact	Contact person	Summary of consultation
6/10/15	Office of Environment and Heritage	Richard Bath, Team Leader Planning, Hunter Central Coast Region	Letters mailed with a brief oveview of the proposal, including a location map and the name and contact details of the proponent, requesting that each organisation notify the consultant of any Aboriginal parties who may have an interest in the proposal and hold knowledge relevant to determining cultural significance. Advice requested by mail or email by 28/10/15.
	Purfleet Taree LALC	CEO	
	Office of the Registrar, Aboriginal Land Rights Act 1983		
	NTSCORP Limited		
	Greater Taree City Council	The General Manager	
	National Native Title Tribunal		Request for search of tribunal registers (on application form downloaded from website: nswenquiries@nntt.gov.au) posted.
12/10/15	Greater Taree City Council (GTCC)	Sharon Rose, Environmental Program Officer	Email response to letter dated 6/10/15, with attached contact list of Aboriginal groups and individuals for consultation within the GTCC LGA. Advised to put notice in local press and to check list against groups/individuals registered with OEH Newcastle office.
14/10/15	Birpai Local Aboriginal Land Council	Mike Vegter, Acting CEO	Letters mailed to all parties on GTCC consultation list with a brief overview of the proposal, map, and additional information as per the Stage 1 (4.1.3) ACH consultation requirements for proponents 2010. Stakeholder registration required by 30/10/15- post, email or phone.
	Lakkari NTCG and Doo-wa-kee Cultural Heritage Services	Mick Leon	
	Forster LALC	CEO	
	Kamarah Aboriginal Corporation	The General Manager	
	Mid North Coast Indigenous Broadcaster Association	Ralf Saunders	
	Minimbah Elders Group Inc	Eva Leon	
	Purfleet Taree LALC	Glen Rennie, CEO	
	Saltwater Tribal Council	Ray Hurst, Secretary	
	Sunrise Guiwan Birpi Elders Corporation	Warner Saunders	
	Taree Indigenous Development and Employment	John Clark, CEO	
15/10/15	Office of the Registrar, Aboriginal Land Rights Act 1983	Kelly Bashford, Directorate Support Officer	Mail response to letter dated 6/10/15, advising that the project area "does not appear to have Registered Aboriginal Owners pursuant to Division 3 of the Aboriginal Land Rights Act 1983 (NSW)". Suggested contact the Purfleet Taree LALC.

Date	Stakeholder/other contact	Contact person	Summary of consultation
15/10/15	Office of Environment and Heritage	Nicole Davis, Archaeologist - Planning, Hunter Central Coast Region	Email response to letter dated 6/10/15, with attached list of Aboriginl parties (other than LALC) within Taree LGA.
	Ghinni Ghinni Youth and Culture Aboriginal Corporation		Letters mailed to parties on OEH consultation list (where not already contacted) with a brief overview of the proposal, map, and additional information as per Stage 1 (4.1.3) ACH requirements for proponents 2010. Stakeholder registration required by 30/10/15.
	Bindi Aboriginal Heritage and Cultural Centre Inc.		
19/10/15	Forster LALC	Rob Yettica, Sites Officer	Phone call registering an interest in the assessment on behalf of the Forster LALC. Advised no current CEO so direct further information to Rob at the Land Council address.
	NTSCORP Limited	George Tonna, Land and Notifications Officer	Mail response to letter dated 6/10/15, advising will forward correspondence on to any individuals, groups or organisations that NTSCORP is aware assert traditional interests within, or hold cultural knowledge about the relevant area. Resgistrations of interest to be sent directly by 28/10/15.
21/10/15	Purfleet Taree LALC	Glen Rennie, CEO	Email response registering an interest in the assessment.
	Taree Indigenous Development and Employment	John Clark, CEO	
22/10/15	National Native Title Tribunal	Sylvia Jagtman, Senior Case Management Assistant	Email response to register search request, advising no relevant entries in databases.
28/10/15	Manning River Times		Newspaper advertisement inviting registration of relevant Aboriginal knowledge-holders. Responses required by 11/11/15.
	Forster LALC	Rob Yettica, Sites Officer	Letters mailed with overview of the development proposal (including maps), and draft assessment methodology for clearance or amendment before proceeding. Response to draft methodology required by 25/11/15.
	Purfleet Taree LALC	Glen Rennie, CEO	
	Taree Indigenous Development and Employment	John Clark, CEO	
3/11/15	Taree Indigenous Development and Employment	John Clark, CEO	Response to letter dated 28/10/15. Advised that as a traditional owner is keenly interested in the field survey, and due to possible non-consensus with regard to who will participate in the survey, this person should be chosen by the proponent or consultant rather than the registered Aboriginal parties themseleves, as proposed in the draft methodology.
23/11/15	Forster LALC	Rob Yettica, Sites Officer	Phone call from Rob Yettica advising no problem with draft methodology, except for advice contained therein that the proponent is willing to pay for one Aboriginal representative only to participate in the field survey. Rob advised that if this is the case, he should be that representative, as has extensive survey experience.
24/11/15	Office of Environment and Heritage	Richard Bath, Team Leader Planning, Hunter Central Coast Region	Letters mailed advising the names of the three Aboriginal organisations that registered an interest in the assessment. Letters accompanied by notifications sent out as per Stage 1 (4.1.3), including a copy of the newspaper advertisement.

Date	Stakeholder/other contact	Contact person	Summary of consultation
	Purfleet Taree LALC	Glen Rennie, CEO	
26/11/15	Purfleet Taree LALC	Glen Rennie, CEO	Phone call to Glen Rennie enquiring as to whether draft assessment methodology is OK- advised no problem. Dicussed the process required for Aboriginal party registration and the registered parties as listed in letter dated 24/11/15. Glen advised that the best person to assist with the field survey would be long-term and highly experienced Land Council sites officer Vienna Maslin, who is also a traditional Birpi owner and knowledge-holder. Glen expressed a stong objection to registration of interest lodged by Forster LALC, and advised that it would be inappropriate for any Forster LALC representative to participate in a survey within Purfleet Taree LALC territory. The project proposal and purpose of the assessment were also discussed.
30/11/15	Forster LALC	Pauline Tatam, acting CEO	Phone call to Pauline Tatam to confirm Forster LALC registrtration of interest in the Coopernook Planning Proposal. Pauline advised support for any registration of interest lodged by Rob Yettica on behalf of the Land Council.
8/12/15	Purfleet Taree LALC	Glen Rennie, CEO	Phone call to Glen Rennie to organise a date for the field survey. Secretary advised that Glen is away a will probably be back Friday 11/12/15.
	Taree Indigenous Development and Employment	John Clark, CEO	Phone call to John Clark to advise that the proponent has selected Purfleet Taree LALC sites officer Vienna Maslin to assist with the field survey. No answer.
	Forster LALC	Rob Yettica, Sites Officer	Phone call to advise that the proponent has selected Purfleet Taree LALC sites officer Vienna Maslin to assist with the field survey. Rob advised that he objects to not being involved in the survey and that representatives of all registered Aboriginal parties should be engaged to attend. Enquired as to whether I could come to Forster and talk to him to assess cultural values of the property as a whole and any sites/PADs recorded during the survey, and to develop managment recommendations. Response was no, as would only provide information on-site during a field survey. Rob was advised that I will in any case let him know the survey results, offer the opportunity to have input to the management recommendations, and provide a draft report for Forster LALC review and comment. The project proposal and purpose of the assessment were also discussed.
9/12/15	Taree Indigenous Development and Employment	John Clark, CEO	Phone call to advise that the proponent has selected Purfleet Taree LALC sites officer Vienna Maslin to assist with the field survey. John advised that he remains impartial with respect to the choice of a sites officer and has no objection to Vienna's field involvement. John further advised that he has no specific knowledge about Coopernook not also known to Vienna, and that contextual cultural information is available in a document entitled 'Gataygatay'. Can pick up loan copy from TIDE office and use information in my report as necessary. John was advised that I will let him know the survey results, offer the opportunity to have input to the management recommendations, and provide a draft report for TIDE review and comment. The project proposal and purpose of the assesment were also discussed.
11/12/15	Taree Indigenous Development and Employment	John Clark, CEO	Picked up loan copy of 'Gataygatay' document from John at TIDE office, Taree. John reiterated that he remains impartial with respect to the choice of field representative, does not object to the choice of Vienna Maslin as the representative and that Vienna has cultural knowledge to enable her to make an informed assessment of the significance of the Planning Area itself and any archaeological sites it may contain.
	Purfleet Taree LALC	Glen Rennie, CEO	Phone call to Glen Rennie to organise a date for the field survey. Glen confirmed availability of Vienna Maslin any day and advised me to contact Vienna directly to arrange.
14/12/15	Purfleet Taree LALC	Vienna Maslin, Sites Officer	Phone call to Vienna Maslin to organise a date for the field survey. Agreed 17/12/15, pick up from Taree 9.00am.
17/12/15	Purfleet Taree LALC	Vienna Maslin, Sites Officer	Field survey undertaken with Vienna Maslin (also attended by proponent John Hogg and surveyor Greg Crisp). Survey impeded by grass cover but evidence of high level past agricultural disturbance noted. No Aboriginal cultural materials or PADs identified. Vienna advised that the Planning Area is not known to contain sites/places of special socio-cultural significance and that she has no objections to the subdivision proceeding.

Date	Stakeholder/other contact	Contact person	Summary of consultation
28/01/16	Purfleet Taree LALC	CEO	Draft report posted for review and comment. Responses requested by 26/02/16.
	Taree Indigenous Development and Employment	John Clark, CEO	
	Forster LALC	Rob Yettica, Sites Officer	
4/02/16	Purfleet Taree LALC	Emily-Jane Brady, Administration Officer	Email acknowledging receipt of draft report. Emily-Jane adivsed that the report will be reviewed by the Land Council board for comment after 15/02/16.
16/02/16	Forster LALC	Rob Yettica, Sites Officer	Phone to Rob Yettica to confirm receipt of draft report for review. Rob advised that he had received and read the report. "No qualms" with the report itself but not happy with lack of field involvement and will thus not be supplying a written response.
	Taree Indigenous Development and Employment	John Clark, CEO	Phone calls x 2. No answer. Email to John Clark to confirm receipt of draft report, requesting written response to draft report review.
17/02/16	Taree Indigenous Development and Employment	John Clark, CEO	Email from John Clark advising no problem with draft report.
22/02/16	Purfleet Taree LALC	Emily-Jane Brady, Administration Officer	Phone call to Emily-Jane enquiring whether draft report has yet been reviewed for comment. If not, when could this be expected? Advised that Land Council board had intended to review the report at its last meeting but time did not permit. The board will probably address at next meeting, scheduled for early March.
8/03/16	Purfleet Taree LALC	Emily-Jane Brady, Administration Officer	Email from Emily-Jane advising that she is hoping to have a response re: the draft report by 30/03/16.

APPENDIX C. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010-* Letters sent in compliance with Stage 1, Step 4.1.2

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

6th October 2015

Richard Bath
Senior Team Leader Planning, Hunter Central Coast Region
Office of Environment and Heritage
Locked Bag 1002
DANGAR NSW 2309

Dear Mr Bath,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Identification of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to address outstanding Aboriginal cultural heritage assessment requirements in relation to the Planning Proposal (as per your correspondence dated 14/08/2015 to Ron Posselt, General Manager, Greater Taree City Council [Your Ref: DOC15/310057-1]).

To facilitate appropriate Aboriginal community consultation as required by the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010), I would be most grateful if you could supply me with a list of any Aboriginal groups/persons that OEH may be aware of, who may hold knowledge of/cultural attachments to the Coopernook area, by the 28th of October 2015. Please send your response directly to me at the letterhead mail or email address.

Yours faithfully,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428
Email: gavin@coastplan.com.au

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

6th October 2015

Office of the Registrar
Aboriginal Land Rights Act 1983
PO Box 112
GLEBE NSW 2037

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Identification of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to address outstanding Aboriginal cultural heritage assessment requirements in relation to the Planning Proposal, including consultation with Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of the land as a whole, and any archaeological sites/materials if may contain.

To facilitate appropriate Aboriginal community consultation as required by the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010), I am writing to seek your assistance. To this end, I would be most grateful if you could supply me with a list of any 'Aboriginal owners' that you may have on your register for this area. I would require this information by the 28th of October 2015. Please send your response to me at the letterhead mail or email address.

Yours faithfully,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428
Email: gavin@coastplan.com.au

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

6th October 2015

CEO
Purfleet-Taree Local Aboriginal Land Council
PO Box 346
TAREE NSW 2430

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Identification of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to address outstanding Aboriginal cultural heritage assessment requirements in relation to the Planning Proposal, including consultation with Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of the land as a whole, and any archaeological sites/materials if may contain.

To facilitate appropriate Aboriginal community consultation as required by the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010), I am writing to seek your assistance. To this end, I would be most grateful if you could supply me with contact details of any Aboriginal groups/persons that the Land Council may be aware of, who may hold knowledge of/cultural attachments to the Coopernook area, by the 28th of October 2015. Please send your response to me at the letterhead mail or email address.

Yours faithfully,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428
  Email: gavin@coastplan.com.au

National Native Title Tribunal

Request for Search of Tribunal Registers

***mandatory fields are marked with an asterisk**

1. Your details*

NAME:	Jacqueline Collins
POSITION:	Consultant Archaeologist
COMPANY/ORGANISATION:	Adise Pty Ltd
POSTAL ADDRESS:	PO Box 6 Laurieton NSW 2443
TELEPHONE:	0427599137
EMAIL:	jpollins@optusnet.com.au
YOUR REFERENCE:	Coopernook PP
DATE OF REQUEST:	05/10/2015

2. Reason for your request - please complete either Part A OR Part B*

Part A - Are you a party to a native title proceeding? ○ Yes ◉ No

Please provide Federal Court/Tribunal file number/or application name:

OR

Part B - Do you need to identify existing native title interests to comply with the *Native Title Act 1993* (Cth) or other State/Territory legislation? ◉ Yes ○ No

Please provide brief details of these obligations here: Compliance with OEH assessment requirements for planning prop

3. Identify the area to be searched - please complete either Part A OR Part B*

Part A - Mining tenure

Tenement ref/s:

State/Territory:

OR

Part B - Other tenure type

- ☑ Crown Land, crown reserve
- ☐ Agricultural/pastoral lease
- ☑ Freehold (privately owned)**

State/Territory: NSW

Local Government Area: Greater Taree

4. Description (please provide as many details as possible)

Provide any additional details to describe the area, including attaching maps with landmarks clearly shown.

