ENVIRONMENTAL INVESTIGATION SERVICES

REPORT

TO

GROUPGSA PTY LTD

ON

PRELIMINARY STAGE 1 ENVIRONMENTAL SITE ASSESSMENT

FOR

PROPOSED POLICE STATION REDEVELOPMENT

AT

TAREE POLICE STATION, 79 ALBERT STREET, TAREE, NSW

17 MAY 2018 **REF: E31340KrptRev1**

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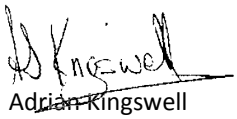

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EXECUTIVE SUMMARY

GroupGSA Pty Ltd ('the client') commissioned Environmental Investigation Services (EIS)[1] to undertake a preliminary Stage 1 Environmental Site Assessment (PESA) for the proposed police station redevelopment at 79 Albert Street, Taree, NSW ('the site'). The site location is shown on Figure 1 and the assessment was confined to the site boundaries as shown on Figure 2.

A geotechnical investigation was undertaken in conjunction with this assessment by JK Geotechnics[2]. The results of the investigation are presented in a separate report (Ref. 31340rpt[3]). This report should be read in conjunction with the JK report.

It is understood the proposed development is currently in the design phase, and will include demolition of existing site structures and construction of a new police station.

The scope of work included the following:

- Review of site information, including background and site history information from a Lotsearch Pty Ltd *Environmental Risk and Planning Report* and other sources;
- Preparation of a CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The Preliminary Stage 1 ESA included a desktop site history assessment and fill/soil sampling from a total of five boreholes. The historical assessment identified various potential sources of contamination/AEC, including fill, an abandoned petrol UST and hazardous building materials (i.e. from existing structures). At the rear of the site, hydrocarbon odours were observed in BH03 during the fieldwork. On the site surface in areas of exposed fill soils and generally around the forensics building, fibre cement fragments (FCF) were identified. All FCF were considered to be in good condition and could not be broken by hand pressure (i.e. it was considered to be bonded).

The representative sample of surficial FCF analysed was found to contain asbestos. None of the soil results were above the SAC.

EIS consider that this report meets the requirement for a Phase 1 investigation under SEPP55. EIS are of the opinion that the site can be made suitable for the proposed development provided that the following recommendations are implemented to address the data gaps and to minimise/better manage/characterise the risks:

1. Undertake a Ground Penetrating Radar (GPR) survey to identify the location and orientation of the abandoned UST;
2. Conduct an emu-bob for removal of FCF across the site by a suitably licenced asbestos contractor. All FCF disposed of to a NSW EPA licenced facility. Following removal a surface clearance should be undertaken by a SafeWork NSW licenced asbestos assessor. This should be undertaken following demolition of the site structures. This will provide a safe working environment for site personnel and form part of the waste classification; and
3. When the site becomes fully accessible (ie after demolition) undertake a Stage 2 ESA including groundwater analysis to address the data gaps identified in Section 10.3. An inspection of the site surface should be undertaken in the footprint of the existing site structures following demolition. The assessment should include sampling and analysis at a minimum of four locations (one on each side) around the UST to assess for any residual soil contamination. The assessment should also include the analysis of some soil samples to confirm the absence of acid sulfate soil.

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[1] Environmental consulting division of Jeffery & Katauskas Pty Ltd (J&K)

[2] Geotechnical consulting division of J&K

[3] Referred to as JK Geotechnics (2018)

In the event unexpected conditions are encountered during development work or between sampling locations that may pose a contamination risk, all works should stop and an environmental consultant should be engaged to inspect the site and address the issue.

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of the report.

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ABBREVIATIONS

Asbestos Fines/Fibrous Asbestos	**AF/FA**
Ambient Background Concentrations	**ABC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Australian Drinking Water Guidelines	**ADWG**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Acid Sulfate Soil	**ASS**
Above-Ground Storage Tank	**AST**
Below Ground Level	**BGL**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Bureau of Meteorology	**BOM**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Cation Exchange Capacity	**CEC**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Conceptual Site Model	**CSM**
Development Application	**DA**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Detailed Site Investigation	**DSI**
Ecological Investigation Level	**EIL**
Environmental Investigation Services	**EIS**
Ecological Screening Level	**ESL**
Environmental Management Plan	**EMP**
Excavated Natural Material	**ENM**
Environment Protection Authority	**EPA**
Environmental Site Assessment	**ESA**
Ecological Screening Level	**ESL**
Fibre Cement Fragment(s)	**FCF**
General Approval of Immobilisation	**GAI**
Health Investigation Level	**HILs**
Hardness Modified Trigger Values	**HMTV**
Health Screening Level	**HSLs**
International Organisation of Standardisation	**ISO**
Lab Control Spike	**LCS**
Light Non-Aqueous Phase Liquid	**LNAPL**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Potential ASS	**PASS**
Polychlorinated Biphenyls	**PCBs**

ABBREVIATIONS

Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Practical Quantitation Limit	**PQL**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Relative Percentage Difference	**RPD**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
Site Audit Statement	**SAS**
Site Audit Report	**SAR**
Site Specific Assessment	**SSA**
Source, Pathway, Receptor	**SPR**
Specific Contamination Concentration	**SCC**
Standard Penetration Test	**SPT**
Standard Sampling Procedure	**SSP**
Standing Water Level	**SWL**
Trip Blank	**TB**
Toxicity Characteristic Leaching Procedure	**TCLP**
Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Upper Confidence Limit	**UCL**
United States Environmental Protection Agency	**USEPA**
Underground Storage Tank	**UST**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**
World Health Organisation	**WHO**
Work Health and Safety	**WHS**

Units

Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millivolts	**mV**
Millilitres	**ml or mL**
Milliequivalents	**meq**
micro Siemens per Centimetre	**µS/cm**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Parts Per Million	**ppm**
Percentage	**%**

1 INTRODUCTION

GroupGSA Pty Ltd ('the client') commissioned Environmental Investigation Services (EIS)[4] to undertake a preliminary Stage 1 Environmental Site Assessment (PESA) for the proposed police station redevelopment at 79 Albert Street, Taree, NSW ('the site'). The site location is shown on Figure 1 and the assessment was confined to the site boundaries as shown on Figure 2.

A geotechnical investigation was undertaken in conjunction with this assessment by JK Geotechnics[5]. The results of the investigation are presented in a separate report (Ref. 31340rpt[6]). This report should be read in conjunction with the JK report.

1.1 Proposed Development Details

It is understood the proposed development is currently in the design phase, and will include demolition of existing site structures and construction of a new police station.

1.2 Aims and Objectives

The primary aims of the assessment were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil contamination conditions. The assessment objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Provide a preliminary waste classification for off-site disposal of soil;
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

1.3 Scope of Work

The assessment was undertaken generally in accordance with an EIS proposal (Ref: EP46629K) of 22 February 2018 and written acceptance from the client of 8 March 2018. The scope of work included the following:

[4] Environmental consulting division of Jeffery & Katauskas Pty Ltd (J&K)

[5] Geotechnical consulting division of J&K

[6] Referred to as JK Geotechnics (2018)

- Review of site information, including background and site history information from a Lotsearch Pty Ltd *Environmental Risk and Planning Report* and other sources;
- Preparation of a CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[7], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[8] and State Environmental Planning Policy No.55 – Remediation of Land (1998)[9]. A list of reference documents/guidelines is included in the appendices.

[7] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[8] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

[9] *State Environmental Planning Policy No. 55 – Remediation of Land 1998* (NSW) (referred to as SEPP55)

2 SITE INFORMATION

2.1 Site Identification

Table 2-1: Site Identification

Current Site Owner:	Her Most Gracious Queen Victoria
Site Address:	79 Albert Street, Taree, NSW
Lot & Deposited Plan:	Part of Lots 21, 22 and 23 in Section 8 of DP50231
Current Land Use:	Police Station and Court House
Proposed Land Use:	Continued use as Police Station and Court House
Local Government Authority:	Midcoast Council
Current Zoning:	R1 – General Residential
Site Area (m^2):	~4,200
Geographical Location (decimal degrees) (approx.):	Latitude: -31.912704 Longitude: 152.456519
Site Location Plan:	Figure 1
Sample Location Plan:	Figure 2

2.2 Site Location and Regional Setting

The site is located in a urban area of Taree. The site is located behind (to the north-west of) the Taree Court House which bounds Albert Street to the south-east. The site is located approximately 800m to the north-west of Manning River.

2.3 Topography

The site is located in a gently sloping terrain that consists of a number of small rounded hills on the north-western side of the Manning River. The site itself slopes down to the south-east at about 3° (towards the Manning River).

2.4 Site Inspection

A walkover inspection of the site was undertaken by EIS on 10 April 2018. The inspection was limited to accessible areas of the site and immediate surrounds. An internal inspection of buildings was not undertaken. A summary of the other inspection findings are outlined in the following subsections:

2.4.1 Current Site Use and/or Indicators of Former Site Use

At the time of the inspection, the site was occupied by the Taree Police Station made up of numerous buildings, containers and parking areas.

2.4.2 Buildings, Structures and Roads

All buildings on the site were single storey and generally constructed of brick, fibre cement, and or metal. Some buildings were positioned on slab, while others were elevated on piers with bare (fill) soil present beneath. The main police station was positioned in the centre of the site with offices and other outbuildings positioned to the north, east and west. Highway Patrol was located in the brick building along the northwest boundary line and forensics were located in the brick building along the centre of the western boundary (see Figure 2). A metal carport extended to the north from the Highway Patrol building and then down along the eastern boundary. An open-air (locked) impound area was located in the western corner of the site and several damaged vehicles were present in this area.

The site was generally paved with asphaltic concrete or concrete with the exception of the south-west corner of the site around the forensics building.

2.4.3 Visible or Olfactory Indicators of Contamination

During the inspection vent pipes were identified at the western end of the Highway Patrol Building. Adjacent to the pipe was a small concrete plinth and police personnel informed EIS that a redundant petrol underground storage tank (UST) was present in this area and the concrete plinth was where the bowser had been located (see Figure 2).

Fibre cement fragments (suspected to contain asbestos) were identified on the site surface in locations of exposed fill soils around the forensic services building (see Figure 2). Fibre cement fragments were also encountered within the exposed fill soil along the western boundary line of the driveway in this area.

2.4.4 Presence of Drums/Chemicals, Waste and Fill Material

Fill materials were identified in areas where exposed soil was present at the site surface. This included areas around the forensics building, along the western driveway and underneath buildings supported on piers. The impound area appeared to have a surface covering of blue metal gravels.

2.4.5 Drainage and Services

Surface water at the site was expected to flow to the south and south-east. Local stormwater drains were observed on the site and it was assumed that these discharged into the regional stormwater system.

2.4.6 Sensitive Environments

Sensitive environments such as wetlands, ponds, creeks or extensive areas of natural vegetation were not identified on site or in the immediate surrounds.

2.4.7 Landscaped Areas and Visible Signs of Plant Stress

With the exception of the grassed section of the driveway along the western boundary of the site, the grass covered area around the substation at the front of the site and several small garden beds, the site was relatively un-vegetated. The small amount of landscaping present appeared to be in good condition with no obvious signs of dieback or stress.

2.5 Surrounding Land Use

During the site inspection, EIS observed the surrounding land use to be predominantly commercial including the Taree Court House located between the Police Station and Albert Street. EIS did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.6 Underground Services

The 'Dial Before You Dig' (DBYD) plans were reviewed for the assessment in order to establish whether any major underground services exist at the site or in the immediate vicinity that could act as a preferential pathway for contamination migration. Major services were not identified that would be expected to act as preferential pathways for contamination migration.

2.7 Section 10.7 Planning Certificate

The s10.7 (2 and 5) planning certificate for one lot within the site (Lot 22 Section 8 DP50231), was reviewed for the assessment. A copy of the certificate is attached in the appendices. A summary of the relevant information is outlined below:

- The site is not located in an area of ecological significance;
- The site is not deemed to be: significantly contaminated; subject to a management order; subject of an approved voluntary management proposal; or subject to an on-going management order under the provisions of the CLM Act 1997;
- The site is not the subject of a Site Audit Statement (SAS);
- The site is not located within an acid sulfate soil (ASS) risk area;

- The site is within a heritage conservation area under the provision of Local Environment Plan (LEP) 2010 Schedule 5;
- The building/item on the land is identified as an item of environmental heritage under the provision of LEP 2010 Schedule 5; and
- The land is affected by draft Coastal Management SEPP 2016.

3 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology

Regional geological information presented in the Lotsearch report (attached in the appendices) indicated that the site is underlain by Palaeozoic aged Pappinbarra Formation. This typically consists of turbiditic lithic and volcanolithic sandstone and interbedded siltstone with minor conglomerate, tuff, calcareous sandstone, crinoidal sandstone and limestone.

3.2 Acid Sulfate Soil (ASS) Risk and Planning

The site is not located in an acid sulfate soil (ASS) risk area according to the risk maps prepared by the Department of Land and Water Conservation.

ASS information presented in the Lotsearch report (attached in the appendices) indicated that the site is located within a Class 5 area. Works in Class 5 areas that could pose an environmental risk in terms of ASS include works within 500m of adjacent Class 1,2,3,4 land which are likely to lower the water table below 1m AHD on the adjacent Class 1,2,3,4 land. A Class 1 area is within 500m of the site (397m).

3.3 Hydrogeology

Hydrogeological information presented in the Lotsearch report (attached in the appendices) indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive highly productive aquifers. There was a total of 50 registered bores within the report buffer of 2,000m. In summary:

- The nearest registered bore was located approximately 651m from the site. This was utilised for unknown purposes;
- The majority of the bores were registered for monitoring, irrigation or stock purposes;
- There were no nearby bores (i.e. within 700m) registered for domestic or irrigation uses; and
- The drillers log information from the closest registered bores typically identified fill and/or clay and gravels to depths of 6.0->15.7m, underlain by shale and sandstone bedrock. Standing water levels (SWLs) in the bores ranged from 0.3mBGL to 10.0mBGL.

The information reviewed for this assessment indicated that the subsurface conditions at the site are expected to consist of moderate to high permeability (alluvial) soils overlying bedrock of varying depths. Abstraction and use of groundwater at the site or in the immediate surrounds may be viable under these conditions, however the use of groundwater is not proposed as part of the development.

Considering the local topography and surrounding land features, EIS would generally expect groundwater to flow towards the south-east.

3.4 Receiving Water Bodies

Surface water bodies were not identified in the immediate vicinity of the site. The closest surface water body is Manning River located approximately 800m to the south-east of the site. This is down-gradient from site, however due to the distance is not considered to be a potential receptor.

4 SITE HISTORY INFORMATION

4.1 Review of Historical Aerial Photographs

Historical aerial photographs were included in the Lotsearch report (attached in the appendices). EIS has reviewed the photographs and summarised relevant information in the following table:

Table 4-1: Summary of Historical Aerial Photographs

Year	Details
1940	Three large structures were visible in the centre and southern parts of the site. The site surface in the northern half and areas around the structures appeared to be grass covered. A smaller structure was observed on the northern boundary, and what appeared to be a fence line between No.83 and No.85 was visible. The surrounding land use appeared to be low density residential and the existing church (Our Lady of the Rosary), was visible to the north-east of the site.
1969	The structure located in the south-west corner (No.85 Albert Street) was no longer visible and a new structure was observed set further back from Albert Street on the same Lot. The ground surface at the northern end of Lots 21 and 22 appeared to be paved (the photograph was of poor quality). More (residential) structures were visible on the surrounding properties of the site, otherwise the surrounding land use appeared similar to the 1940 aerial photograph.
1979	A new structure was visible along the northern boundary of the site. The surrounding land use appeared similar to the 1969 aerial photograph.
1989	The site and surrounding land use appeared similar to the 1979 aerial photograph.
1997	Several new structures were visible along the central western boundary of the site. The surrounding land use appeared similar to the 1989 aerial photograph.
2005	The site and surrounding land use appeared similar to the 1997 aerial photograph.
2011	A new building was visible with Albert Street frontage located in the centre of the southern boundary (new court house). The surrounding land use appeared similar to the 2005 aerial photograph.
2012	The site and surrounding land use appeared similar to the 2011 aerial photograph.

4.2 Review of Historical Land Title Records

Historical land title records were reviewed for the assessment. The record search was undertaken by Advance Legal Searchers Pty Ltd. Copies of the title records are attached in the appendices. The title records indicate the following:

- Between 1864 and 1873 an individual owned the two outside Lots within the site (Lot 21 and 23);
- The same individual owned the centre Lot (Lot 22) during 1864; and

- Her Most Gracious Majesty Queen Victoria has been the proprietor of all three Lots since the mid to late 1800s.

The historical land title records did not identify any particular land uses which could have resulted in significant contamination.

4.3 SafeWork NSW Records

SafeWork NSW records were reviewed for one Lot within the site (Lot 22) for the assessment. Copies of relevant documents are attached in the appendices. A summary of the relevant information is provided in the following table:

Table 4-2: Summary of SafeWork NSW Records

Date	Record Number	License Details
21/1/1997	35/007256	15,000L petrol storage tank

Included with the above licence was a letter from Gilbarco Aust Ltd and Taree Patrol confirming abandonment of the petrol UST, via filling with an inert solid material, sand or concrete, dated 21 May 1997.

Also included was a letter from the Local Area Commander indicating that all liquid was pumped out of the tank prior to filling with sand. All service pipes, including fill, supply, dip and vent lines were also removed, and the tank remains in-situ (dated 29 September 1997).

4.4 NSW EPA Records

The Lotsearch report (attached in the appendices) included information from the NSW EPA databases for the following:

- Records maintained in relation to contaminated land under Section 58 of the CLM Act 1997;
- Records of sites notified in accordance with the Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[10]; and
- Licensed activities under the Protection of the Environment Operations Act (1997)[11].

The search included the site area and surrounding areas in the report buffer of 1,000m. The search indicated the following:

- There were no records for the site under Section 58 of the CLM Act 1997. There were records for three properties (the Caltex Service Station, the footpath in front of the former BP Service Station and the Former Caltex Depot), within the report buffer under Section 58 of the CLM Act

[10] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.* (referred to as Duty to Report Contamination)

[11] Protection of the Environment Operations Act 1997 (NSW) (referred to as POEO Act 1997)

1997. These properties are considered unlikely to pose a contamination risk to the site due to the distance and topography;

- Neither the site nor any properties within the report buffer have been notified with regards to the Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997; and
- There were no records for licenced activities at the site under the POEO Act 1997. Current and historical licenses were identified for several properties within the report buffer, including waterways and railway systems activities, however these activities are considered unlikely to pose a contamination risk to the site.

4.5 Historical Business Directory and Additional Lotsearch Information

Historical business records for the site and surrounding areas in the report buffer were included in the Lotsearch report (attached in the appendices). The records indicated the following:

- There were 58 motor mechanics businesses registered within the report buffer during the 1950s, 1960s, 1970s and 1980s. All these businesses were located over 130m from the site. The closest up-gradient businesses were over 250m from the site; and
- There were nine dry cleaner businesses registered within the report buffer during the 1950s, 1960s, 1970s and 1980s. The closest of these businesses was located approximately 180m up-gradient of the site.

EIS are of the opinion that the historical dry cleaner businesses within a few hundred metres of the site may represent potential off-site sources of site contamination

In addition to the above, EIS have reviewed additional information contained within the Lotsearch report and note the following:

- There were no state heritage items at the site or in the immediate surrounds; and
- There were no significant ecological constraints at the site or in the immediate surrounds.

4.6 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the table below. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by EIS.

Table 4-3: Summary of Historical Land Uses

Year(s)	Potential Land Use / Activities
Pre-1940	Potential filling of the site for construction of buildings and structures.
1940-1969	Demolition of structures and potential filling of the western Lot for construction of new building.
1997	Abandonment of petrol UST in situ through filling with sand. Located in the western corner of the site.

Year(s)	Potential Land Use / Activities
2005 to 2011	Demolition of structure and potential filling of the central southern area of the site for construction of new building.

4.7 Integrity of Site History Information

The majority of the site history information was obtained from government organisations as outlined in the relevant sections of this report. The veracity of the information from these sources is considered to be relatively high. A certain degree of information loss can be expected given the lack of specific land use details over time. EIS have relied upon the Lotsearch report and have not independently verified any information contained within. However, it is noted that the Lotsearch report is generated based on databases maintained by various government agencies and is expected to be reliable.

5 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 10.

5.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 5-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site may have been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated.	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Fuel storage – At least one UST was identified to have been present at the site (see Figure 2). Vent pipes and a concrete base where the bowser had been present were observed. A NSW Police representative informed EIS that it was likely the UST had been used to store leaded petrol and was decommissioned (unsure of method) in the late 1990's. Safework search results confirmed the UST had been filled with sand and abandoned in-situ.	Lead, TRH, BTEX and PAHs
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials may also be present in the existing buildings/ structures on site. EIS were provided a copy of the existing Hazardous Materials Survey Report dated November 2016.	Asbestos, lead and PCBs

Source / AEC	CoPC
Off-site area 1 – Several historical dry cleaner businesses were identified as being located up-gradient of the site and within a few hundred metres. These are considered to be a potential source of contamination.	SEPP 55 Appendix A identifies dry cleaning to be associated with these listed chemicals. Due to the preliminary nature of these works, not all of these CoPC have been analysed for at this time. If off-site contamination from historical dry cleaners has migrated onto the site then the associated CoPC would include: TRHs and VOCs, including tetrachloroethene (also known as perchloroethylene - PCE) and the breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC).

5.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 5-2: CSM

Potential mechanism for contamination	The mechanisms for contamination from off-site sources could have occurred via 'top down' impacts and spills, or sub-surface release. Impacts to the site could occur via the migration of contaminated groundwater.
Affected media	Soil/soil vapour and groundwater have been identified as potentially affected media.
Receptor identification	Human receptors include site occupants/users (including adults and children), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users, groundwater users and recreational water users within Manning River. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas), and freshwater ecology in Manning River.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary contact and ingestion.

	Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings. Exposure to groundwater is unlikely to occur in the Manning River through direct migration, however groundwater has the potential to enter the river via the stormwater system (which is expected to discharge into the river).
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed basement and/or building (either from soil contamination or volatilisation of contaminants from groundwater); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; • Migration of groundwater off-site and into nearby water bodies, including aquatic ecosystems and those being used for recreation; and • Migration of groundwater off-site into areas where groundwater is being utilised as a resource (i.e. for irrigation).
Presence of preferential pathways for contaminant movement	The stormwater infrastructure may act as preferential pathways for contaminant migration. This would be dependent on the contaminant type and transport mechanisms.

6 SAMPLING, ANALYSIS AND QUALITY PLAN

6.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013) and the Guidelines for the NSW Site Auditor Scheme, 3rd Edition (2017)[12]. The seven-step DQO approach for this project is outlined in the following sub-sections.

The DQO process is validated in part by the Data Quality Assurance/Quality Control (QA/QC) Evaluation. The Data (QA/QC) Evaluation is summarised in Section 8.1 and the detailed evaluation is provided in the appendices.

6.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. Investigation data is required to assess the contamination status of the site, assess the risks posed by the contaminants in the context of the proposed development/intended land use, and assess whether remediation is required. A waste classification is required prior to off-site disposal of excavated soil/bedrock.

6.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the assessment are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?
- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- Is there a requirement for remediation or further investigation?
- Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

6.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Existing relevant environmental data from previous reports;
- Site information, including site observations and site history documentation;
- Sampling of potentially affected media, including soil and a fibre cement fragment;

[12] NSW EPA (2017). *Guidelines for the NSW Site Auditor Scheme, 3rd ed.* (referred to as Site Auditor Guidelines 2017)

- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining;
- Laboratory analysis of soils, and fibre cement for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

6.1.4 Step 4 - Define the Study Boundary

The sampling will be confined to the site boundaries as shown in Figure 2 (spatial boundary). The sampling was completed between 9 and 10 April 2018 (temporal boundary). The assessment of potential risk to adjacent land users has been made based on data collected within the site boundary.

Sampling was not undertaken within the existing building footprint due to access constraints.

6.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

6.1.5.1 Tier 1 Screening Criteria

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 7. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid SPR-linkages.

For this assessment, the individual results have been assessed as either above or below the SAC. Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values has not been undertaken due to the spatial distribution of the data and the number of samples submitted for analysis.

6.1.5.2 Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the attached laboratory reports. These criteria were developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, EIS typically adopt the most conservative concentration reported (or in some cases, consider the data from the affected sample as an estimate).

6.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

6.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For this assessment, the null hypothesis has been adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis has been adopted for this assessment.

6.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the assessment objectives. Adjustment of the assessment design can occur following consultation or feedback from project stakeholders. For this investigation, the design was optimised via consideration of the various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data were collected.

The sampling plan and methodology are outlined in the following sub-sections.

6.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology adopted for this assessment is outlined in the table below:

Table 6-1: Soil Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples were collected from five locations as shown on the attached Figure 2. Based on the site area (~4,200m^2), this number of locations corresponded to a sampling density of approximately one sample per 840m^2. The sampling plan was not designed to meet the minimum sampling density for hotspot identification, as outlined in the NSW EPA Contaminated Sites Sampling Design Guidelines (1995)[13].

[13] NSW EPA, (1995), *Contaminated Sites Sampling Design Guidelines.* (referred to as EPA Sampling Design Guidelines 1995)

Aspect	Input
Sampling Plan	The sampling locations were placed on a judgemental sampling plan and were broadly positioned for site coverage, taking into consideration areas that were not easily accessible. This sampling plan was considered suitable to make a preliminary assessment of potential risks associated with the AEC and CoPC identified in the CSM, and assess whether further investigation is warranted.
Set-out and Sampling Equipment	Sampling locations were set out using a hand held GPS unit (with an accuracy of ±2m). In-situ sampling locations were cleared for underground services by an external contractor prior to sampling as outlined in the SSP. Samples were collected using a drill rig equipped with spiral flight augers. Soil samples were obtained from a Standard Penetration Test (SPT) split-spoon sampler, or directly from the auger when conditions did not allow use of the SPT sampler.
Sample Collection and Field QA/QC	Soil samples were obtained on 9 April 2018 in accordance with the standard sampling procedure (SSP) attached in the appendices. Soil samples were collected from the fill and natural profiles based on field observations. The sample depths are shown on the logs attached in the appendices. Samples were placed in glass jars with plastic caps and teflon seals with minimal headspace. Samples for asbestos analysis were placed in zip-lock plastic bags.
Field Screening	A portable Photoionisation Detector (PID) fitted with a 10.6mV lamp was used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs was undertaken on soil samples using the soil sample headspace method. VOC data was obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records are maintained on file by EIS. Fill/spoil at the sampling locations was visually inspected during the works for the presence of fibre cement fragments.
Decontami-nation and Sample Preservation	Sampling personnel used disposable nitrile gloves during sampling activities. Soil samples were preserved by immediate storage in an insulated sample container with ice in accordance with the SSP. On completion of the fieldwork, the samples were stored temporarily in fridges in the EIS warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

6.3 Analytical Schedule

The analytical schedule is outlined in the following table:

Table 6-2: Analytical Schedule

Analyte/CoPC	Fill Samples	Natural Soil Samples	Fibre Cement Material Samples
Heavy Metals	6	2	-
TRH/BTEX	6	2	-
PAHs	6	2	-
OCPs/OPPs	5	0	-
PCBs	5	0	-
Asbestos	6	0	1

6.3.1 Laboratory Analysis

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

Table 6-3: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	189314

7 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

7.1 Soil

Soil data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

7.1.1 Human Health

- Health Investigation Levels (HILs) for a 'commercial/industrial' land use exposure scenario (HIL-D);
- Health Screening Levels (HSLs) for a 'commercial/industrial' land use exposure scenario (HSL-D). HSLs were calculated based on the soil type and the depth of the sample from the existing ground surface as the proposed building floor level is expected to be constructed approximately at the existing grade;
- Where exceedances of the HSLs were reported for hydrocarbons (TRH/BTEX and naphthalene), the soil health screening levels for direct contact presented in the CRC Care Technical Report No. 10 – Heath screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[14] were considered; and
- Asbestos was assessed on the basis of presence/absence. Asbestos HSLs were not adopted as detailed asbestos quantification was not undertaken.

7.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an 'commercial/industrial' land use exposure scenario. These have only been applied to the top 2m of soil as outlined in NEPM (2013). The criteria for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the information presented in the CRC Care Technical Report No. 39 – Risk-based management and guidance for benzo(a)pyrene (2017)[15];
- ESLs were calculated based on the soil type. EILs for selected metals were calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the

[14] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[15] CRC Care, (2011). *Technical Report No. 39 - Risk-based management and guidance for benzo(a)pyrene*

document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[16]. This method is considered to be adequate for the Tier 1 screening.

7.1.3 Waste Classification

Data for the waste classification assessment were assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[17] as outlined in the following table:

Table 7-1: Waste Categories

Category	Description
General Solid Waste (non-putrescible)	• If Specific Contaminant Concentration (SCC) ≤ Contaminant Threshold (CT1) then Toxicity Characteristics Leaching Procedure (TCLP) not needed to classify the soil as general solid waste; and • If TCLP ≤ TCLP1 and SCC ≤ SCC1 then treat as general solid waste.
Restricted Solid Waste (non-putrescible)	• If SCC ≤ CT2 then TCLP not needed to classify the soil as restricted solid waste; and • If TCLP ≤ TCLP2 and SCC ≤ SCC2 then treat as restricted solid waste.
Hazardous Waste	• If SCC > CT2 then TCLP not needed to classify the soil as hazardous waste; and • If TCLP > TCLP2 and/or SCC > SCC2 then treat as hazardous waste.
Virgin Excavated Natural Material (VENM)	Natural material (such as clay, gravel, sand, soil or rock fines) that meet the following: • That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial mining or agricultural activities; • That does not contain sulfidic ores or other waste; and • Includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette.

[16] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission.

[17] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

8 RESULTS

8.1 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, EIS are of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

8.2 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the table below. Reference should be made to the borehole logs attached in the appendices for further details.

Table 8-1: Summary of Subsurface Conditions

Profile	Description
Pavement	Asphaltic Concrete (AC)/Concrete pavement was encountered at the surface in all boreholes and ranged in thickness between 16mm and 130mm.
Fill	Fill was encountered beneath the pavement in all boreholes and extended to depths of approximately 0.2m to 4.5m. The fill typically comprised clayey sand, gravel, sandy gravel, clayey gravelly sand, silty sandy clay, gravelly sand, silty clayey sand and clayey gravel with inclusions of igneous gravel, sandstone gravel, sand and ash. Hydrocarbon odours were observed in BH3 from 1.2m and continued throughout the fill profile to a depth of 4.5m. Olfactory odours or visible staining was not observed in any other boreholes.
Natural Soil	With the exception of BH3, sandy clay or silty clay natural soils were encountered beneath the fill material and extended to depths of 0.45m to 5.1m. No olfactory odours or visible staining were observed in the natural soils during the fieldwork.
Bedrock	Sandstone bedrock was encountered beneath the natural soils in all boreholes.
Groundwater	Groundwater seepage was encountered in BH5 at a depth of 1.4m during drilling. A standing water level was measured at 0.9m in BH5 and 1.6m in BH4 on completion of drilling or a short time after.

8.3 Field Screening

PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. The results ranged from 0ppm to 523ppm equivalent isobutylene. These results indicate significant PID detectable VOCs.

8.4 Soil Laboratory Results

The soil laboratory results are compared to the relevant SAC in the attached report tables. A summary of the results assessed against the SAC is presented below:

8.4.1 Human Health and Environmental (Ecological) Assessment

Table 8-2: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	Results Compared to SAC
Heavy Metals	All heavy metals results were below the SAC.
TRH	All TRH results were below the SAC.
BTEX	All BTEX results were below the SAC.
PAHs	All PAH and carcinogenic PAH results were below the SAC.
OCPs and OPPs	All OCP and OPP results were below the SAC. All pesticide concentrations were below the laboratory PQLs.
PCBs	All PCB results were below the SAC. All PCB concentrations were below the laboratory PQLs.
Asbestos	Asbestos was detected in the representative fragment of fibre cement analysed (KTSF1) Asbestos was not detected in any of the soil samples analysed for the investigation.

8.4.2 Waste Classification Assessment

The laboratory results were assessed against the criteria presented in Part 1 of the Waste Classification Guidelines, as summarised previously in this report. The results are presented in the report tables attached in the appendices. A summary of the results is presented below.

Table 8-3: Summary of Soil Laboratory Results Compared to CT and SCC Criteria

Analyte	No. of Samples Analysed	No. of Results > CT Criteria	No. of Results > SCC Criteria	Comments
Heavy Metals	8	0	-	All heavy metals were below the relative CT1 criteria.
TRH	8	0	-	-
BTEX	8	0	-	-

Analyte	No. of Samples Analysed	No. of Results > CT Criteria	No. of Results > SCC Criteria	Comments
Total PAHs	8	0	-	-
Benzo(a)pyrene	8	0	-	-
OCPs & OPPs	5	0	-	-
PCBs	5	0	-	-
Asbestos in soil	8	-	-	Asbestos was not detected in the soil samples analysed.
Asbestos in fibre cement	1	-	-	Asbestos was detected in the representative sample analysed.

9 WASTE CLASSIFICATION ASSESSMENT

FCF identified on the surface of the site during the field work is considered to be associated with the (asbestos) fibre cement clad structures located at the site. EIS are of the opinion that the FCF identified on the site surface is unlikely to be associated with imported fill as there were no other building and demolition inclusions noted in the fill during the field work.

Prior to the excavation of any material from the site for offsite disposal, the following is recommended:

1. Prior to demolition of site structures, an emu-bob for removal of FCF should be undertaken across the site by a suitably licenced asbestos contractor and all FCF disposed of to a NSW EPA licenced facility; and
2. Following demolition of site structures and the emu-bob removal a surface clearance should be undertaken by a SafeWork NSW licenced asbestos assessor. This will form part of the waste classification.

9.1 Waste Classification of Fill

Provided that a surface asbestos clearance of the site is obtained, based on the results of the assessment at the time of reporting, the fill material is classified as **General Solid Waste (non-putrescible)**. Surplus fill should be disposed of to a facility that is appropriately licensed to receive this waste stream. The facility should be contacted to obtain the required approvals prior to commencement of excavation.

9.2 Classification of Natural Soil and Bedrock

Based on the scope of work undertaken for this assessment, and at the time of reporting, EIS are of the opinion that the natural soil and bedrock at the site meets the definition of **VENM** for off-site disposal or re-use purposes. VENM is considered suitable for re-use on-site, or alternatively, the information included in this report may be used to assess whether the material is suitable for beneficial reuse at another site as fill material. In accordance with Part 1 of the Waste Classification Guidelines, the VENM is pre-classified as general solid waste and can also be disposed of accordingly to a facility that is licensed to accept it.

10 DISCUSSION AND CONCLUSIONS

10.1 Summary of Site Contamination

The assessment has identified the following issues associated with the AEC identified at the site.

10.2 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

10.2.1 Soils

Elevated concentrations of CoPC were not encountered above the adopted SAC in any of the soil samples analysed.

10.2.2 Asbestos in Fibre Cement Fragments

Fibre cement fragments (FCF) were encountered on the surface of the site in areas of exposed fill soils mainly in the western areas surrounding the forensics building and driveway (see Figure 2). The source of this FCF is considered unlikely to be associated with imported fill as there were no other building and demolition inclusions noted during the field work. None of the fragments could be broken by hand pressure, therefore the material is considered to be in the bonded form.

10.3 Data Gaps

The assessment has identified the following data gaps:

- The location of the UST and any residual contamination associated with it has not been fully assessed;
- The minimum sampling density for a Stage 2 Environmental Site Assessment has not been met. The investigation was designed as a preliminary screening;
- Groundwater at the site has not been assessed. and
- Areas beneath the existing buildings have not been included in the assessment.

10.4 Decision Statements

The decision statements are addressed on the next page:

Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?

The historical assessment of the site identified the potential for filling of the site and demolition of site structures to have occurred. SafeWork records indicated the presence of an abandoned UST in the vicinity of the Highway Patrol Building at the rear of the site. The (former) presence of a UST in this vicinity was supported by olfactory odours observed during the fieldwork. Fibre cement fragments were encountered on the site surface during the site inspection.

Are any results above the SAC?

The representative sample of surficial FCF was found to contain asbestos. None of the soil results were above the SAC.

Do potential risks associated with contamination exist, and if so, what are they?

Yes, there is a human health risk from the surficial asbestos containing FCF identified at the site. There is potential for residual soil contamination to be present in the vicinity of the abandoned UST. EIS note that the contamination screening was undertaken from only five locations. This was 38% of the minimum density recommended by the NSW EPA. Areas beneath the existing structures have not been included in the assessment and several of the existing site structures are of an age indicative of containing hazardous building materials (asbestos cement cladding etc).

Is there a requirement for remediation or further investigation?

Further investigation is considered necessary. Based on the current data the site surface will need to be cleared of FCF and the location of the UST should be confirmed.

Is the investigation area suitable for the proposed development, or can the investigation area be made suitable subject to further characterisation and/or remediation?

EIS are of the opinion that the site can be made suitable for the proposed development outlined in Section 1.1, subject to the implementation of the recommendations outlined in Section 11.

11 CONCLUSIONS AND RECOMMENDATIONS

EIS consider that the report objectives outlined in Section 1.2 have been addressed.

Based on the scope of works undertaken, EIS are of the opinion that the CoPC identified at the site pose a low risk to the receptors.

EIS consider that this report meets the requirement for a Phase 1 investigation under SEPP55. EIS are of the opinion that the site can be made suitable for the proposed development provided that the following recommendations are implemented to address the data gaps and to minimise/better manage/characterise the risks:

1. Undertake a Ground Penetrating Radar (GPR) survey to identify the location and orientation of the abandoned UST;
2. Conduct an emu-bob for removal of FCF across the site by a suitably licenced asbestos contractor. All FCF disposed of to a NSW EPA licenced facility. Following removal a surface clearance should be undertaken by a SafeWork NSW licenced asbestos assessor. This should be undertaken following demolition of the site structures. This will provide a safe working environment for site personnel and form part of the waste classification;
3. When the site becomes fully accessible (ie after demolition) undertake a Stage 2 ESA including groundwater analysis to address the data gaps identified in Section 10.3. An inspection of the site surface should be undertaken in the footprint of the existing site structures following demolition. The assessment should include sampling and analysis at a minimum of four locations (one on each side) around the UST to assess for any residual soil contamination. The assessment should also include the analysis of some soil samples to confirm the absence of acid sulfate soil.

In the event unexpected conditions are encountered during development work or between sampling locations that may pose a contamination risk, all works should stop and an environmental consultant should be engaged to inspect the site and address the issue.

11.1 Regulatory Requirement

The regulatory requirements applicable for the site are outlined in the following table:

Table 11-1: Regulatory Requirement

Guideline	Applicability
Duty to Report Contamination 2015[18]	Please note that in the event the recommendations for additional work and remediation/management are not undertaken, there may be justification to notify the EPA. EIS can be contacted for further advice regarding notification.

[18] NSW Department of Environment and Climate Change, (2015). *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997.* (referred to as Duty to Report Contamination 2015)

Guideline	Applicability
POEO Act 1997	Section 143 of the POEO Act 1997 states that if waste is transported to a place that cannot lawfully be used as a waste facility for that waste, then the transporter and owner of the waste are each guilty of an offence. The transporter and owner of the waste have a duty to ensure that the waste is disposed of in an appropriate manner.
Work Health and Safety Code of Practice 2011[19]	Sites contaminated with asbestos become a 'workplace' when work is carried out there and require a register and asbestos management plan.

[19] WorkCover NSW, (2011), *WHS Regulation: Code of Practice – How to Manage and Control Asbestos in the Workplace.*

12 LIMITATIONS

The report limitations are outlined below:

- EIS accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the EIS proposal; and terms of contract between EIS and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, EIS has not undertaken any verification process, except where specifically stated in the report;
- EIS has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- EIS accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- EIS have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or landuse. EIS should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

LIST OF IN-TEXT TABLES

IMPORTANT INFORMATION ABOUT THIS REPORT

These notes have been prepared by EIS to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors
This report has been prepared in response to specific project requirements as stated in the EIS proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

EIS/J&K will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the assessment. If the subject site is sold, ownership of the assessment report should be transferred by EIS to the new site owners who will be informed of the conditions and limitations under which the assessment was undertaken. No person should apply an assessment for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions
Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an assessment report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data
Site assessments identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Assessment Limitations
Although information provided by a site assessment can reduce exposure to the risk of the presence of contamination, no environmental site assessment can eliminate the risk. Even a rigorous professional assessment may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Assessments by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an assessment report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Assessment Report

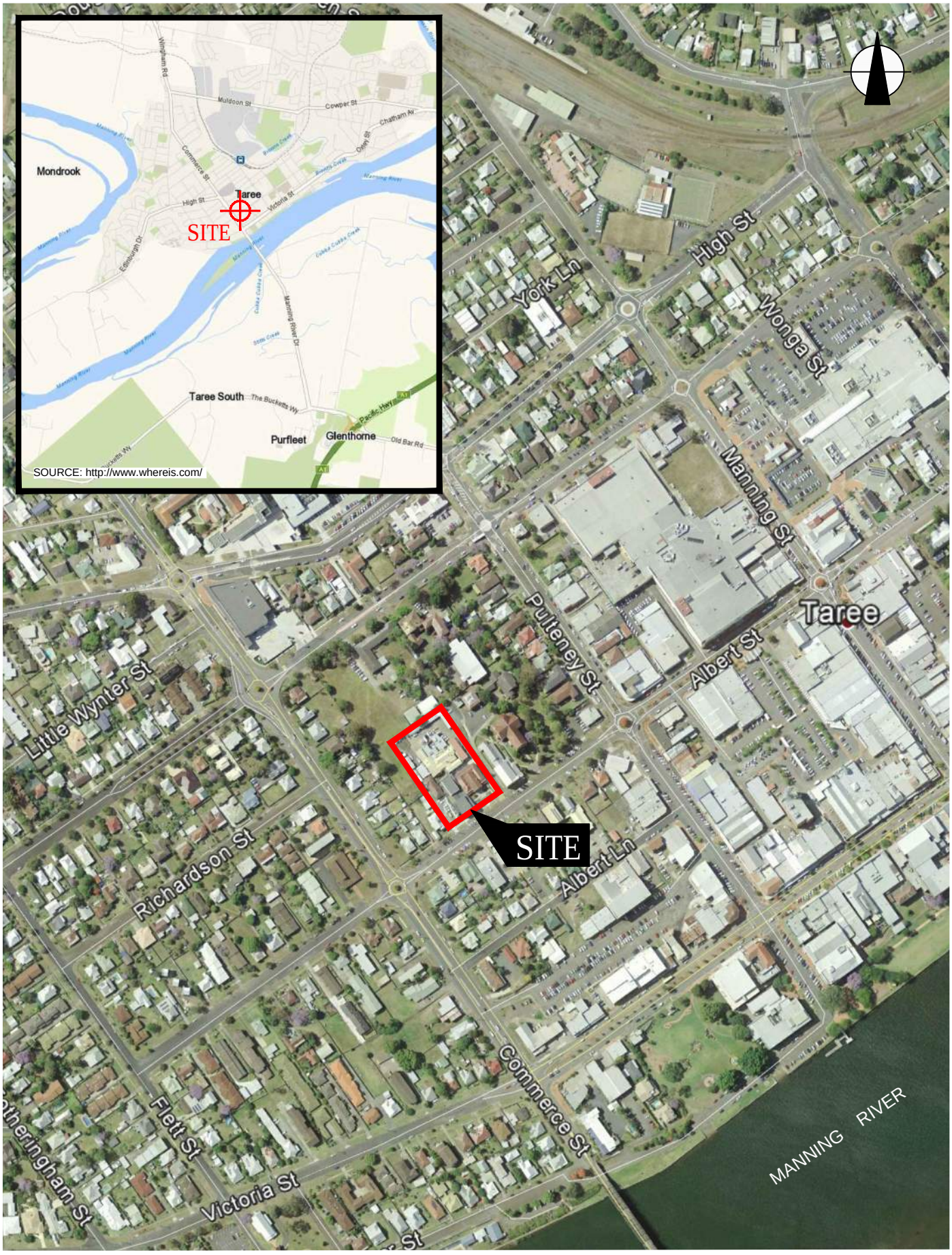
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the assessment. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the assessment. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete assessment should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site assessment is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site assessment, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

REPORT FIGURES



AERIAL IMAGE SOURCE: GOOGLE EARTH PRO 7.1.5.1557
AERIAL IMAGE ©: 2015 GOOGLE INC.

This plan should be read in conjunction with the EIS report.

Title: **SITE LOCATION PLAN**

Location: TAREE POLICE STATION
79 ALBERT STREET, TAREE, NSW

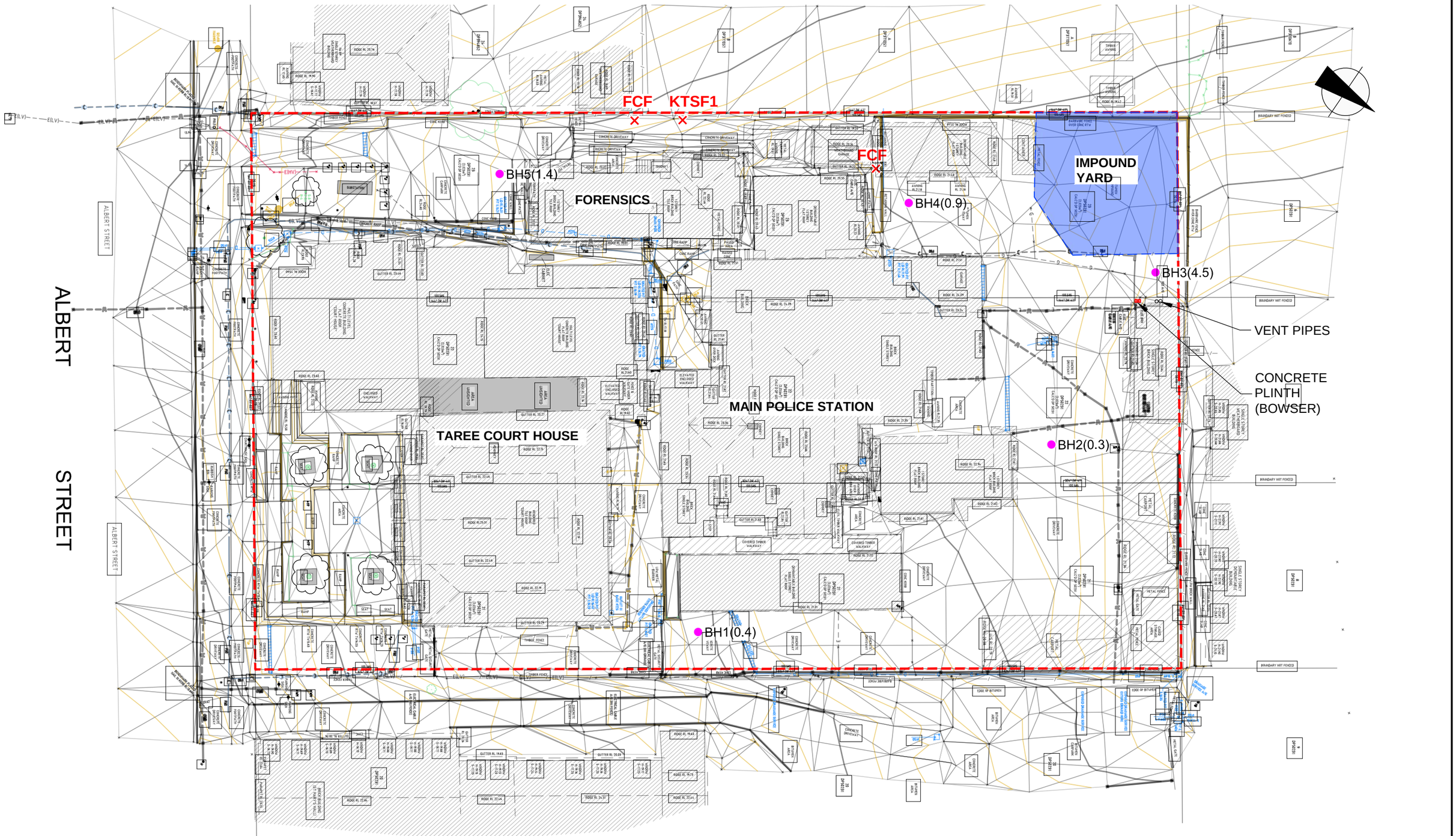
Report No: E31340K

Figure No: 1

ENVIRONMENTAL INVESTIGATION SERVICES

EIS

PLOT DATE: 1/05/2018 10:06:13 AM DWG FILE: S:\5 EIS\5C EIS JOBS\31000'S\E31340K TAREE\CAD\E31340K.DWG



LEGEND

- APPROXIMATE SITE BOUNDARY
- BH (Fill Depth) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
- FCF SURFACE SAMPLE (SS) - FIBRE CEMENT FRAGMENT (FCF)

0 4 8 12 16 20
SCALE 1:400 @A3 METRES

This plan should be read in conjunction with the EIS report.

Title: **SAMPLE LOCATION PLAN**

Location: TAREE POLICE STATION
79 ALBERT STREET, TAREE, NSW

Report No: E31340K

Figure No: 2

ENVIRONMENTAL INVESTIGATION SERVICES

EIS

PLOT DATE: 1/05/2018 10:53:31 AM DWG FILE: S:\5 EIS\5C EIS JOBS\31000`S\E31340K TAREE\CADE31340K.DWG

LABORATORY SUMMARY TABLES

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC: Ambient Background Concentration
ACM: Asbestos Containing Material
ADWG: AustralianDrinking Water Guidelines
AF: Asbestos Fines
ANZECC: Australian and New Zealand Environment Conservation Council
B(a)P: Benzo(a)pyrene
CEC: Cation Exchange Capacity
CRC: Cooperative Research Centre
CT: Contaminant Threshold
EILs: Ecological Investigation Levels
ESLs: Ecological Screening Levels
FA: Fibrous Asbestos
GIL: Groundwater Investigation Levels
HILs: Health Investigation Levels
HSLs: Health Screening Levels
HSL-SSA: Health Screening Level-SiteSpecific Assessment
NA: Not Analysed
NC: Not Calculated
NEPM: National Environmental Protection Measure
NHMRC: National Health and Medical Research Council
NL: Not Limiting
NSL: No Set Limit
OCP: Organochlorine Pesticides
OPP: Organophosphorus Pesticides
PAHs: Polycyclic Aromatic Hydrocarbons
ppm: Parts per million
PCBs: Polychlorinated Biphenyls
PCE: Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
pH_{KCL} : pH of filtered 1:20, 1M KCL extract, shaken overnight
pH_{ox} : pH of filtered 1:20 1M KCl after peroxide digestion
PQL: Practical Quantitation Limit
RS: Rinsate Sample
RSL: Regional Screening Levels
SAC: Site Assessment Criteria
SCC: Specific Contaminant Concentration
S_{Cr}: Chromium reducible sulfur
S_{POS}: Peroxide oxidisable Sulfur
SSA: Site Specific Assessment
SSHSLs: Site Specific Health Screening Levels
TAA: Total Actual Acidity in 1M KCL extract titrated to pH6.5
TB: Trip Blank
TCA: 1,1,1 Trichloroethane (methyl chloroform)
TCE: Trichloroethylene (Trichloroethene)
TCLP: Toxicity Characteristics Leaching Procedure
TPA: Total Potential Acidity, 1M KCL peroxide digest
TS: Trip Spike
TRH: Total Recoverable Hydrocarbons
TSA: Total Sulfide Acidity (TPA-TAA)
UCL: Upper Level Confidence Limit on Mean Value
USEPA United States Environmental Protection Agei
VOCC: Volatile Organic Chlorinated Compounds
WHO: World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

TABLE A
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013, HIL-D: 'Commercial/Industrial'
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			3000	900	3600	240000	1500	730	6000	400000	4000	40	80	2000	2500	45	530	3600	50	2000	7	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0.1-0.2	Fill:Clayey sand	<4	<0.4	6	39	6	<0.1	11	56	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	0.2-0.3	Fill: gravel	<4	<0.4	19	19	9	<0.1	6	38	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	1.2-1.4	Fill: silty sandy clay	<4	<0.4	5	10	8	<0.1	3	49	2.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	3.6-4.0	Fill: silty clayey sand	<4	<0.4	6	13	7	<0.1	4	64	<0.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4	0.5-0.8	Fill: sandy gravel	4	<0.4	7	35	13	<0.1	8	65	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH4	1.0-1.2	Silty clay	<4	<0.4	8	12	7	<0.1	3	20	<0.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH5	0.2-0.3	Fill: clayey gravel	<4	<0.4	20	21	9	<0.1	10	41	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH5	2.0-2.2	Silty clay	<4	<0.4	16	29	21	<0.1	6	53	<0.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples			8	8	8	8	8	8	8	8	8	8	5	5	5	5	5	5	5	5	5	5
Maximum Value			4	<PQL	20	39	21	<PQL	11	65	2.6	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	NC

Concentration above the SAC **VALUE**

TABLE B
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	$>C_{10}$-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	3	1	ppm
NEPM 2013 HSL Land Use Category					**HSL-D: COMMERCIAL/INDUSTRIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0.1-0.2	Fill:Clayey sand	0m to < 1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<0.1	-
BH2	0.2-0.3	Fill: gravel	0m to < 1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<0.1	-
BH3	1.2-1.4	Fill: silty sandy clay	1m to <2m	Clay	58	100	<0.2	<0.5	1	11	2.6	523
BH3	3.6-4.0	Fill: silty clayey sand	2m to <4m	Sand	<25	<50	<0.2	<0.5	<1	<1	<0.1	128
BH4	0.5-0.8	Fill: sandy gravel	0m to < 1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<0.1	0.8
BH4	1.0-1.2	Silty clay	1m to <2m	Clay	<25	<50	<0.2	<0.5	<1	<1	<0.1	0.4
BH5	0.2-0.3	Fill: clayey gravel	0m to < 1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<0.1	0.4
BH5	2.0-2.2	Silty clay	2m to <4m	Clay	<25	<50	<0.2	<0.5	<1	<1	<0.1	0.5
Total Number of Samples					8	8	8	8	8	8	8	6
Maximum Value					58	100	<PQL	<PQL	1	11	2.6	523

Concentration above the SAC **VALUE**

The guideline corresponding to the elevated value is highlighted in grey in the Site Assessment Criteria Table below

SITE ASSESSMENT CRITERIA

					C_6-C_{10} (F1)	$>C_{10}$-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
PQL - Envirolab Services					25	50	0.2	0.5	1	3	1
NEPM 2013 HSL Land Use Category					**HSL-D: COMMERCIAL/INDUSTRIAL**						
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**							
BH1	0.1-0.2	Fill:Clayey sand	0m to < 1m	Sand	260	NL	3	NL	NL	230	NL
BH2	0.2-0.3	Fill: gravel	0m to < 1m	Sand	260	NL	3	NL	NL	230	NL
BH3	1.2-1.4	Fill: silty sandy clay	1m to <2m	Clay	480	NL	6	NL	NL	NL	NL
BH3	3.6-4.0	Fill: silty clayey sand	2m to <4m	Sand	630	NL	3	NL	NL	NL	NL
BH4	0.5-0.8	Fill: sandy gravel	0m to < 1m	Sand	260	NL	3	NL	NL	230	NL
BH4	1.0-1.2	Silty clay	1m to <2m	Clay	480	NL	6	NL	NL	NL	NL
BH5	0.2-0.3	Fill: clayey gravel	0m to < 1m	Sand	260	NL	3	NL	NL	230	NL
BH5	2.0-2.2	Silty clay	2m to <4m	Clay	NL	NL	9	NL	NL	NL	NL

TABLE C
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				COMMERCIAL/INDUSTRIAL																	
							AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC ($cmol_c/kg$)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	0.1	0.1	25	50	100	100	0.2	0.5	1	3	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																				
BH1	0.1-0.2	Fill:Clayey sand	Coarse	NA	NA	NA	<4	6	39	6	11	56	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH2	0.2-0.3	Fill: gravel	Coarse	NA	NA	NA	<4	19	19	9	6	38	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	1.2-1.4	Fill: silty sandy clay	Fine	NA	NA	NA	<4	5	10	8	3	49	2.6	<0.1	58	100	<100	<100	<0.2	<0.5	1	11	<0.05
BH3	3.6-4.0	Fill: silty clayey sand	Coarse	NA	NA	NA	<4	6	13	7	4	64	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH4	0.5-0.8	Fill: sandy gravel	Coarse	NA	NA	NA	4	7	35	13	8	65	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH4	1.0-1.2	Silty clay	Fine	NA	NA	NA	<4	8	12	7	3	20	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0.2-0.3	Fill: clayey gravel	Coarse	NA	NA	NA	<4	20	21	9	10	41	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	2.0-2.2	Silty clay	Fine	NA	NA	NA	<4	16	29	21	6	53	<0.1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
Total Number of Samples				0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Maximum Value				<PQL	<PQL	<PQL	4	20	39	21	11	65	2.6	<PQL	58	100	<PQL	<PQL	<PQL	<PQL	1	11	<PQL

Concentration above the SAC — VALUE

The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Land Use Category				COMMERCIAL/INDUSTRIAL																	
							AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC ($cmol_c/kg$)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	0.1	0.1	25	50	100	100	0.2	0.5	1	3	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																				
BH1	0.1-0.2	Fill:Clayey sand	Coarse	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	1700	3300	75	135	165	180	172
BH2	0.2-0.3	Fill: gravel	Coarse	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	1700	3300	75	135	165	180	172
BH3	1.2-1.4	Fill: silty sandy clay	Fine	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	2500	6600	95	135	185	95	172
BH3	3.6-4.0	Fill: silty clayey sand	Coarse	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	1700	3300	75	135	165	180	172
BH4	0.5-0.8	Fill: sandy gravel	Coarse	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	1700	3300	75	135	165	180	172
BH4	1.0-1.2	Silty clay	Fine	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	2500	6600	95	135	185	95	172
BH5	0.2-0.3	Fill: clayey gravel	Coarse	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	1700	3300	75	135	165	180	172
BH5	2.0-2.2	Silty clay	Fine	NA	NA	NA	160	318	103	1904	60	187	370	640	215	170	2500	6600	95	135	185	95	172

TABLE D
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled		C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	250	0.2	0.5	1	3	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	<50	<50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	<50	<50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	<50	<50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	<50	<50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																									
BH1	0.1-0.2		<4	<0.4	6	39	6	<0.1	11	56	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	Not Detected
BH2	0.2-0.3		<4	<0.4	19	19	9	<0.1	6	38	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	Not Detected
BH3	1.2-1.4		<4	<0.4	5	10	8	<0.1	3	49	2.6	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	26	120	<100	<100	120	<0.2	<0.5	1	11	Not Detected
BH3	3.6-4.0		<4	<0.4	6	13	7	<0.1	4	64	<0.1	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	NA
BH4	0.5-0.8		4	<0.4	7	35	13	<0.1	8	65	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	Not Detected
BH4	1.0-1.2		<4	<0.4	8	12	7	<0.1	3	20	<0.1	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	NA
BH5	0.2-0.3		<4	<0.4	20	21	9	<0.1	10	41	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	Not Detected
BH5	2.0-2.2		<4	<0.4	16	29	21	<0.1	6	53	<0.1	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<PQL	<0.2	<0.5	<1	<1	NA
KTSF1	surface	Material	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**Detected**
Total Number of samples			8	8	8	8	8	8	8	8	8	8	5	5	5	5	5	8	8	8	8	8	8	8	8	8	6
Maximum Value			4	<PQL	20	39	21	<PQL	11	65	2.6	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	26	120	<PQL	<PQL	120	<PQL	<PQL	1	11	NC

Concentration above the CT1 **VALUE**
Concentration above SCC1 **VALUE**
Concentration above the SCC2 **VALUE**

Appendix A: Site Information including Site History

Lotsearch Environmental Risk and Planning Report

Environmental Risk and Planning Report

83 Albert Street, Taree, NSW 2430

Report Date: 14 Mar 2018 19:00:30

Lotsearch Reference: LS003014

Disclaimer:
The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.
You should obtain independent advice before you make any decision based on the information within the report.
The detailed terms applicable to use of this report are set out at the end of this report.