Lot and plan details: Lots 1, 2 and 9 DP 32272 and Lot 48 DP 1090335

Property name:

Pastoral Lease number or name:

County: Macquarie

Parish: Lansdowne

Town: Coopernook

Section:

Hundred:

Northern Territory Portion:

5. Submit your request

NNTT Office	Search jurisdiction	Email address	Fax
Perth	WA searches	waenquiries@nntt.gov.au	(08) 9425 1193
Melbourne	VIC, TAS searches	vicandtasenquiries@nntt.gov.au	(03) 9606 0680
	SA, NT searches	sa_and_ntenquiries@nntt.gov.au	(03) 9606 0680
Sydney	NSW, ACT searches	nswenquiries@nntt.gov.au	(02) 9227 4030
Brisbane	QLD searches	qldenquiries@nntt.gov.au	(07) 3307 5050

Or post to: National Native Title Tribunal, GPO Box 9973 (Perth 6848, Melbourne 3001, Sydney 2001, Brisbane 4001)

- There is no charge for conducting searches of the Tribunal's databases.
- Timeframe for providing results is generally 3-5 business days.
- Register and schedule extracts, plus map attachments will be provided with your results. Technical coordinates may be omitted.

Did you know?

Native Title Vision (NTV) is the National Native Title Tribunal's free online visualisation, mapping and query tool. All that is needed to use NTV is a computer connected to the internet, a current web browser and an NTV user account. NTV puts you in the driver's seat in exploring native title and brings together:

- a geospatial view of the Tribunal's registers and databases
- overlays of administrative regions, non-freehold land parcels and resouces tenure.

To obtain a NTV user account visit the Geospatial section on our website.

**Native title & freehold tenure

Under the *Native Title Act 1993* (Cth), the valid grant of a freehold estate (other than certain types of Aboriginal and Torres Strait Islander land) on or before 23 December 1996 is known as a 'previous exclusive possession act'. This means that native title has been extinguished over the area.

The Tribunal is not the custodian of the data for freehold estates. To determine whether a particular parcel of land is freehold land, you may wish to seek such information from the relevant state/territory government custodian.

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

6th October 2015

Native Title Services Corporation Limited
PO Box 2105
STRAWBERRY HILLS NSW 2012

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Identification of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to address outstanding Aboriginal cultural heritage assessment requirements in relation to the Planning Proposal, including consultation with Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of the land as a whole, and any archaeological sites/materials if may contain.

To facilitate appropriate Aboriginal community consultation as required by the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010), I am seeking contact with any individuals, groups and/or organisations you represent who may have an interest in, and cultural knowledge of, the Coopernook locality.

I understand from past correspondence that NTSCORP's privacy guidelines restrict dissemination of Aboriginal contact details. As such, I would appreciate it if you could forward this correspondence on to any relevant individuals, groups and/or organisations whom NTSCORP is aware assert traditional interests within or hold cultural knowledge about the subject area. I would require receipt of any registrations of interest (mail, email or phone) by the 28th of October 2015.

Yours faithfully,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428
  Email: gavin@coastplan.com.au

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

6th October 2015

The General Manager
Greater Taree City Council
PO Box 482
TAREE NSW 2430

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Identification of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to address outstanding Aboriginal cultural heritage assessment requirements in relation to the Planning Proposal, including consultation with Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of the land as a whole, and any archaeological sites/materials if may contain.

To facilitate appropriate Aboriginal community consultation as required by the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010), I am seeking your assistance and advice. To this end, I would be most grateful if you could supply me with details of any Aboriginal persons and/or groups known to Council, who may hold knowledge of/cultural attachments to the Coopernook locality. I would require this information by the 28th of October 2015 (please send your response directly to me at the letterhead mail or email address).

Yours faithfully,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428
  Email: gavin@coastplan.com.au

APPENDIX D. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*- Responses to letters sent in compliance with Stage 1, Step 4.1.2

From: Nicole Davis <Nicole.Davis@environment.nsw.gov.au>
Date: 15 October 2015 11:50:38 AM AEDT
To: "jpollins@optusnet.com.au" <jpollins@optusnet.com.au>
Cc: Richard Bath <Richard.Bath@environment.nsw.gov.au>
Subject: **OEH Aboriginal Stakeholder Lists for Taree LGA area**

Hi Jacqueline,

Please find attached the relevant OEH Aboriginal stakeholder list for the Taree Area as requested.

Kind regards
Nicole

Nicole Y Davis
Archaeologist - Planning
Hunter Central Coast Region
Regional Operations Group
Office of Environment and Heritage
Locked Bag 1002 Dangar NSW 2309
(Level 4/26 Honeysuckle Drive Newcastle)
T: (02) 4927 3156
M: 0409 394 343
E: nicole.davis@environment.nsw.gov.au

ABORIGINAL PARTIES (OTHER THAN LOCAL ABORIGINAL LAND COUNCILS) IN THE AREA OF INTEREST

1.	Saltwater Tribal Council 18 Ronald Road TAREE, NSW 2430 Ph: (02) 65524440
2.	Ghinni Ghinni Youth and Culture Aboriginal Corporation PO Box 641 TAREE, NSW 2430 Ph: (02) 65512160 Ghinni_ghinni@hotmail.com
3.	Bindi Aboriginal Heritage and Cultural Centre Inc. 187 Beechwood Road WAUCHOPE, NSW 2446 Ph: (02) 65864560
4.	Sunrise Guiwan Biripi Elders Corporation Warner Saunders PO Box 129 CUNDLETOWN NSW 2430 Ph: 0487660726 Warner.saunders9@gmail.com
5.	Doowakee Mick Leon PO Box 22 TAREE NSW 2430 Ph 02 6552 7856 Fax 02 6552 7543 Mob 0402 751 584 doowakee@gmail.com
6.	Lakkari NTCG Mick Leon C/- Doo-wa-kee CHS 82 Victoria Street TAREE NSW 2430 Ph 02 6552 7835 Mob 0402 751 584 doowakee@virginbroadband.com.au
7.	Birpi Local Aboriginal Land Council Nathan Moran Lot 33 - Aston Street

Page 1 of 2 As at 12/03/2014

	PORT MACQUARIE NSW 2444 Ph: (02) 6584 9066 Fax: (02) 6583 8172 birpailalc@midcoast.com.au

OFFICE OF THE REGISTRAR
ABORIGINAL LAND RIGHTS ACT 1983 (NSW)

11-13 Mansfield Street
Glebe NSW 2037
PO Box 112, Glebe NSW 2037
T 02 9562 6327 F 02 9562 6350

8 October 2015

Jacqueline Collins
Consultant Archaeologist
Adise Pty Ltd
Po Box 6
LAURIETON NSW 2443

Dear Jacqueline

Re: Request - Search for Registered Aboriginal Owners

I refer to your letter dated 6th October 2015 regarding Aboriginal Cultural Heritage Assessment within Greater Taree in NSW.

I have searched the Register of Aboriginal Owners and the project area described *does not appear* to have Registered Aboriginal Owners pursuant to Division 3 of the *Aboriginal Land Rights Act* 1983 (NSW).

I suggest that you contact the Purfleet/Taree Local Aboriginal Land Council on 02 6552 4106. They will be able to assist you in identifying other Aboriginal stakeholders for this project.

Yours sincerely

Kelly Bashford
Directorate Support Officer
Office of the Registrar, *Aboriginal Land Rights Act 1983*

National Native Title Tribunal

Sydney Office, Operations East
Level 16, Law Courts Building
Queens Square
Sydney NSW 2000
GPO Box 9973
Sydney NSW 2001
Telephone (02) 9227 4000
Facsimile (02) 9227 4030

22 October 2015

Jacqueline Collins
Consultant Archaeologist
Adise Pty Ltd
PO Box 6
LAURIETON NSW 2443

Our Ref: 0440SJ
Your Ref: Coopernook PP

Dear Ms Collins

Native Title Search Results for Greater Taree City Council Local Government Area

Thank you for your search request received on 16 October 2015 in relation to the above area.

Search Results
The results provided are based on the information you supplied and are derived from a search of the following Tribunal databases:

Register Type	NNTT Reference Numbers
Schedule of Applications (unregistered claimant applications)	Nil.
Register of Native Title Claims	Nil.
National Native Title Register	Nil.
Register of Indigenous Land Use Agreements	Nil.
Notified Indigenous Land Use Agreements	Nil.

At the time this search was carried out, there were **no relevant entries** in the above databases.

Please note: There may be a delay between a native title determination application being lodged in the Federal Court and its transfer to the Tribunal. As a result, some native title determination applications recently filed with the Federal Court may not appear on the Tribunal's databases.

Tribunal accepts no liability for reliance placed on enclosed information
The enclosed information has been provided in good faith. Use of this information is at your sole risk. The National Native Title Tribunal makes no representation, either express or implied, as to

the accuracy or suitability of the information enclosed for any particular purpose and accepts no liability for use of the information or reliance placed on it.

If you have any further queries, please do not hesitate to contact me on the numbers listed below.

Yours sincerely

Sylvia Jagtman | SENIOR CASE MANAGEMENT ASSISTANT
National Native Title Tribunal | Sydney Office
Level 16, Federal Law Courts Building, Queens Square, Sydney, New South Wales 2000
Telephone (02) 9227 4013 | Facsimile (02) 9227 4030 | Email Sylvia.Jagtman@nntt.gov.au
Freecall 1800 640 501 | www.nntt.gov.au

Shared country, shared future.

ntscorp

12 October 2015 ref: OE&H : 12-10-2015/1

Jacqueline Collins- Consultant Archaeologist
PO BOX 6
Laurieton NSW 2443

Dear Sir or Madam

Aboriginal Cultural Heritage Assessment

Residential Development-Coopernook

I refer to your letter 6 October 2015 regarding the above matter.

We acknowledge that section 4.1.2 of the Office of Environment & Heritage's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* require you to contact us in order to compile a list of Aboriginal people who may have an interest in the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places.

However, we advise that NTSCORP's privacy guidelines restrict us from providing proponents with contact details of traditional owners who may have such an interest or hold such knowledge.

Please be advised that, in response to your notification, we will forward your correspondence to any individuals, groups and organisations whom NTSCORP is aware assert traditional interests within or hold cultural knowledge about the relevant area. Recipients of our correspondence will be invited to register their interest in the project directly with you by the 28 October 2015.

Please be aware that NTSCORP cannot make a guarantee or undertaking that the recipients of our correspondence represent the entirety of traditional owners for the relevant area.

Yours faithfully,

George Tonna
Land & Notifications Officer
NTSCORP Limited

Level 1, 44-70 Rosehill St Redfern NSW 2016 Australia | PO Box 2105 Strawberry Hills NSW 2012 Australia | abn: 71 098 971 209
t: +61 2 9310 3188 | f: +61 2 9310 4177 | w: www.ntscorp.com.au

T:\Future Acts\Correspondence\Templates\Updated notifications as of June 2012\OEHs4.1.2-to-proponent

From: Sharon Rose <Sharon.Rose@gtcc.nsw.gov.au>
Date: 12 October 2015 4:15:57 PM AEDT
To: "Jacqueline Collins (jpollins@optusnet.com.au)" <jpollins@optusnet.com.au>
Subject: **Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook - Contact information for Aboriginal Groups and Individuals in GTCC LGA**

Dear Jacqueline

Thank you for your letter dated 6 October 2015 regarding the proposed planning proposal at Coopernook.

Attached is Council 's contact information for Aboriginal groups and individuals in GTCC LGA, however you are encouraged to:

- Put a notice in the local press, i.e. the Manning River Times and the Great Lakes Advocate.
- Check our list against those groups or individuals registered with OEH Newcastle office.

Kind regards
Sharon

Sharon Rose
Environmental Program Officer | **Planning and Environmental Services**
t: 02 6592 5370
e: sharon.rose@gtcc.nsw.gov.au | **w:** www.gtcc.nsw.gov.au

GTCC LGA - Aboriginal Groups & Individuals Contact List – for consultation

Birpai Local Aboriginal Land Council
CEO – ?? who ? Phone Nov 2015 and find out
PO Box 876
PORT MACQUARIE NSW 2444
Ph: 02 6584 9066
Fax 02 6583 8172
birpailalc@midcoast.co.au
Admin: Melanie Corrigan

Doo-wa-kee Cultural Heritage Services
Mick Leon
30 Pulteney Street
PO Box 22
TAREE NSW 2430
Ph: 02 6552 3652 or 0402 751 584
doowakee@gmail.com

Forster Local Aboriginal Land Council
CEO – TBA
Chairperson - Vincent Hall chairperson@forsterlalc.org.au
10 Breckenridge Street
(Tobwabba art building)
PO Box 384
FORSTER NSW 2428
Ph: 02 6555 5411 or 6554 8477
Bria Simon – Admin
ceo@forsterlalc.org.au

Kamarah Aboriginal Corporation
Old service station
PO Box 39
KARUAH NSW 2324

Mid North Coast Indigenous Broadcaster Association
2TLP Ngarralinyi (The Listening Place)
PO Box 657
TAREE NSW 2430
Ralph Saunders

Minimbah Elders Group Inc
Eva Leon [Mick's mother]
9/11 Bruce Street
FORSTER NSW 2428

Purfleet Taree Local Aboriginal Land Council
CEO Glen Rennie
PO Box 346 TAREE NSW 2430
Ph: 02 6552 4106 or 0408 654 537
grennie@ptlalc.com.au

Saltwater Tribal Council
Secretary: Ray Hurst [husband of Aunty Pat Hurst, deceased 2014]
Acting Chairperson: John Clark
Natasha Davis 0409 163 241
18 Ronald Road
TAREE NSW 2430
Ph: 02 6552 4440

Sunrise Guiwan Biripi Elders Corporation
PO Box 129
CUNDLETOWN NSW 2430
Uncle Warner Saunders
warner.saunders9@gmail.com
0487 660 726
ask Ralph Saunders @ 2TLP how to contact Uncle Warner

Taree Indigenous Development and Employment (TIDE)
30 Pulteney Street Taree
PO Box 22
TAREE NSW 2430
Ph: 02 6552 3652
Fax: 02 6552 3642
CEO John Clark 0413 274 149
j.clark@tide.org.au
Program coordinator Chris Sheed 0419 496 322
c.sheed@tide.org.au
Sean Ploder – Aboriginal Green Team
sean@tide.com.au

APPENDIX E. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010-*
Letters sent and newspaper advertisement in compliance with Stage 1, Step 4.1.3

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Ray Hurst, Secretary
Saltwater Tribal Council
18 Ronald Road
TAREE NSW 2430

Dear Mr Hurst,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Saltwater Tribal Council have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Saltwater Tribal Council registers an interest, please nominate a contact person who will provide input on behalf of this organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

The General Manager
Ghinni Ghinni Youth and Culture Aboriginal Corporation
PO Box 641
TAREE NSW 2430

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Ghinni Ghinni Youth and Culture Aboriginal Corporation have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Ghinni Ghinni Youth and Culture Aboriginal Corporation registers an interest, please nominate a contact person who will provide input on behalf of the organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith at Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

The General Manager
Bindi Aboriginal Heritage and Cultural Centre Inc.
187 Beechwood Road
WAUCHOPE NSW 2446

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Bindi Aboriginal Heritage and Cultural Centre have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Bindi Aboriginal Heritage and Cultural Centre registers an interest, please nominate a contact person who will provide input on behalf of the organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Warner Saunders
Sunrise Guiwan Biripi Elders Corporation
9 Love Lane
PURFLEET NSW 2430

Dear Warner,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Sunrise Guiwan Biripi Elders have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Elders Corporation registers an interest, please nominate a contact person who will provide input on behalf of the organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Kind regards,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Mick Leon
Lakkari NTCG and Doo-wa-kee Cultural Heritage Services
PO Box 22
TAREE NSW 2430

Dear Mick,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Lakkari NTCG and/or Doo-wa-kee CHS have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Lakkari NTCG and/or Doo-wa-kee CHS registers an interest, please nominate a contact person/s who will provide input on behalf of either or both of these organisations. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Kind regards,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Glen Rennie, CEO
Purfleet Taree Local Aboriginal Land Council
PO Box 346
TAREE NSW 2430

Dear Glen,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

As advised in my letter dated 6th of October 2015, the Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) I am seeking the registration of Aboriginal parties to take part in the consultation program, and await your response to my 6th of October letter re: contact details of any Aboriginal parties that the Land Council may be aware hold knowledge of/cultural attachments to the Coopernook area.