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Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
1	Georeferenced to the site location / premise or part of site
2	Georeferenced with the confidence of the general/approximate area
3	Georeferenced to the road or rail
4	Georeferenced to the road intersection
5	Feature is a buffered point
6	Land adjacent to Georeferenced Site
7	Georeferenced to a network of features

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	Dept. Finance, Services & Innovation	14/03/2018	14/03/2018	Daily	-	-	-	-
Topographic Data	Dept. Finance, Services & Innovation	11/01/2018	11/01/2018	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	05/03/2018	09/02/2018	Monthly	1000	0	0	3
Contaminated Land: Records of Notice	Environment Protection Authority	05/03/2018	05/03/2018	Monthly	1000	0	0	0
Former Gasworks	Environment Protection Authority	05/03/2018	12/09/2017	Monthly	1000	0	0	0
National Waste Management Site Database	Geoscience Australia	02/02/2018	07/03/2017	Quarterly	1000	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	07/03/2018	07/03/2018	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	11/01/2018	11/01/2018	Quarterly	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	09/03/2018	09/03/2018	Monthly	1000	0	0	2
Delicensed POEO Activities still Regulated by the EPA	Environment Protection Authority	09/03/2018	09/03/2018	Monthly	1000	0	0	1
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	09/03/2018	09/03/2018	Monthly	1000	0	0	3
UPSS Environmentally Sensitive Zones	Environment Protection Authority	14/04/2015	12/01/2010	As required	1000	1	1	1
UBD Business Directory 1982 (Premise & Intersection Matches)	Hardie Grant			Not required	150	3	5	10
UBD Business Directory 1982 (Road & Area Matches)	Hardie Grant			Not required	150	-	22	32
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	3	4	10
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	33	89
UBD Business Directory 1961 (Premise & Intersection Matches)	Hardie Grant			Not required	150	1	3	7
UBD Business Directory 1961 (Road & Area Matches)	Hardie Grant			Not required	150	-	20	73
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	1	3
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	8	39
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	1000	0	0	79
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	1000	-	1	13
Points of Interest	Dept. Finance, Services & Innovation	11/01/2018	11/01/2018	Annually	1000	2	5	72
Tanks (Areas)	Dept. Finance, Services & Innovation	11/01/2018	11/01/2018	Annually	1000	0	0	0
Tanks (Points)	Dept. Finance, Services & Innovation	11/01/2018	11/01/2018	Annually	1000	0	0	0
Major Easements	Dept. Finance, Services & Innovation	08/01/2018	08/01/2018	As required	1000	0	0	3
State Forest	Dept. Finance, Services & Innovation	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	18/01/2018	30/09/2017	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Boreholes	NSW Dept. of Primary Industries - Office of Water / Water Administration Ministerial Corporation; Commonwealth of Australia (Bureau of Meteorology)	21/03/2016	01/12/2015	Annually	2000	0	0	50
Geological Units 1:250,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	1	-	3

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Geological Structures 1:250,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	0	-	8
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	1
Standard Local Environmental Plan Acid Sulfate Soils	NSW Planning and Environment	07/10/2016	07/10/2016	As required	500	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Office of Environment & Heritage	12/05/2017	01/01/2002	None planned	1000	-	-	-
Mining Subsidence Districts	Dept. Finance, Services & Innovation	13/07/2017	01/07/2017	As required	1000	0	0	0
SEPP 14 - Coastal Wetlands	NSW Planning and Environment	17/12/2015	24/10/2008	Annually	1000	0	0	0
SEPP 26 - Littoral Rainforest	NSW Planning and Environment	17/12/2015	05/02/1988	Annually	1000	0	0	0
SEPP 71 - Coastal Protection	NSW Planning and Environment	17/12/2015	01/08/2003	Annually	1000	1	1	1
SEPP Major Developments 2005	NSW Planning and Environment	09/03/2013	25/05/2005	Under Review	1000	0	0	0
SEPP Strategic Land Use Areas	NSW Planning and Environment	01/08/2017	28/01/2014	Annually	1000	0	0	1
LEP - Land Zoning	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	1000	1	2	31
LEP - Minimum Subdivision Lot Size	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	0	1	-	-
LEP - Height of Building	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	0	1	-	-
LEP - Floor Space Ratio	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	0	2	-	-
LEP - Land Application	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	0	1	-	-
LEP - Land Reservation Acquisition	NSW Planning and Environment	29/01/2018	19/01/2018	Quarterly	0	0	-	-
State Heritage Items	NSW Office of Environment & Heritage	05/02/2018	30/09/2016	Quarterly	1000	0	0	1
Local Heritage Items	NSW Planning and Environment	05/02/2018	19/01/2018	Quarterly	1000	4	15	135
Bush Fire Prone Land	NSW Rural Fire Service	05/02/2018	23/01/2018	Quarterly	1000	0	0	2
Eastern Bushland Database (North Region)	NSW Office of Environment & Heritage	24/07/2016	01/01/1991	None planned	1000	0	0	1
RAMSAR Wetlands	Commonwealth of Australia Department of the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	The Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	3
Inflow Dependent Ecosystems Likelihood	The Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	9
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	13/03/2018	13/03/2018	Daily	10000	-	-	-

Aerial Imagery 2016

83 Albert Street, Taree, NSW 2430

Scale:
0 25 50 100
Meters

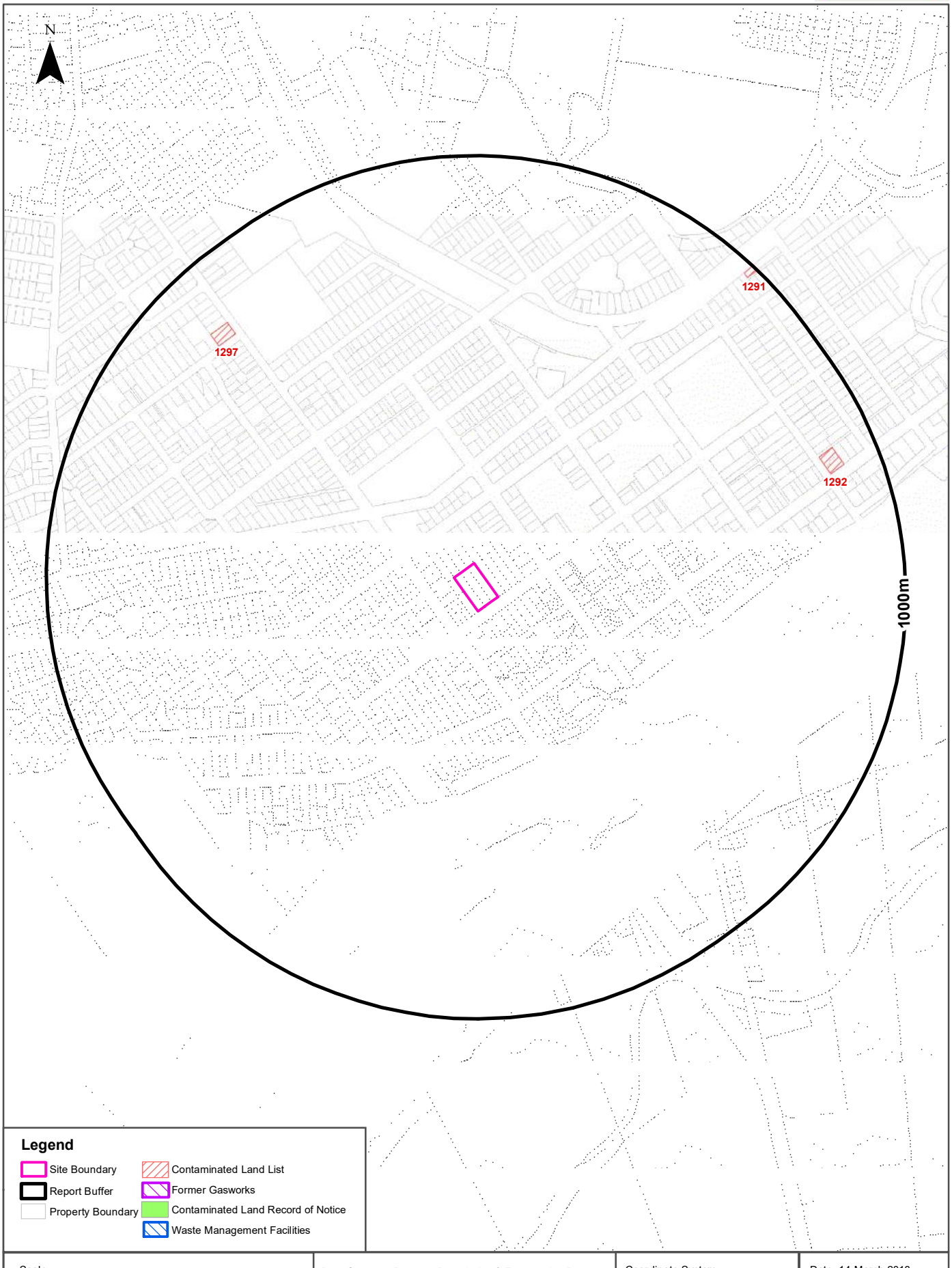
Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 12 March, 2018

Contaminated Land & Waste Management Facilities

83 Albert Street, Taree, NSW 2430



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 14 March 2018

Contaminated Land & Waste Management Facilities

83 Albert Street, Taree, NSW 2430

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
1297	Caltex Service Station	104-106 Commerce Street	Taree	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	805m	North West
1292	Footpath in front of the former BP service station	53-55 Victoria Street	Taree	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	857m	East
1291	Former Caltex Depot	44 Stevenson Street	Taree	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	970m	North East

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

Contaminated Land & Waste Management Facilities

83 Albert Street, Taree, NSW 2430

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia

EPA PFAS Investigation Program

83 Albert Street, Taree, NSW 2430

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Id	Site	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority

EPA Other Sites with Contamination Issues

83 Albert Street, Taree, NSW 2430

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill

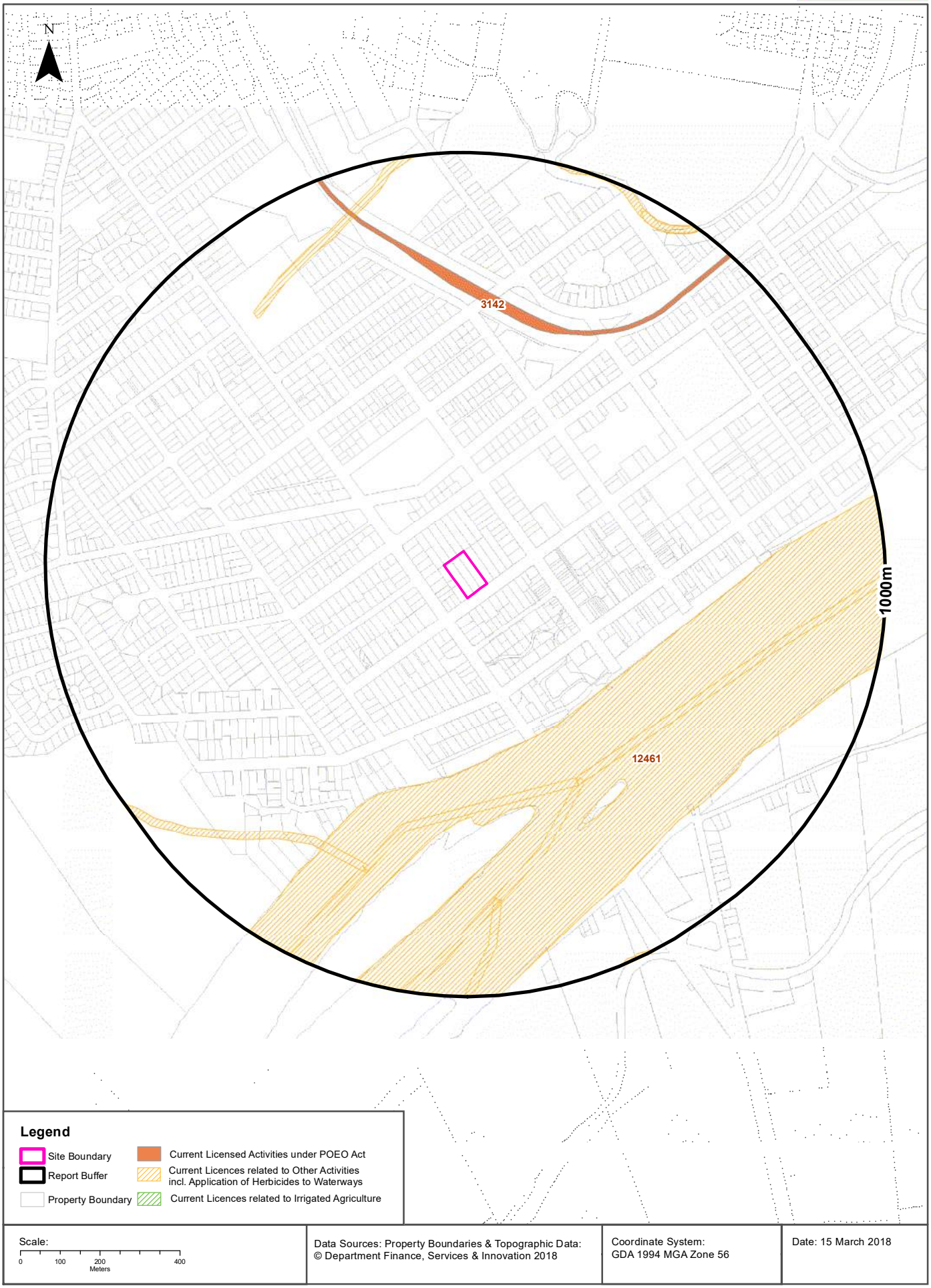
Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority

Current EPA Licensed Activities

83 Albert Street, Taree, NSW 2430



EPA Activities

83 Albert Street, Taree, NSW 2430

Licensed Activities under the POEO Act 1997

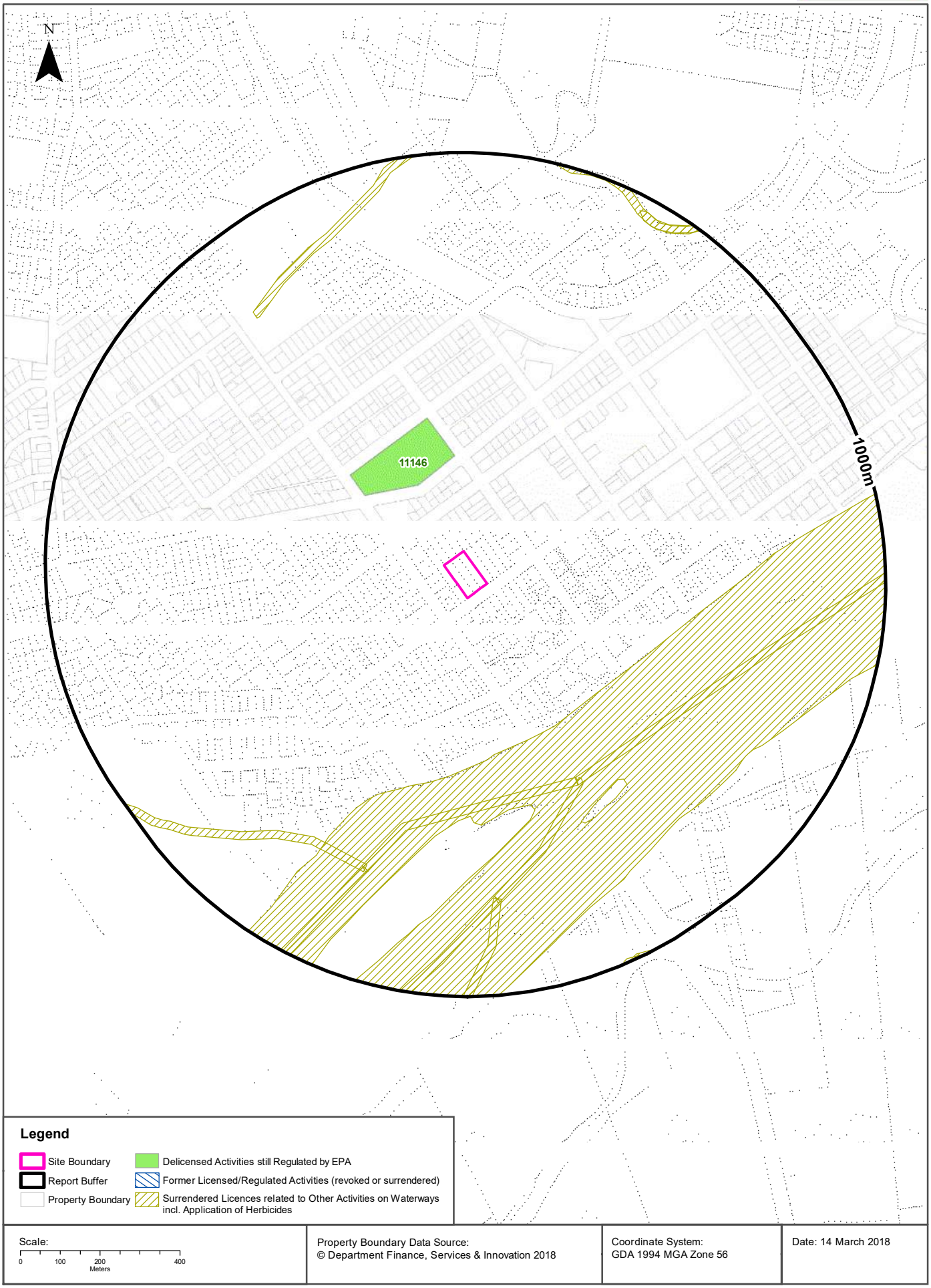
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12461	GREATER TAREE CITY COUNCIL	Land or Waterways within Greater Taree City Council LGA	Greater Taree Local Government Area	TAREE	Other activities	Network of Features	385m	South East
3142	AUSTRALIAN RAIL TRACK CORPORATION LIMITED		GPO BOX 14, SYDNEY, NSW 2001		Railway systems activities	Road Match	586m	North

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

83 Albert Street, Taree, NSW 2430



EPA Activities

83 Albert Street, Taree, NSW 2430

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
11146	HUNTER AND NEW ENGLAND AREA HEALTH SERVICE	MANNING BASE HEALTH CAMPUS	HIGH STREET	TAREE	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	202m	North West

Delicensed Activities Data Source: Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

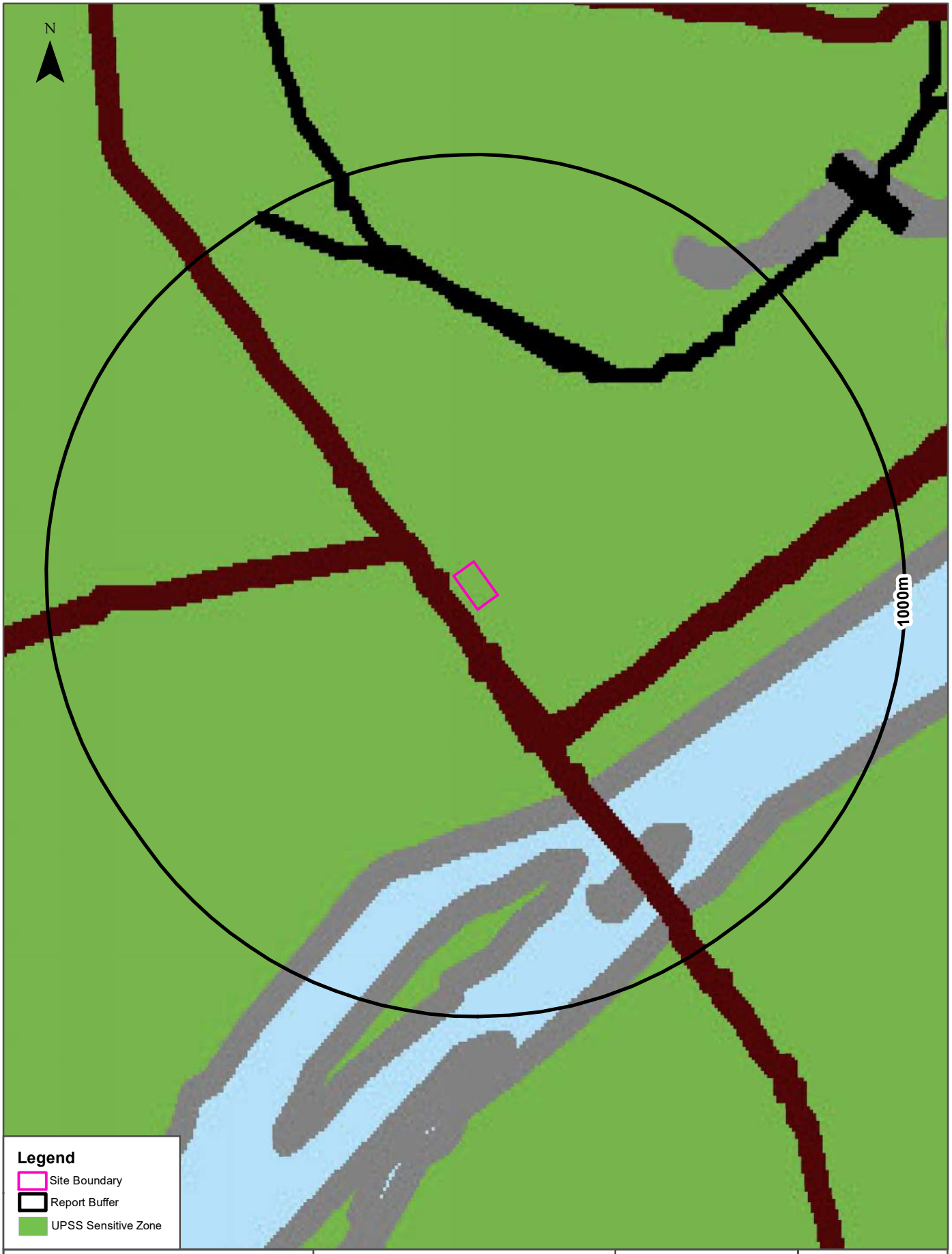
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	385m	-
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	385m	-
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	385m	-

Former Licensed Activities Data Source: Environment Protection Authority

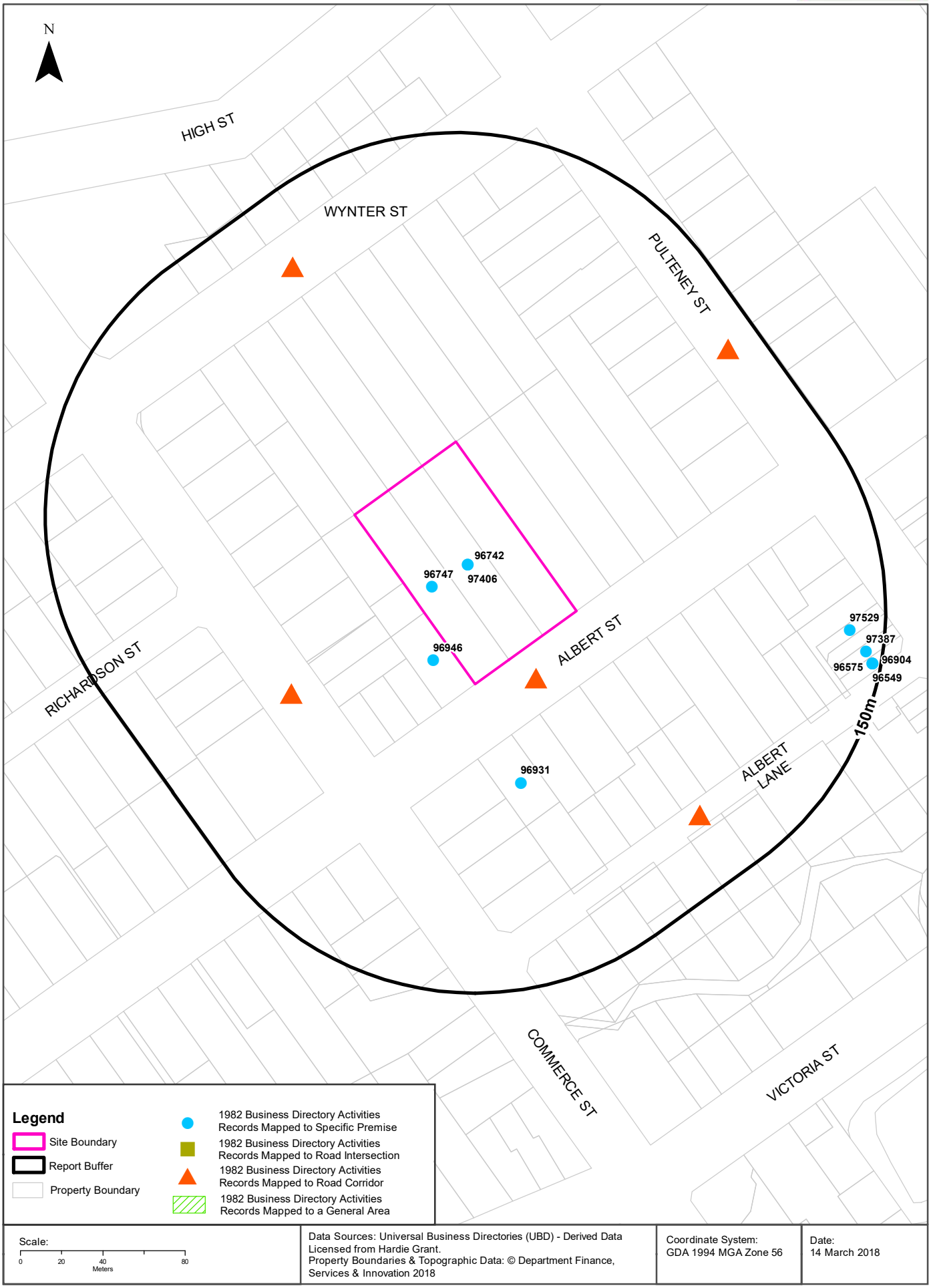
UPSS Sensitive Zones

83 Albert Street, Taree, NSW 2430



1982 Historical Business Directory Records

83 Albert Street, Taree, NSW 2430



Data Sources: Universal Business Directories (UBD) - Derived Data Licensed from Hardie Grant.
Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 14 March 2018

Historical Business Directories

83 Albert Street, Taree, NSW 2430

1982 Business Directory Records
Premise or Road Intersection Matches

Records from the 1982 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
SOLICITORS.	Churton, J., 83 Albert St., Taree	97406	Premise Match	0m	Onsite
GOVERNMENT DEPARTMENTS.	Police Station, 83 Albert St., Taree	96742	Premise Match	0m	Onsite
GOVERNMENT DEPARTMENTS.	Taree Court House, 88 Albert St., Taree	96747	Premise Match	0m	Onsite
MEDICAL PRACTITIONERS.	Tjiong, R. T. T., 89 Albert St., Taree	96946	Premise Match	10m	South
MEDICAL PRACTITIONERS.	Goddard, K. E., 90 Albert St., Taree	96931	Premise Match	53m	South
TOTALISATOR AGENCY BRANCHES.	T, A.B., 34 Pulteney St., Taree	97529	Premise Match	133m	East
SEWING MACHINE SALES &/OR SERVICE.	Shirley's Sewing Centre, '28 Pulteney St., Taree	97387	Premise Match	142m	East
ELECTRIC LAMP. MFRS &/OR MTS.	Taree Lighting Specialists, 26 Pulteney St., Taree	96549	Premise Match	146m	East
LIGHTING SPECIALISTS.	Taree Lighting Specialists 26 Pulteney Street, Taree	96904	Premise Match	146m	East
ELECTRICAL SUPPLIES &/OR APPLIANCES - RETAIL	Three Lighting Specialists, 26 Pulteney St., Taree	96575	Premise Match	146m	East

1982 Business Directory Records
Road or Area Matches

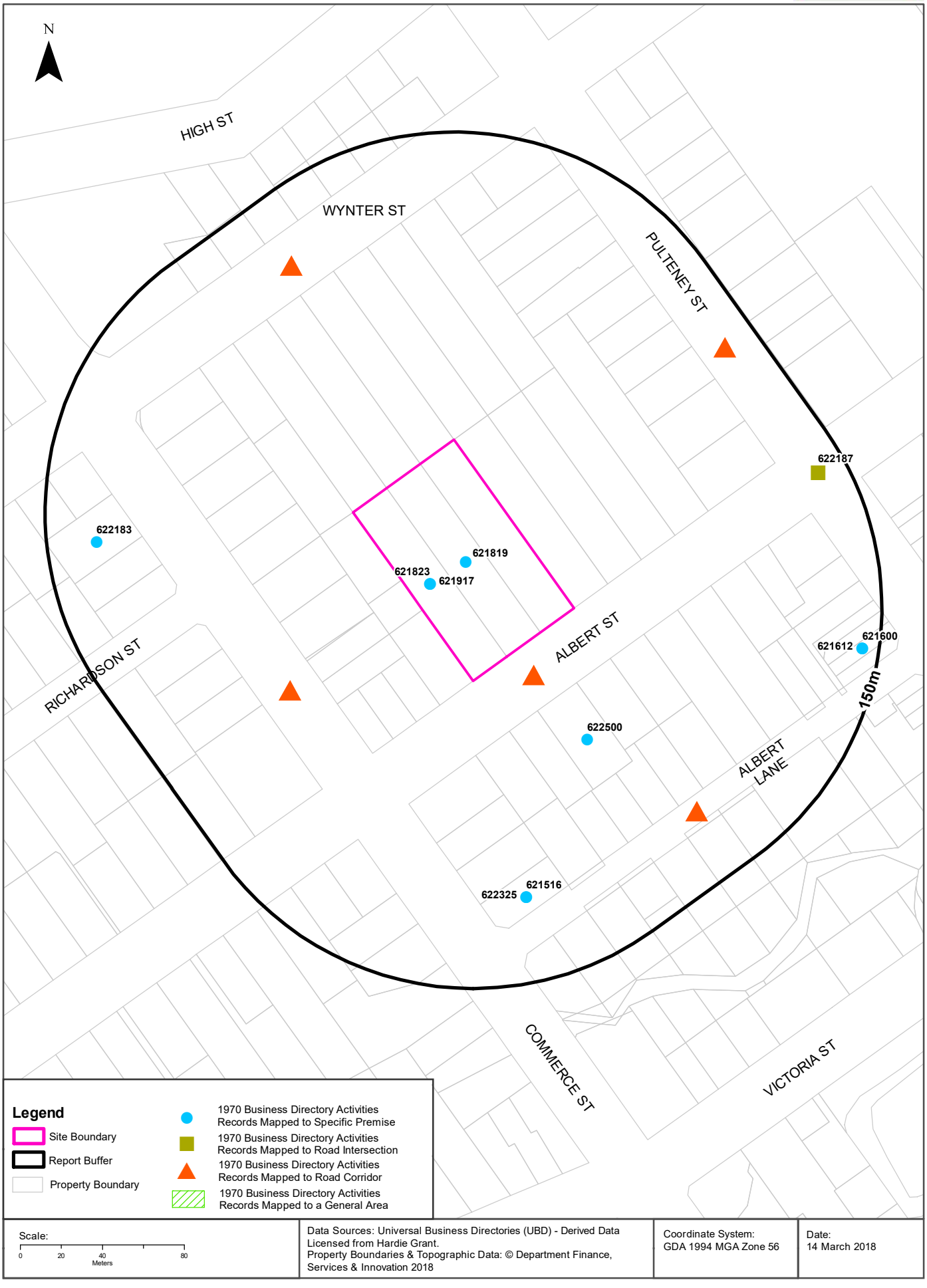
Records from the 1982 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
GOVERNMENT DEPARTMENTS.	Australian Electoral Office, Albert St., Taree	96728	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	High School P. & C. Association, 11 Albert St., Taree	96152	Road Match	0m
MUSIC INSTRUMENTS &/OR SHEET MUSIC - RETAIL	Keyboard Specialists, The, Civic Cinema Centre, Albert St., Taree	97138	Road Match	0m
PIANO DEALERS.	Keyboard Specialists, The, Civic Cinema Centre, Albert St., Taree	97214	Road Match	0m
PIANO TUNERS &/OR REPAIRERS.	Keyboard Specialists, The, Civic Cinema Centre, Albert St., Taree	97215	Road Match	0m
ELECTRICAL CONTRACTORS - LICENSED.	Manning River County Council, Albert St., Taree	96565	Road Match	0m
ELECTRICAL SUPPLIES &/OR APPLIANCES - RETAIL	Manning River County Council, Albert St., Taree	96572	Road Match	0m
ENGINEERS - ELECTRICAL.	Manning River County Council, Albert St., Taree	96584	Road Match	0m
ENGINEERS - REFRIGERATION.	Manning River County Council, Albert St., Taree	96601	Road Match	0m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
HOT WATER SYSTEMS - ELECTRIC MFRS. &/OR DISTS.	Manning River County Council, Albert St., Taree	96836	Road Match	0m
LOCAL BODIES.	Manning River County Council, Albert St., Taree	96913	Road Match	0m
RANGES - ELECTRIC - MFRS. IS/OR IMPS. &/OR DISTS.	Manning River County Council, Albert St., Taree	97285	Road Match	0m
REFRIGERATOR SALES &/OR SERVICE.	Manning River County Council, Albert St., Taree	97316	Road Match	0m
WASHING MACHINE SALES &/OR SERVICE.	Manning River County Council, Albert St., Taree	97577	Road Match	0m
MOTOR ACCESSORIES &/OR SPARE PARTS-RETAIL.	Repco Auto Parts., 49 Albert St., Taree	97011	Road Match	0m
MOTOR GARAGE EQUIPMENT &/OR TOOL MFRS. &/OR DISTS.	Repco Auto Parts., 49 Albert St., Taree	97066	Road Match	0m
MOTOR ACCESSORIES &/OR SPARE PARTS - WHOLESALE, .	Repco Auto Parts.. 49 Albert St., Taree	97022	Road Match	0m
SCHOOLS &/OR COLLEGES PRIVATE &/OR PUBLIC.	St. Josephs Primary School, Albert St., Taree	97367	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	Taree Croquet Club, Albert St., Taree	96194	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	Taree Primary Parents & Citizens Association, Albert St., Taree	96208	Road Match	0m
ORGAN DEALERS.	The Keyboard Specialists Civic Cinema Centre, Albert Street, Taree., Taree	97163	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	Taree Tennis Club, Commerce St:., Taree	96217	Road Match	60m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	Manning Adult Horse Riding Association, Wynter St., Taree	96155	Road Match	101m
SCHOOLS &/OR COLLEGES PRIVATE &/OR PUBLIC.	St. Josephs Convent, Wynter St., Taree	97366	Road Match	101m
PLUMBERS, GASFITTERS &/OR DRAINLAYERS.	Crossingham, F. S., Albert La., Taree	97234	Road Match	108m
TANK &/OR TANKST AND MFRS. &/OR MTS. .	Crossingham, F. S., Albert La., Taree	97479	Road Match	108m
MEDICAL PRACTITIONERS.	Liggins, A. W., Pulteney St., Taree	96936	Road Match	121m
GOVERNMENT DEPARTMENTS.	Motor Registry Dept. of, Pulteney St., Taree	96740	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	R.S.L. Womens Auxiliary, Pulteney St., Taree	96182	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS &/OR SPORTING BODIES.	Rotary Club Taree, Pulteney St., Taree	96184	Road Match	121m
MOTOR EXHAUST PIPE & MUFFLER SPECIALISTS.	Taree Spares, Pulteney St., Taree	97065	Road Match	121m
MOTOR ACCESSORIES &/OR SPARE PARTS-RETAIL.	Taree Spares. Pulteney St., Taree	97017	Road Match	121m