However, if the Land Council wishes to register an interest in its own right, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Kind regards,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Mike Vegter, Acting CEO
Birpai Local Aboriginal Land Council
PO Box 876
PORT MACQUARIE NSW 2444

Dear Mike,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Birpai LALC have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Birpai LALC registers an interest, details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Kind regards,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

CEO
Forster Local Aboriginal Land Council
PO Box 384
FORSTER NSW 2428

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Forster LALC have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Forster LALC registers an interest, details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

The General Manager
Kamarah Aboriginal Corporation
PO Box 39
KARUAH NSW 2324

Dear Sir/Madam,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Kamarah Aboriginal Corporation have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Kamarah Aboriginal Corporation registers an interest, please nominate a contact person who will provide input on behalf of this organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Ralf Saunders
Mid North Coast Indigenous Broadcaster Association
2TLP Ngarralinyi (The listening place)
PO Box 657
TAREE NSW 2430

Dear Mr Saunders,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

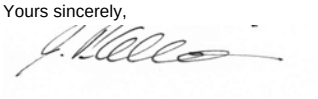
I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Mid North Coast Indigenous Broadcaster Association have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Mid North Coast Indigenous Broadcaster Association registers an interest, please nominate a contact person who will provide input on behalf of this organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,



Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

Eva Leon
Minimbah Elders Group Inc.
9/11 Bruce Street
FORSTER NSW 2428

Dear Ms Leon,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Minimbah Elders Group have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Minimbah Elders Group registers an interest, please nominate a contact person who will provide input on behalf of this organisation. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Yours sincerely,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
  c/- Gavin Maberly-Smith
  Coastplan Group
  PO Box 568, Tuncurry NSW 2428

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

14th October 2015

John Clark, CEO
Taree Indigenous Development and Employment
PO Box 22
TAREE NSW 2430

Dear John,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Registration of Aboriginal Parties for Consultation Purposes

The Planning Proposal for Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (see attached map) involves a proposal to amend *Greater Taree LEP 2010* to allow residential development over parts of this land.

I have been engaged by Coastplan Group on behalf of the proponent* to undertake a cultural heritage assessment of the subject land. My assessment would include consultation with Aboriginal parties who hold cultural association and knowledge relevant to determining the significance of Aboriginal objects and/or places at Coopernook. In addition to satisfying Office of Environment and Heritage (OEH) requirements in relation to the Planning Proposal, the consultation will assist the proponent in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application should this prove necessary, and assist the OEH in its consideration and determination of any AHIP application.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), I am seeking the registration of Aboriginal parties to take part in the consultation program. Should the Taree Indigenous Development and Employment organisattion have cultural attachments to and knowledge of the Coopernook locality, you are invited to formally register this interest by close of business 30th of October 2015 (post, email or phone to me at the letterhead address).

In the event that the Taree Indigenous Development and Employment oranisation registers an interest, please nominate a contact person who will provide input on your behalf. Details of this interest will be forwarded to the OEH and the Purfleet-Taree LALC unless you specify that you do not want these details to be released.

If you require any further information at this time, please don't hesitate to contact me on the above phone number to discuss.

Kind regards,

Jacqueline Collins
Consultant Archaeologist MAACAI

* Mr John Hogg (the proponent)
c/- Gavin Maberly-Smith
Coastplan Group
PO Box 568, Tuncurry NSW 2428

co-operation

MOTOR VEHICLES

SOLD!
TESTIMONIAL
Thankyou to you and your team for your help with my ad.
As I was unsure where to advertise my car, I rang my local newspaper and they recommended me a multiple paper combined with a car website buy for placement of my ad, and great news - it **sold quickly** over the weekend.
Virginia
Stewarts River

CARAVANS AND MOTOR HOMES

16' GAZAL
Series 2 caravan poptop. Island bed, annex + extras, v/good cond. $13500 ono - 6552 3716

ELANDS 215 acres
long rolling ridges great opportunity. Phone 0432 286 226 www.mickyoung realestate.com.au

NEED TO SELL FAST?
Well I BUY houses!
Let's talk!
Mark 0407 649 499

TO LET & WANTED

TAREE,1 PERSON FLAT
with c/port, close to CBD $180pw. Ph: 6553 9439

BUSINESSES FOR SALE & WANTED

CHINESE Restaurant
Under 100 klms from Forster. Very cheap rent, good turnover, low outgoings, long lease. For more information please call
0466 484 185

PUBLIC NOTICES

Aboriginal Cultural Heritage Assessment

Coopernook Planning Proposal- Notification and Registration of Interest in Aboriginal Consultation

The Planning Proposal seeks changes to Greater Taree LEP 2010 to provide for future residential development of Pt. Lots 1 & 2 and Lot 9 DP32272 and Lot 48 DP1090335, 53 Macquarie Street and 8 West Street, Coopernook.

The *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* are to be implemented for the Planning Proposal, being prepared by Coastplan Group (PO Box 568 Tuncurry NSW 2428). In addition to meeting agency requirements, the consultation will assist with the preparation of an Aboriginal Heritage Impact Permit application should this prove necessary, and assist the Office of Environment and Heritage (OEH) in its consideration and determination of any permit application.

Aboriginal parties with cultural attachments and knowledge relevant to assessing the significance of Aboriginal objects andr places at Coopernook are invited to register their interest in the community consultation process for the Planning Proposal.

Details of registrations will be sent to the OEH and Purfleet Taree LALC. If you register an interest but do not want your details released to these organisations, please provide this advice in your submission.

To register an interest, please forward your written submission by **(11th November 2015)** to:

Jacqueline Collins (Consultant Archaeologist)
PO Box 6, Laurieton NSW 2443
Email: jpollins@optusnet.com.au

Newspaper advertisement (Excerpt from page 26, *Manning River Times*, Wednesday 28th October 2015)

From: Glen Rennie <grennie@ptlalc.com.au>
Date: 21 October 2015 10:16:00 AM AEDT
To: "jpollins@optusnet.com.au" <jpollins@optusnet.com.au>
Subject: **Registration of interest on Lot 1,2 and 9 DP 32272**

Hi Jacqueline

PTLALC would like to register its interest in the proposed consultation and cultural assessment.

Regards

Glen Rennie
Chief Executive Officer
Purfleet Taree Local Aboriginal Lands Council
Ph. 02 65524106
Mob. 0408654537

From: John Clarke <jclark@tide.org.au>
Date: 21 October 2015 3:51:29 PM AEDT
To: jpollins@optusnet.com.au
Subject: **Dear Jacqueline. I am registering TIDE as an Aboriginal party to any Aboriginal Site surveys at Coopernook. I will also be the contact for TIDE Ltd. John Clark CEO**

APPENDIX G. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010-*
Draft assessment methodology sent for registered Aboriginal party review in compliance with Stage 3, Steps 4.3.1 and 4.3.2

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

28th October 2015

Glen Rennie, CEO
Purfleet Taree Local Aboriginal Land Council
PO Box 346
TAREE NSW 2430

Dear Glen,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Scope of the proposed project and draft methodology for the cultural heritage assessment

Thank you for registering an interest in the above cultural heritage assessment on behalf of Purfleet Taree LALC.

Background and scope of the proposed project

For your information, part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (the planning area) together comprise 17.6 hectares of land. This land parcel encompasses an existing farmhouse (with associated sheds, cattle yards, tree plantings, driveway etc) and cleared open grassland used for stock grazing. No registered Aboriginal sites or places are located within or close to the subject area.

The Planning Proposal seeks to amend Greater Taree Local Environmental Plan (LEP) 2010 to allow residential development over parts of the land parcel. The LEP amendment would involve changing the zoning from its existing RU1-Primary Production to RU5-Village. The existing RU1 zoning would be retained for flood prone land in the northern section of the area and to provide a buffer around an adjoining electricity substation that fronts West Street. Although any future subdivision is yet to be designed, a 1,000m^2 lot size is proposed for the RU5 (re) zoned land. The RU1 zoned land to be retained would be subject to a 5,000m^2 lot size to allow for small-scale agriculture.

The Planning Proposal has been accepted for determination under the 'Gateway' process. This process relates to the preparation of LEPs and any changes to current LEPs, which require concurrence from the Department of Planning and Environment following consultation with other agencies, including the Office of Environment and Heritage (OEH). The OEH advised that all planning proposals must be accompanied by an Aboriginal cultural heritage assessment rather than a due diligence study. As outlined in my previous correspondence, I have been engaged by Coastplan Group on behalf of the proponent (Mr John Hogg) to undertake the required cultural heritage assessment.

Proposed methodology for the cultural heritage assessment

For your review and further input, my cultural heritage assessment methodology would include:

- Consultation with the registered Aboriginal parties (including the PTLALC) to identify the location, nature, extent and significance of any known sites/places of ceremonial, spiritual or other outstanding traditional, historic or contemporary socio-cultural value within and near the planning area, and the impact that future residential development may have on these values.

- A field inspection of the subject land parcel with one Aboriginal representative (in total)* experienced in the detection and assessment of archaeological sites. (*The proponent has advised that he will pay time for one Aboriginal field representative only. As such, it will be necessary for the registered parties to agree upon who that representative will be).
  The field inspection would be directed towards:
  - Determining where Aboriginal objects occur/are likely to occur, and assessing the existing/likely preservation status of these objects.
  - Assessing the socio-cultural and archaeological significance of any identified and potential Aboriginal objects.
  - Formulating strategies to manage impacts of the planning proposal upon Aboriginal socio-cultural and archaeological values, including (where/if appropriate) avoidance/site conservation/protection measures (eg E2 conservation zoning, future subdivision layout to avoid harm), subsurface investigations deemed necessary to provide further information, and/or artefact salvage to be undertaken under the auspices of an Aboriginal Heritage Impact Permit (AHIP) ahead of any future development disturbance.

- Production of a report presenting all relevant information, including site significance assessment/s and management recommendations. No cultural information flagged as sensitive/for restricted access only will be divulged in the report. A draft copy of the report would be supplied for your review and comment prior to its finalisation. The final report would be changed as/if you require, and your comments incorporated and addressed.

- Submission of site recording forms for any identified Aboriginal objects/sites or potential archaeological deposits (PADs) to the OEH Aboriginal Sites Registrar for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

Before going ahead with arranging any further consultation or fieldwork, I would be pleased if you could let me know, at your earliest convenience (email jpollins@optusnet.com.au or phone 0427 599137), whether the above proposed cultural heritage assessment methodology is OK, and if not, what else you would want included. I would appreciate this advice on or before the 25th of November 2015.

Kind regards, and please phone if you need any further information in relation to this letter.

Jacqui Collins
Consultant Archaeologist MAACAI

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

28th October 2015

John Clark, CEO
Taree Indigenous Development and Employment
PO Box 22
TAREE NSW 2430

Dear John,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Scope of the proposed project and draft methodology for the cultural heritage assessment

Thank you for registering an interest in the above cultural heritage assessment on behalf of the Taree Indigenous Development and Employment organisation.

Background and scope of the proposed project

For your information, part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (the planning area) together comprise 17.6 hectares of land. This land parcel encompasses an existing farmhouse (with associated sheds, cattle yards, tree plantings, driveway etc) and cleared open grassland used for stock grazing. No registered Aboriginal sites or places are located within or close to the subject area.

The Planning Proposal seeks to amend Greater Taree Local Environmental Plan (LEP) 2010 to allow residential development over parts of the land parcel. The LEP amendment would involve changing the zoning from its existing RU1-Primary Production to RU5-Village. The existing RU1 zoning would be retained for flood prone land in the northern section of the area and to provide a buffer around an adjoining electricity substation that fronts West Street. Although any future subdivision is yet to be designed, a 1,000m^2 lot size is proposed for the RU5 (re) zoned land. The RU1 zoned land to be retained would be subject to a 5,000m^2 lot size to allow for small-scale agriculture.

The Planning Proposal has been accepted for determination under the 'Gateway' process. This process relates to the preparation of LEPs and any changes to current LEPs, which require concurrence from the Department of Planning and Environment following consultation with other agencies, including the Office of Environment and Heritage (OEH). The OEH advised that all planning proposals must be accompanied by an Aboriginal cultural heritage assessment rather than a due diligence study. As outlined in my previous correspondence, I have been engaged by Coastplan Group on behalf of the proponent (Mr John Hogg) to undertake the required cultural heritage assessment.

Proposed methodology for the cultural heritage assessment

For your review and further input, my cultural heritage assessment methodology would include:

- Consultation with the registered Aboriginal parties (including Taree Indigenous Development and Employment) to identify the location, nature, extent and significance of any known sites/places of ceremonial, spiritual or other outstanding traditional, historic or contemporary socio-cultural value within and near the planning area, and the impact that future residential development may have on these values.