1970 Historical Business Directory Records

83 Albert Street, Taree, NSW 2430



Historical Business Directories

83 Albert Street, Taree, NSW 2430

1970 Business Directory Records
Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
INSURANCE AGENTS	Government Insurance Office of N.S.W., Court House, 85 Albert St., Taree	621917	Premise Match	0m	Onsite
GOVERNMENT DEPARTMENTS	Police Station, 83 Albert St., Taree	621819	Premise Match	0m	Onsite
GOVERNMENT DEPARTMENTS	Taree Court House, 85 Albert St., Taree	621823	Premise Match	0m	Onsite
SOFT DRINK & CORDIAL MFRS.	Saxby & Coleman Pty. Ltd., 82-86 Albert St., Taree	622500	Premise Match	56m	South East
CARRIERS &/OR CARTAGE CONTRACTORS	Shoesmith, G. N., 11 Commerce St., Taree	621516	Premise Match	109m	South
PARCEL DELIVERY SPECIALISTS	Taree Express Parcels, 11 Commerce St., Taree	622325	Premise Match	109m	South
MOTOR DRIVING SCHOOLS	Dawson's Driving School, 38 Commerce St., Taree	622183	Premise Match	126m	West
MOTOR ELECTRICIANS	W.E. Griffith Pty. Ltd. Pulteney & Albert Streets, Taree, Taree	622187	Road Intersection	136m	East
DRAPERS & HABERDASHERS	Flynn's Silk Store, 28 Pulteney St., Taree	621600	Premise Match	142m	East
DRESS SHOPS & ACCESSORIES	Flynn's Silk Store, 28 Pulteney St., Taree	621612	Premise Match	142m	East

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1970 Business Directory Records
Road or Area Matches

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
OUTBOARD MOTORS-MFRS. &/OR DISTS.	Griffith, W, E. Pty. Ltd., 54a Albert St., Taree	622306	Road Match	0m
BOAT LAUNCH & YACHT ACCESSORIES MFRS. &/OR DISTS.	Griffith, W. E. Pty, Ltd., 54a Albert St., Taree	621339	Road Match	0m
BOAT, LAUNCH &/OR YACHT HIRERS	Griffith, W. E. Pty. Ltd., 54a Albert St., Taree	621346	Road Match	0m
CARAVAN DEALERS/OR HIRERS	Griffith, W. E. Pty. Ltd., 54a Albert St., Taree	621459	Road Match	0m
MARINE ENGINE IMPORTERS/DISTRIBUTORS &/OR MANUFACTURERS	Griffith, W. E. Pty. Ltd., 54a Albert St., Taree	622011	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	High School P. & C. Association, Albert St., Taree	621191	Road Match	0m
SCHOOLS & COLLEGES-PRIVATE & PUBLIC	High School, Albert St., Taree	622465	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	P. & C. Ladles' Committee, Albert St., Taree	621222	Road Match	0m
SCHOOLS & COLLEGES-PRIVATE & PUBLIC	Primary School, Albert St., Taree	622466	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Taree Croquet Club, Albert St., Taree	621238	Road Match	0m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Taree Primary Parents' & Citizens' Ass's, Albert St., Taree	621254	Road Match	0m

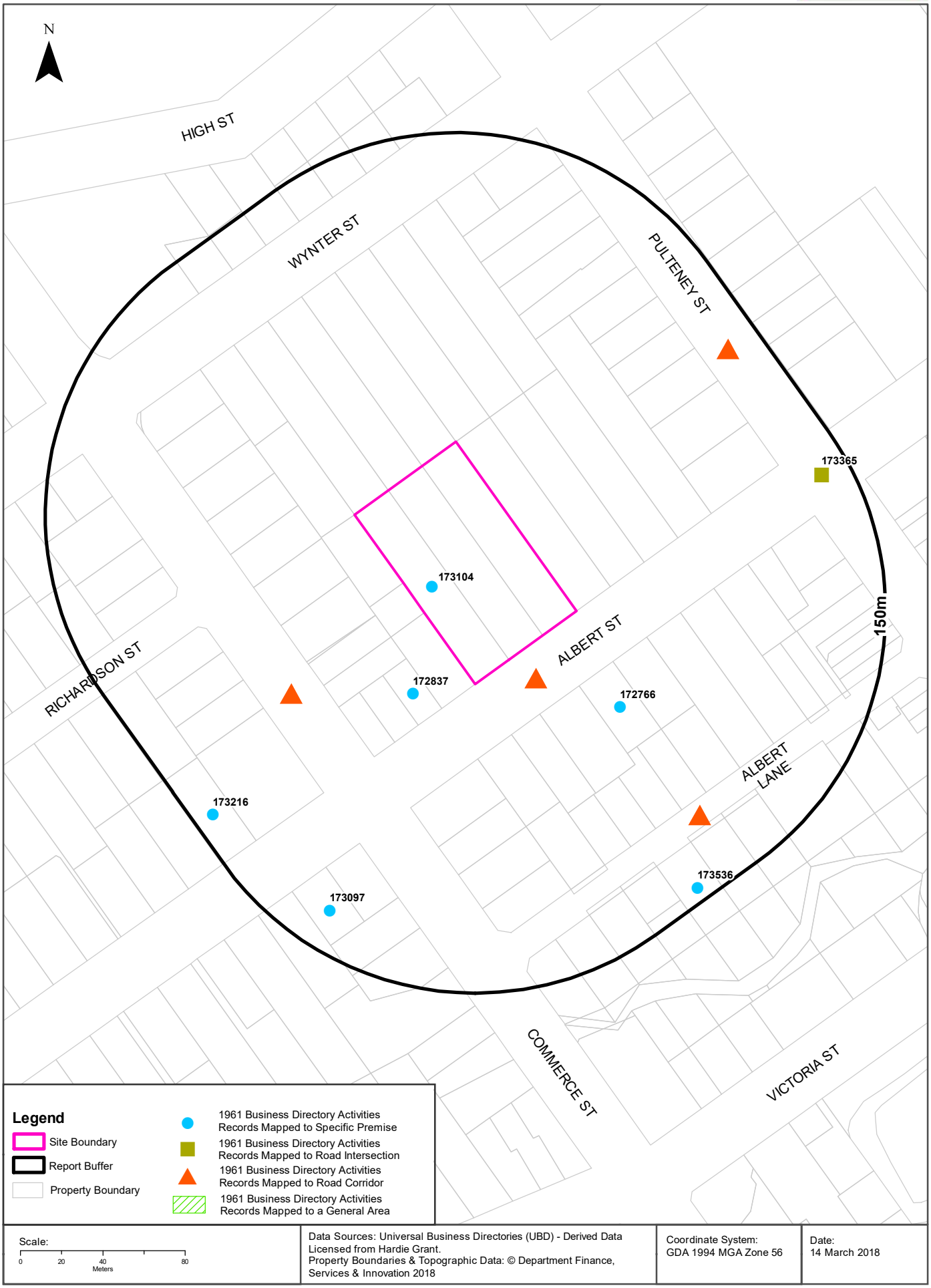
Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
SCHOOLS & COLLEGES-PRIVATE & PUBLIC	Twee Infants' School, Albert St., Taree	622468	Road Match	0m
TRAILER & SEMI-TRAILER MFRS. & DISTRIBUTORS	Clarkes Tare. Engineering Works, Commerce St., Taree	622647	Road Match	60m
CRANES-MOBILE-PROPRIETORS &/OR HIRERS	Clarkes Taree Engineering Works, Commerce St., Taree	621569	Road Match	60m
ENGINEERS-GENERAL MFRG. & MECHANICAL	Clarkes Taree Engineering Works, Commerce St., Taree	621672	Road Match	60m
LAWN MOWER SALES & SERVICE	Clarkes Taree Engineering Works, Commerce St., Taree	621981	Road Match	60m
SAW BLADES-BAND, CIRCULAR, ETC.-MFRS. &/OR IMPORTERS &/OR DISTS.	Clarkes Taree Engineering Works, Commerce St., Taree	622444	Road Match	60m
ENGINEERS-STRUCTURAL	Clarke's Taree Engineering Works, Commerce St., Taree	621691	Road Match	60m
FENCE & GATE MANUFACTURERS	Clarke's Taree Engineering Works, Commerce St., Taree	621697	Road Match	60m
MOTOR BODY BUILDERS &/OR REPAIRERS	Clarke's Taree Engineering Works, Commerce St., Taree	622144	Road Match	60m
SAWS-GENERAL-SALES & SERVICE	Clarke's Taree Engineering Works, Commerce St., Taree	622448	Road Match	60m
WELDERS-ELECTRIC &/OR OXY	Clarke's Taree Engineering Works, Commerce St., Taree	622690	Road Match	60m
WROUGHT IRON WORKERS	Clarke's Taree Engineering Works, Commerce St., Taree	622710	Road Match	60m
TRAILERCAR MFRS. &/OR DISTS. &/OR HIRERS-BOAT & CAR	Clarke's Tares Engineering Works, Commerce St., Taree	622644	Road Match	60m
SAW & TOOL SHARPENERS	Clarkes Three Engineering Works, Commerce St., Taree	622458	Road Match	60m
STEEL FABRICATORS	Clark's Taree Engineering Works, Commerce St., Taree	622539	Road Match	60m
BOTTLED GAS SUPPLIERS & REFILLERS	Motel Service Station, Commerce St., Taree	621372	Road Match	60m
ICE MANUFACTURERS & VENDORS	Motel Service Station, Commerce St., Taree	621905	Road Match	60m
CARRIERS &/OR CARTAGE CONTRACTORS	Somerville, A. E., Commerce St., Taree	621517	Road Match	60m
SAW & TOOL SHARPENERS	Tame Engineering Works, Chain Saw Specialists, Commerce St., Taree	622461	Road Match	60m
SAW BLADES-BAND, CIRCULAR, ETC.-MFRS. &/OR IMPORTERS &/OR DISTS.	Taree Engineering Works, Chain Saw Specialists, Commerce St., Taree	622446	Road Match	60m
SAWS-GENERAL-SALES & SERVICE	Taree Engineering Works, Chain Saw Specialists, Commerce St., Taree	622455	Road Match	60m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Taree Tennis Club, Commerce St., Taree	621265	Road Match	60m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Parents & Friends' Ass'n, Wynter St., Taree	621223	Road Match	101m
SCHOOLS & COLLEGES-PRIVATE & PUBLIC	St Joseph's Convent, Wynter St., Taree	622467	Road Match	101m
PLUMBERS, GASFITTERS & DRAINLAYERS	Crossingham, F. S., Albert Lane, Taree	622363	Road Match	108m
SHEET METAL WORKERS	Crossingham, F. S., Albert Lane, Taree	622490	Road Match	108m
TANK & TANK STAND MFRS. &/OR DISTRIBUTORS	Crossingham, F. S., Albert Lane, Taree	622569	Road Match	108m
TINSMITHS	Crossingham, F. S., Albert Lane, Taree	622623	Road Match	108m
PAINTERS, PAPERHANGERS & DECORATORS	Abbott, G. K., 138 Pulteney St., Taree	622311	Road Match	121m
MEDICAL PRACTITIONERS	Bow, V. W., R.S.L. Bldg., Pulteney St., Taree	622016	Road Match	121m
FUNERAL DIRECTORS	Bridge, S. W., 131 Pulteney St., Taree	621765	Road Match	121m
LOCAL BODIES	Chamber of Commerce Pulteney St., Taree	622000	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Chamber of Commerce, Pulteney St., Taree	621180	Road Match	121m
PICTURE THEATRES	Civic Theatre, 103 Pulteney St., Taree	622348	Road Match	121m
LIBRARIES-LENDING	Council o' the Municipality of Tares, Pulteney St., Taree	621993	Road Match	121m
FLORISTS-RETAIL	Dawn Florist, 126 Pulteney St., Taree	621733	Road Match	121m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
MOTOR PAINTERS, PANEL BEATERS	Griffith, W. E. Pty, Ltd., Pulteney St., Taree	622242	Road Match	121m
WELDERS-ELECTRIC &/OR OXY	Griffith, W. E. Pty. Ltd., Puiteney St., Taree	622695	Road Match	121m
MOTOR ACCESSORIES & SPARE PARTS-W'SALE	Griffith, W. E. Pty. Ltd., Pulteney St., Taree	622137	Road Match	121m
MOTOR BODY BUILDERS &/OR REPAIRERS	Griffith, W. E. Pty. Ltd., Pulteney St., Taree	622146	Road Match	121m
MOTOR CAR & TRUCK DEALERS-NEW & USED	Griffith, W. E. Pty. Ltd., Pulteney St., Taree	622169	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS	Griffith, W. E. Pty. Ltd., Pulteney St., Taree	622209	Road Match	121m
MOTOR ACCESSORIES & SPARE PARTS DEALERS	Griffith, W. E. Pty. Pulteney St., Taree	622123	Road Match	121m
INSURANCE AGENTS	Hatton Caravans, 126 Pulteney St., Taree	621921	Road Match	121m
CARAVAN DEALERS/OR HIRERS	Hattons Caravans, 126 Pulteney St., Taree	621460	Road Match	121m
BOTTLED GAS SUPPLIERS & REFILLERS	Hatton's Caravans, 126 Pulteney St., Taree	621370	Road Match	121m
MEDICAL PRACTITIONERS	Hunter, B. L., R.S.L. Bldg., Pulteney St., Taree	622018	Road Match	121m
WELDING EQUIPMENT & SUPPLIES-MFRS. & DSTS.	Mackie Electric, 111 Puiteney St., Taree	622704	Road Match	121m
ELECTRIC MOTOR REPAIRERS & HIRERS	Mackie Electric, 111 Pulteney St., Taree	621636	Road Match	121m
ELECTRIC TOOLS (PORTABLE) MANUFACTURERS &/OR DISTRIBUTORS	Mackie Electric, 111 Pulteney St., Taree	621642	Road Match	121m
ELECTRICAL CONTRACTORS-LICENSED	Mackie Electric, 111 Pulteney St., Taree	621648	Road Match	121m
ELECTRIC MOTOR WINDING & REWINDING SPECIALISTS	Mackie Electric, 111. Puiteney St., Taree	621638	Road Match	121m
ELECTRIC MOTOR DEALERS-WHOLESALE	Mackie Electric, 111Pulteney St., Taree	621635	Road Match	121m
WASHING MACHINE SALES & SERVICEMEN	Mackie Electrics, 111 Pulteney St., Taree	622683	Road Match	121m
FISH SHOPS	Manning Fish Centre, Puiteney St., Taree	621718	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Manning River Aquatic Ass'n, Pulteney St., Taree	621200	Road Match	121m
GOVERNMENT DEPARTMENTS	Motor Registry Dept of, Pulteney St., Taree	621816	Road Match	121m
BOAT, LAUNCH & YACHT BUILDERS & REPAIRERS	Murdoch, E. W., 144 Pulteney St., Taree	621343	Road Match	121m
ENGINEERS-MARINE	Murdoch, E. W., 144 Pulteney St., Taree	621682	Road Match	121m
MARINE ENGINE IMPORTERS/DISTRIBUTORS &/OR MANUFACTURERS	Murdoch, E. W., 144 Pulteney St., Taree	622013	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS	Murdoch, E. W., 144 Pulteney St., Taree	622213	Road Match	121m
OUTBOARD MOTORS-MFRS. &/OR DISTS.	Murdoch, E. W., 144 Pulteney St., Taree	622308	Road Match	121m
SAWS-GENERAL-SALES & SERVICE	Murdoch, E. W., 144 Pulteney St., Taree	622452	Road Match	121m
MOTOR CAR & TRUCK DEALERS-NEW & USED	Murdock, E. W., 144 Pulteney St., Taree	622173	Road Match	121m
RADIOLOGISTS	Owen, M. D., 106 Pulteney St., Taree	622401	Road Match	121m
LOCAL BODIES	Oxley Regirnal Development Committee, Pulteney St., Taree	622006	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	R.S.L. Sub-Branch, Pulteney St., Taree	621225	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	R.S.L. Women's Auxiliary, Pulteney St., Taree	621226	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Rotary Club, Taree, Puiteney St., Taree	621228	Road Match	121m
MEDICAL PRACTITIONERS	Springthorpe, B. J., R.S.L. Bldg., Pulteney St., Taree	622024	Road Match	121m
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Taree Boy Scouts Ass'n, 109 Pulteney St., Taree	621234	Road Match	121m
LOCAL BODIES	Taree Municipal Council, Pulteney St., Taree	622008	Road Match	121m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Taree Red Cross Ass'n, Pulteney St., Taree	621259	Road Match	121m
LOCAL BODIES	Tees Pr, Pulteney St., Taree	622007	Road Match	121m
BEAUTY SALONS & LADIES' HAIRDRESSERS	Turnbull, Mrs, M., 68 Pulteney St., Taree	621327	Road Match	121m
MEDICAL PRACTITIONERS	Uggins, A. W., R.S.L. Bldg., Pulteney St., Taree	622019	Road Match	121m
FRUIT & VEGETABLE MERCHANTS &/OR W'SALERS	Williams, E. & T. J., Pulteney St., Taree	621758	Road Match	121m
FRUITERERS & GREENGROCERS	Williams, E. & T. J., Pulteney St., Taree	621764	Road Match	121m

1961 Historical Business Directory Records

83 Albert Street, Taree, NSW 2430



Historical Business Directories

83 Albert Street, Taree, NSW 2430

1961 Business Directory Records
Premise or Road Intersection Matches

Records from the 1961 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
GOVERNMENT DEPARTMENTS	Police Station, 87 Albert St., Taree	173104	Premise Match	0m	Onsite
BEAUTY SALONS & LADIES' HAIRDRESSERS	"Fayette," 91. Albert St., Taree	172837	Premise Match	27m	South
AERATED WATER & CORDIAL MANUFACTURERS	Saxby and Coleman Pty. Ltd., 82 Albert St., Taree	172766	Premise Match	50m	South East
GOVERNMENT DEPARTMENTS	District inspector of Schools, 96 Albert St., Taree	173097	Premise Match	131m	South
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Griffith, W. E., Cnr. Albert and Pulteney Sts., Taree	173365	Road Intersection	136m	East
JOINERY MANUFACTURERS	Lean, F. C., 95 Albert St., Taree	173216	Premise Match	141m	South West
TAXIS & HIRE CARS	McCrean, J., 18 Albert Lane, Taree	173536	Premise Match	143m	South East

1961 Business Directory Records
Road or Area Matches

Records from the 1961 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

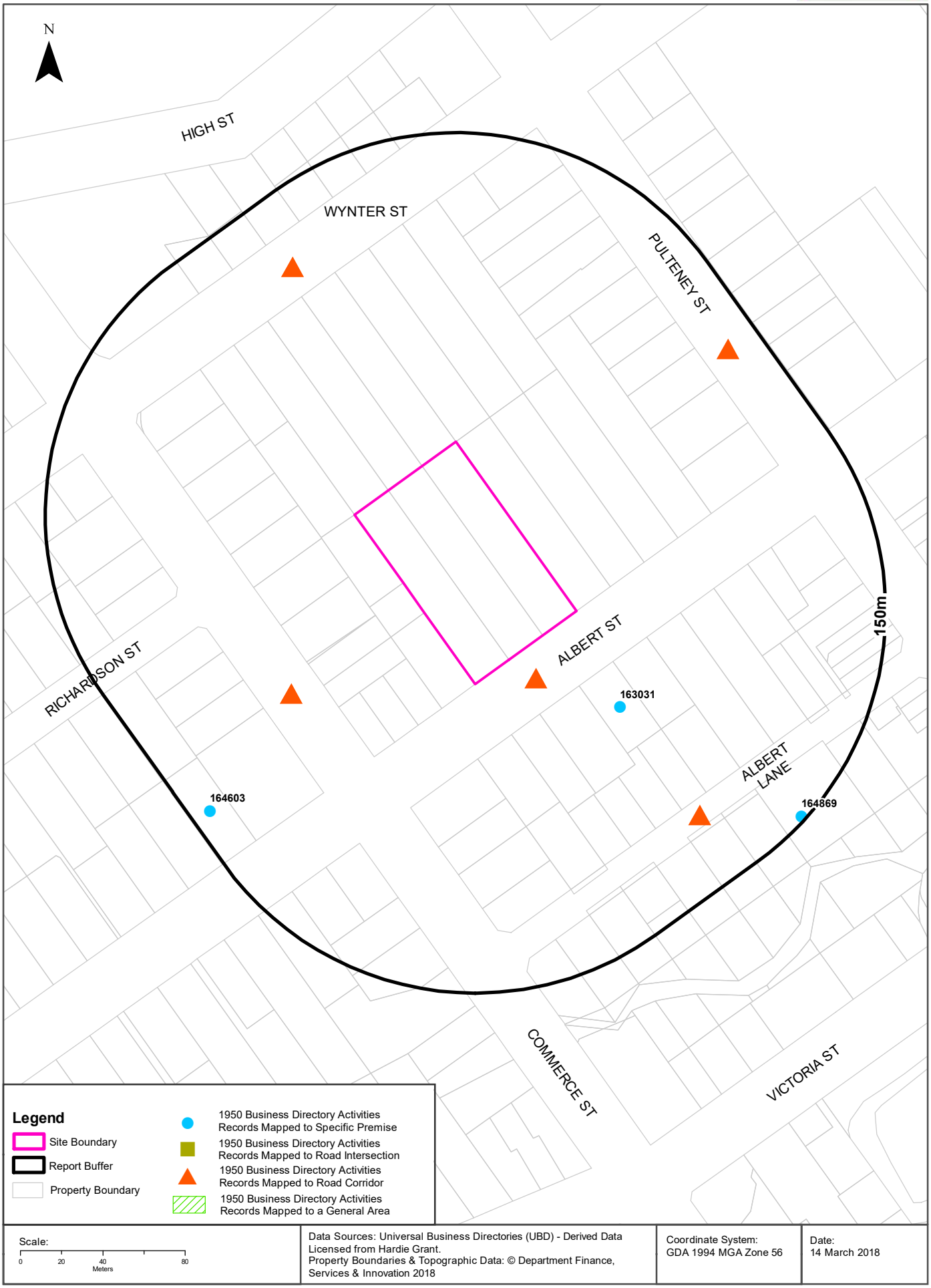
Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
GOVERNMENT DEPARTMENTS	Lands Dept, Court House, Albert St., Taree	173100	Road Match	0m
ELECTRICAL SUPPLIES & APPLIANCES-RETAILERS	Griffith, W. E. Albert St., Taree	173007	Road Match	0m
MOTOR CAR & TRUCK DEALERS-NEW & USED	Griffith, W. E., 54a Albert St., Taree	173306	Road Match	0m
MOTOR GARAGES &/OR ENGINEERS	Griffith, W. E., 54a Albert St., Taree	173330	Road Match	0m
AGRICULTURAL MACHINERY DEALERS	Griffith, W. E., Albert St., Taree	172768	Road Match	0m
INSURANCE AGENTS	Griffith, W. E., Albert St., Taree	173191	Road Match	0m
REFRIGERATOR DEALERS &/OR SERVICEMEN	Griffith, W. E., Albert St., Taree	173468	Road Match	0m
PLUMBERS, GASFITTERS & DRAINLAYERS	Hogan, C. J., Rear 54a Albert St., Taree	173432	Road Match	0m
SHEET METAL WORKERS	Hogan, C. J., Rear 54a Albert St., Taree	173485	Road Match	0m
TOBACCO MERCHANTS-W'SALE	North Coast Distributors, 56 Albert St., Taree	173569	Road Match	0m
SCHOOLS & COLLEGES-PRIVATE & PUBLIC	Public School, Albert St., Taree	173477	Road Match	0m
GOVERNMENT DEPARTMENTS	Taree Court House, Albert St., Taree	173108	Road Match	0m
PRINTERS-LETTERPRESS	Taree Printery (The), Albert St., Taree	173438	Road Match	0m
STATIONERS-MFRG. &/OR WHOLESALE	Taree Printery (The), Albert St., Taree	173507	Road Match	0m
PAINTERS, PAPERHANGERS & DECORATORS	Buderus, W., Commerce St., Taree	173407	Road Match	60m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
ASSOCIATIONS & SOCIETIES	Manning River A. and H. Ass'n, Commerce St., Taree	172789	Road Match	60m
ASSOCIATIONS & SOCIETIES	Milk Zone Dairymen's Ass'n, Commerce St., Taree	172791	Road Match	60m
HOMES & INSTITUTIONS	St., Christopher's Home for Children, Commerce St., Taree	173174	Road Match	60m
BATTERY MANUFACTURERS	Taree Battery Service, Commerce St., Taree	172835	Road Match	60m
ELECTRICAL CONTRACTORS-LICENSED	Wilson, W. J., Commerce St., Taree	172996	Road Match	60m
PLUMBERS, GASFITTERS & DRAINLAYERS	Crossingham, F. S., Albert Lane, Taree	173430	Road Match	108m
SHEET METAL WORKERS	Crossingham, F. S., Albert Lane, Taree	173484	Road Match	108m
TANK & TANK STAND MFRS. &/OR DISTRIBUTORS	Crossingham, F. S., Albert Lane, Taree	173523	Road Match	108m
TINSMITHS	Crossingham, F. S., Albert Lane, Taree	173567	Road Match	108m
ACCOUNTANTS & AUDITORS	Bldg., Pulteney St., Taree	172762	Road Match	121m
DRESSMAKERS & COSTUMIERS	Blue Wren Salon, Pulteney St., Taree	172981	Road Match	121m
MEDICAL PRACTITIONERS	Bow, V. W., Lower Pulteney St., Taree	173236	Road Match	121m
FUNERAL DIRECTORS	Bridge, S. W., 131 Pulteney St., Taree	173071	Road Match	121m
TAILORS-LADIES' GAR GENT.'S	Burrows, W. H., 179a Pulteney St., Taree	173521	Road Match	121m
FISH MERCHANTS-RETAIL	Cedars Sea Food, Pulteney St., Taree	173042	Road Match	121m
FISH MERCHANTS-RETAIL	Chip Inn, Pulteney St., Taree	173043	Road Match	121m
GOVERNMENT DEPARTMENTS	Commonwealth Employment Service, Pulteney St., Taree	173096	Road Match	121m
FLORISTS-RETAIL	Dawn Florist, 126 Pulteney St., Taree	173050	Road Match	121m
NURSERYMEN	Dawn Florist, 126 Pulteney St., Taree	173385	Road Match	121m
CARRIERS & CARTAGE CONTRACTORS	Day, M. E., 115 Pulteney St., Taree	172910	Road Match	121m
ASSOCIATIONS & SOCIETIES	Enisco Pty. Limited., Pulteney Street, Taree, Taree	172798	Road Match	121m
OUTFITTERS-LADIES' & CHILDREN'S	Frock Salon of Taree (The), Pulteney St., Taree	173399	Road Match	121m
OUTFITTERS-LADIES' & CHILDREN'S	Gina Frock Salon, Pulteney St., Taree	173400	Road Match	121m
SPORTSWEAR-RETAIL	Gina Frock Salon, Pulteney St., Taree	173505	Road Match	121m
FURNITURE & FURNISHINGS-RETAIL	Hammond, L. J. and J., Pulteney St., Taree	173080	Road Match	121m
DRAPERS-RETAIL	Hammond's Home Furnishings, Pulteney St., Taree	172977	Road Match	121m
JEWELLERS & WATCHMAKERS-RETAIL	Hawker, H., Pulteney St., Taree	173212	Road Match	121m
WATCHMAKER REPAIRS-TRADE	Hawker, H., Pulteney St., Taree	173591	Road Match	121m
TAXIS & HIRE CARS	Howard, N., 102 Pulteney St., Taree	173531	Road Match	121m
MEDICAL PRACTITIONERS	Hunter, B. L., Lower Pulteney St., Taree	173238	Road Match	121m
CAFES, TEA ROOMS, COFFEE LOUNGES, ETC.	Kaleel, N., Puiteney St., Taree	172891	Road Match	121m
CHIROPRACTOR	Keenan, A. M., Pulteney St., Taree	172932	Road Match	121m
MEDICAL PRACTITIONERS	LiggIns, A. W., Lower Pulteney St., Taree	173239	Road Match	121m
MOTOR ELECTRICIANS	Mackie Electric, Pulteney St., Taree	173318	Road Match	121m
ELECTRIC MOTOR REPAIRERS & HIRERS	Mackie Electrical, Pulteney St., Taree	172990	Road Match	121m
CHEMISTS-PHARMACEUTICAL	Manning Chemist, Pulteney St., Taree	172926	Road Match	121m
DENTISTS	McDonald, J. S., Pulteney St., Taree	172966	Road Match	121m
DENTISTS	McDonald, Pulteney St., Taree	172965	Road Match	121m
BAKERS-BREAD	Milligan and Son, 119 Pulteney St., Taree	172818	Road Match	121m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
BOAT, LAUNCH & YACHT BUILDERS & REPAIRERS	Murdoch, E. W., 144 Pulteney St., Taree	172844	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS	Murdoch, E. W., 144 Pulteney St., Taree	173338	Road Match	121m
GOVERNMENT DEPARTMENTS	N.S.W. Forestry Commission, Pulteney St., Taree	173103	Road Match	121m
BABY & CHILDREN'S WEAR-RETAIL	Nursery Land, Puiteney St., Taree	172812	Road Match	121m
WATCH AND JEWELLERY SPECIALIST	Peters Creameries Pty. Ltd. Pulteney Street, Taree, Taree	172801	Road Match	121m
GROCERS & GENERAL STOREKEEPERS	Peters Creameries Pty. Ltd., Pulteney St., Taree	173136	Road Match	121m
REFRIGERATOR DEALERS &/OR SERVICEMEN	Peters Creameries Pty. Ltd., Pulteney St., Taree	173472	Road Match	121m
ACCOUNTANTS & AUDITORS	Qualn, J. M. and Co., Pulteney St., Taree	172760	Road Match	121m
GOVERNMENT DEPARTMENTS	Repatriation Dept. (Local Committee), Pulteney St., Taree	173106	Road Match	121m
GROCERS & GENERAL STOREKEEPERS	Ruff, W. D., 143 Pulteney St., Taree	173138	Road Match	121m
HAIRDRESSERS-GENT.'S--& TOBACCONISTS	Smith, G. M., Yarads Bldg., Pulteney St., Taree	173157	Road Match	121m
BATTERY DISTRIBUTORS	Taree Battery Service, Pulteney St., Taree	172833	Road Match	121m
LOCAL BODIES	Taree Fire Station, Pulteney St., Taree	173233	Road Match	121m
LOCAL BODIES	Taree Municipal Council, Pulteney St., Taree	173234	Road Match	121m
WATCH AND JEWELLERY SPECIALIST	The Northern Champion Pty. Limited., Pulteney Street, Taree, Taree	172802	Road Match	121m
MOTOR CAR RADIO SPECIALISTS	Tooley, Lyndsay J., 117 Pulteney St., Taree	173301	Road Match	121m
RADIO, TELEVISION SALES & SERVICEMEN	Tooley, Lyndsay J., 117 Pulteney St., Taree	173451	Road Match	121m
DELICATESSENS	Vogue Milk Bar, Pulteney St., Taree	172963	Road Match	121m
MILK, FRUIT JUICE BARS & CONFECTIONERS	Vogue Milk Bar, Pulteney St., Taree	173261	Road Match	121m