- A field inspection of the subject land parcel with one Aboriginal representative (in total)* experienced in the detection and assessment of archaeological sites. (*The proponent has advised that he will pay time for one Aboriginal field representative only. As such, it will be necessary for the registered parties to agree upon who that representative will be).

The field inspection would be directed towards:

- Determining where Aboriginal objects occur/are likely to occur, and assessing the existing/likely preservation status of these objects.
- Assessing the socio-cultural and archaeological significance of any identified and potential Aboriginal objects.
- Formulating strategies to manage impacts of the planning proposal upon Aboriginal socio-cultural and archaeological values, including (where/if appropriate) avoidance/site conservation/protection measures (eg E2 conservation zoning, future subdivision layout to avoid harm), subsurface investigations deemed necessary to provide further information, and/or artefact salvage to be undertaken under the auspices of an Aboriginal Heritage Impact Permit (AHIP) ahead of any future development disturbance.

- Production of a report presenting all relevant information, including site significance assessment/s and management recommendations. No cultural information flagged as sensitive/for restricted access only will be divulged in the report. A draft copy of the report would be supplied for your review and comment prior to its finalisation. The final report would be changed as/if you require, and your comments incorporated and addressed.

- Submission of site recording forms for any identified Aboriginal objects/sites or potential archaeological deposits (PADs) to the OEH Aboriginal Sites Registrar for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

Before going ahead with arranging any further consultation or fieldwork, I would be pleased if you could let me know, at your earliest convenience (email jpollins@optusnet.com.au or phone 0427 599137), whether the above proposed cultural heritage assessment methodology is OK, and if not, what else you would want included. I would appreciate this advice on or before the 25th of November 2015.

Kind regards, and please phone if you need any further information in relation to this letter.

Jacqui Collins
Consultant Archaeologist MAACAI

JACQUELINE COLLINS - *Consultant Archaeologist*
Adise Pty Ltd ABN 27 074 129 909
PO Box 6 Laurieton NSW 2443 Tel. 0427 599137 Email. jpollins@optusnet.com.au

28th October 2015

Rob Yettica
Forster Local Aboriginal Land Council
PO Box 384
FORSTER NSW 2428

Dear Rob,

Re: Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook, Greater Taree LGA– Scope of the proposed project and draft methodology for the cultural heritage assessment

Thank you for registering an interest in the above cultural heritage assessment on behalf of Forster LALC.

Background and scope of the proposed project

For your information, part Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets, Coopernook (the planning area) together comprise 17.6 hectares of land. This land parcel encompasses an existing farmhouse (with associated sheds, cattle yards, tree plantings, driveway etc) and cleared open grassland used for stock grazing. No registered Aboriginal sites or places are located within or close to the subject area.

The Planning Proposal seeks to amend Greater Taree Local Environmental Plan (LEP) 2010 to allow residential development over parts of the land parcel. The LEP amendment would involve changing the zoning from its existing RU1-Primary Production to RU5-Village. The existing RU1 zoning would be retained for flood prone land in the northern section of the area and to provide a buffer around an adjoining electricity substation that fronts West Street. Although any future subdivision is yet to be designed, a 1,000m^2 lot size is proposed for the RU5 (re) zoned land. The RU1 zoned land to be retained would be subject to a 5,000m^2 lot size to allow for small-scale agriculture.

The Planning Proposal has been accepted for determination under the 'Gateway' process. This process relates to the preparation of LEPs and any changes to current LEPs, which require concurrence from the Department of Planning and Environment following consultation with other agencies, including the Office of Environment and Heritage (OEH). The OEH advised that all planning proposals must be accompanied by an Aboriginal cultural heritage assessment rather than a due diligence study. As outlined in my previous correspondence, I have been engaged by Coastplan Group on behalf of the proponent (Mr John Hogg) to undertake the required cultural heritage assessment.

Proposed methodology for the cultural heritage assessment

For your review and further input, my cultural heritage assessment methodology would include:

- Consultation with the registered Aboriginal parties (including the FLALC) to identify the location, nature, extent and significance of any known sites/places of ceremonial, spiritual or other outstanding traditional, historic or contemporary socio-cultural value within and near the planning area, and the impact that future residential development may have on these values.

- A field inspection of the subject land parcel with one Aboriginal representative (in total)* experienced in the detection and assessment of archaeological sites. (*The proponent has advised that he will pay time for one Aboriginal field representative only. As such, it will be necessary for the registered parties to agree upon who that representative will be).

The field inspection would be directed towards:

- Determining where Aboriginal objects occur/are likely to occur, and assessing the existing/likely preservation status of these objects.
- Assessing the socio-cultural and archaeological significance of any identified and potential Aboriginal objects.
- Formulating strategies to manage impacts of the planning proposal upon Aboriginal socio-cultural and archaeological values, including (where/if appropriate) avoidance/site conservation/protection measures (eg E2 conservation zoning, future subdivision layout to avoid harm), subsurface investigations deemed necessary to provide further information, and/or artefact salvage to be undertaken under the auspices of an Aboriginal Heritage Impact Permit (AHIP) ahead of any future development disturbance.

- Production of a report presenting all relevant information, including site significance assessment/s and management recommendations. No cultural information flagged as sensitive/for restricted access only will be divulged in the report. A draft copy of the report would be supplied for your review and comment prior to its finalisation. The final report would be changed as/if you require, and your comments incorporated and addressed.

- Submission of site recording forms for any identified Aboriginal objects/sites or potential archaeological deposits (PADs) to the OEH Aboriginal Sites Registrar for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

Before going ahead with arranging any further consultation or fieldwork, I would be pleased if you could let me know, at your earliest convenience (email jpollins@optusnet.com.au or phone 0427 599137), whether the above proposed cultural heritage assessment methodology is OK, and if not, what else you would want included. I would appreciate this advice on or before the 25th of November 2015.

Kind regards, and please phone if you need any further information in relation to this letter.

Jacqui Collins
Consultant Archaeologist MAACAI

APPENDIX H. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010-*
Written response to draft assessment methodology sent for registered Aboriginal party review in compliance with Stage 3, Steps 4.3.1 and 4.3.2

From: **John Clarke** jclark@tide.org.au
Subject: Jacqui. Recieved your letter 28th. October 2015. Re: planning proposal Pt Lots 1&2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West Streets,Coopernook,Greater Taree LGA-Scope of the proposed project and draft methology for the cultural heritage assessment. As a traditional owner I am expressing a keen interest in the proposed survey on Biripi Tribal Land. I realise that there may be a number of TOs who would want to do the full field inspection. Because these TOs come from different organisations,traditional elders and other interested parties there may not be a consensus who does the survey. You or GTCC will have to choose that Aboriginal Site Officer not the TOs. John Clark.Ceo/TIDE,Biripi Elder,Traditional Owner.
Date: 3 November 2015 12:01 pm
To: jpollins@optusnet.com.au

APPENDIX I. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010-*
Written responses to draft cultural heritage assessment report, in compliance with Stage 4, Steps 4.4.1, 4.4.2 and 4.4.3

From: **John Clarke** jclark@tide.org.au
Subject: Re: Draft report- Coopernook Planning Area
Date: 17 February 2016 12:38 pm
To: Jacqueline Collins jpollins@optusnet.com.au

JC

Jacquarie. Have read the heritage report for the Coopernook Planning Area I have no problems. John Clark Note: I will phone you to discuss an urgent matter. JC

On Tue, Feb 16, 2016 at 2:40 PM, Jacqueline Collins <jpollins@optusnet.com.au> wrote:

> Hi John,
>
> Just wanting to check that you received my draft Aboriginal cultural heritage report for the Coopernook Planning Area. Let me know (phone or email) if any problems with it and will address as able. Otherwise, would appreciate written confirmation that all is OK, asap.
>
> FYI.
> Rob Yettica (Forster LALC rep.) advised that whilst he has no qualms with the draft report itself, he will not be supplying any written correspondence due to unhappiness with lack of his field survey involvement.
> Purfleet Taree LALC acknowledged receipt of draft report. In the absence of a CEO, the draft report will be considered at a board meeting, hopefully sometime this week.
>
> Kind regards and look forward to hearing from you,
>
> Jacqui Collins

From: **Admin** admin@ptlalc.com.au
Subject: RE: Planning Proposal
Date: 4 February 2016 11:20 am
To: jpollins@optusnet.com.au

A

Sorry, My mistake. After the 15th of February.

Kind Regards,
Emily-Jane Brady
Taree Purfleet Local Aboriginal Lands Council
Old Pacific HWY, Purfleet
Phone: 02 6552 4106
Fax: 02 6551 0847

From: Admin
Sent: Thursday, 4 February 2016 11:18 AM
To: 'jpollins@optusnet.com.au'
Subject: Planning Proposal

Hi Jacqueline,
Just on regards to the Draft report we have received from you: **Planning Proposal Pt Lots 1 & 2 and Lot 9 DP 32272 and Lot 48 DP 1090335, Macquarie and West St, Coopernook, Greater Taree LGA – Draft Aboriginal culture heritage assessment report for review and comment.**
I wish to advise that at present we cannot review or comment on this Document. It will be considered on the 15th of February for Review and Comment via our board.

Kind Regards,
Emily-Jane Brady
Taree Purfleet Local Aboriginal Lands Council
Old Pacific HWY, Purfleet
Phone: 02 6552 4106
Fax: 02 6551 0847

From: **Admin** admin@ptlalc.com.au
Subject: coopernook Sub Divisions
Date: 8 March 2016 1:16 pm
To: jpollins@optusnet.com.au

A

I am hoping to have a response for you by 30th March 2016.

Kind Regards,
Emily-Jane Brady
Purfleet/Taree Local Aboriginal Lands Council
Old Pacific HWY, Purfleet
Phone: 02 6552 4106
Fax: 02 6551 0847

From: Admin
Sent: Tuesday, 8 March 2016 1:16 PM
To: jpollins@optusnet.com.au
Subject: coopernook Sub Divisions

Hi Jacqueline,
just touching base on Coopernook, Sorry its taking some time, I endeavour to get in to ouch with you soon.
Any issues please call.

Kind Regards,
Emily-Jane Brady
Purfleet/Taree Local Aboriginal Lands Council
Old Pacific HWY, Purfleet
Phone: 02 6552 4106
Fax: 02 6551 0847

APPENDIX J. AHIMS search result for land within 5km of the Planning Area

Office of Environment & Heritage
NSW GOVERNMENT

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : Coopernook PP
Client Service ID : 193455

ADISE Pty Ltd

Date: 01 October 2015

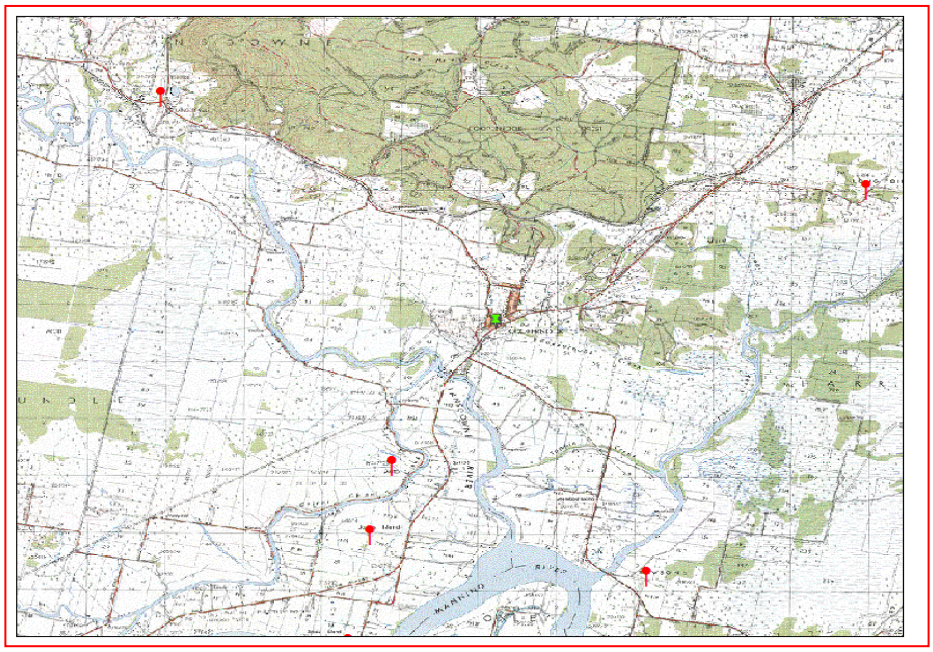
Attention: Jacqueline Collins

Email: jpollins@optusnet.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 457700 - 468050, Northings : 6473400 - 6484200 with a Buffer of 0 meters. Additional Info : Cultural heritage assessment in relation to planning proposal, Macquarie and West Streets, Coopernook NSW, conducted by Jacqueline Collins on 01 October 2015.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

11	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Office of Environment & Heritage
NSW GOVERNMENT

AHIMS Web Services (AWS)

Extensive search - Site list report

Purchase Order/Reference : Coopernook PP

Client Service ID : 193455

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
30-6-0198	Henry's Lane 1	GDA	56	466801	6483833	Open site	Valid	Artefact : 4		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits		
30-6-0117	CTRR 1;Coopernook;	AGD	56	463960	6478380	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Ms.Jacqueline Collins					Permits		
30-6-0225	Cattai Creek C-1	GDA	56	465316	6478482	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doowakee Culture and Heritage Surveys					Permits		
30-6-0226	Cattai Creek C-3	GDA	56	465314	6478663	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doowakee Culture and Heritage Surveys					Permits		
30-6-0222	Cattai Creek C-5	GDA	56	465676	6478738	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doowakee Culture and Heritage Surveys					Permits		
30-6-0223	Cattai Creek C-2	GDA	56	465511	6478732	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doowakee Culture and Heritage Surveys					Permits		
30-6-0224	Cattai Creek C-4	GDA	56	465332	6478474	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doowakee Culture and Heritage Surveys					Permits		
30-6-0228	CW2	GDA	56	466273	6478386	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Virtus Heritage					Permits		
30-6-0229	Skeleton Ridge	GDA	56	466205	6478635	Open site	Valid	Artefact : 1, Burial : 1, Conflict : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Virtus Heritage					Permits		
30-6-0227	CW1	GDA	56	465971	6478813	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Virtus Heritage					Permits		
30-6-0124	CTRR-2	AGD	56	463170	6476950	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Ms.Jacqueline Collins					Permits		

Report generated by AHIMS Web Service on 01/10/2015 for Jacqueline Collins for the following area at Datum :GDA, Zone : 56, Eastings : 457700 - 468050, Northings : 6473400 - 6484200 with a Buffer of 0 meters. Additional Info : Cultural heritage assessment in relation to planning proposal, Macquarie and West Streets, Coopernook NSW. Number of Aboriginal sites and Aboriginal objects found is 11

Attachment C – Heritage Assessment and Heritage Impact Statement (prepared by INHERITage)

Heritage Assessment & Heritage Impact Statement

of

"Coopernook House"
53 Macquarie St Coopernook

by

INHERITage
Heritage Advisors & Consultants
PO Box 1865
Armidale NSW 2350

Tel: 0419278511
Email: ian@inheritage.com.au

November 2014

Table of Contents

1.0 INTRODUCTION

1.1 Background

This Heritage Assessment & Impact Statement for "Coopernook House "at 53 Macquarie St Coopernook was commissioned by the current owner – John Hogg.

This report has drawn on information and research from others including the NSW Heritage Inventory Database, and Greater Taree Council.

This report has been prepared by Ian Kirk – former Heritage Advisor to Armidale Dumaresq, Inverell, Narrabri, Woollahra, Moree Plains, City of Sydney and South Sydney Councils and listed consultant with the NSW Heritage Office with considerable heritage experience working individually and as part of a consultant team.

1.2 Objectives

The object of this report is to assess the heritage significance of the property at 53 Macquarie St Coopernook and assess the impact of the proposed subdivision.

It should be noted the property is not currently listed a Heritage Item but adjoins several listed items and the Coopernook Heritage Conservation Area.

This report is not intended to be, nor should be interpreted as Council Approval or a Conservation Plan for the building.

1.3 Methodology

This report has been prepared in accordance with the Heritage Assessment guidelines from the NSW Heritage Manual published by Heritage Office and the Department of Urban Affairs and Planning, The Conservation Plan by J.S. Kerr published by the National Trust of Australia (NSW), 4th Edition, 1996, and The Revised Burra Charter by P. Marquis-Kyle & M. Walker, published by Australia ICOMOS, 1999.

1.4 Limitations

The report has been prepared from historical research and analysis without excavation or physical intervention to the building fabric or site.

2.0 Historic Background

The land was originally granted to Michael Caffrey in 1852[1] and around 1875 the property was sold by his widow Ann Caffrey to William Newton.

Around this time Coopernook Public School was established on the adjoining site. It is reported that school classes were held in the original Caffrey home prior to the school being constructed.[2] There is no evidence on site of that original building and it is likely that William Newton constructed the current house around 1875 following the establishment of a timber mill at Coopernook by 1870.[3] Copernook was initially a small riverside port which had developed into a town centre by the mid 1870's.

William Newton arrived in Australia from Ireland in 1859 aged 13 years. He married Sarah Jane Bailie in 1864 and they had many children increasing the need for a local school.

In 1892 William Newton passed away[4] and the property passed to his wife.

In 1926 Sarah Newton passed away[5] and the property passed to her children.

In 1928 the site was subdivided by the heirs of William Newton. "Coopernook House" was located on 12 acres and known as Lot 2 in that subdivision.

The property was purchased by Norman Thomas Hogg in 1964 and then by his son – John Hogg[6] in 1976 who is the current owner. John Hogg's great grandfather Thomas Hogg settled in the district in 1871.[7]

[1] NSW Land Title DP 32272
[2] Notes from John Hogg
[3] Greater Taree Council Rural Heritage Study - Stage 2 p23
[4] Coopernook Cemetery Index
[5] Coopernook Cemetery Index
[6] Vol 9593 Fol 227
[7] Notes from John Hogg

3.0 DESCRIPTION of BUILDING

3.1 Exterior

The existing building is a single storey mid Victorian house constructed of timber weatherboards with a hipped corrugated metal roof and return verandah on 3 sides. The house is symmetrical at the front and has timber double hung windows and timber paneled doors. There are 2 metal clad sheds in the vicinity of the existing house. These are from the 1980's and do not date from the construction of the existing house.

3.2 Assessment of Building - Exterior

Building Mid Victorian House

Site Rural setting

Streetscape Contribution: None – not visible from street

Context Intact

Period Mid Victorian with later Additions & Alterations

Condition Good

Exterior Features

Roof Material Corrugated metal

Roof Form Hipped

Facade Painted timber weatherboards

Windows Timber double hung

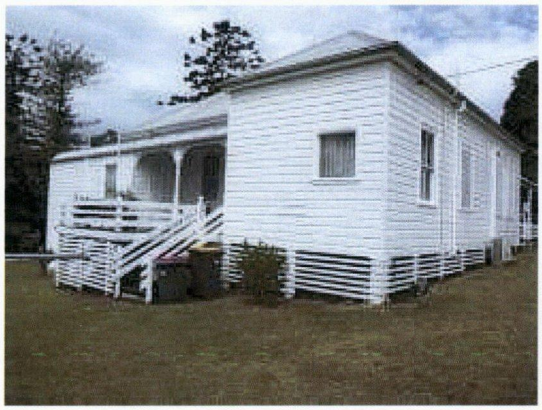
Doors Timber panelled

Verandah Altered handrail, decking and some posts replaced.

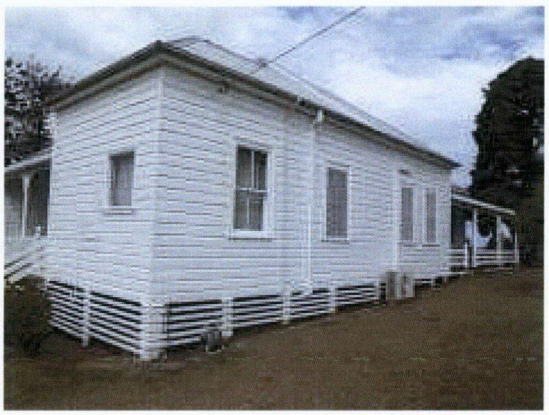
Integrity

Front: Medium – chimneys removed, verandah altered and partly replaced, aluminum security screens added.

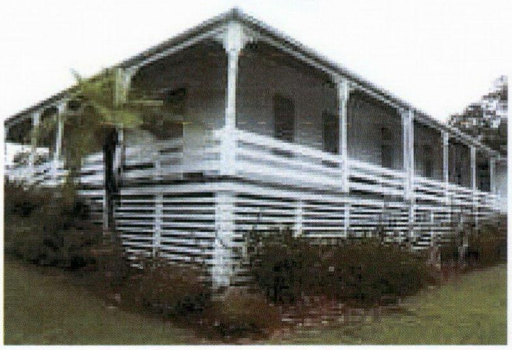
Rear: Medium - steps removed and altered, sun deck added.



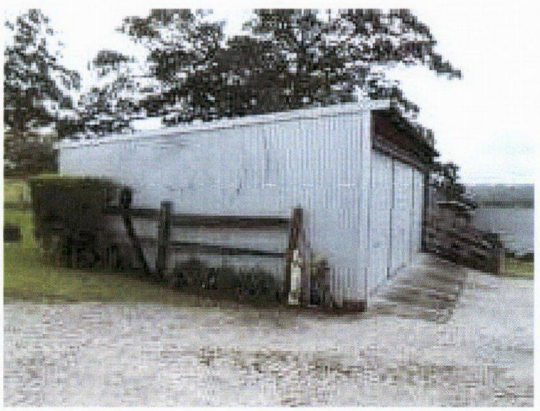
North Elevation – Rear



West Elevation



South and East Elevation



Sheds

3.3 Interior

The interior does not demonstrate any unusual or rare detailing or features and is generally typical of the period for this type and scale of house. The internal doors are timber paneled, and the ceilings are tongue and groove timber paneled with central pressed metal vents and the fireplaces have timber and /or marble mantels with tiled hearths and hearths.

The interior layout has been significantly altered with rooms opened up and the kitchen being relocated from its original position, and replaced with a bathroom and laundry with the original fireplace being closed up and chimney removed. The bathrooms, laundry and kitchen have all been refurbished and do not demonstrate any original internal features

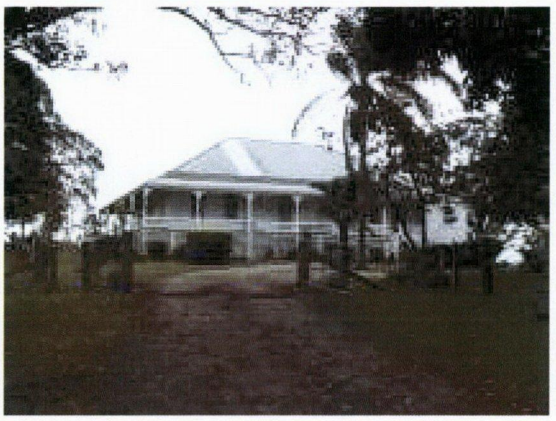
3.4 Landscape and Setting

There are numerous substantial trees on the site but these appear to be randomly planted rather than part of a specific garden design relating to the house. All of these trees are located outside of the house fenced area and all appear to be in poor condition with stunted growth and limb loss (particularly the pines) from their age and invasive root systems (Moreton Bay Figs). Most are nearing or are beyond their normal life spans for the species and some have fallen over (Canary Island Date Palm) The house fenced area does not contain any remnant plantings of an early garden. It is likely that these plantings were later than the house as most were fashionable around the turn of the century c1900.

Moreton Bay Fig (Invasive Root System)

Pines (limb loss and re-growth)

Canary Island Date Palm (note = fallen)



Driveway (Note trees away from house)

4.0 SUMMARY

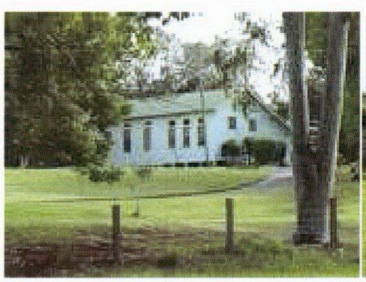
Location	53 Macquarie St Coopernook
Local Government Area	Greater Taree City Council
Date of Construction	c1875
Original Occupant	William Newton
Description	Mid Victorian House

Heritage Status
The building or its setting is not listed as a Heritage Item nor is it within the Coopernook Heritage Conservation Area.

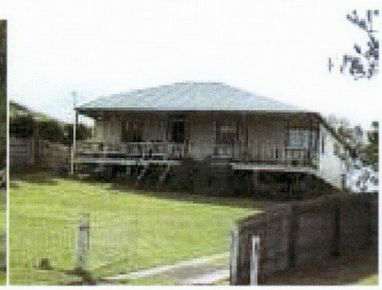
The building or its setting has not been included in the Taree Heritage Study of Coopernook by Suters Architects Snell.

The building or its setting has not been included in the Greater Taree Rural Heritage Study 2003.

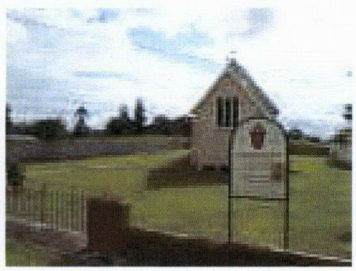
The building adjoins several listed heritage items as follows :-



Coopernook School



House - 45 Macquarie St



St Lukes Anglican Church

5.0 ASSESSMENT of SIGNIFICANCE

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) :-

The house is a representative example of a mid Victorian country house located on the mid north coast of NSW.

Criterion (b): an item has strong or special association with the life or works of a person, or group of person, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area) :-

The house has moderate association with William Newton who is likely constructed it but is not a significant person in the development or history of the area.

Criterion (c): an item is important to demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area) :

The house has moderate aesthetic significance as a representative example of a Victorian country house with later alterations and additions.

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 :-

The house does not meet this criterion.

Criterion (e) : an item has potential to yield information that will contribute to and understanding of NSW's cultural or natural history (or the cultural or natural history of the local area) :-

The house is unlikely to reveal any further information that will contribute to the cultural history of Coopernook or NSW genrally.

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);

The house is not rare. Victorian era country houses are common in the mid north coast regional area of NSW.

Criterion (g): an item is important in demonstrating the principal characteristics of a class of NSW's: cultural or natural places; cultural or natural environments; (or a class of the local area's);cultural or natural places; cultural or natural environments) :-

The house is a representative example of a mid Victorian rural lifestyle on the mid north coast of NSW.

6.0 STATEMENT OF SIGNIFICANCE

"Coopernook House " is a representative example of a mid Victorian country farm house which has been altered. It is not a rare example of its type and although it dates from the development for Coopernook it is not directly associated with the significant industries of timber milling or shipbuilding. It has not been identified as significant in the numerous heritage studies of the area. The outbuildings date from much later than the house and are not significant.

7.0 HERITAGE IMPACT STATEMENT

Note that that site is not currently heritage listed and the assessment of significance does not justify the building or site should be listed.

7.1 Description of Works

It is proposed to retain the existing house and outbuildings and to potentially subdivide the site into 87 lots. There are no alterations or additions proposed to the existing buildings on the site.

7.2 Design Options and Recommendations

The existing house is not currently visible from its Macquarie St driveway and is not visibly prominent from further along Macquarie St. It is visible from St Lukes Anglican Church but is set well back and screened by vegetation. The existing house is near to the highest point of the site and will therefore remain visually prominent and the subdivision has been designed to follow the lines of the existing driveway which will retain the current approach to the house. The current proposed lot for the house generally follows the lines of the existing fenced area around the house. The house will become much more visible with the proposed new street layout.

7.3 Heritage Impact of Works

The concept subdivision will have no detrimental heritage impact on the significance of the adjacent heritage items which are set well back and below. The subdivision will be clearly identifiable as new development and not confused with the original subdivision planning of the village of Coopernook. The original form of Coopernook House will remain unchanged and it will become more visibly prominent when viewed from new streetscapes which largely follow the current driveway. The existing fenced house lot is considered a sufficient curtilage around the house.

7.4 Conclusion and Recommendation

The proposed concept subdivision layout respects the heritage significance of the adjacent and nearby places and the overall heritage impact of the proposal will be negligible. The house and its setting can remain intact with the significant elevations and views retained and not altered.

Consideration should be given to the naming of the new streets of the subdivision to reflect the history of the site such as Newton and Caffrey.