1950 Historical Business Directory Records

83 Albert Street, Taree, NSW 2430



Historical Business Directories

83 Albert Street, Taree, NSW 2430

1950 Business Directory Records
Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
AERATED WATER & CORDIAL MANUFACTURERS	Saxby and Coleman Pty. Ltd., 82 Albert St. Taree	163031	Premise Match	50m	South East
JOINERY WORKS	Lean and. Schubert; 95 Albert- St Taree	164603	Premise Match	141m	South West
TAXIS	Collier, E. R., 12 Albert Lane Taree	164869	Premise Match	148m	South East

1950 Business Directory Records
Road or Area Matches

Records from the 1950 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
SIGNWRITERS	Shaw Signs, 58 Albert St. Taree	164841	Road Match	0m
WINDOW DISPLAY SPECIALISTS	Shaw Signs, 58 Albert St. Taree	164928	Road Match	0m
SCHOOLS & COLLEGES	Taree Public School, Albert St. Taree	164834	Road Match	0m
GOVERNMENT DEPARTMENTS	Twee Court House, Albert St. Taree	163330	Road Match	0m
WOOD MERCHANTS-COAL &/OR COKE	Cameron, C., Commerce St. Taree	164931	Road Match	60m
ASSOCIATIONS & SOCIETIES	Manning River A. and H. Ass'n (S. V. Emmerton, Secy.), Commerce St. Taree	163040	Road Match	60m
ASSOCIATIONS & SOCIETIES	Milk Zone Dairymen's Ass'n, Taree Branch (S. V. Emmerton, Secy.), Commerce St. Taree	163042	Road Match	60m
DENTISTS	Neville, F. T. C., Commerce St. Taree	163207	Road Match	60m
HOSPITALS	Strathairlie Private Hospital, 64 Wynter St. Taree	164571	Road Match	101m
BLACKSMITHS & FARRIERS	Cox, W., Albert Lane Taree	163072	Road Match	108m
CLUBS & SPORTS BODIES	Manning River V.J. Sailing Club (L. Cooke, Secy.), Albert Lane Taree	163175	Road Match	108m
DELICATESSENS	Bidner, A., 143 Puiteney St. Taree	163195	Road Match	121m
GROCERS & GENERAL STOREKEEPERS	Bidner, A., 143 Puiteney St. Taree	163334	Road Match	121m
FRUITERERS & GREENGROCERS	Bidner, A., 143 Pulteney St. Taree	163288	Road Match	121m
HERBALISTS	Bloache, 132 Pulteney St. Taree	163385	Road Match	121m
CARRIERS & CARTAGE CONTRACTORS	Bridge, S. W., 131 Pulteney St. Taree	163143	Road Match	121m
FUNERAL DI RECTORS	Bridge, S. W., 131 Pulteney St. Taree	163304	Road Match	121m
PICTURE THEATRES	Civic Theatre, Pulteney St. Taree	164784	Road Match	121m

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
FLORISTS	Dawn Nursery (The), 126 Puiteney St. Taree	163275	Road Match	121m
SEEDSMEN & NURSERYMEN	Dawn Nursery (The), 126 Pulteney St. Taree	164837	Road Match	121m
FRUITERERS & GREENGROCERS	Hatton, H. W., 126 Pulteney St. Taree	163293	Road Match	121m
PIANO TUNERS & REPAIRERS	Homalin, E. A. Pulteney St. Taree	164782	Road Match	121m
MILK VENDORS	Levick;. F., 102 Pulteney St. Taree	164670	Road Match	121m
BAKERS & PASTRYCOOKS	Milligan and Son (R. Milligan, Propr.), 119 Pulteney St. Taree	163054	Road Match	121m
PIE MANUFACTURERS	Milligan and Son (R. Milligan, Propr.), 119 Pulteney St. Taree	164786	Road Match	121m
BUILDERS' SUPPLIES	Nelson, H. and Son, Puiteney St. Taree	163100	Road Match	121m
ELECTRICAL APPLIANCES-RETAIL	Nelson, H. and Son, Pulteney St. Taree	163236	Road Match	121m
JOINERY WORKS	Nelson, H. and Son, Pulteney St. Taree	164604	Road Match	121m
LAWN MOWER DEALERS	Nelson, H. and Son, Pulteney St. Taree	164608	Road Match	121m
PAINT, VARNISH, OILS & COLOUR MERCHANTS	Nelson, H. and Son, Pulteney St. Taree	164776	Road Match	121m
PLUMBERS' SUPPLIES	Nelson, H. and Son, Pulteney St. Taree	164791	Road Match	121m
TIMBER MERCHANTS	Nelson, H. and Son, Pulteney St. Taree	164882	Road Match	121m
FRUIT CORDIALS ICE CREAM CONFECTIONERY	Nelson, It and Son, Pulteney St. Taree	163377	Road Match	121m
TAXIS	Page's Taxi Service, Pulteney St. Taree	164873	Road Match	121m
FUNERAL DIRECTOR	S. W. Bridge 131 Pulteney Street, Taree Taree	163242	Road Match	121m
SIGNWRITERS	Shaw, Frank, Pulteney St. Taree	164840	Road Match	121m
LOCAL BODIES	Taree Fire Station,Pulteney St. Taree	164615	Road Match	121m
INSURANCE AGENTS	Treioar, J. (Agent, National Mutual Life- Ass'n of Aust. Ltd., Sun Insrnce. Office), 62 Puiteney St. Taree	164590	Road Match	121m
CARRIERS & CARTAGE CONTRACTORS	Weiley, R. S., 116 Pulteney St. Taree	163160	Road Match	121m

Historical Business Directories

83 Albert Street, Taree, NSW 2430

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Feature Point	Direction
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Griffith, W. E., Cnr. Albert and Pulteney Sts., Taree	173365	1961	Road Intersection	136m	East
MOTOR GARAGES &/OR ENGINEERS	Alcorn's Service Station & Marine Centre, 12 Commerce St., Taree	622191	1970	Premise Match	175m	South
MOTOR GARAGES &/OR ENGINEERS	Alcorn Service Station, 12 Commerce St., Taree	173321	1961	Premise Match	175m	South
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Alcorn Service Station, 12 Commerce St., Taree	173359	1961	Premise Match	175m	South
DRY CLEANERS, PRESSERS & DYERS	Chatham Lynne's Dry Cleaners, 73 Pulteney St., Taree	172984	1961	Premise Match	180m	North East
DRY CLEANERS, PRESSERS & DYERS	Lynne's Dry Cleaners, 73 Pulteney St. Taree	163220	1950	Premise Match	181m	North East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Creber, G., 10 Commerce St., Taree	97075	1982	Premise Match	185m	South
MOTOR GARAGES &/OR ENGINEERS	Shoesmith, D., 103 Albert St., Taree	173345	1961	Premise Match	201m	South West
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Beaurepaire. Tyre Service. Pty. Ltd., 237 Victoria St., Taree	97069	1982	Premise Match	206m	South
MOTOR GARAGES &/OR ENGINEERS	Bryant Motors (Taree) Pty. Ltd., 221 Victoria St., Taree	622195	1970	Premise Match	218m	South East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Singles Service Centre, 221 Victoria St., Taree	173371	1961	Premise Match	218m	South East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Eggins Comfort Coaches, 46 Albert St., Taree	622256	1970	Premise Match	219m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Eggins Comfort Coaches, 46 Albert St., Taree	173362	1961	Premise Match	219m	East
DRY CLEANERS, PRESSERS & DYERS	Lynne's Modern Dry Cleaners, 14 Pulteney St., Taree	621622	1970	Premise Match	225m	South East
MOTOR GARAGES &/OR ENGINEERS	Central Service Station, 211 Victoria St., Taree	622198	1970	Premise Match	230m	South East
DRY CLEANERS & PRESSERS.	Lynne's Dry Cleaners, 4 Pulteney St., Taree	96536	1982	Premise Match	240m	South East
MOTOR GARAGES &/OR ENGINEERS	Central Service Station, 207 Victoria St., Taree	173323	1961	Premise Match	250m	South East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Central Service Station, 207 Victoria St., Taree	173360	1961	Premise Match	250m	South East
MOTOR SERVICE STATIONS	Central Service Station, 207 Victoria St. Taree	164740	1950	Premise Match	250m	South East
BATTERY SERVICE STATIONS	Central Service Station, 207 Victoria St. Taree	163064	1950	Premise Match	250m	South East
MOTOR GARAGES & ENGINEERS	Central Service Station, 207 Victoria St. Taree	164716	1950	Premise Match	250m	South East
MOTOR GARAGES &/OR ENGINEERS	High St., Garage, 108 High St., Taree	173332	1961	Premise Match	251m	North West
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Motel Service Station, Cnr. Commerce & Victoria Ste, Taree	622259	1970	Road Intersection	258m	South
MOTOR GARAGES &/OR ENGINEERS	Beaurepaire Tyre Service (Taree) Pty. Ltd., Victoria and Commerce Sts., Taree	173322	1961	Road Intersection	258m	South
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Jolly Swagman Motel (The), 1 Commerce St., Taree	173367	1961	Premise Match	314m	South East
MOTOR GARAGES &/OR ENGINEERS	Singles Service Centre, 223 Victoria St., Taree	622218	1970	Premise Match	338m	East
MOTOR GARAGES &/OR ENGINEERS	Clarke's Taree Motors, 219 Victoria St., Taree	173325	1961	Premise Match	338m	East
MOTOR SERVICE STATIONS	Woolcott, C. H., 165 Victoria St. Taree	164747	1950	Premise Match	346m	East

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Feature Point	Direction
MOTOR GARAGES &/OR ENGINEERS	Wrigley and Meldrum, 56 Manning St., Taree	173348	1961	Premise Match	369m	North East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Wrigley, H., 54 Manning St., Taree	173374	1961	Premise Match	369m	North East
MOTOR SERVICE STATIONS	Wrigley and Meldrum, 56 Manning St. Taree	164748	1950	Premise Match	369m	North East
MOTOR GARAGES & ENGINEERS	Wrigley and Meldrum, 56 Manning St. Taree	164723	1950	Premise Match	369m	North East
BATTERY SERVICE STATIONS	Wrigley and Meldrum, 56 Manning St. Taree	163065	1950	Premise Match	369m	North East
MOTOR SERVICE STATIONS	Wrigley, H., 54 Manning St. Taree	164749	1950	Premise Match	369m	North East
DRY CLEANERS, PRESSERS & DYERS	Taree Dry Cleaning Service, 145 Victoria St., Taree	172985	1961	Premise Match	383m	East
DRY CLEANERS, PRESSERS & DYERS	Taree Dry Cleaning Service, 145 Victoria St: Taree	163222	1950	Premise Match	383m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hardes Auto House, 61 Manning St., Taree	97084	1982	Premise Match	408m	East
MOTOR GARAGES &/OR ENGINEERS	Hardes Auto House, 61 Manning St., Taree	622210	1970	Premise Match	408m	East
MOTOR GARAGES &/OR ENGINEERS	Hardes Auto House, 61 Manning St., Taree	173331	1961	Premise Match	408m	East
MOTOR GARAGES & ENGINEERS	Hardes Auto House, 61 Manning St. Taree	164718	1950	Premise Match	408m	East
MOTOR SERVICE STATIONS	Hordes Auto House, 61 Manning St. Taree	164742	1950	Premise Match	408m	East
MOTOR GARAGES &/OR ENGINEERS	Permewans Ltd., 31 Manning St., Taree	622216	1970	Premise Match	425m	East
MOTOR GARAGES &/OR ENGINEERS	Manning Motor Co., 31 Manning St ., Taree	173335	1961	Premise Match	425m	East
DRY CLEANERS, PRESSERS & DYERS	Wonder Dry Cleaners (The), 89 Pulteney St., Taree	172986	1961	Premise Match	433m	North
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Motel Service Station, & Commerce St., Taree	97087	1982	Premise Match	439m	North West
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Somerville, A., & Commerce St., Taree	97094	1982	Premise Match	439m	North West
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Murdoch, E. W., 76 Pulteney St., Taree	97088	1982	Premise Match	445m	North
DRY CLEANERS & PRESSERS.	Taree Dry Cleaning Service, 117 Victoria St., Taree	96537	1982	Premise Match	483m	East
DRY CLEANERS, PRESSERS & DYERS	Taree Dry Cleaning Service, 111 Victoria St., Taree	621623	1970	Premise Match	489m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	CossUck, G., 130 Victoria St., Taree	173361	1961	Premise Match	550m	East
MOTOR SERVICE STATIONS	Cosstick, George, 130 Victoria St. Taree	164741	1950	Premise Match	550m	East
MOTOR GARAGES &/OR ENGINEERS	Caltex Star Service Station, 83 Victoria St., Taree	622196	1970	Road Intersection	648m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Star Service Station, 87 Victoria St., Taree	173372	1961	Road Intersection	648m	East
MOTOR GARAGES & ENGINEERS	Haden Bros., Victoria and Macquarie Sts. Taree	164717	1950	Road Intersection	648m	East
MOTOR GARAGES &/OR ENGINEERS	French, M. Auto Repairs, 5 Short St., Taree	622206	1970	Premise Match	663m	North West
MOTOR GARAGES &/OR ENGINEERS	Cordner, J. H., 5 Short St., Taree	173326	1961	Premise Match	663m	North West
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	M.N.C. Motors Pty. Ltd., 78 Victoria St., Taree	97086	1982	Premise Match	744m	East
MOTOR GARAGES &/OR ENGINEERS	Taree East-West Motors, 78 Victoria St., Taree	622220	1970	Premise Match	744m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	National Tyre Service (Taree) Pty. Ltd., 69 Victoria St., Taree	173368	1961	Premise Match	759m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Pomplun, H. S., 8 Spence St., Taree	97091	1982	Premise Match	791m	North West
MOTOR GARAGES &/OR ENGINEERS	Pomplun's Car Repairs, 8 Spence St., Taree	622217	1970	Premise Match	791m	North West
MOTOR GARAGES &/OR ENGINEERS	Listers Car Repair, 8 Spence St., Taree	173333	1961	Premise Match	791m	North West

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Feature Point	Direction
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Caltex Star Service Station, &9 Victoria St., Taree	97072	1982	Premise Match	803m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fairway Service Station. 62 Victoria St., Taree	97081	1982	Premise Match	819m	East
MOTOR GARAGES &/OR ENGINEERS	Fairway Service Station, 62 Victoria St., Taree	622205	1970	Premise Match	819m	East
MOTOR GARAGES &/OR ENGINEERS	Fairway Service Station, 62 Victoria St., Taree	173328	1961	Premise Match	819m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Fairway Service Station, 62 Victoria St., Taree	173363	1961	Premise Match	819m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station, 106 Commerce St., Taree	97083	1982	Premise Match	824m	North West
MOTOR GARAGES &/OR ENGINEERS	Golden Fleece Service Station, 106 Commerce St., Taree	622207	1970	Premise Match	830m	North West
MOTOR SERVICE STATIONS	Herberte's Taree Motors (A. H. Herberte and Son, Proprs.), Cnr. Victoria and Florence Sts. Taree	164743	1950	Road Intersection	863m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Herbertes Taree Motors, &&-Victoria St., Taree	97085	1982	Premise Match	882m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Herberte's Taree Motors, 53 Victoria St., Taree	622258	1970	Premise Match	882m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Herbert's Taree Motors, 53 Victoria St., Taree	173366	1961	Premise Match	882m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dreyers Auto Center, &8 Victoria St., Taree	97078	1982	Premise Match	901m	East
MOTOR GARAGES &/OR ENGINEERS	Cleaver Service Centre, 58 Victoria St., Taree	622199	1970	Premise Match	901m	East
MOTOR GARAGES &/OR ENGINEERS	Victoria Motors (Taree) Pty. Ltd., 58 Victoria St., Taree	173347	1961	Premise Match	901m	East
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Victoria Motors (Taree) Pty. Ltd., 58 Victoria St., Taree	173373	1961	Premise Match	901m	East
MOTOR GARAGES &/OR ENGINEERS	Taree Motorama, 47 Victoria St., Taree	622221	1970	Premise Match	950m	East
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Taree Motorama, 46 Victoria St., Taree	97099	1982	Premise Match	951m	East

Historical Business Directories

83 Albert Street, Taree, NSW 2430

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
MOTOR GARAGES &/OR ENGINEERS	Griffith, W. E., 54a Albert St., Taree	173330	1961	Road Match	0m
MOTOR GARAGES &/OR ENGINEERS	Griffith, W. E. Pty. Ltd., Pulteney St., Taree	622209	1970	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS	Murdoch, E. W., 144 Pulteney St., Taree	622213	1970	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS	Murdoch, E. W., 144 Pulteney St., Taree	173338	1961	Road Match	121m
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Singles Service Centre, 223 Victoria St., Taree	97093	1982	Road Match	231m
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Taree Auto Port, 61 Victoria St., Taree	97096	1982	Road Match	231m
MOTOR GARAGES &/OR ENGINEERS	Taree Auto-Port, 61 Victoria St., Taree	622219	1970	Road Match	231m
MOTOR GARAGES & ENGINEERS	Manning Motor Co. Pty. Ltd., Manning St. Taree	164720	1950	Road Match	352m
MOTOR SERVICE STATIONS	Manning Motor Co. Pty. Ltd., Manning St. Taree	164744	1950	Road Match	352m
DRY CLEANERS, PRESSERS & DYERS	Metcalfe, E. H., Manning St. Taree	163221	1950	Road Match	352m
MOTOR GARAGES &/OR ENGINEERS	Morris Motors, Whitbread St., Taree	173337	1961	Road Match	639m
MOTOR SERVICE STATIONS	Osmond-Dreyer, C. H., Olympia St. Taree	164745	1950	Road Match	676m
MOTOR GARAGES &/OR ENGINEERS	Berry, J. Motors, Wingham Rd., Taree	622194	1970	Road Match	944m

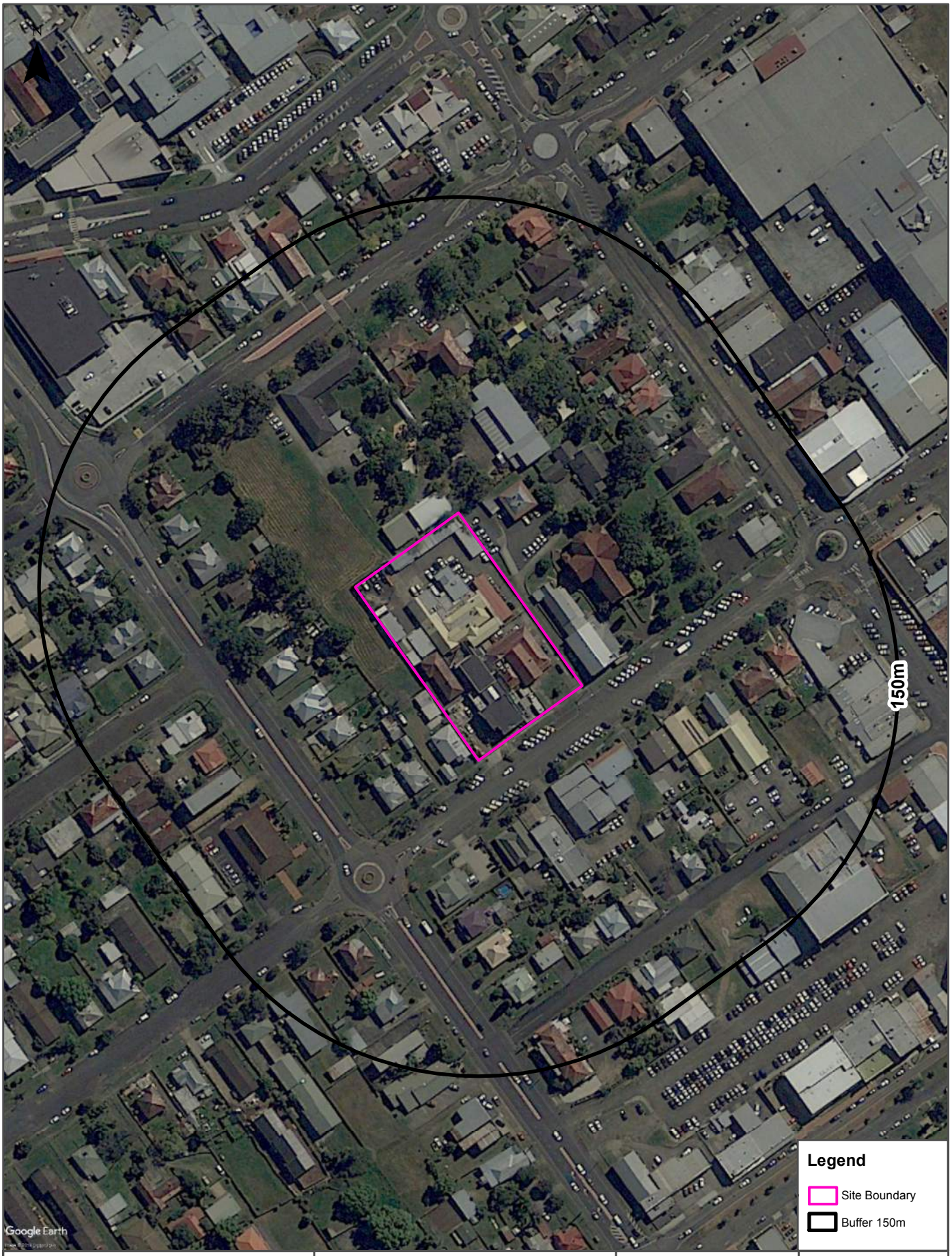
Aerial Imagery 2012

83 Albert Street, Taree, NSW 2430

Scale: 0 25 50 100 Meters	Data Sources: Aerial Imagery © Department Finance, Services & Innovation	Coordinate System: GDA 1994 MGA Zone 56	Date: 14 March 2018

Aerial Imagery 2011

83 Albert Street, Taree, NSW 2430



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Meters

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GDA 1994 MGA Zone 56

Date: 12 March, 2018

Aerial Imagery 2005

83 Albert Street, Taree, NSW 2430

Scale:
0 25 50 100
Meters

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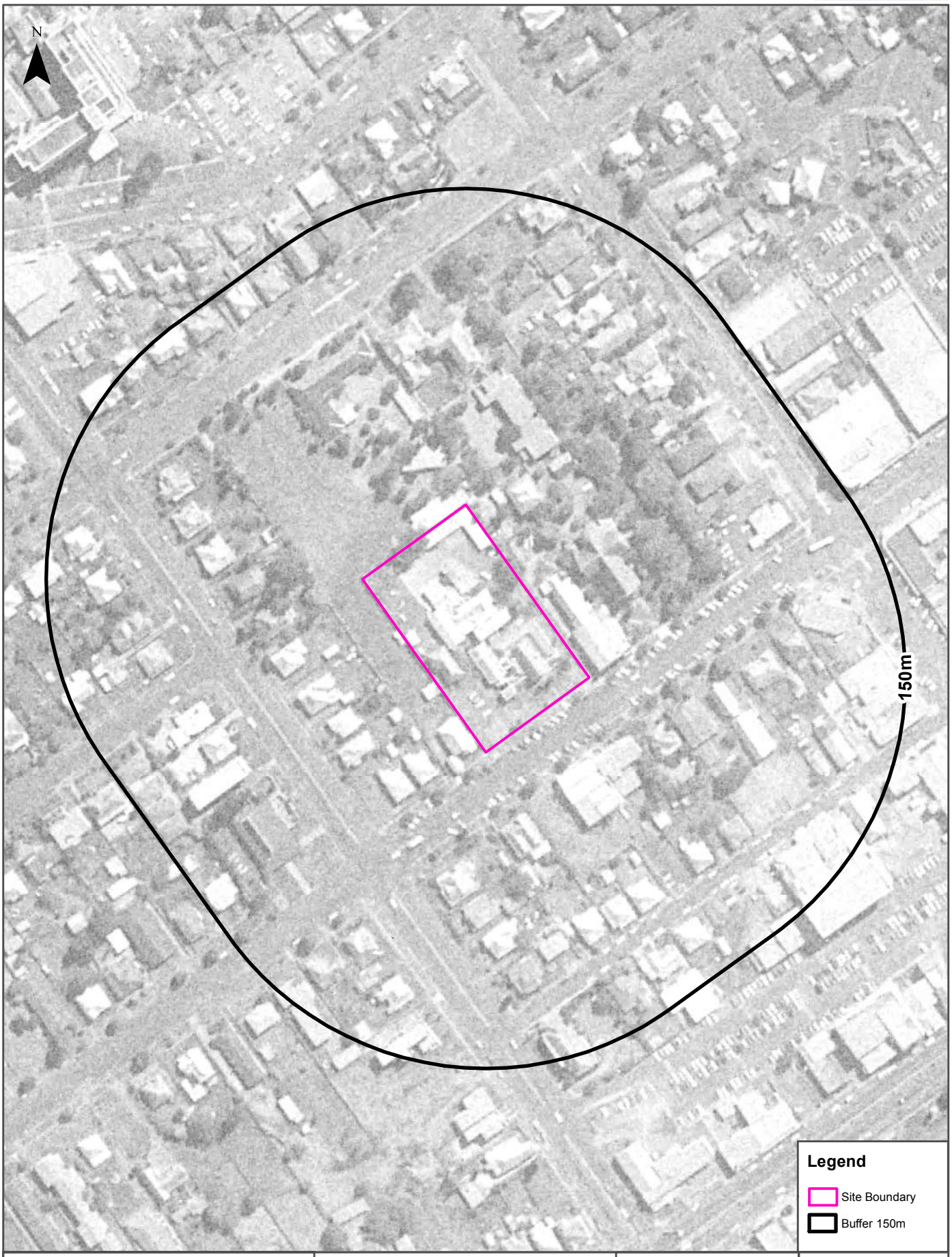
Date: 12 March, 2018

Aerial Imagery 1997

83 Albert Street, Taree, NSW 2430

Aerial Imagery 1989

83 Albert Street, Taree, NSW 2430

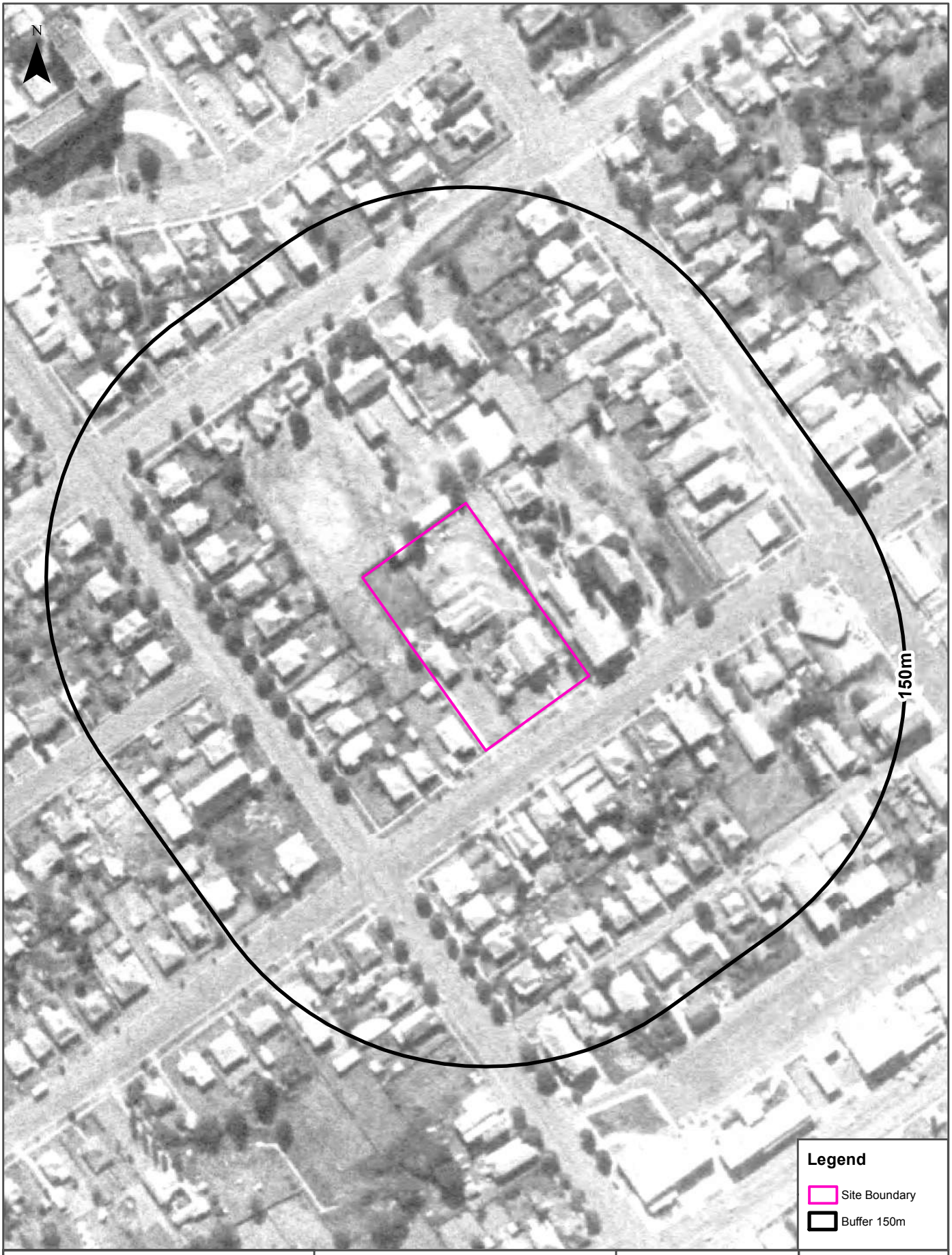


Aerial Imagery 1979

83 Albert Street, Taree, NSW 2430

Aerial Imagery 1969

83 Albert Street, Taree, NSW 2430



Aerial Imagery 1940

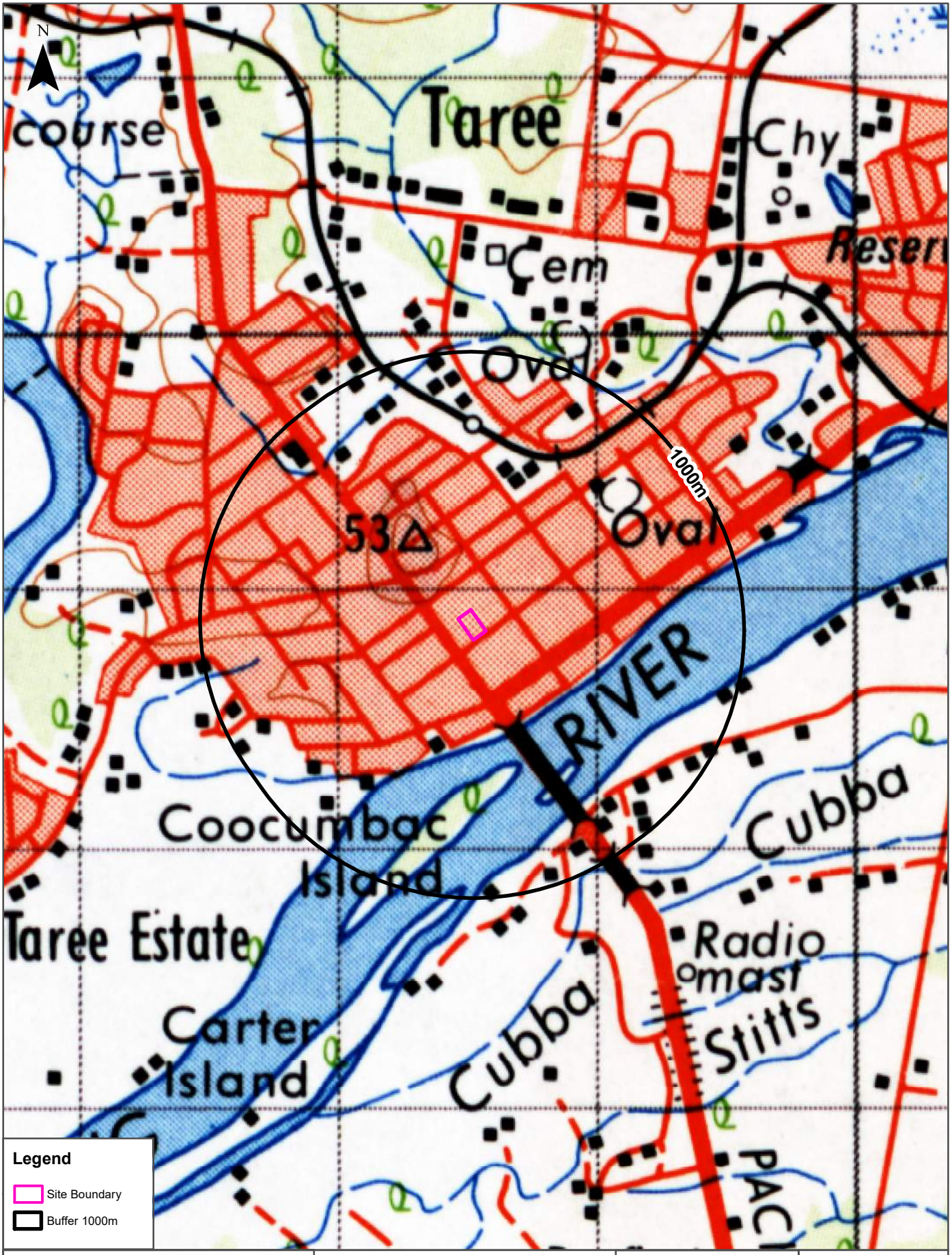
83 Albert Street, Taree, NSW 2430

Topographic Map 2015

83 Albert Street, Taree, NSW 2430

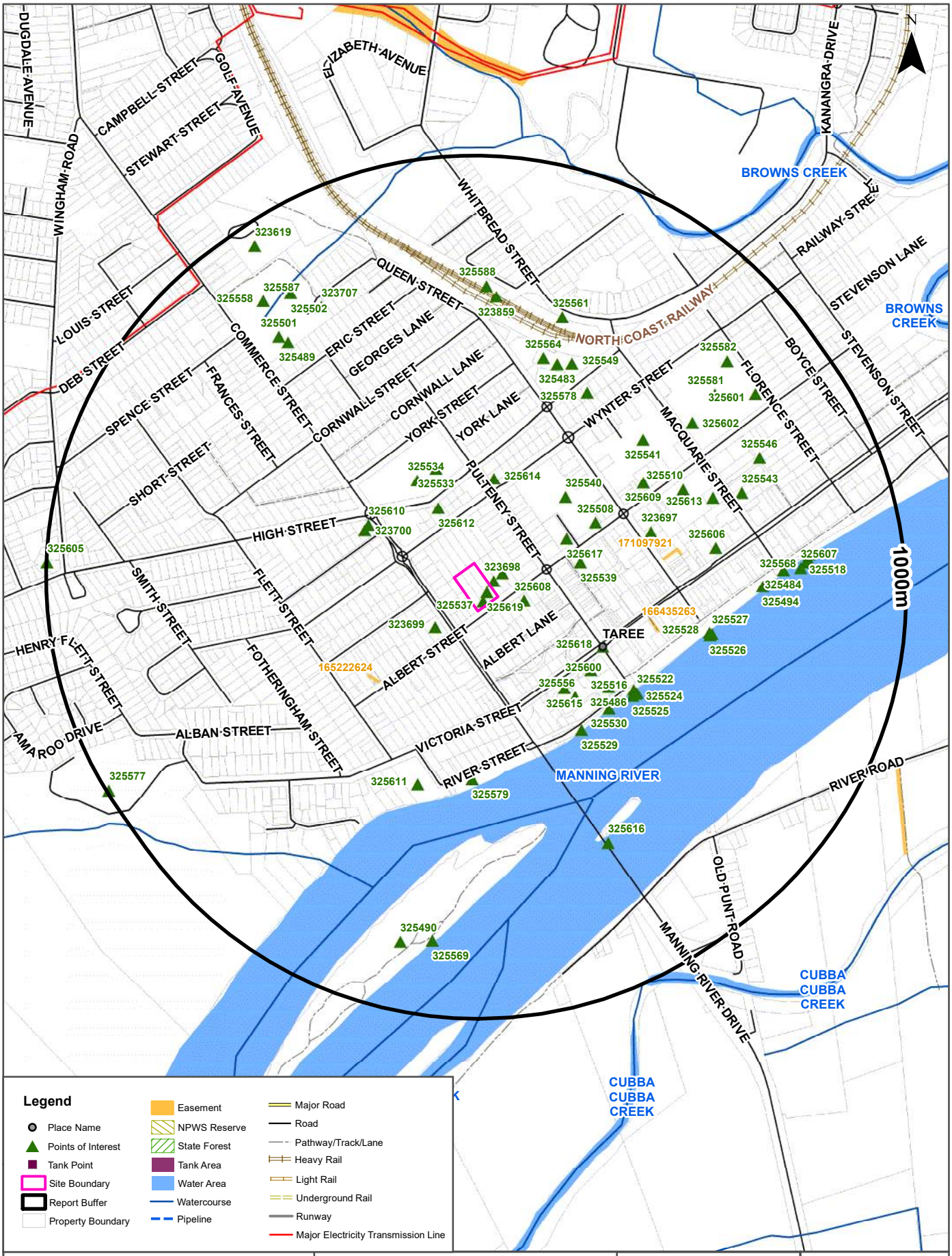
Historical Map 1974

83 Albert Street, Taree, NSW 2430



Topographic Features

83 Albert Street, Taree, NSW 2430



Legend

- Place Name
- Points of Interest
- Tank Point
- Site Boundary
- Report Buffer
- Property Boundary
- Easement
- NPWS Reserve
- State Forest
- Tank Area
- Water Area
- Watercourse
- Pipeline
- Major Road
- Road
- Pathway/Track/Lane
- Heavy Rail
- Light Rail
- Underground Rail
- Runway
- Major Electricity Transmission Line

Scale: 0 100 200 400 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 14 March 2018

Topographic Features

83 Albert Street, Taree, NSW 2430

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
325537	Police Station	TAREE POLICE STATION	0m	Onsite
325619	Court House	TAREE COURT HOUSE	0m	Onsite
323698	Community Facility	SAINT MARY'S TAREE CHURCH HALL AND RESOURCE CENTRE	14m	East
325536	Place Of Worship	CATHOLIC CHURCH	42m	North East
325608	Place Of Worship	PRESBYTERIAN CHURCH	64m	East
323699	Community Facility	ORMSBY HOUSE MANNING VALLEY SENIOR CITIZENS HOME	108m	South West
325612	Place Of Worship	MORMON CHURCH	162m	North West
325614	Fire Station	TAREE FIRE STATION	213m	North
325539	Shopping Centre	TAREE PLAZA	219m	East
325617	Community Home	TRANSITIONAL AGED CARE SERVICE-LOWER MID NTH COAST	220m	North East
325610	Place Of Worship	NEW LIFE WORSHIP	246m	North West
325534	General Hospital	MANNING HOSPITAL	247m	North West
323700	Community Facility	TAREE BAPTIST CHURCH HALL	248m	North West
325533	Medical Centre	TAREE COMMUNITY HEALTH CENTRE	250m	North
325600	Monument	TAREE WAR MEMORIAL CLOCK	265m	South East
325615	Monument	TAREE HONOUR ROLLS	277m	South East
325540	Shopping Centre	TAREE CENTRAL	277m	North East
325618	Town	TAREE	284m	South East
325516	Library	GREATER TAREE CITY LIBRARY	290m	South East
325508	Post Office	TAREE POST OFFICE	300m	North East
325556	Park	FOTHERINGHAM PARK	310m	South East
325486	Local Government Chambers	GREATER TAREE CITY COUNCIL	350m	South East
325529	Boat Ramp	Boat Ramp	385m	South East
325530	Boat Ramp	Boat Ramp	386m	South East
325523	Wharf	Wharf	403m	South East
323697	Community Facility	SALVATION ARMY GENERAL PURPOSE HALL	407m	East
325525	Wharf	Wharf	410m	South East
325524	Wharf	Wharf	411m	South East
325579	Swimming Pool	Swimming Pool	412m	South
325521	Wharf	Wharf	414m	South East
325522	Wharf	Wharf	415m	South East
325611	Place Of Worship	ANGLICAN CHURCH	449m	South

Map Id	Feature Type	Label	Distance	Direction
325609	Place Of Worship	MANNING UNITING CHURCH	452m	North East
325578	Place Of Worship	HIGH ST PRESBYTERIAN	503m	North East
325541	Shopping Centre	MANNING MALL	513m	North East
325510	Primary School	TAREE PUBLIC SCHOOL	524m	North East
325528	Wharf	Wharf	525m	East
325526	Wharf	Wharf	528m	East
325483	Club	TAREE RAILWAY INSTITUTE BOWLING CLUB	529m	North
325564	Sports Field	BOWLING GREEN	531m	North
325527	Wharf	Wharf	532m	East
325549	Sports Field	BOWLING GREEN	546m	North East
325606	Place Of Worship	CHURCH OF CHRIST	547m	East
325613	Art Gallery	MANNING REGIONAL ART GALLERY	580m	East
325602	Sports Court	TAREE SKATE PARK	635m	North East
325561	Park	RAILWAY PARK	641m	North
325543	Education Facility	TAREE COMMUNITY COLLEGE	649m	East
325494	Park	QUEEN ELIZABETH PARK	649m	East
325616	Island	COOLOOGLUNGAT ISLAND	652m	South East
323859	Railway Station	TAREE RAILWAY STATION	656m	North
325588	Historic Site	TAREE RAILWAY STATION GROUP	681m	North
325484	Club	TAREE AQUATIC CLUB	702m	East
325489	Sports Centre	TAREE TENNIS CENTRE	706m	North West
325581	Sports Field	JOHNNY MARTIN OVAL	721m	North East
325546	High School	TAREE HIGH SCHOOL	726m	North East
325501	Sports Court	TENNIS COURTS	730m	North West
323707	Community Facility	TAREE GIRL GUIDES HALL	732m	North West
325607	Wharf	Wharf	745m	East
325568	Wharf	Wharf	762m	East
325519	Wharf	Wharf	763m	East
325520	Wharf	Wharf	767m	East
325518	Slipway	Slipway	771m	East
325582	Park	PLAYGROUND	794m	North East
325502	Sports Court	TENNIS COURTS	800m	North West
325601	Sports Field	CROQUET GREENS	803m	North East
325569	Wharf	Wharf	816m	South
325587	Sports Field	CRICKET FIELD	824m	North West
325558	Park	WRIGLEY PARK	824m	North West
325490	Island	COOCUMBAC ISLAND	832m	South
323619	Community Facility	TAREE PCYC	946m	North West
325577	TAFE College	TAREE TAFE COLLEGE	993m	South West
325605	Child Care Centre	BRIGHT BEGINNINGS CHILDRENS CENTRE	998m	West

Topographic Features

83 Albert Street, Taree, NSW 2430

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Major Easements

What Major Easements exist within the dataset buffer?
Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
165222624	Secondary	Easement for Access		296m	South West
166435263	Primary	Right of way	VAR	375m	East
171097921	Primary	Right of way		415m	East

Topographic Features

83 Albert Street, Taree, NSW 2430

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

Elevation Contours (m AHD)

83 Albert Street, Taree, NSW 2430

Legend

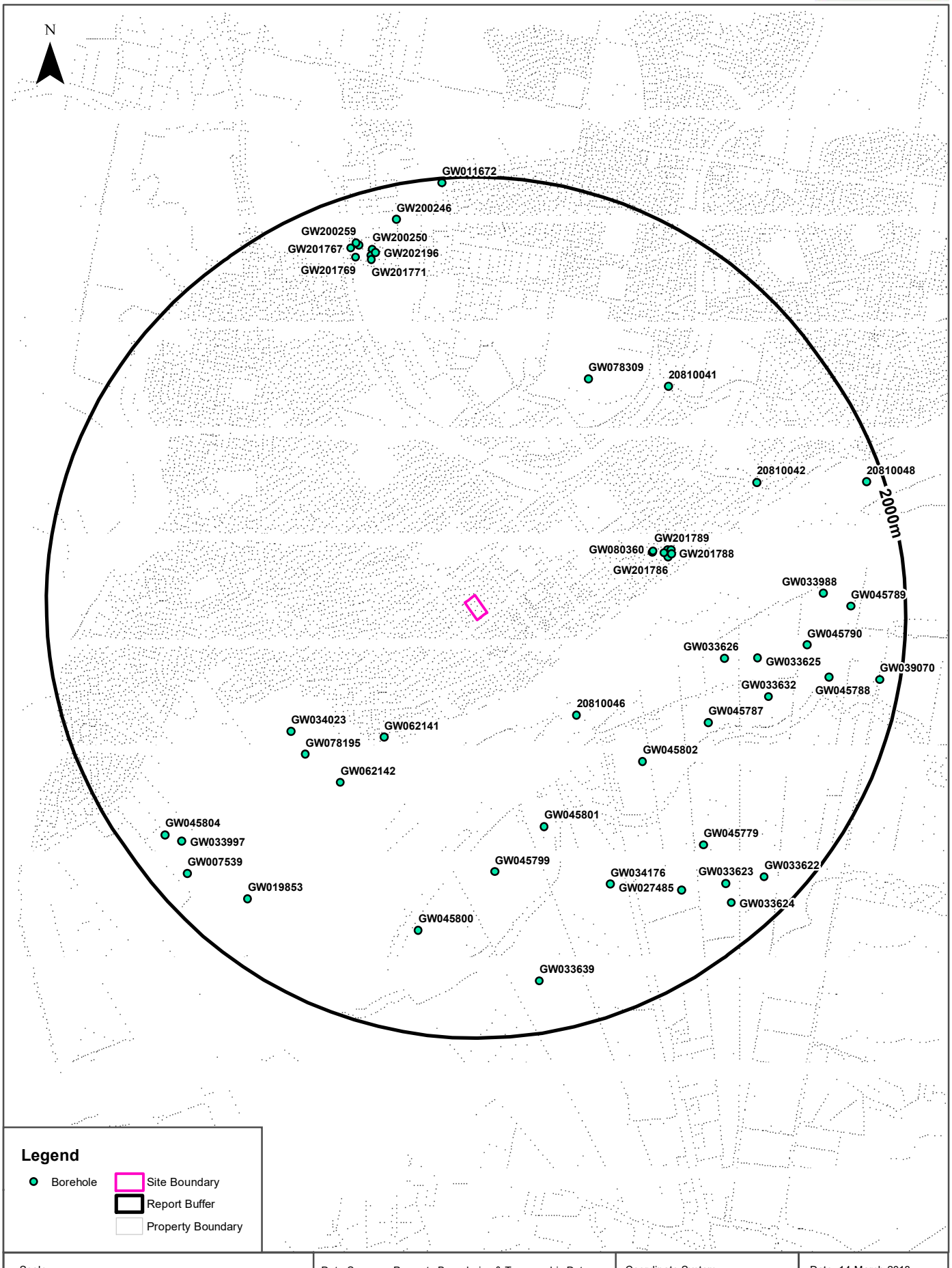
- Elevation Contour (m AHD)
- Site Boundary
- Report Buffer
- Property Boundary

Accuracy & Currency: This contour data can be up to 0.4 of the contour interval out in height and must therefore not be used for any design or engineering works, but only as a general guide to topography. Gaps may occur along contour lines due to vertical topography, obscured topography in the source photography such as buildings, dense vegetation or dead ground, or the fact that original buildings have been replaced in the intervening thirty years since the original contour capture.

Scale: 0 100 200 400 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018	Coordinate System: GDA 1994 MGA Zone 56	Date: 14 March 2018

Groundwater Boreholes

83 Albert Street, Taree, NSW 2430



Hydrogeology & Groundwater

83 Albert Street, Taree, NSW 2430

Hydrogeology

Description of aquifers on-site:

Description
Porous, extensive highly productive aquifers

Description of aquifers within the dataset buffer:

Description
Porous, extensive highly productive aquifers

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
20810046				UNK								1.00	651m	South East
GW062141	30BL126931	Well	Private	Irrigation		01/01/1983	8.00		Salty				715m	South West
GW080360	20BL168623	Well		Monitoring		19/12/2002	5.40						840m	East
GW080362	20BL168623	Well				01/10/2002	6.00						845m	East
GW201790	20BL169585	Bore	Private	Monitoring	Total Drilling	16/11/2004	4.10	4.10				8.87	893m	East
GW201786	20BL169585	Bore	Private	Monitoring	Total Drilling	16/11/2004	13.00	13.00				8.99	905m	East
GW201789	20BL169585	Bore	Private	Monitoring	Total Drilling	16/11/2004	4.10	4.10		0.30		8.81	914m	East
GW201787	20BL169585	Bore	Private	Monitoring	Total Drilling	16/11/2004	4.00	4.00		0.90		8.99	924m	East
GW201788	20BL169585	Bore	Private	Monitoring	Total Drilling	17/11/2004	4.10	4.10		0.40		8.82	928m	East
GW062142	30BL126947	Well	Private	Irrigation		01/01/1984	8.00						1015 m	South West
GW045802		Well	Private	Irrigation		01/01/1930	5.20	5.20					1031 m	South East
GW034023	30BL026324	Well	Private	Stock			4.60						1033 m	South West
GW045801		Well	Private	Irrigation		01/01/1965	6.00	6.00					1040 m	South
GW078195	20BL166884, 20CA211241	Bore		Irrigation	Country To Coast Drilling	03/09/1998	15.70	15.70		10.00			1042 m	South West
GW033626	20BL026820	Well	Private			01/01/1940	1.90						1156 m	East
GW078309	20BL166086	Bore			Country To Coast Drilling	07/10/1994	16.60	16.60	9000				1167 m	North East
GW045787		Well	Private	Irrigation		01/01/1965	5.10	5.18					1182 m	South East
GW045799		Well	Private	Irrigation		01/01/1965	5.80	5.80					1209 m	South
GW033625	20BL026821	Well	Private			01/01/1965	4.00	4.00	501-1000 ppm				1311 m	East

GW No.	Licence No	Work Type	Owner Type	Purpose	Contractor	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
20810041				UNK								1.45	1361 m	North East
GW033632		Well	Private			01/01/1920	3.40						1405 m	East
GW034176	20BL026768	Well	Private	Stock		01/01/1969	8.10		Good				1416 m	South East
20810042				UNK								3.10	1431 m	North East
GW045800		Well	Private	Irrigation		01/01/1968	5.10	5.20					1511 m	South
GW045779		Well	Private	Irrigation		01/01/1960	7.30	7.30					1520 m	South East
GW045790		Well	Private	Irrigation		01/01/1960	3.70	3.70					1537 m	East
GW033988	20BL026786	Well	Private	Domestic, Stock		01/01/1945	4.00	4.00					1609 m	East
GW027485	20BL020789	Well	Private	Irrigation		01/07/1964	6.10	6.10	Excellent				1622 m	South East
GW045788		Well	Private	Irrigation		01/01/1920	4.60	4.60					1664 m	East
GW201771	20BL169662	Bore	Private	Monitoring	Total Drilling	19/11/2004	1.70	1.70		0.40		11.58	1678 m	North
GW201770	20BL169662	Bore	Private	Monitoring	Total Drilling	19/11/2004	9.00	9.00				11.68	1698 m	North
GW202196	20BL169942	Bore	Private	Monitoring	Parsons Brinckerhoff	24/11/2005	10.50	10.50					1706 m	North
GW201769	20BL169662	Bore	Private	Monitoring	Total Drilling	19/11/2004	20.00	20.00				14.08	1712 m	North
GW200250	20BL169941	Bore	Private	Monitoring	Parsons Brinckerhoff	24/11/2005	9.00	9.00					1723 m	North
GW019853	30BL012399	Well	Private	Irrigation		01/10/1962	11.60	11.60	0-500 ppm				1726 m	South West
GW033623	20BL026809	Well	Private			01/01/1930	3.60						1727 m	South East
GW045789		Well	Private	Irrigation		01/01/1965	4.80	4.90					1738 m	East
GW033639	20BL027013	Well	Private			01/01/1920	12.10						1754 m	South
GW201767	20BL169662	Bore	Private	Monitoring	Total Drilling	19/11/2004	11.80	11.80		0.40		14.70	1762 m	North
GW201768	20BL169662	Bore	Private	Monitoring	Total Drilling	19/11/2004	11.60	11.60				14.26	1763 m	North
GW033997	30BL026280	Well	Private	Stock			4.50						1764 m	South West
GW200259	20BL169942	Bore		Monitoring	Parsons Brinckerhoff	23/11/2005	8.05	8.05		5.90			1777 m	North
GW045804		Well	Private	Irrigation		01/01/1971	9.40						1810 m	South West
GW033624	20BL026810	Well	Private			01/01/1971	4.80	4.90					1815 m	South East
GW033622	20BL026808	Well	Private			01/01/1960	4.40	4.60					1832 m	South East
GW200246	20BL169942	Bore		Monitoring	Parsons Brinckerhoff	25/11/2005	9.00	9.00					1835 m	North
GW007539		Well	Private				5.30						1840 m	South West
GW039070		Bore	NSW Office of Water	Monitoring		01/07/1973	23.80	23.80	1250	2.56	4.100	2.77	1905 m	East
20810048				UNK								1.00	1918 m	East
GW011672	30BL004563	Bore	Private	Domestic, Stock		01/12/1955	7.30	7.30	Good Stock				1976 m	North

Hydrogeology & Groundwater

83 Albert Street, Taree, NSW 2430

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW201790	0.00m-0.20m Fill; Concrete 0.20m-0.30m Fill; Sand, fine-medium grained, pale brown, moist 0.30m-0.40m Fill; Gravelly Sandy Clay, high plasticity, grey/brown, fine-coarse sand, fine-coarse gravel, with some brick & building 0.40m-3.00m Sandy Clay; high plasticity, grey/brown, fine-medium sand, with trace of fine-coarse gravel 3.00m-4.10m Sandy Clay; low plasticity, pale brown, fine-coarse sand	893m	East
GW201786	0.00m-0.16m Fill; Concrete 0.16m-0.36m Fill; Beach Sand, quartzose, fine-medium grained, moderately-well sorted 0.36m-3.00m Silty Clay; dark brown, hgih plasticity 3.00m-13.00m Sandy Clay; high plasticity, fine-coarse grained sand, pale brown, some fine-coarse grained gravel, residual	905m	East
GW201789	0.00m-0.20m Fill; Concrete 0.20m-0.30m Sand; fine-medium grained, pale brown, moist 0.30m-3.20m Sandy Clay; high plasticity, dark brown, fine-coarse sand, with some fine-coarse gravel 3.20m-4.10m Sandy Clay; medium plasticity, yellow/brown, fine-coarse sand	914m	East
GW201787	0.00m-0.18m Fill; Concrete 0.18m-0.38m Fill; Beach Sand, quartzose, fine-medium grained 0.38m-0.98m Silt, Sandy; brown 0.98m-4.00m Sandy Silty Clay; brown, wet	924m	East
GW201788	0.00m-0.20m Fill; Concrete 0.20m-0.30m Fill; sand, fine to medium grained, pale brown 0.30m-3.70m Sandy Clay; high plasticity, dark brown, fine-coarse sand, trace of fine-coarse gravel, moist @ 2m 3.70m-4.10m Sandy Clay; low plasticity, yellow brown, fine-coarse grained	928m	East
GW045802	0.00m-3.05m Soil 3.05m-3.66m Clay Water Supply 3.66m-5.18m Gravel Fine Water Supply	1031m	South East
GW045801	0.00m-6.02m Soil Nominal 0.00m-6.02m Gravel River Nominal Water Supply	1040m	South
GW078195	0.00m-0.50m TOPSOIL 0.50m-3.00m SANDY LOAM 3.00m-4.00m GREY CLAY 4.00m-5.00m GREY SOFT MUDSTONE 5.00m-6.50m BROWN SANDY LOAM 6.50m-9.00m BROWN CLAY & GRAVEL 9.00m-11.00m SMALL GRAVELS 11.00m-12.40m CLAY & GRAVEL 12.40m-15.70m WATER BEARING GRAVELS	1042m	South West
GW078309	0.00m-2.00m fill 2.00m-6.00m clay 6.00m-16.60m yellow shale	1167m	North East
GW045787	0.00m-2.44m Loam 2.44m-5.18m Gravel Water Supply	1182m	South East
GW045799	0.00m-4.27m Soil 4.27m-5.79m Gravel Water Supply	1209m	South
GW033625	0.00m-1.22m Loam Sandy 1.22m-3.96m Gravel	1311m	East
GW045800	0.00m-4.27m Soil 4.27m-5.18m Gravel Water Supply	1511m	South
GW045779	0.00m-6.10m Loam 6.10m-6.71m Sand Fine Water Supply 6.71m-7.32m Gravel Water Supply	1520m	South East
GW045790	0.00m-1.22m Loam 1.22m-3.66m Gravel River Water Supply	1537m	East
GW033988	0.00m-1.82m Loam Sandy 1.82m-3.96m Gravel Water Supply	1609m	East
GW027485	0.00m-6.10m Silt Water Supply	1622m	South East
GW045788	0.00m-1.83m Loam 1.83m-4.57m Gravel Water Supply	1664m	East