Ian Kirk

INHERITage
Heritage Advisors and Consultants

10 November 2014

8.0 Appendix

SEE DEPOSITED DEEDS PACKET NO 34675
SEE DEPOSITED DEEDS PACKET NO 34794

NO. 646 BOOK 1409 CONVEYANCE

TEN SHILLINGS NEW SOUTH WALES STAMP DUTY DULY STAMPED
R 31.10.25 N

THIS DEED made the seventeenth day of October one thousand nine hundred and twenty-five BETWEEN ANNA ELIZABETH JOHANNA HORNABROOK of Adelaide in the State of South Australia Widow (hereinafter called "the Executrix") of the first part SARAH JANE NEWTON of Coopernook in the State of New South Wales Widow of the second part MARGARET JANE NEWTON of the same place Spinster of the third part SARAH BAILLIE NEWTON of the same place Spinster of the fourth part the said ANNA ELIZABETH JOHANNA HORNABROOK of the fifth part EVELINE AUGUSTA NEWTON of Coopernook aforesaid Spinster of the sixth part VICTORIA MAUD NEWTON of the same place Spinster of the seventh part SAMUEL HUGH JAMES BAILLIE NEWTON of the same place Farmer and Grazier of the eighth part and HAROLD AUGUSTUS DANIEL NEWTON of the same place Farmer and Grazier of the ninth part WHEREAS William Newton of Coopernook aforesaid Esquire being possessed (inter alia) of the lands and hereditaments mentioned in the various schedules hereto made and executed his last Will and Testament on the twenty-eighth day of February one thousand eight hundred and ninety-two WHEREBY he gave all his real and personal estate life policies shares and all his right title and interest in any and every property to his wife the said Sarah Jane Newton to be used by her for the benefit of herself and his sons and daughters trusting her to do what she might think best for their several interests AND he thereby willed and directedthat certain of his real and personal property other than the property consisting of Coopernook House and the land and houses surrounding it and the land and houses in the Village of Coopernook and the paddocks and farms situated in and near Coopernook should be sold and the proceeds devoted to the clearing off the Mortgage of the said properties in and near Coopernook and known as the Coopernook Estate AND by his said Will he gave to the Church of England the half acre of land on which the Church of England in Coopernook then stood to be the property of the said body AND WHEREAS the said William Newton departed this life on the twenty-ninth day of February one thousand eight hundred and ninety-two without having altered or revoked his said Will which was duly proved by Charles Soward Hornabrook and Thomas Hogg two of the Executors thereof on the eleventh day of July one thousand eight hundred and ninety-two AND WHEREAS the said Thomas Hogg departed this life on or about the first day of September one thousand nine hundred and five AND the said Charles Soward Hornabrook the survivor of the said Executors departed this life on the twenty-fifth day of September one thousand nine hundred and twenty-two having by his own last Will and Testament appointed the said Anna Elizabeth Johanna Hornabrook the sole Executrix thereof and she thereby became the Executrix and personal representative of the said William Newton deceased AND WHEREAS the direction in the said Will of the said deceased for the sale of certain of his real and personal estate for the purpose abovementioned has been duly carried out all duties and fees payable in the ordinary course of administration of the said estate and the funeral and testamentary expenses of the said deceased and all his debts and liabilities have been paid and satisfied and the half acre of land before described has been duly vested in the Trustees of Church Property of the Diocese of Newcastle AND WHEREAS the parties to this Deed of the second, third, fourth, fifth, sixth, seventh, eighth and ninth parts are the whole of the persons now interested in the estate of the said William Newton under the said Will and are all

M. J. Newton

over the age of twenty-one years AND WHEREAS the said Sarah Jane Newton deeming it best for the several interests of herself and the other parties thereto (being sons and daughters of the said deceased) that the partition therein referred to should take place entered into a mutual agreement dated the thirtieth day of June one thousand nine hundred and twenty-one with the parties hereto of the third, fourth, fifth, sixth, seventh, eighth, and ninth parts to make a partition and division of the real and personal estate remaining in the said estate upon the terms and in manner in the said agreement appearing AND WHEREAS in order to carry out the said agreement all the lands under the Real Property Act comprised in the said estate other than such of those as now stand in the name of the said Sarah Jane Newton and are to be taken by her and therefore remain in her name have been transferred to the persons entitled thereto under the said agreement and being desirous of completing the said partition the parties hereto have agreed to enter into these presents for the purpose of vesting in severalty in the said Margaret Jane Newton the entirety of the hereditaments comprised in the first schedule hereto and in the said Eveline Augusta Newton and Victoria Maud Newton as joint tenants the entirety of the hereditaments comprised in the second schedule hereto and in the said Samuel Hugh James Baillie Newton the entirety of the hereditaments comprised in the third schedule hereto and in the said Sarah Jane Newton the entirety of the remaining hereditaments in the said estate and which are not under the Real Property Act or comprised in any of the schedules hereto AND WHEREAS certain instruments and documents of title relate to hereditaments which have been severed and appropriated between two or more of the partieshereto and it has been agreed that in every such case such one of the parties hereto as shall hold the said instruments and documents (hereinafter called the retaining owner) shall give to the other or others interested in such hereditaments such acknowledgment and undertaking with respect thereto as is hereinafter contained NOW THIS DEED WITNESSETH as follows:-

1. In pursuance of and for the purpose of effectuating the said recited agreements and in consideration of the premises SHE the said Executrix as the personal representative of the said William Newton deceased hereby conveys and they the said Sarah Jane Newton, Sarah Baillie Newton, Anna Elizabeth Johanna Hornabrook, Eveline Augusta Newton, Victoria Maud Newton, Samuel Hugh James Baillie Newton and Harold Augustus Daniel Newton do and each of them doth hereby grant convey and confirm unto the said Margaret Jane Newton ALL THOSE freehold hereditaments and premises the particulars whereof are set out in the first Schedule hereto and which are delineated upon the map or plan hereto annexed and therein edged red to hold the same unto and to the use of the said Margaret Jane Newton in fee simple henceforth in severalty.

2. In further pursuance of the said recited agreements and for the purpose and consideration aforesaid SHE the said Executrix as such personal representative of the said William Newton deceased hereby conveys and they the said Sarah Jane Newton, Margaret Jane Newton, Sarah Baillie Newton, Anna Elizabeth Johanna Hornabrook, Samuel Hugh James Baillie Newton and Harold Augustus Daniel Newton do and each of them doth hereby grant convey and confirm unto the said Eveline Augusta Newton and Victoria Maud Newton ALL THOSE freehold hereditaments and premises the particulars whereof are set out in the second schedule hereto and which are delineated upon the map or plan hereto annexed and therein edged blue TO HOLD the same unto and to the use of the said Eveline Augusta Newton and

Victoria Maud Newton in fee simple henceforth as joint tenants thereof.

3. In further pursuance of the said recited agreements and for the purpose and consideration aforesaid SHE the said Executrix as such personal representative of the said William Newton deceased hereby conveys and they the said Sarah Jane Newton, Margaret Jane Newton, Sarah Baillie Newton, Anna Elizabeth Johanna Hornabrook, Eveline Augusta Newton, Victoria Maud Newton, and Harold Augustus Daniel Newton do and each of them doth hereby grant convey and confirm unto the said Samuel Hugh James Baillie Newton ALL THOSE freehold and conditionally purchased hereditaments and premises the particulars whereof are set out in the third schedule hereto the freehold portion thereof being delineated upon the map or plan hereto annexed and therein edged brown TO HOLD the same unto and to the use of the said Samuel Hugh James Baillie Newton in fee simple henceforth in severalty.

4. In further pursuance of the said recited agreements and for the purpose and consideration aforesaid she the said Executrix as such personal representative of the said William Newton deceased hereby conveys and they the said Margaret Jane Newton, Sarah Baillie Newton Anna Elizabeth Johanna Hornabrook, Eveline Augusta Newton, Samuel Hugh James Baillie Newton and Harold Augustus Daniel Newton do and each of them doth hereby grant convey and confirm unto the said Sarah Jane Newton ALL THOSE the remaining lands and hereditaments comprised in the estate of the said William Newton deceased and which are not under the Real Property Act or comprised in any of the schedules hereto TO HOLD the same unto and to the use of the said Sarah Jane Newton in fee simple henceforth in severalty.

5. In pursuance of the said recited agreement in that behalf and in consideration of the premises the retaining owner in each such case as aforesaid hereby acknowledges the right of such of the other parties hereto as are interested in hereditaments the instruments and documents of title to which such retaining owner holds to production of such instruments and documents and to delivery at the expense of the person or persons requiring the same or copies thereof and undertakes for the safe custody thereof.

IN WITNESS whereof the said parties hereto have hereunto set their hands and seals the day and year first before written.

THE FIRST SCHEDULE HEREINBEFORE REFERRED TO BEING FREEHOLD LAND - NOT UNDER REAL PROPERTY ACT - CONVEYED BY THIS DEED TO MARGARET JANE NEWTON

ALL THAT piece or parcel of land containing one hundred and three acres one rood being part of portions forty-one, forty-two and forty-three in the Parish of Harrington County of Macquarie COMMENCING in the highwater on the northern side of Tappin Tappin Creek where the western boundary of Portion thirty-three (1) in the same Parish and County abuts thereon and bounded on the east by part of that west boundary northerly to the north eastern corner of portion forty-two aforesaid on the north by part of the northern boundary of that portion being a line bearing westerly to the south east corner of portion forty-three aforesaid again on the east by part of the eastern boundary of the last mentioned portion being a line bearing twenty-one minutes six hundred and thirteen links to a wire and top-rail fence on the north west by a line following the abovementioned fence and a continuation of that line in all bearing 198 degrees 59 minutes 565 and four tenth links and a line bearing 203 degrees

2 minutes 1980 links to the high water mark on the left bank of Lansdowne River on the south west by that high water mark in a south easterly direction to its confluence with Tappin Tappin Creek and thence on the south by the high water mark abovementioned of that Creek in an easterly direction to the point of commencement AND being the land shown on the plan hereto annexed and thereon edged red.

THE SECOND SCHEDULE HEREINBEFORE REFERRED TO BEING FREEHOLD LAND NOT UNDER REAL PROPERTY ACT CONVEYED BY THIS DEED TO EVELINE AUGUSTA NEWTON AND VICTORIA MAUD NEWTON AS JOINT TENANTS

ALL THAT piece or parcel of land containing fifty-nine acres being part of portions forty-two forty-three, and fifty-two in the Parish of Harrington, County of Macquarie COMMENCING in the High Water Mark of Lansdowne River at a point bearing 90 degrees 21 minutes 1144 and four tenth links 197 degrees 29 minutes 581 and one half links 197 degrees 15 minutes 601 and seven tenth links 199 degrees 57 minutes 398 and one half links and 201 degrees 26 minutes 905 links from the south western corner of portion 4 $\frac{7}{IV}$ same Parish and County and bounded on the south east by lines following a fence said lines bearing 21 degrees 26 minutes 905 links 19 degrees 57 minutes 398 and one half links 17 degrees 15 minutes 601 and seven-tenth links and 17 degrees 29 minutes 581 and one half links to the south boundary of last mentioned portion on part of the north by part of that south boundary being a line bearing 270 degrees 21 minutes 1144 and four tenth links to the south west corner of that portion on the east by part of the west boundary of that portion to its intersection with the south side of a road 100 links from Coopernook to Harrington on the north by part of the southern side of that road being lines bearing 294 degrees 1 minute 449 and seven-tenth links and 293 degrees 26 minutes 614 and three tenth links on the west by a line bearing 182 degrees 13 minutes 1894 links to the highwater mark abovementioned and thence on the west and south west by that high water mark to the point of commencement and being the land shown on the plan hereto annexed and thereon edged blue.

THE THIRD SCHEDULE HEREINBEFORE REFERRED TO BEING FREEHOLD LAND - NOT UNDER REAL PROPERTY ACT - AND CONDITIONALLY PURCHASED LAND CONVEYED BY THIS DEED TO SAMUEL HUGH JAMES BAILLIE NEWTON.

ALL THAT piece or parcel of freehold land containing thirty acres three roods thirty perches being part of portions forty-one, forty-two and forty-three in the Parish of Harrington, County of Macquarie COMMENCING in the high water mark on the left bank of Lansdowne River at a point bearing 180 degrees 21 minutes 976 and two tenth links 198 degrees 59 minutes 565 and four tenth links and 203 degrees 2 minutes 1980 links from the south east corner of portion 4 $\frac{7}{IV}$ in the same Parish and County and bounded thence on the east by lines bearing 23 degrees 2 minutes 1980 links 18 degrees 59 minutes 565 and four tenth links and 21 minutes 976 and two tenth links to the south east corner of portion 4 $\frac{7}{IV}$ abovementioned on the north by part of the south boundary of that portion being a line bearing 270 degrees 21 minutes 855 and six tenth links on the west by lines bearing 197 degrees 29 minutes 581 and one half links 197 degrees fifteen minutes 601 and seven tenth links 199 degrees 57 minutes 398 and one half links and 201 degrees 26 minutes 905 links to the highwater mark of the Lansdowne River aforesaid and thence on the south west by that high water mark downwards in a south easterly direction to the point of commencement and being the land shown on the plan endorsed hereon and thereon

edged brown ALSO ALL THAT piece or parcel of conditionally purchased land containing two hundred and seventy eight acres (278) situated in the Parish and County aforesaid and being portion 152 of the said Parish and being Additional Conditional Purchase 12/121 taken up by the said Charles Soward Hornabrook as such executor as aforesaid.

SIGNED SEALED AND DELIVERED by the said ANNA ELIZABETH JOHANNA HORNABROOK (as such Executrix and personal representative of William Newton deceased) in the presence of) A. E. J. HORNABROOK

R.T. MOODIE J.P.

AND by the said SARAH JANE NEWTON in the presence of) SARAH JANE NEWTON

D. HOGG J.P.

AND by the said MARGARET JANE NEWTON in the presence of) MARGARET JANE NEWTON

D. HOGG J.P.

AND by the said SARAH BAILLIE NEWTON in the presence of) SARAH BAILLIE NEWTON

D. HOGG J.P.

AND by the said ANNA ELIZABETH JOHANNA HORNABROOK (as one of the daughters of William Newton deceased) in the presence of) A. E. J. HORNABROOK

R.T. MOODIE J.P.

AND by the said EVELINE AUGUSTA NEWTON in the presence of) EVELINE A. NEWTON

R.T. MOODIE J.P.

AND by the said VICTORIA MAUD NEWTON in the presence of) VICTORIA MAUD NEWTON

D. HOGG J.P.

AND by the said SAMUEL HUGH JAMES BAILLIE NEWTON in the presence of) S.H.J.B. NEWTON

D. HOGG J.P.

AND by the said HAROLD AUGUSTUS DANIEL NEWTON in the presence of) H.A.D. NEWTON

D. HOGG J.P.

RONALD THOMAS DUNN of Sydney in the State of New South Wales Clerk to Boyce & Boyce being duly sworn maketh oath and saith the writing contained above and on the five preceding pages has been compared by me with the original Conveyance and is a true copy thereof.

SWORN at Sydney the fifteenth) day of December one thousand) nine hundred and twenty-five before) me)

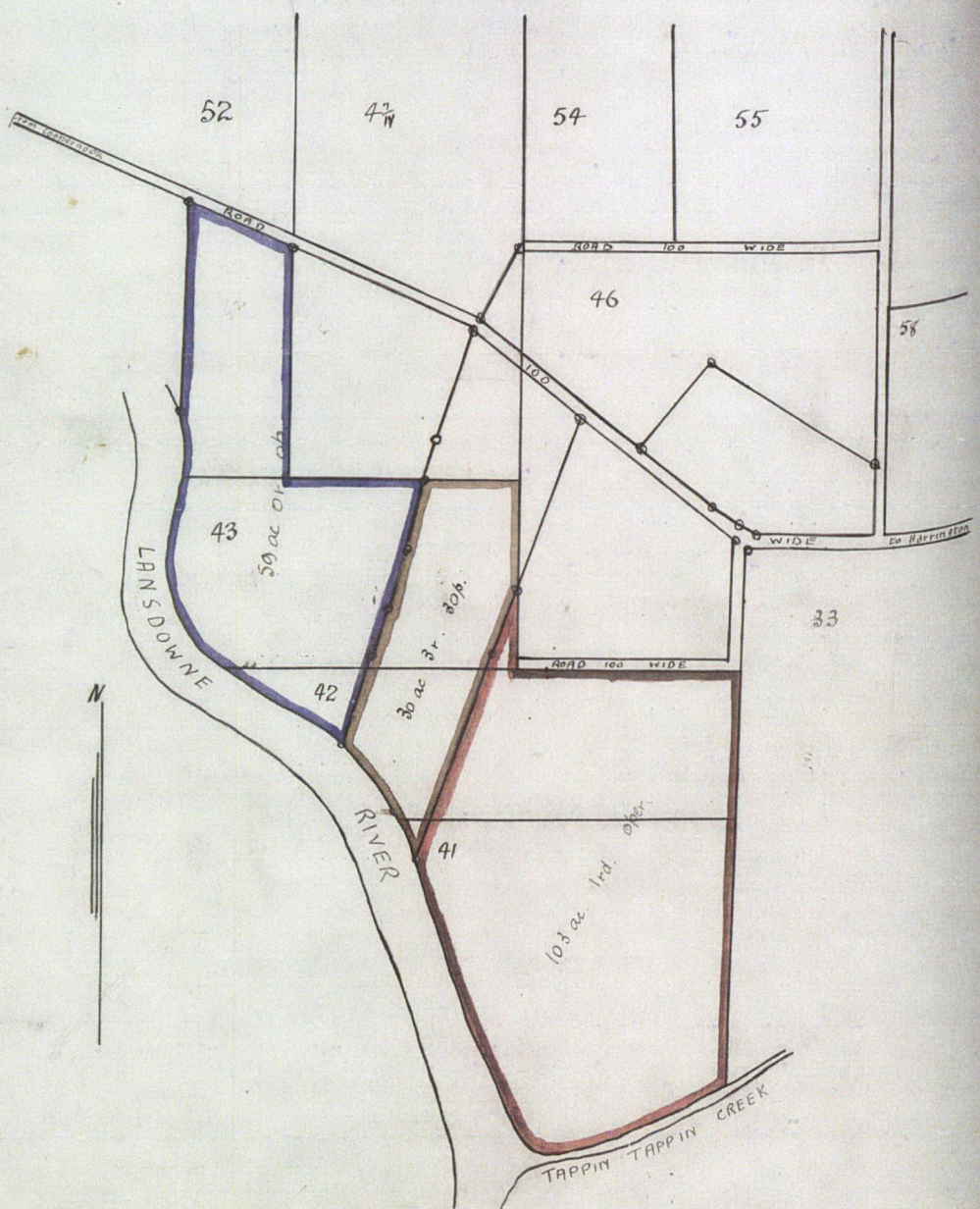
R Dunn

DEPUTY REGISTRAR

RECEIVED into the Registration of Deeds Office at Sydney the fifteenth day of December one thousand nine hundred and twenty-five at twenty minutes past ten o'clock in the forenoon from Ronald Thomas Dunn Clerk to Boyce & Boyce, of Sydney, Solicitors.

DEPUTY REGISTRAR.

THIS IS THE PLAN REFERRED TO IN THE ANNEXED CONVEYANCE DATED AND MADE BETWEEN ANNA ELIZABETH JOHANNA HORNABROOK (AS EXECUTRIX) SARAH JANE NEWTON, MARGARET JANE NETWON, SARAH BAILLIE NEWTON, ANNA ELIZABETH JOHANNA HORNABROOK, EVELINE AUGUSTA NEWTON, VICTORIA MAUD NEWTON, SAMUEL HUGH JAMES BAILLIE NEWTON and HAROLD AUGUSTUS DANIEL NEWTON.



Witness to the signature of Anna Elizabeth Johanna Hornabrook R.J. Moodie JP.
Witness to the signature of Eveline Augusta Newton R.J. Moodie JP.
Witness to the signature of Sarah Jane Newton D Hogg JP
Witness to the signature of Margaret Jane Newton D Hogg JP
Witness to the signature of Sarah Baillie Newton D Hogg JP
Witness to the signature of Victoria Maud Newton D Hogg JP
Witness to the signature of Samuel Hugh James Baillie Newton D Hogg JP
Witness to the signature of Harold Augustus Daniel Newton D Hogg JP

A E J Hornabrook
Eveline A Newton
Sarah Jane Newton
Margaret Jane Newton
Sarah Baillie Newton
Victoria Maud Newton
S.H.J.B. Newton
Harold A. D. Newton.

Shire of Manning

PLAN DP 32272 (E)

of subdivision of part of Portion 216 Ph of Lansdowne & of part of Portion 52 Ph of Harrington

PARISHES OF LANSDOWNE & HARRINGTON COUNTY OF MACQUARIE

conveyed to Sarah Jane Newton by Deed of Conveyance dated 17th. October 1928 Registered Number 646 Book 1409

SCALE : 5 chains to an inch

APPN. 32070 {PTS 70 AC. (POR. 52 Ph.) GTD. TO MICHAEL CAFFREY ON 15-11-1852 ∅
{PTS 50 AC. (POR 216 Ph) GTD. TO MICHAEL CAFFREY ON 15-11-1852 ∅

M M

D. P. 32272 (E)

Registered: 30/10/62 ORIGINALLY CATALOGUED AS REGD. PLAN 475

C.A: 192 of 13/9/1928

Title System: Old System

Purpose: Subdivision

Ref Map: Parishes

Last Plan: 11

Parish of Lansdowne

3

26A 3R 18P

216

12 Ac.

"Coopernook House"

2

5 Ac.

1

Note :-
No Lot in this Subdivision is subject to any Easement nor are there any restrictions effecting the user of any of the Land stipulated for by the Transferrors.

Macquarie St

Fitzroy St

Road 100 wide

VILLAGE OF COOPERNOOK

Pur Res 23988

4A 3R 11P

14

22A 2R 4P

15

Parish of

DIAGRAM

Note :-

No Lot in this Subdivision is subject to any Easement nor are there any restrictions effecting the user of any of the Land stipulated for by the Transferrors.

DIAGRAM

SCALE :- 2 chains to an inch

Datum Line of Azimuth AB

Date of Survey June 1928

Parish of Harrington

Lansdowne River

Cooperrook Road

DP 32272 (E)

THIS PLAN of Subdivision was approved by the Manning Shire Council at a meeting held on the 10th. day of September, 1928, and is covered by Council Clerk's Certificate No 192 of the 13th. day of September, 1928.

J. blinch

Deputy Shire Clerk

I, David Stirling Sharpe, of Taree, Licensed Surveyor, Specially licensed under the Real Property Act 1900, do hereby sincerely and solemnly declare (a) that all boundaries and measurements shown on this Plan are correct (b) that all survey marks found and relevant physical objects on or adjacent to the boundaries are correctly represented (c) that all physical objects indicated actually exist in the positions shown (d) that the whole of the material facts in relation to the land are correctly represented (e) that the survey has been made by me, and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900

D.S. Sharpe
Licensed Surveyor.

Subscribed and declared before me at Taree this 3rd day of January AD 1929

J.G. Hole JP

D.S. Sharpe
Licensed surveyor

839-77.

27.5.35.

DP 32272

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 32272

LINKS	METRES
7.9	1.589
10	2.012
10.03	2.018
14.35	2.887
24	4.828
28	5.633
31.33	6.303
33.6	6.759
40.06	8.059
46.46	9.346
47.92	9.640
50	10.058
52.57	10.575
52.71	10.604
72.9	14.665
78.9	15.872
81.9	16.476
81.94	16.484
99.4	19.996
99.9	20.097
100	20.117
100.3	20.177
100.59	20.235
100.6	20.238
102.14	20.547
103.24	20.769
105.42	21.207
109.92	22.112
113.45	22.823
129.1	25.971
130.96	26.345
132.65	26.685
137.4	27.640
142.32	28.630
142.9	28.747
144.23	29.014
151.2	30.417
156.6	31.503
159.35	32.056
161	32.388
166.47	33.488
168.52	33.901
180.24	36.259
182	36.613
187.5	37.719
193	38.825
199.35	40.103
201.6	40.555
204.6	41.159
207.2	41.682
210.2	42.286
237.5	47.777
237.6	47.798
238.25	47.928
251.9	50.674
253.45	50.986
253.46	50.988
256.8	51.660
257.2	51.740
257.3	51.761
258.4	51.982
259.96	52.296
261	52.505
269.7	54.255
270	54.315
270.62	54.440
272.94	54.907
273.6	55.040
274.3	55.180
283	56.931
283.2	56.971
297.71	59.890
308.67	62.095
309.03	62.167
314.7	63.308
326.31	65.643
327.31	65.844

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 32272 CONTINUED

LINKS	METRES
331.4	66.667
336	67.592
361	72.622
362.54	72.931
366	73.627
376	75.639
376.3	75.700
380.9	76.625
405.9	81.654
418.5	84.189
421.1	84.712
461.3	92.799
469.3	94.408
503.97	101.383
514.4	103.481
524.1	105.432
527.1	106.036
556.2	111.890
566.1	113.881
568.35	114.334
606.4	121.988
614.1	123.537
615.5	123.819
619.2	124.563
646.55	130.065
662.2	133.213
731.4	147.134
762.5	153.391
763.8	153.652
767	154.296
776.7	156.247
796.3	160.190
862.4	173.487
876	176.223
943.9	189.882
991.3	199.418
999.6	201.088
1008.9	202.958
1021.4	205.473
1039.8	209.174
1052.7	211.770
1063.9	214.023
1080	217.261
1121.2	225.550
1362.4	274.071
1367.3	275.057
1568.8	315.592
1964.7	395.235
2049.1	412.213
2203	443.173
2599.6	522.956
3263.1	656.431

AC	RD	P	SQ M
-	-	24	607
-	-	39	986.4
-	1	8 1/2	1227
-	1	10	1265
-	1	27 1/4	1701
-	1	33 1/2	1859
-	2	10 1/2	2289
-	2	21 1/2	2567
-	3	1	3060
-	3	7 1/4	3219

AC	RD	P	HA
4	3	1	1.925
4	3	11	1.95
5	-	-	2.023
5	-	17	2.066
8	3	17	3.584
10	1	37	4.242
12	-	-	4.856
22	2	4	9.116
26	3	18	10.87

[redacted]

G.

NEW SOUTH WALES

CERTIFICATE OF TITLE

PERTY ACT, 1900, as amended.

(For Grant and title reference prior to first edition see Deposited Plan).

Vol. 9593 Fol. 227

1st Edition issued 18-2-1964

J462845 CANCELLED

Vol. 9593 Fol. 227

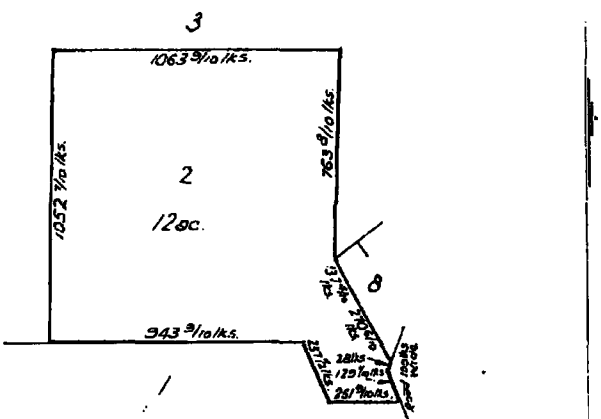
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness S Maclennan

SEE AUTO FOL

Registrar-General.

PLAN SHOWING LOCATION OF LAND



J462845 Shd Scale: 5 chains to one inch.

vs

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan No. 32272 in the Shire of Canning, Parish of Lansdowne, County of Macquarie.

Registrar General.

FIRST SCHEDULE (Continued overleaf)

~~JOHN RUTHERFORD HORNABROOK of Coombe, Via Keith, in the State of South Australia, Property Manager.~~

Registrar General.

SECOND SCHEDULE (Continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant(s) referred to in the said Deposited Plan.

Registrar General.

(Page 1) Vol. 9593 Fol. 227

AT 1606 V. C. N. BLIGHT, GOVERNMENT PRINTER

P814027 TenR
Q624222 PaX R
R534902 W&X R

Vol. 9593 Fol 227

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
~~Norman Thomas David Hogg of Coopernook Farmer~~	~~Transfer~~	~~H 744795~~	~~19.7.1967~~	~~11.5.1967~~	
John David Hogg of Coopernook, Grazier.	Transfer	P814027	------	29-7-1976	

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
~~Caveat~~	~~Q624222~~	~~------~~	~~By. Norman Thomas David Hoggs.~~	~~28-4-1978~~		Withdrawn.	R534902	

FORM No. 183A

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

Attachment D – Agency and Service Provider Submissions

Coopernook Planning Proposal

Agency and Service Provider submissions collated

Submission 1

Our Ref: RM:MM:244404
Your Ref: S878

27 September 2016

By email: tareecouncil@gtcc.nsw.gov.au

Michael Griffith
MidCoast Council
PO Box 482
Taree NSW 2430

Dear Michael

Proposed new development – Village expansion and rezoning
Property: Macquarie and West Streets Coopernook more particularly described as Lots 1 & 2 in DP32272 and Lot 48 in DP1090335

We refer to the above matter and to your correspondence seeking comment from Essential Energy in relation to the proposed development at the above property.