Groundwater No	Drillers Log	Distance	Direction
GW201771	0.00m-0.20m Fill; Concrete 0.20m-0.40m Fill; Gravelly Clay, orange brown 0.40m-1.00m Clay; grey brown, minor gravel 1.00m-1.70m Gravel, Clayey; orange grey mottled, tends to weathered igneous	1678m	North
GW201770	0.00m-0.40m Sand, Gravelly Clayey; brown grey 0.40m-9.00m Gravel, Clayey; igneous, angular, brown orange, medium plasticity fines	1698m	North
GW202196	0.00m-0.90m Fill; Gravelly Sand, fine-medium grained, brown, angular gravel 0.90m-10.50m Sandstone, weathered; fine-medium grained, brown/grey	1706m	North
GW201769	0.00m-1.00m Gravel, Clayey; Igneous, brown, angular, gravel increasing in suze up to 200mm 1.00m-20.00m Igneous Rock; weathered, yellow/grey	1712m	North
GW200250	0.00m-0.20m Fill; gravelly sandy clay, low plasticity, brown, fine-medium grained sand, angular gravel, dry 0.20m-1.00m Sandy Clay; low plasticity, brown, fine-medium grained sand 1.00m-9.00m Sandstone; weathered, fine-medium grained, grey/brown	1723m	North
GW019853	0.00m-1.37m Soil 1.37m-3.66m Clay Yellow Water Supply 3.66m-4.88m Vegetation Decomposed 4.88m-6.25m Clay Grey 6.25m-8.53m Loam Hard Sandy 8.53m-9.14m Clay White Very Hard 9.14m-9.75m Sand Coarse Large Gravel 9.75m-10.36m Sand Very Hard Fine 10.36m-11.58m Gravel Coarse Pebbles/pebbly	1726m	South West
GW045789	0.00m-1.83m Loam Sandy 1.83m-4.88m Gravel Water Supply	1738m	East
GW201767	0.00m-0.16m Fill; Concrete 0.16m-0.36m Clay; orange/brown, abundant igneous gravel, angular, up to 30mm 0.36m-11.80m Igneous, residual; green grey, fine grained, angular, jointed, joints containing abundant moist clay	1762m	North
GW201768	0.00m-0.20m Topsoil; grey brown, sandy 0.20m-0.40m Clay, Gravelly; yellow grey mottled 0.40m-0.60m Gravel, Igneous; potentially in-situ, moderately weathered 0.60m-1.50m Sandy Clay; high plasticity, dark brown, fine to coarse sand 1.50m-11.60m Igneous Rock; highly weathered, remoulds to Clayey Gravelly Sand, fine to coarse sand, yellow brown, fine to medium grav	1763m	North
GW200259	0.00m-0.17m concrete 0.17m-0.25m gravel (sandy) 0.25m-1.40m clay (silty) 1.40m-8.05m sandstone (weathered)	1777m	North
GW033624	0.00m-3.05m Loam 3.05m-3.66m Sand Water Bearing 3.66m-4.88m Gravel Water Bearing	1815m	South East
GW033622	0.00m-2.44m Loam 2.44m-4.57m Gravel Water Supply	1832m	South East
GW200246	0.00m-0.90m clay (medium plasicity brown) 0.90m-9.00m sandstone (weathered orange/grey)	1835m	North
GW039070	0.00m-2.44m Topsoil 2.44m-4.88m Clay Gravel Sand 4.88m-11.16m Sand Gravel Water Supply 11.16m-13.11m Clay Black Orange 13.11m-14.02m Sand Fine 14.02m-22.86m Gravel Sand Coarse Water Supply 22.86m-23.47m Rock 23.47m-23.77m Rock Grey	1905m	East
GW011672	0.00m-5.33m Loam Sandy 5.33m-5.94m Gravel Fine 5.94m-7.32m Gravel Coarse River Water Supply	1976m	North

Geology 1:250,000

83 Albert Street, Taree, NSW 2430

Geology

83 Albert Street, Taree, NSW 2430

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Ceg	Turbiditic lithic and volcanolithic sandstone and interbedded siltstone with minor conglomerate, tuff, calcareous sandstone, crinoidal sandstone and limestone.	Pappinbarra Formation			Palaeozoic			1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Ceg	Turbiditic lithic and volcanolithic sandstone and interbedded siltstone with minor conglomerate, tuff, calcareous sandstone, crinoidal sandstone and limestone.	Pappinbarra Formation			Palaeozoic			1:250,000
Qa	Undifferentiated alluvial plain; sand, silt, clay, gravel of alluvial/ fluvial deposits, some colluvium and residual soils	undifferentiated			Cainozoic			1:250,000
w	Water				Cainozoic			1:250,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:250,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
Fault		Fault, Concealed	Bohena	1:250,000
Fault		Fault, Concealed	Bohena	1:250,000
Fault		Fault, Concealed	Bohena	1:250,000
Fault		Fault, Approximate	Bohena	1:250,000
Fault		Fault, Concealed	Bohena	1:250,000
Fault		Fault, Concealed	Bohena	1:250,000
Fault		Fault, Approximate	Bohena	1:250,000
Fault		Fault, Concealed	Bohena	1:250,000

Naturally Occurring Asbestos Potential

83 Albert Street, Taree, NSW 2430

Naturally Occurring Asbestos Potential

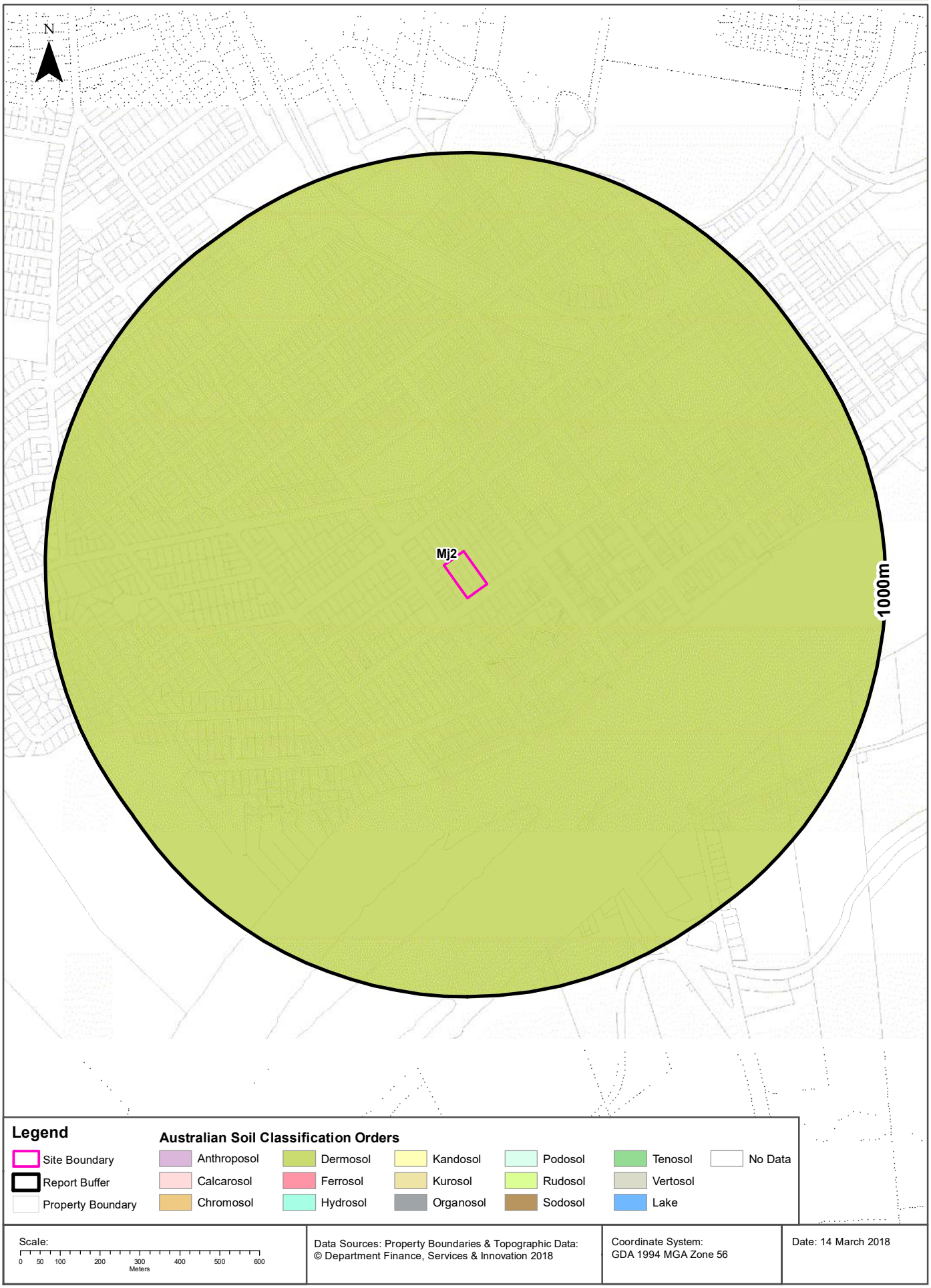
Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Atlas of Australian Soils

83 Albert Street, Taree, NSW 2430



Soils

83 Albert Street, Taree, NSW 2430

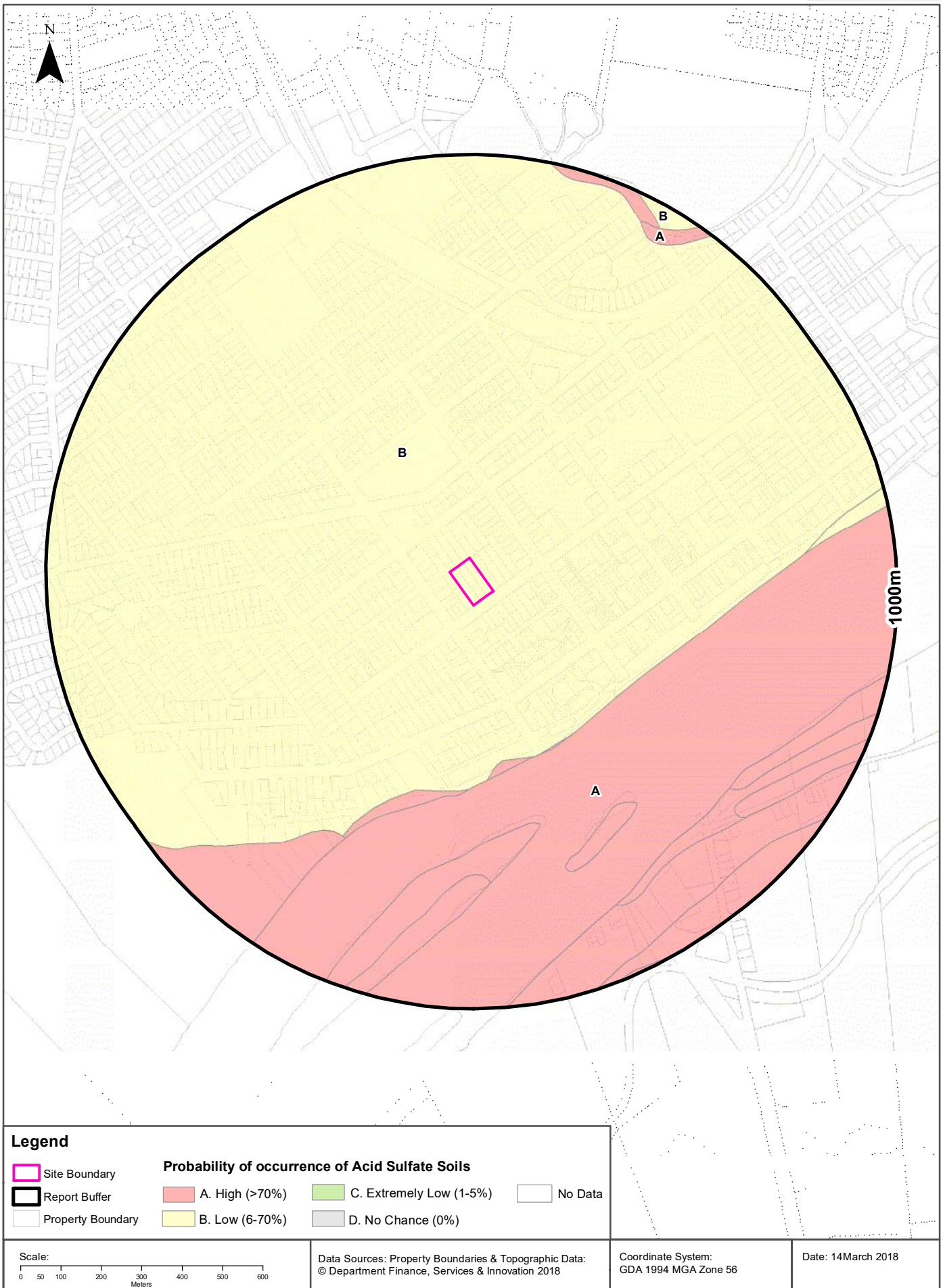
Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
Mj2	Dermosol	Dissected river terraces and adjoining undulating to low hilly slopes: chief soils in a complex soil situation seem to be acid red friable earths (Gn3.14), generally as follows: high terraces of acid red friable earths (Gn3.11 and Gn3.14), and/or friable acidic red and red mottled soils (Dr4.21) and (DrS.21) with hard acidic yellow mottled soils (Dy3.41), sometimes with hard pans below the solum, and possibly other (undescribed) soils on the flatter and often less well-drained areas. Lower terraces, in descending order, have dark porous loamy soils (Um6. 11 and/or Um6. 12), which may be extensive, locally; other loamy soils such as (Um5.2); present flood-plain deposits of (Uc1.2) and/or (Um1.21) soils. Adjoining slopes have soils of units Tb43 and to a lesser extent Ta7. As mapped, small areas of unit Mc2 are included. Note that the full sequence of terraces and therefore of soils is rarely expressed in any given locality.	0m

Atlas of Australian Acid Sulfate Soils

83 Albert Street, Taree, NSW 2430



Acid Sulfate Soils

83 Albert Street, Taree, NSW 2430

Standard Local Environmental Plan Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

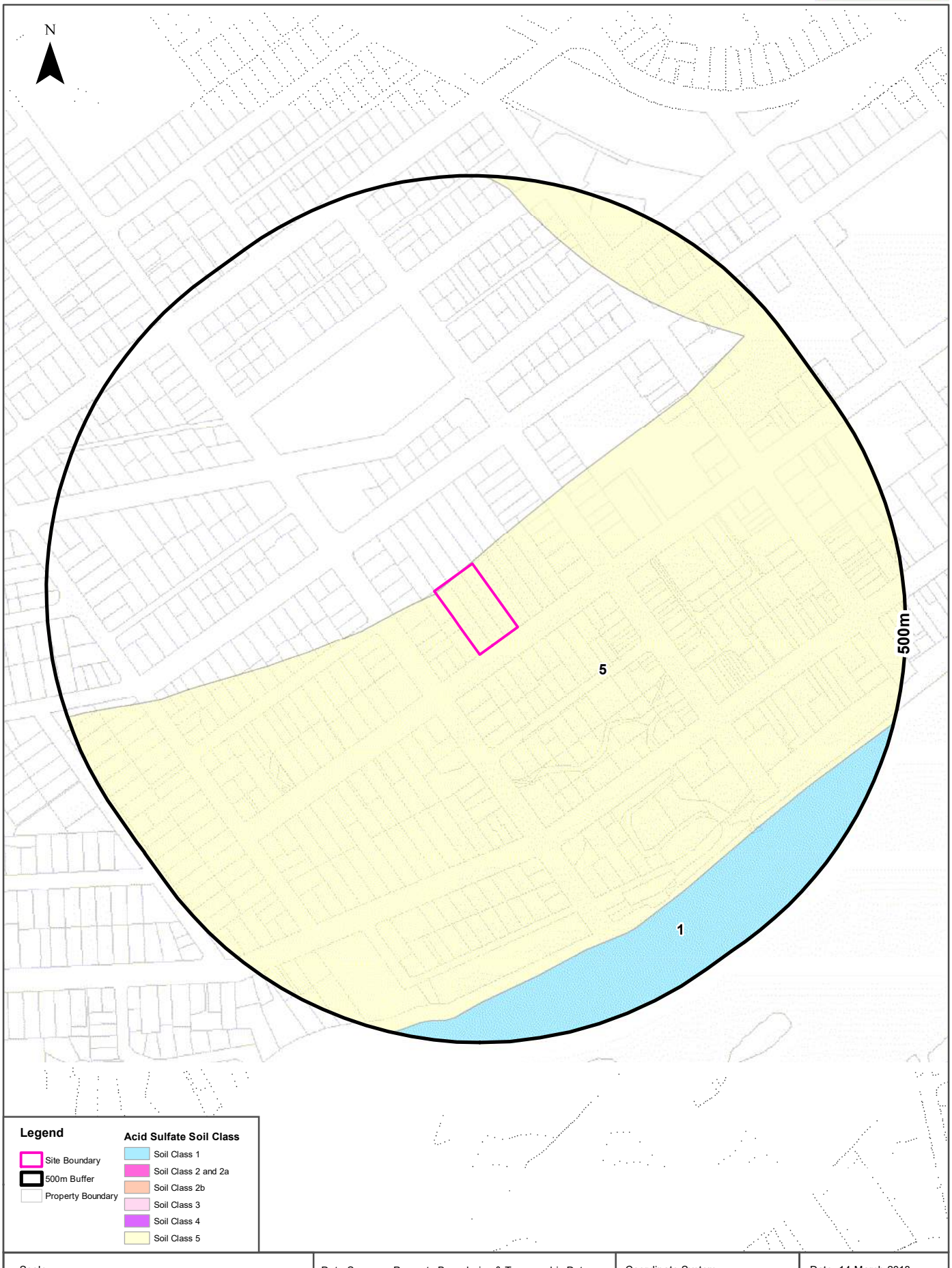
Soil Class	Description	LEP
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Greater Taree Local Environmental Plan 2010

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	LEP	Distance	Direction
1	Any works present an environmental risk	Greater Taree Local Environmental Plan 2010	397m	South East

Acid Sulfate Soils

83 Albert Street, Taree, NSW 2430



Acid Sulfate Soils

83 Albert Street, Taree, NSW 2430

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m
A	High Probability of occurrence. >70% chance of occurrence.	391m

Dryland Salinity

83 Albert Street, Taree, NSW 2430

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A	N/A	N/A

Dryland Salinity Data Source : National Land and Water Resources Audit
The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.
In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
N/A	Outside Data Coverage			

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage

Mining Subsidence Districts

83 Albert Street, Taree, NSW 2430

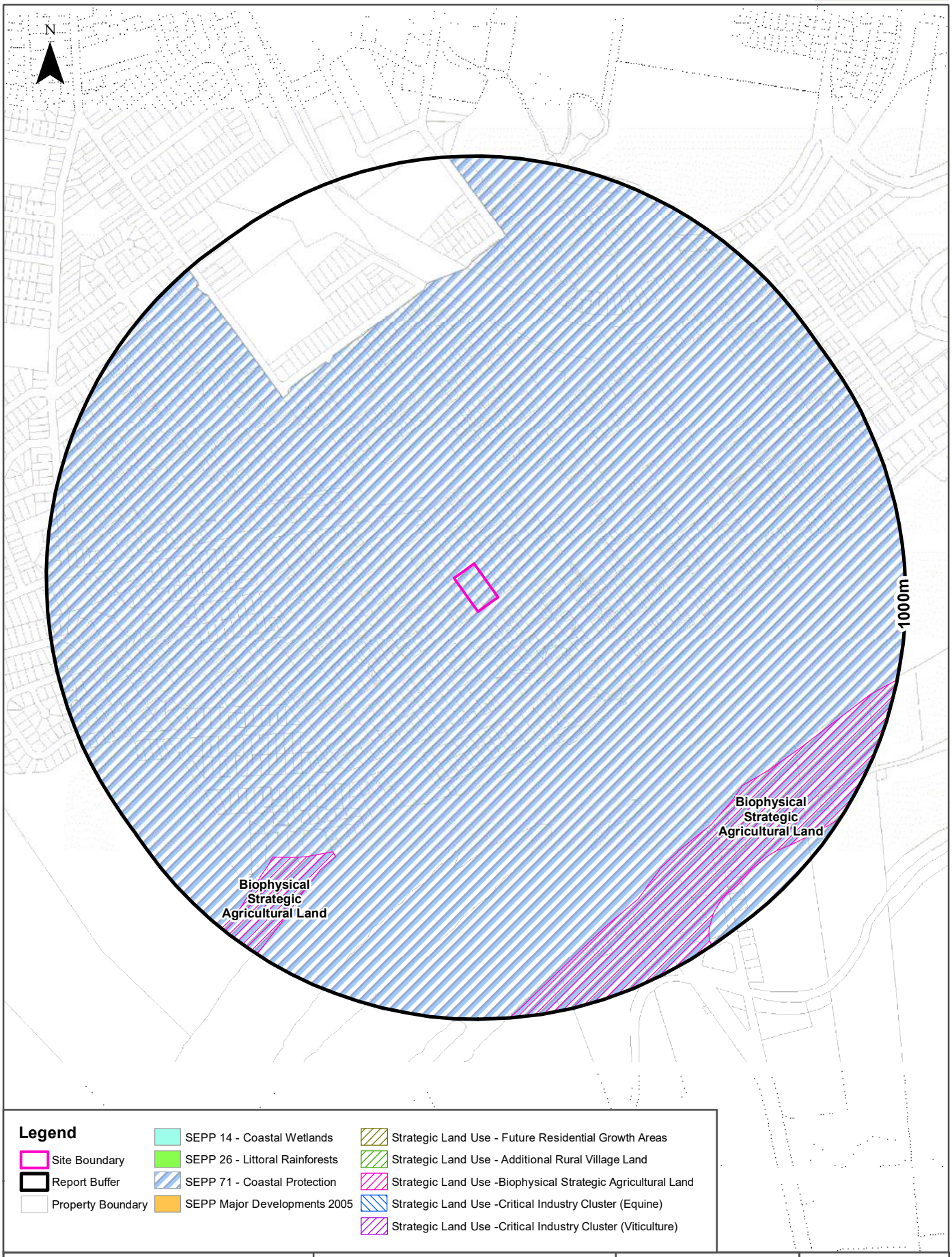
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

State Environmental Planning Policy

83 Albert Street, Taree, NSW 2430



Environmental Zoning

83 Albert Street, Taree, NSW 2430

State Environmental Planning Policy Protected Areas

Are there any State Environmental Planning Policy Protected Areas onsite or within the dataset buffer?

Dataset	Onsite	Within Site Buffer	Distance
SEPP14 - Coastal Wetlands	No	No	N/A
SEPP26 - Littoral Rainforests	No	No	N/A
SEPP71 - Coastal Protection Zone	Yes - SEPP71 covers 100% of the site	Yes	0m

State Environmental Planning Policy Major Developments (2005)

State Environmental Planning Policy Major Developments within the dataset buffer:

Map Id	Feature	Effective Date	Distance	Direction
N/A	No records within buffer			

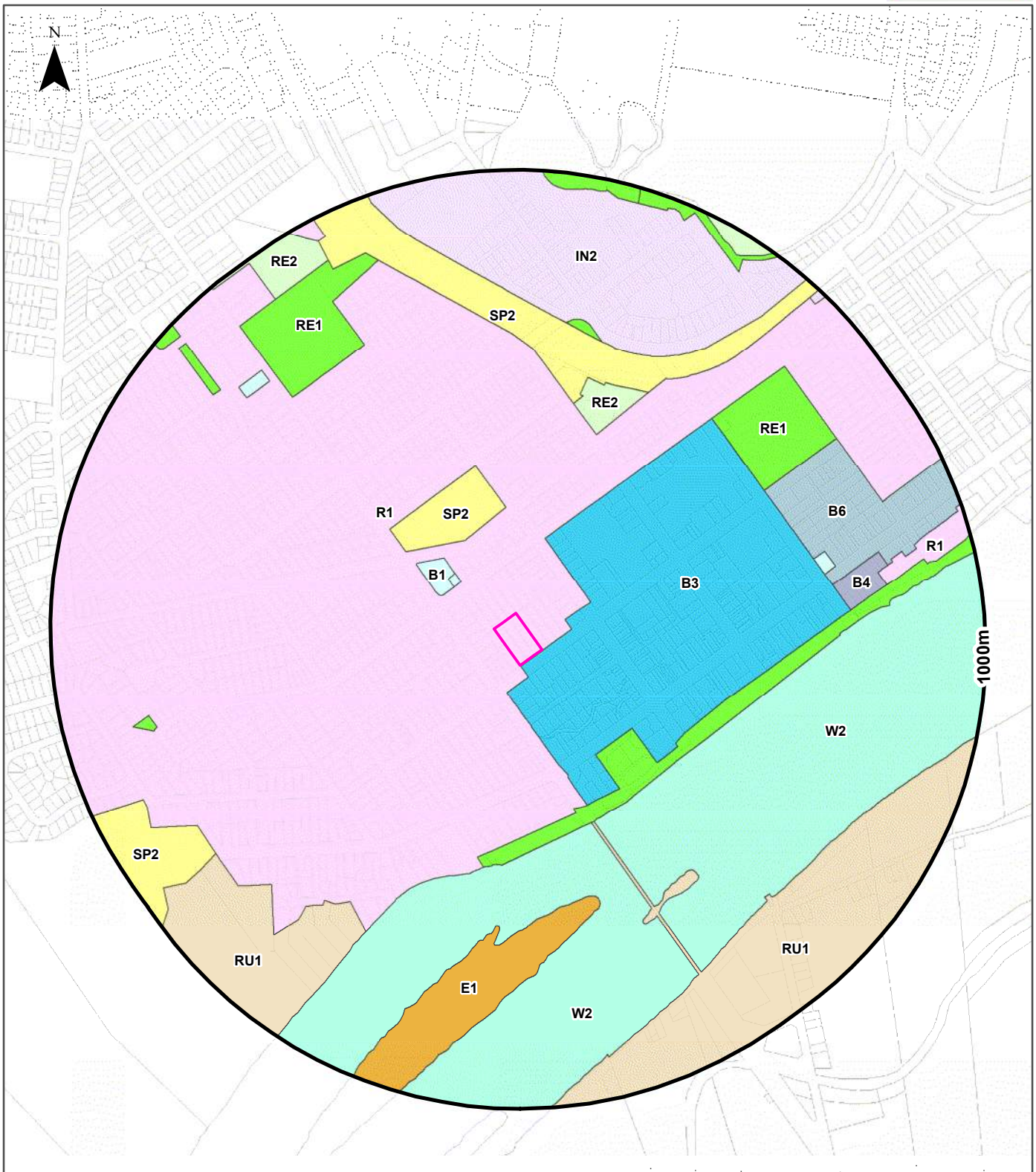
State Environmental Planning Policy Strategic Land Use Areas

State Environmental Planning Policy Strategic Land Use Areas onsite or within the dataset buffer:

Strategic Land Use	SEPPNo	Effective Date	Amendment	Amendment Year	Distance	Direction
Biophysical Strategic Agricultural Land	2007	28/01/2014	Coal Seam Gas	2014	688m	South West

LEP Planning Zones

83 Albert Street, Taree, NSW 2430



Local Environmental Plan

83 Albert Street, Taree, NSW 2430

Land Zoning

What Local Environmental Plan Land Zones exist within the dataset buffer?

Zone	Description	Purpose	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R1	General Residential		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		0m	Onsite
B3	Commercial Core		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		0m	East
B1	Neighbourhood Centre		Greater Taree Local Environmental Plan 2010	04/04/2014	04/04/2014	31/03/2017	Amendment No 5	131m	North West
B1	Neighbourhood Centre		Greater Taree Local Environmental Plan 2010	04/04/2014	04/04/2014	04/04/2017		132m	North West
SP2	Infrastructure	Health Services Facilities	Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		202m	North West
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		262m	East
W2	Recreational Waterways		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		385m	East
RU1	Primary Production		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		388m	South East
W2	Recreational Waterways		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		388m	West
RE2	Private Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		442m	North
SP2	Infrastructure	Classified Road	Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		491m	West
E1	National Parks and Nature Reserves		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		542m	South
B6	Enterprise Corridor		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		615m	North East
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		615m	North East
IN2	Light Industrial		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		639m	North
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		643m	North
B1	Neighbourhood Centre		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		644m	East
RU1	Primary Production		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		656m	South West
B4	Mixed Use		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		669m	East
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		691m	North West
B1	Neighbourhood Centre		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		755m	North West
R1	General Residential		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		775m	East
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		792m	West
SP2	Infrastructure	Educational Establishment	Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		802m	South West
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		820m	North West
RE2	Private Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		892m	North West
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		918m	North East
RE2	Private Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		949m	North East
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		963m	North

Zone	Description	Purpose	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		968m	North West
IN2	Light Industrial		Greater Taree Local Environmental Plan 2010	26/05/2010	26/05/2010	31/03/2017		969m	North East

Local Environmental Plan

83 Albert Street, Taree, NSW 2430

Minimum Subdivision Lot Size

What are the onsite Local Environmental Plan Minimum Subdivision Lot Sizes?

Symbol	Minimum Lot Size	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
G	450 m²	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	31/03/2017		100

Maximum Height of Building

What are the onsite Local Environmental Plan Maximum Height of Buildings?

Symbol	Maximum Height of Building	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
44	8.50 m	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017		100

Floor Space Ratio

What are the onsite Local Environmental Plan Floor Space Ratios?

Symbol	Floor Space Ratio	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
3	0.45	LEP	25/06/2010	25/06/2010	06/11/2015		97.1
6	0.60	LEP	25/06/2010	25/06/2010	06/11/2015		2.9

Land Application

What are the onsite Local Environmental Plan Land Applications?

Application Type	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
Included	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	25/06/2010		100

Land Reservation Acquisition

What are the onsite Local Environmental Plan Land Reservation Acquisitions?