Strictly based on the documents submitted, Essential Energy has no objection to the development at this time, provided:

1. As part of any subdivision, easements are created for any existing electrical infrastructure. The easements are to be created using Essential Energy's standard easement terms current at the time of registration of the plan of subdivision. An easement width of 20 and 30 metres is required. Currently reference should be made to Part A of Memorandum AG189384;
2. Any existing encumbrances in favour of Essential Energy (or its predecessors) noted on the title of the above property are complied with;
3. Council ensures that a Notification of Arrangement (confirming satisfactory arrangements have been made for the provision of power) is issued by Essential Energy with respect to all proposed lots which will form part of any subdivision, prior to Council releasing the Subdivision Certificate. It is the applicant's responsibility to make the appropriate application with Essential Energy for the supply of electricity to the subdivision, which may include the payment of fees and contributions;
4. If the proposal changes Essential Energy would need to be informed for further comment; and
5. Essential Energy is notified in accordance with Clause 45 of the *State Environmental Planning Policy (Infrastructure) 2007* (NSW) for any further proposed development.

The customer may need to relocate the existing electricity infrastructure depending on the eventual development of the land. If this is required, the customer will need to engage the services of a Level 3 Accredited Service Provider who will guide them through the process. The customer/applicant will be responsible for all costs in connection with the relocation.

ATTACHMENT D

In addition, Essential Energy's records indicate there is electricity infrastructure located within the property and in an adjoining property (Zone Substation). Any activities within and near these locations must be undertaken in accordance with the latest industry guideline currently known as *ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Infrastructure*.

Given there is electricity infrastructure in the area, it is the responsibility of the person/s completing any works around powerlines to understand their safety responsibilities. WorkCover NSW (www.workcover.nsw.gov.au) has publications that provide guidance when working close to electricity infrastructure. These include the *Code of Practice – Work near Overhead Power Lines*.

If you have any queries, please contact Michelle Murray on (02) 6589 8207 or via email conveyancingteam@essentialenergy.com.au.

Yours sincerely

Raelene Myers
Conveyancing Team Leader

MidCoast Council

MIDCOAST WATER

Date: 23rd September 2016
MCW Ref: 60084, 65069 & 17899
Your Ref: PP_2015_GTARE_004_00

The General Manager
MidCoast Council
PO Box 482
Taree NSW 2430
Via Email: Michael.griffith@midcoast.nsw.gov.au

Att: Michael Griffith

RE: PLANNING PROPOSAL: MACQUARIE & WEST STREETS, COOPERNOOK (PP_2015_GTARE_004_00)

Dear Michael,

Thank you for the opportunity to provide a submission in relation to the planning proposal for Macquarie and West Streets, Coopernook (Lots 1, 2 & 9 DP32272 and Lot 48 DP1090335).

The proposed rezoning is within MidCoast Water's servicing area and can be serviced through an extension of both water and sewerage reticulated networks. At the time of writing there is sufficient capacity within the water and sewer networks to cater for the proposed development as outlined in the planning proposal.

MidCoast Water is content for the planning proposal to proceed subject to the following conditions:

1. Applicants for development of the site are required to submit a local water supply and sewerage strategy for MidCoast Water's approval. This strategy is to confirm the proposed residential development can be serviced through connections to the existing water supply and sewerage networks.
2. A water supply service limitation of 29.6m AHD applies to the Coopernook water supply network. Where development approaches this service limitation level low pressure zones may be present within these development areas.

   The water supply and sewerage strategy is to identify low pressure zones and infrastructure required to meet MidCoast Water's design standards and service levels. Applicants will be responsible for funding infrastructure necessary to meet these requirements.

3. All water supply and sewerage infrastructure necessary to service the site will be constructed to MidCoast Water's requirements and shall be provided at the applicant's cost.
4. In order to satisfy water supply and sewerage servicing requirements the following conditions are to be applied to approvals for development within the site:
   a. *Provision of Certificate of Compliance (for construction of services)*
   b. *Provision of Certificate of Completion (for Subdivision)*

MIDCOAST WATER

Please feel free to contact me on (02) 6591 7513 should you have any questions or require further information.

Yours faithfully,

Craig Wilkinson
Development Coordinator

ATTACHMENT D

Submission 3

Good afternoon Michael,

The Department of Education has no objections or requirements associated with the proposed rezoning.

Regards,

Catherine Pyne | **Assets Planner** | **Planning and Demography Unit** | **Asset Management Directorate**
P **02 5776 8212** | **M** **0429 463 096** | **F** **02 6768 2337** | **W** www.det.nsw.edu.au | **E** Catherine.Pyne@det.nsw.edu.au

Location: **Building H, West Tamworth Primary School, Church Street, Tamworth NSW 2340** **Mail:** **PO Box 3394, West Tamworth NSW 2340**

Attachment E – Gateway Determination

NSW GOVERNMENT | Planning & Environment

Mr Ron Posselt
General Manager
Greater Taree City Council
PO Box 482
TAREE NSW 2430

Our ref: PP_2015_GTARE_004_00 (15/10232)

Att: Mr Michael Griffith

Dear Mr Posselt,

Planning Proposal to amend Greater Taree Local Environmental Plan 2010

I am writing in response to Council's letter requesting a Gateway determination under section 56 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") in respect of the planning proposal to rezone approximately 17.6 hectares of land at Macquarie and West Streets Coopernook from RU1 – Primary Production to RU5 - Village.

As delegate of the Minister for Planning, I have now determined the planning proposal should proceed subject to the conditions in the attached Gateway determination.

I have also agreed the planning proposal's inconsistency with S117 Directions 1.2 Rural Zones, 1.5 Rural Lands, 3.4 Integrating Land Use and Transport and 4.3 Flood Prone Land is of minor significance and / or justified because the proposal is consistent with the Mid North Coast Regional Strategy. No further approval is required in relation to these Directions. Following the undertaking of necessary studies/ investigations and consultation with relevant agencies Council may need to obtain the agreement of the Secretary to comply with the requirements of other relevant S117 Directions. Council should ensure this occurs prior to the plan being made.

The Minister delegated plan making powers to councils in October 2012. It is noted that Council has now accepted this delegation. I have considered the nature of Council's planning proposal and have decided to issue an authorisation for Council to exercise delegation to make this plan.

The amending Local Environmental Plan (LEP) is to be finalised within 12 months of the week following the date of the Gateway determination. Council should aim to commence the exhibition of the planning proposal as soon as possible. Council's request to draft and finalise the LEP should be made directly to Parliamentary Counsel's Office 6 weeks prior to the projected publication date. A copy of the request should be forwarded to the Department for administrative purposes.

The State Government is committed to reducing the time taken to complete LEPs by tailoring the steps in the process to the complexity of the proposal, and by providing clear and publicly available justification for each plan at an early stage. In order to meet these commitments, the Minister may take action under section 54(2)(d) of the EP&A Act if the time frames outlined in this determination are not met.

Hunter and Central Coast Region - Hunter Office - Level 2 26 Honeysuckle Drive (PO Box 1226) Newcastle NSW 2300
Phone 02 4904 2700 Fax 02 4904 2701 Website planning.nsw.gov.au

Attached for your assistance is a simplified guide to the plan making process and reporting requirements to ensure that the LEP Tracking System is kept updated.

Should you have any questions regarding this matter, I have arranged for Brian Murphy from the Hunter office to assist you. Mr Murphy can be contacted on (02) 4904 2712.

Yours sincerely,

24 July 2015

David Rowland
General Manager
Hunter and Central Coast Region
Planning Services

NSW GOVERNMENT | Planning & Environment

Gateway Determination

***Planning Proposal (Department Ref: PP_2015_GTARE_004_00)**: to rezone approximately 17.6 hectares of land at Macquarie and West Streets Coopernook from RU1 – Primary Production to RU5 - Village.*

I, the General Manager, Hunter and Central Coast Region at the Department of Planning and Environment as delegate of the Minister for Planning, have determined under section 56(2) of the EP&A Act that an amendment to the Greater Taree Local Environmental Plan (LEP) 2010 to rezone approximately 17.6 hectares of land at Macquarie and West Streets Coopernook from RU1 – Primary Production to RU5 - Village should proceed subject to the following conditions:

1. The Proposal should be amended, prior to exhibition, to incorporate the:
   - recommendations of the required additional investigations (see below);
   - recommendations of relevant government agencies; and
   - to update consideration of s117 direction – 2.3 Heritage Conservation and SEPP 55 – Remediation of Land.

2. The following studies / investigations are to be undertaken prior to exhibition:
   - A preliminary contamination assessment, consistent with the requirements of SEPP 55 – Remediation of Land.

   Council should consider the findings of this assessment in amending the Proposal.

3. Community consultation is required under sections 56(2)(c) and 57 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") as follows:

   (a) the planning proposal must be made publicly available for a minimum of **28 days**; and
   (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 5.5.2 of *A Guide to Preparing LEPs (Planning & Infrastructure 2013)*.

4. Consultation is required with the following public authorities under section 56(2)(d) of the EP&A Act and/or to comply with the requirements of relevant S117 Directions:

   - Department of Education in relation to the adjoining public school.
   - Essential Energy concerning the proposed buffer to the existing substation.
   - Office of Environment and Heritage concerning Aboriginal cultural heritage.
   - Mid Coast Water and other utility service providers Council may deem necessary to consult.

   Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material, and given at least 21 days to comment on the proposal. Council should, following receipt of advice from the public authorities, update its consideration of s117 Directions and SEPPs in the Proposal, as required.

5. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

6. The timeframe for completing the LEP is to be **12 months** from the week following the date of the Gateway determination.

Dated 24 July 2015.

David Rowland
General Manager
Hunter and Central Coast Region
Planning Services
Department of Planning and Environment

Delegate of the Minister for Planning

NSW GOVERNMENT | Planning & Environment

WRITTEN AUTHORISATION TO EXERCISE DELEGATION

Greater Taree City Council is authorised to exercise the functions of the Minister for Planning under section 59 of the *Environmental Planning and Assessment Act 1979* that are delegated to it by instrument of delegation dated 14 October 2012, in relation to the following planning proposal:

Number	**Name**
PP_2015_GTARE_004_00	Planning proposal to rezone 17.6 hectares of land at Macquarie and West Streets Coopernook from RU1 – Primary Production to RU5 – Village to facilitate the proposed expansion of the Coopernook village.

In exercising the Minister's functions under section 59, the Council must comply with the Department's "*A guideline for the preparation of local environmental plans*" and "*A guide to preparing planning proposals*".

Dated 24 July 2015

David Rowland
General Manager
Hunter and Central Coast Region
Planning Services
Department of Planning and Environment

Delegated plan making reporting requirements

(Attachment 5 from "A guide to preparing local environmental plans)

Notes:

- The department will fill in the details of Table 3
- RPA is to fill in details for Table 2
- If the planning proposal is exhibited more than once, the RPA should add additional rows to **Table 2** to include this information
- The RPA must notify the relevant contact officer in the regional office in writing of the dates as they occur to ensure the Department's publicly accessible LEP Tracking System is kept up to date
- A copy of this completed report must be provided to the Department with the RPA's request to have the LEP notified

Table 1 – To be completed by the Department

Stage	**Date/Details**
Planning Proposal Number	**PP_2015_GTARE_004_00**
Date Sent to Department under s56	**26 June 2015**
Gateway determination date	**24 July 2015**

Table 2 – To be completed by the RPA

Stage	**Date/Details**
Dates draft LEP exhibited	
Date of public hearing (if held)	
Date sent to PCO seeking Opinion	
Date Opinion received	
Date Council Resolved to Adopt LEP	
Date LEP made by GM (or other) under delegation	
Date sent to Department requesting notification (hunter@planning.nsw.gov.au)	
Brief Description of Purpose of planning proposal	

Table 3 – To be completed by the Department

Stage	**Date/Details**
Notification Date and details	

Additional relevant information:

PLAN MAKING PROCESS POST GATEWAY – FOR DELEGATED MATTERS

1. **Post Exhibition Review**
   - If planning proposal is revised, council is to email a copy of the revised proposal to the regional planning team - hunter@planning.nsw.gov.au under Section 58(2) of the Act prior to requesting LEP to be made.
   - If changes to planning proposal are substantial then may no longer be authorised by the Gateway determination and a new Gateway may be required before LEP is made. Councils are encouraged to contact regional planning team to seek advice before finalising the LEP under delegation.
   - Any unresolved s117 directions must be finalised before progressing with LEP
2. **Legal Drafting of the LEP**
   - Council's request to draft and finalise the plans should be made directly to Parliamentary Counsel's Office (PCO) - parliamentary.counsel@pco.nsw.gov.au as soon as possible to ensure timeframes are met.
   - The request to parliamentary.counsel@pco.nsw.gov.au is to include the planning proposal, a copy of the gateway determination and details of any change to the proposal arising from the gateway determination. The name and contact details of the Council contact officer should also be supplied.
   - A copy of the request should also be forwarded to the department for administrative purposes only hunter@planning.nsw.gov.au.
3. **Maps**
   - Council should upload the maps and GIS data directly to the department's FTP site (ftp://lepup:lep_upload@203.3.194.247//).
   - Once uploaded Council should email hunter@planning.nsw.gov.au.and advise that maps are available for checking. Any questions can be directed to Brent Condliffe on phone 02 9228 6542.
   - Unless otherwise negotiated the department will only undertake a technical review of any maps to ensure they comply with LEP mapping technical guidelines.
   - **No** maps or mapping/GIS data is to be sent directly to PCO.
4. **Making of the draft LEP s59**
   - Council's delegate resolves to finalise the LEP by signing the instrument (see example below).
   - If council's delegate decides not to make plan or defer a matter, council should liaise with regional team for assistance.
   - Council must also notify PCO if plan not proceeding
5. **Notification of LEP**
   - Council advises plan is made and requests the department to notify the plan to hunter@planning.nsw.gov.au and the following documents to be provided for notification
     1. Signed LEP - which includes full name of LEP and PCO file reference,
     2. Signed map cover sheet and associated maps,
     3. Name and position of the delegate who signed the LEP and date,
     4. Completed Attachment 5 - delegated plan making reporting template,
     5. Copy of council's (s59) assessment which is usually the council, report/minutes and if revised, a copy of council's revised planning proposal
     6. PC opinion.
   - Request to hunter@planning.nsw.gov.au by Tuesday of the week will enable notification by Friday.

Example of signature front page

Fred Smith

Fred Smith
General Manager

As delegate for the Minister for Planning
12/12/14