Reservation	LEP	Published Date	Commenced Date	Currency Date	Amendment	Comments	Percentage of Site Area
No Data							

Heritage Items

83 Albert Street, Taree, NSW 2430

Heritage

83 Albert Street, Taree, NSW 2430

State Heritage Items

What are the State Heritage Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5012240	Taree Railway Station Group	North Coat railway taree	Greater Taree	02/04/1999	1264	2760	654m	North

Local Heritage Items

What are the Local Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
C2	Conservation Area - Albert Street	Conservation Area - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	0m	Onsite
I117	Courthouse	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	0m	Onsite
I117	Courthouse	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	0m	Onsite
I114	Former Catholic Church & Hall: Our Lady of the Rosary	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	0m	Onsite
I122	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	20m	West
I116	Catholic Presbytery	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	20m	North East
I118	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	32m	South
I118	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	32m	South East
I113	Presbyterian Church St Pauls	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	38m	East
I115	Catholic Church	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	40m	North East
I123	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	42m	West
I124	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	61m	North West
I125	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	90m	West
I126	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	93m	West
I127	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	95m	West
I168	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	112m	North

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
I155	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	149m	North West
I156	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	149m	North West
I214	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	166m	North
I169	Fire Station & Residence	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	198m	North
I215	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	199m	West
I200	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	199m	South
I170	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	215m	North
I154	Hospital Outbuilding former Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	220m	North
I305	Phoenix Palm in Victora Street	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	241m	South East
I198	Commercial Building, former AMP building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	242m	South East
I153	Commercial Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	257m	North
I192	Streetscape west of Commerce Street	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	263m	South West
I191	Fotheringham Park and War Memorial	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	264m	South East
I167	Fotheringhams Hotel	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	284m	South East
I152	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	284m	North
I121	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	291m	South
I197	Shop, former National Australia Bank	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	295m	East
I213	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	301m	North
I199	Commercial Building "Beehive Store"	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	305m	South East
I120	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	310m	South
C3	Conservation Area - Taree Park	Conservation Area - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	313m	North East
I151	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	314m	North
I111	Masonic Hall	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	316m	East
I119	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	325m	South
I217	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	332m	North
I216	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	338m	North

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
I175	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	352m	South
I128	Dwelling, former Blood Bank & Former Tinonee Royal Hotel	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	352m	North West
C1	Conservation Area - Taree West	Conservation Area - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	355m	South West
I165	Martin Bridge	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	367m	South East
I303	CBD Fig tree	Item - General	Local	Greater Taree Local Environmental Plan 2010	04/04/2014	04/04/2014	03/03/2017	374m	South East
I162	Shop, former Protestant Hall	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	383m	North East
I161	Manning Times Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	386m	North East
I193	Hobsons Store Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	387m	East
I204	St Johns Church Memorial Hall	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	390m	South
I202	St Johns Church & Belltower	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	390m	South
I202	St Johns Church & Belltower	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	390m	South
I196	Exchange Hotel	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	428m	East
I112	Uniting Church	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	444m	North East
I163	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	445m	North
I109	Commercial Building former Neighbourhood Centre & Former Methodist Parsonage	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	449m	North East
I203	St Johns Rectory	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	454m	South
I203	St Johns Rectory	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	454m	South
I130	Street Trees Cornwall Street (Established brush box trees)	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	460m	North
I107	Public School 1902 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	465m	North East
I108	Public School 1935 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	465m	North East
I195	Commercial Building, Former Greater Taree City Council Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	476m	East
I141	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	480m	West
I135	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	487m	North West
I134	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	488m	North West

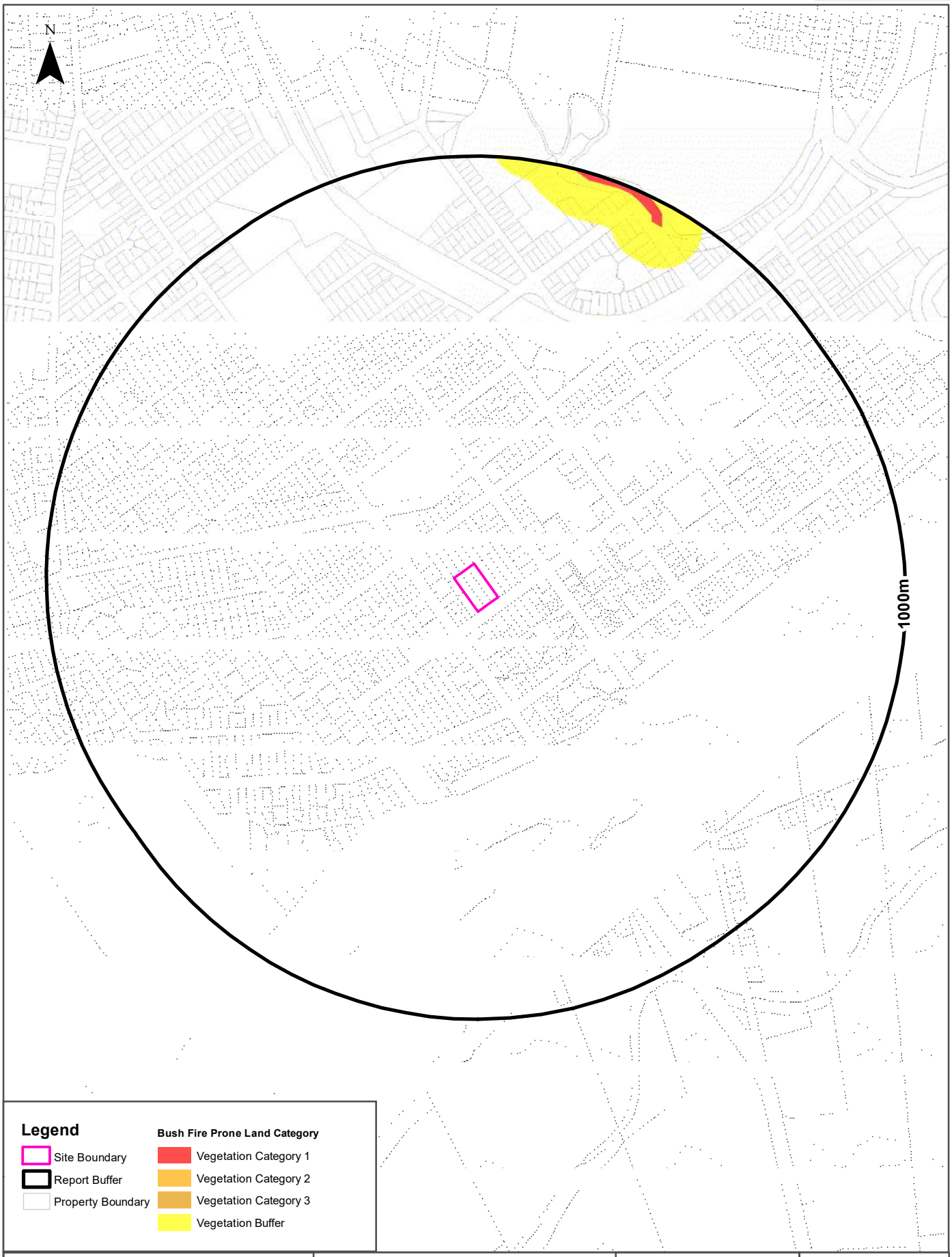
Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
I194	Commercial Building, Former State Bank Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	499m	East
I133	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	500m	North
I132	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	504m	North
I110	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	505m	North East
I131	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	509m	North
I99	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	514m	South West
I160	Coocumbac Island	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	542m	South
I159	Art Gallery former school residence	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	558m	East
I100	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	562m	South West
I206	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	566m	South West
I101	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	568m	South West
I101	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	568m	South West
I177	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	570m	West
I177	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	570m	West
I180	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	577m	West
I180	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	577m	West
I181	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	581m	West
I201	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	590m	South West
I207	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	596m	South West
I207	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	596m	South West
I102	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	596m	South West
I102	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	596m	South West
I102	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	613m	South West
I102	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	613m	South West
I104	Street trees Albert Street Camphor Laurel Trees	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	615m	North East

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
I157	Taree Park, including Croquet Club, Grandstand, Memorial Gates, and mature trees on perimeters	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	615m	North East
I166	Railway Station	Item - General	State	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	615m	North
I105	High School 1924 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	616m	North East
I106	High School 1924 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	616m	North East
I138	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	632m	West
I158	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	635m	East
I176	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	638m	South West
I143	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	642m	West
I178	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	643m	West
I178	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	643m	West
I179	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	647m	West
I103	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	647m	South West
I139	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	649m	West
I182	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	649m	West
I182	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	649m	West
I208	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	650m	South West
I208	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	650m	South West
I144	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	655m	West
I183	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	661m	West
I184	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	665m	West
I140	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	667m	West
I145	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	670m	West
I129	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	670m	North West
I185	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	670m	West
I142	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	678m	North West

Map Id	Name	Classification	Significance	LEP or Act	Published Date	Commenced Date	Currency Date	Distance	Direction
I209	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	683m	South West
I146	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	684m	West
I205	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	686m	South West
I205	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	686m	South West
I212	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	688m	North East
I210	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	699m	South West
I147	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	699m	West
I148	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	714m	West
I106	High School 1924 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	717m	North East
I105	High School 1924 Building	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	717m	North East
I149	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	749m	West
I166	Railway Yards	Item - General	State	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	753m	North West
I306	Glenthrone Fig tree	Item - General	Local	Greater Taree Local Environmental Plan 2010	01/08/2014	01/08/2014	03/03/2017	773m	South East
A172	Wreck of the vessel "Manning"	Item - Archaeological	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	786m	East
I173	Spotted Gums River Street near Florence Street	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	827m	East
I304	Residence and Pines (2)	Item - General	Local	Greater Taree Local Environmental Plan 2010	04/04/2014	04/04/2014	03/03/2017	830m	South East
I150	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	837m	North East
I164	Taree Showground	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	949m	North East
I211	Dwelling	Item - General	Local	Greater Taree Local Environmental Plan 2010	25/06/2010	25/06/2010	03/03/2017	979m	West

Natural Hazards - Bush Fire Prone Land

83 Albert Street, Taree, NSW 2430



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2018. Property Boundaries: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 14 March 2018

Natural Hazards

83 Albert Street, Taree, NSW 2430

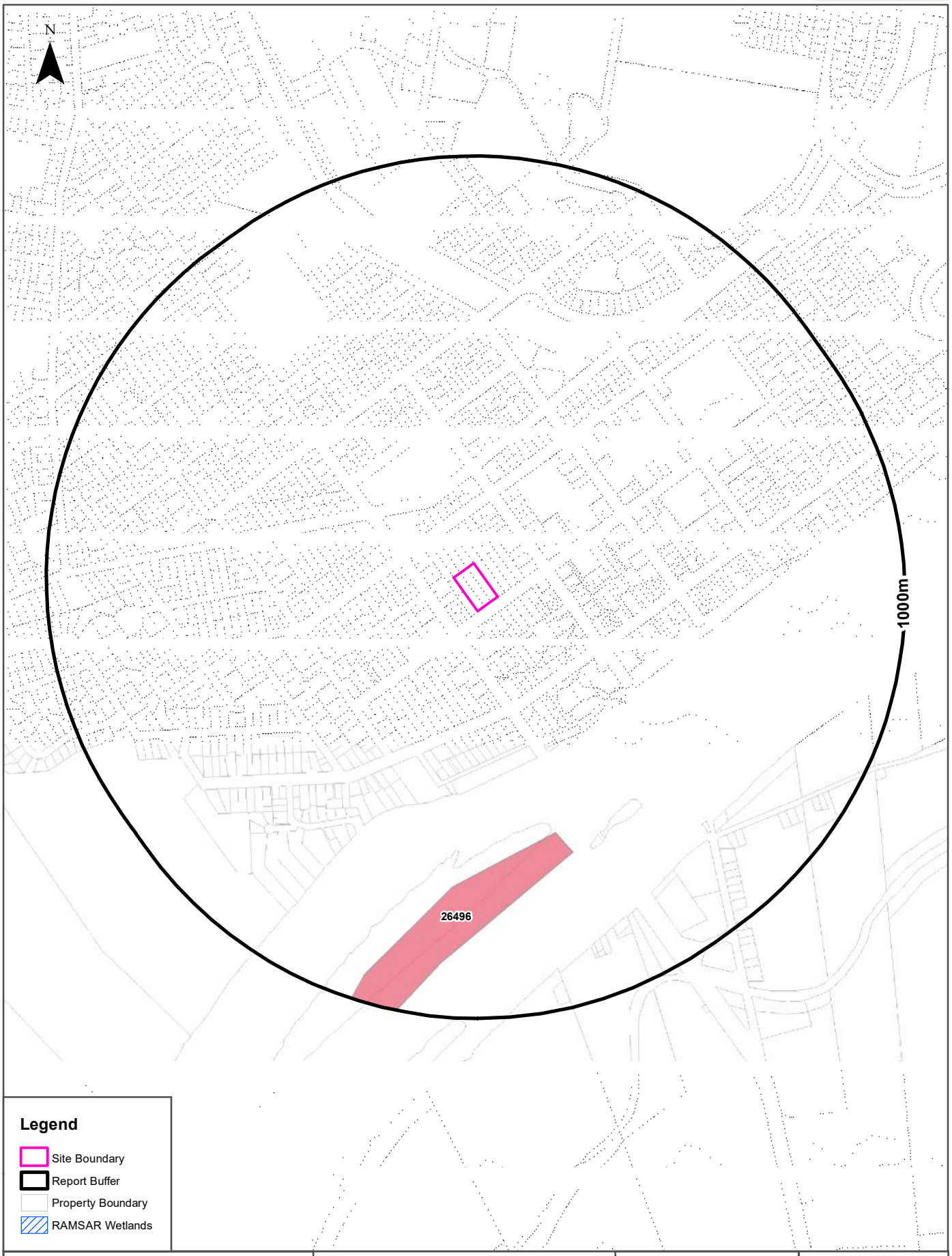
Bush Fire Prone Land

What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	843m	North
Vegetation Category 1	943m	North

Ecological Constraints - Vegetation & RAMSAR Wetlands

83 Albert Street, Taree, NSW 2430



Ecological Constraints

83 Albert Street, Taree, NSW 2430

Vegetation - Eastern Bushland Database (North Region)

What Vegetation exists within the dataset buffer?

MapId	Veg Code	Veg Desc	NVISCode	NVISDesc	Distance	Direction
26496	x	disturbed forest woodland	23	Disturbed bushland	574m	South

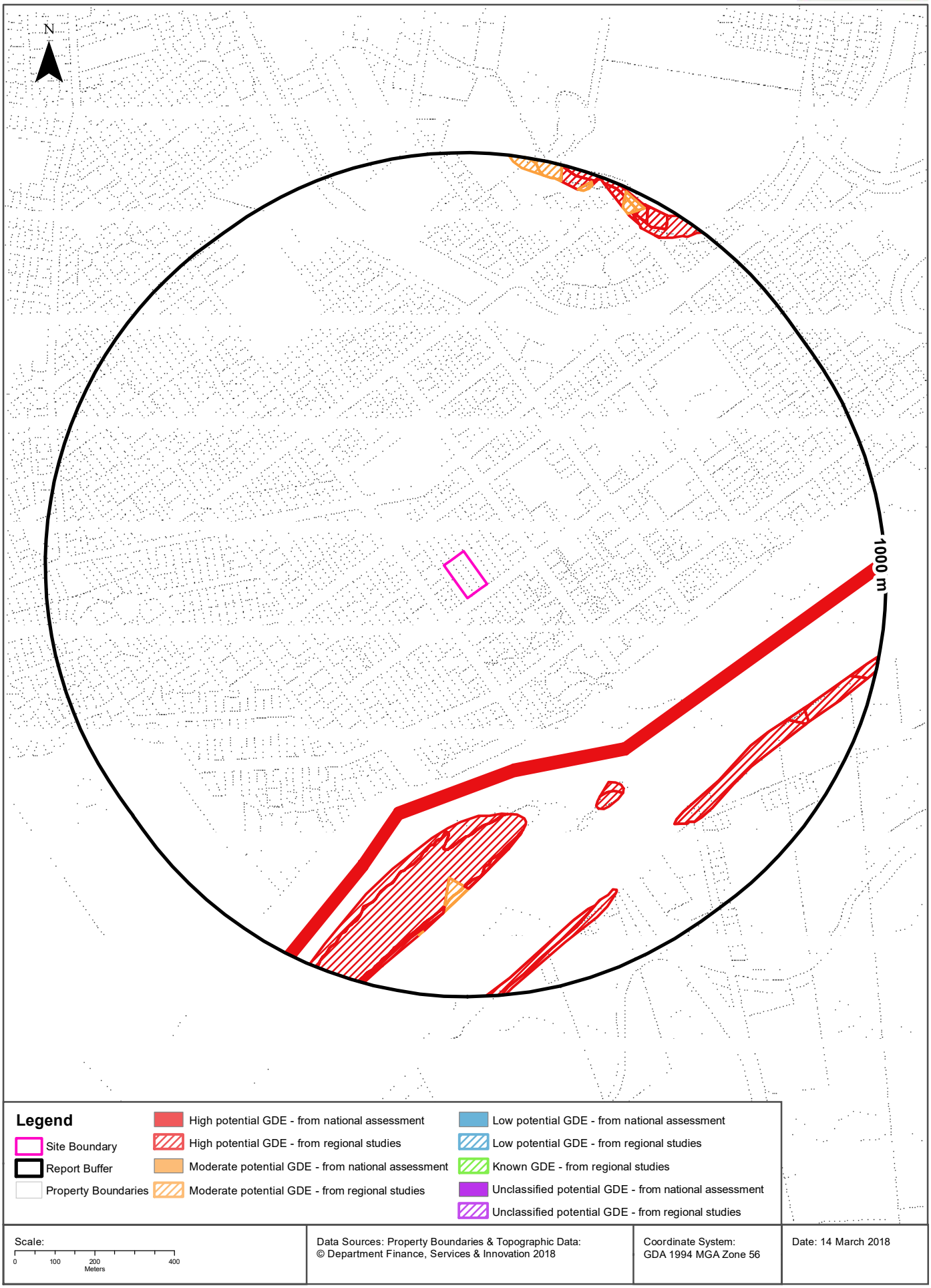
RAMSAR Wetlands

What RAMSAR Wetland areas exist within the dataset buffer?

Map Id	RAMSAR Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

83 Albert Street, Taree, NSW 2430



Ecological Constraints

83 Albert Street, Taree, NSW 2430

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Aquatic	High potential GDE - from national assessment	Plateau flank dissected into narrow strike ridges and valleys.	River		433m
Terrestrial	High potential GDE - from regional studies	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		546m
Terrestrial	Moderate potential GDE - from regional studies	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		702m

Ecological Constraints - Inflow Dependent Ecosystems Likelihood

83 Albert Street, Taree, NSW 2430

Ecological Constraints

83 Albert Street, Taree, NSW 2430

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Aquatic	10	Plateau flank dissected into narrow strike ridges and valleys.	River		433m
Terrestrial	7	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		546m
Terrestrial	1	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		550m
Terrestrial	5	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		550m
Terrestrial	10	Dissected basaltic plateaus.	Vegetation		551m
Terrestrial	6	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		580m
Terrestrial	4	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		629m
Terrestrial	8	Dissected basaltic plateaus.	Vegetation		753m
Terrestrial	3	Plateau flank dissected into narrow strike ridges and valleys.	Vegetation		944m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

Ecological Constraints

83 Albert Street, Taree, NSW 2430

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Ardea ibis	Cattle Egret	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gygis alba	White Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Irediparra gallinacea	Comb-crested Jacana	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Merops ornatus	Rainbow Bee-eater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Turnix maculosus	Red-backed Button-quail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Miniopterus australis	Little Bentwing-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Mormopterus norfolkensis	Eastern Freetail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascogale tapoatafa	Brush-tailed Phascogale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Planigale maculata	Common Planigale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Potorous tridactylus	Long-nosed Potoroo	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pseudomys novaehollandiae	New Holland Mouse	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Asperula asthenes	Trailing Woodruff	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Cynanchum elegans	White-flowered Wax Plant	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Diuris flavescens	Pale Yellow Doubletail	Critically Endangered	Category 2	Critically Endangered	
Plantae	Flora	Eucalyptus glaucina	Slaty Red Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus largeana	Craven Grey Box	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus seeana	Narrow-leaved Red Gum	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Pterostylis chaetophora		Vulnerable	Category 2	Not Listed	

Data does not include NSW category 1 sensitive species.

Data obtained 14/03/2018

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Land Title Records

ADVANCE LEGAL SEARCHERS PTY LTD

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Manly NSW 2095

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Mobile: 0412 169 809
Email: search@alsearchers.com.au

13th March 2018

ENVIRONMENTAL INVESTIGATION SERVICES
PO BOX 976,
NORTH RYDE BC NSW 1670

Attention: Katrina Taylor,

RE: **Taree Police Station**
79 Albert Street,
Taree
Reference E31340K

Note 1:	**Lots 21 & 23**	**Section 8**	**DP 50231**	(page 1)
Note 2:	**Lot 22**	**Section 8**	**DP 50231**	(page 3)

Note 1:

Current Search

Folio Identifier Auto Consol 172-143 (title attached)
Lots 21 & 23 Section 8 DP 50231 (plans attached)
Dated 12th March 2018
Registered Proprietor:
HER MOST GRACIOUS MAJESTY QUEEN VICTORIA

Title Tree
Lots 21 & 23 Section 8 DP 50231

Folio Identifier Auto Consol 172-143

Certificate of Title Volume 172 Folio 143

Certificate of Title Volume 8 Folio 142

****

Summary of proprietor(s)
Lots 21 & 23 Section 8 DP 50231

Year	Proprietor(s)
	(Lots 21 & 23 Section 8 DP 50231)
1990 – todate	Her Most Gracious Majesty Queen Victoria
	(Lots 21 & 23 Section 8 DP 50231 – Area 1 Acre – CTVol 172 Fol 143)
1873 – 1990	Her Most Gracious Majesty Queen Victoria
	(Lots 21 & 23 Section 8 DP 50231 and other lands – CTVol 8 Fol 142)
1864 – 1873	Henry Flett, esquire

****

Note 2:

Current Search

Folio Identifier 22/8/50231 (title attached)
DP 50231 (plans attached)
Dated 12th March 2018
Registered Proprietor:
HER MOST GRACIOUS MAJESTY QUEEN VICTORIA

Title Tree
Lot 22 Section 8 DP 50231

Folio Identifier 22/8/50231

Certificate of Title Volume 8 Folio 244

Certificate of Title Volume 8 Folio 142

****

Summary of proprietor(s)
Lots 21 & 23 Section 8 DP 50231

Year	Proprietor(s)
	(Lot 22 Section 8 DP 50231)
1988 – todate	Her Most Gracious Majesty Queen Victoria
	(Lot 22 Section 8 DP 50231 – Area 2 Roods – CTVol 8 Fol 244)
1864 – 1988	Her Most Gracious Majesty Queen Victoria
	(Lot 22 & 23 Section 8 DP 50231 and other lands – CTVol 8 Fol 142)
1864 – 1864	Henry Flett, esquire

****

Cadastral Records Enquiry Report : Lot 21 Section 8 DP 50231

Ref : Advance Legal Searchers Pty Ltd

Locality : TAREE
Parish : TAREE
LGA : MID-COAST
County : MACQUARIE

Report Generated 10:15:45 AM, 12 March, 2018

	Status	Surv/Comp	Purpose
DP581400			
Lot(s): 1			
DP268044	REGISTERED	COMPILATION	EASEMENT
DP860251			
Lot(s): 1			
DP267082	REGISTERED	SURVEY	EASEMENT
DP267641	REGISTERED	SURVEY	EASEMENT
DP1055275			
Lot(s): 2			
DP24986	HISTORICAL	SURVEY	UNRESEARCHED
DP1087965			
Lot(s): 1			
DP739285	HISTORICAL	COMPILATION	CONSOLIDATION
DP1214663			
Lot(s): 1			
DP211558	HISTORICAL	SURVEY	SUBDIVISION
DP524692	HISTORICAL	SURVEY	SUBDIVISION
DP1236263			
Lot(s): 1			
DP2564	HISTORICAL	COMPILATION	UNRESEARCHED
DP344293	HISTORICAL	COMPILATION	UNRESEARCHED
DP359310	HISTORICAL	SURVEY	UNRESEARCHED
DP529938	HISTORICAL	SURVEY	SUBDIVISION
DP865234	HISTORICAL	SURVEY	SUBDIVISION
DP1105301	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1158338	REGISTERED	SURVEY	SUBDIVISION
SP80223			
DP395691	HISTORICAL	SURVEY	UNRESEARCHED
DP1122677	REGISTERED	SURVEY	REDEFINITION
Road			
Polygon Id(s): 105429995, 105502101			
EX-SUR 48/02 DP983024			

Plan	Surv/Comp	Purpose
DP2564	COMPILATION	UNRESEARCHED
DP3259	COMPILATION	UNRESEARCHED
DP17063	SURVEY	UNRESEARCHED
DP17563	SURVEY	UNRESEARCHED
DP19443	SURVEY	UNRESEARCHED
DP20699	SURVEY	UNRESEARCHED
DP24986	SURVEY	UNRESEARCHED
DP30571	SURVEY	UNRESEARCHED
DP50231	COMPILATION	UNRESEARCHED
DP102768	SURVEY	UNRESEARCHED
DP168153	COMPILATION	UNRESEARCHED
DP186868	SURVEY	UNRESEARCHED
DP224092	SURVEY	SUBDIVISION
DP249403	SURVEY	SUBDIVISION
DP259084	SURVEY	SUBDIVISION
DP300528	COMPILATION	UNRESEARCHED
DP300862	COMPILATION	UNRESEARCHED
DP302953	COMPILATION	UNRESEARCHED
DP305445	COMPILATION	UNRESEARCHED
DP314043	SURVEY	UNRESEARCHED
DP328841	SURVEY	UNRESEARCHED
DP328885	SURVEY	UNRESEARCHED
DP333099	SURVEY	UNRESEARCHED
DP333149	SURVEY	UNRESEARCHED
DP337365	SURVEY	UNRESEARCHED
DP344286	SURVEY	UNRESEARCHED
DP365367	COMPILATION	UNRESEARCHED
DP369872	SURVEY	UNRESEARCHED
DP370760	SURVEY	UNRESEARCHED
DP377057	SURVEY	UNRESEARCHED
DP377088	SURVEY	UNRESEARCHED
DP394852	SURVEY	UNRESEARCHED
DP395691	SURVEY	UNRESEARCHED
DP401215	SURVEY	UNRESEARCHED
DP405104	SURVEY	UNRESEARCHED
DP414100	SURVEY	UNRESEARCHED
DP416969	SURVEY	UNRESEARCHED
DP421556	COMPILATION	UNRESEARCHED
DP445972	SURVEY	UNRESEARCHED
DP449093	COMPILATION	UNRESEARCHED
DP531633	SURVEY	SUBDIVISION
DP551123	SURVEY	SUBDIVISION
DP559261	SURVEY	SUBDIVISION
DP561436	COMPILATION	DEPARTMENTAL
DP578481	SURVEY	SUBDIVISION
DP581400	COMPILATION	CONSOLIDATION
DP593230	COMPILATION	SUBDIVISION
DP603557	SURVEY	SUBDIVISION
DP608120	COMPILATION	SUBDIVISION
DP613503	SURVEY	SUBDIVISION
DP663939	COMPILATION	DEPARTMENTAL
DP664704	COMPILATION	DEPARTMENTAL
DP707436	SURVEY	RESUMPTION OR ACQUISITION
DP795881	COMPILATION	DEPARTMENTAL
DP860251	SURVEY	CONSOLIDATION
DP871344	SURVEY	ROADS ACT, 1993
DP960125	SURVEY	UNRESEARCHED
DP1055275	SURVEY	SUBDIVISION
DP1087965	SURVEY	REDEFINITION
DP1146185	COMPILATION	DEPARTMENTAL
DP1149453	COMPILATION	CROWN LAND CONVERSION
DP1214663	SURVEY	SUBDIVISION
DP1236263	SURVEY	CONSOLIDATION
SP16141	COMPILATION	STRATA PLAN
SP38394	COMPILATION	STRATA PLAN

Plan	Surv/Comp	Purpose
SP80223	COMPILATION	STRATA PLAN

FP50231 (E)
(Sht. 1/2)

(3)

Not used for charting after 19-9-34

PA 231
(2 Plans - Plan 1)

APPN ROLL 5

Phs. Cundle and Taree.
Co. Macquarie.

Scale 40 Chains one Inch

Tapper Tapper Creek

Tapper Tapper River

Appn 231

MOTTO ESTATE

W. C. WENTWORTH

now

Tadson

APPN ROLL 5

Phs. Cundle and Taree.
Co. Macquarie.

DP 50231 (E)
Sht 1/2

Scale 40 Chains one Inch

Appn. 231
MOTTO ESTATE
W. C. WENTWORTH
now
H. FLETT
2560 Acres

H. Davis. 15000 acres

A. McDonell

A. McDonell

Atkinson

Dickensan's Creek

Kingstons

Branch or Gal...

Swamp

Landsdown River

Tappen Tappen Creek

MAMBOO Isd

JONES Isd

MANNING RIVER

Cattai Creek

Scale - 20 Chains one Inch

Appn 2319381

TAREE ESTATE

D.P 11930

H. FLETT.

Plan 2560 Acres

BK. 2. No 909

Dep.

Dep. Plan 3259

TOWNSHIP OF TAREE

See Appn. P.S.

D.P 5971

Plan

3933

2800

CREEK

RIVER

MONKEROOK

Dep.

Plan

Dep.

FERRY

MANNING

TINONEE

H. Davis. 15000 acs.

A. McDonell

A. McDonell

Atkinson

Dickensons Creek Br

Kingston

DP 50231 (E)
Sht 1/2

DP 50231 (E)
sht 1/2

Scale - 20 chains one Inch

Portion 80 Parish

Dep.d

MONDEROOK

Donaldson

Appn. 231 3981

TAREE ESTATE

D.P. 11930

H. FLETT.

Plan 2560 Acres

Plan

BK. 2. No. 909

Dep.d

TOWNSHIP of TAREE Plan see Appn. 3933

Dep. Plan 3259

D.P. 5971

TAREE

3933

ROOKE CREEK

RIVER

2801

M

A. McDONELL

5000. acr.

D.P. 50231 (E)

Sht 2/2

NOTES

(68)	pt 24	8	M.P.S (R.P) 94852 (G290922) Survey-see also note (57) 35551 (L)
(69)	pt 4.5	5	East G454332 - Survey
(70)	pt 1,2	3	M.P.S (O.S) 11393 Survey. - 34125 (L)
(71)			Road hatched blue closed Gaz. 15.6.56 fo. 1658
(72)	Pt. 3	5	M.P.S. (R.P.) 98200 (GG07107) Survey - 37657 (L)
(73)	pt 2	9	" " " 101215 (G755140) Survey - 41878 (L)
(74)	pt 1	6	" " " (O.S) 12427 Survey.
(75)	Pt 6 & 7	3	" " " " 12456 Survey - 43475 (L)
(76)	Pt 5 & 8	3	" " " (R.P) 102619 (G781618) Survey - 43475 (L) FILED AS M.P.S (O.S) 12456
(77)	Pt 7 & 18	5	Resumed for accomodation of vehicles Gaz. 24.4.58 fo. 1262
(78)	5	5	M P S (RP) 105104 (G919460) Survey. 46409 (L)
(79)	pt 34	13	" " " 108487 (H31576) Survey - 50164 (L)
(80)	Pt 19 & 20	9	" " " 109718 (H210201) Survey - Filed in S.D. Bch. - ~~51933 (L)~~ - See F.P. 409718
(81)	R17	5	" " 112201 (H35623) Survey - 54476 (L)
82	Pt 8	3	Plan of Survey ~~H~~ H325107-55479 (L)
(83)	Pt 4	2	Enquiry re easement 60M 9104.
(84)	pt 17, 28, 29.	13.	Resumed for accommodation of vehicles. Gaz. 20-5-60. fo. 1576. W/R L135444
(85)	15	6	M.P.S. (R.P.) 114709 (H284455) Sur - 57043 (L)
(86)	Pt 9, 10	5	" (O.S.) 14174 } (H156658) Sur. Filed in S.D.Bch - ~~58868 (L)~~ - See F.P. 415780
(87)	Pt 8	5	" (R.P.) 115780 }
(88)	Adj Sec 12		M.P.S. ~~RP~~ (R.P.) 115415 (H427907) Sur - 57645 (L)
(89)	Pt 4	3	" " " 116375 (H530813) Sur - 58694 (L)
(90)	R18	5	Resumed for Parking Purps. Gaz. 21.4.61 Fo. 1191
(91)	Pt 2	3	M.P.S. (OS) 14672 Sur - 62576 (L)
(92)	Pt 3	4	" " 14674 Sur - 62575 (L)
(93)	Pt 17	9	" (RP) 120290 (H540769) Sur - 62971 (L)
(94)	Lots 1, 2, 15 to 34	Sec 3	Re all dealings refer to 59M 13/8 (Plan of survey) - 64801 (L)
(95)	1 & Pt 26	Sec. 3	M.P.S. (R.P.) 121425 (J84341) Sur. 64445 (L)
(95A)	Pt 27	Sec. 13	M P S (RP) 121448 (H97549)
(96A)	R 26 & 27	Sec 13	" " 121449 (H97551)

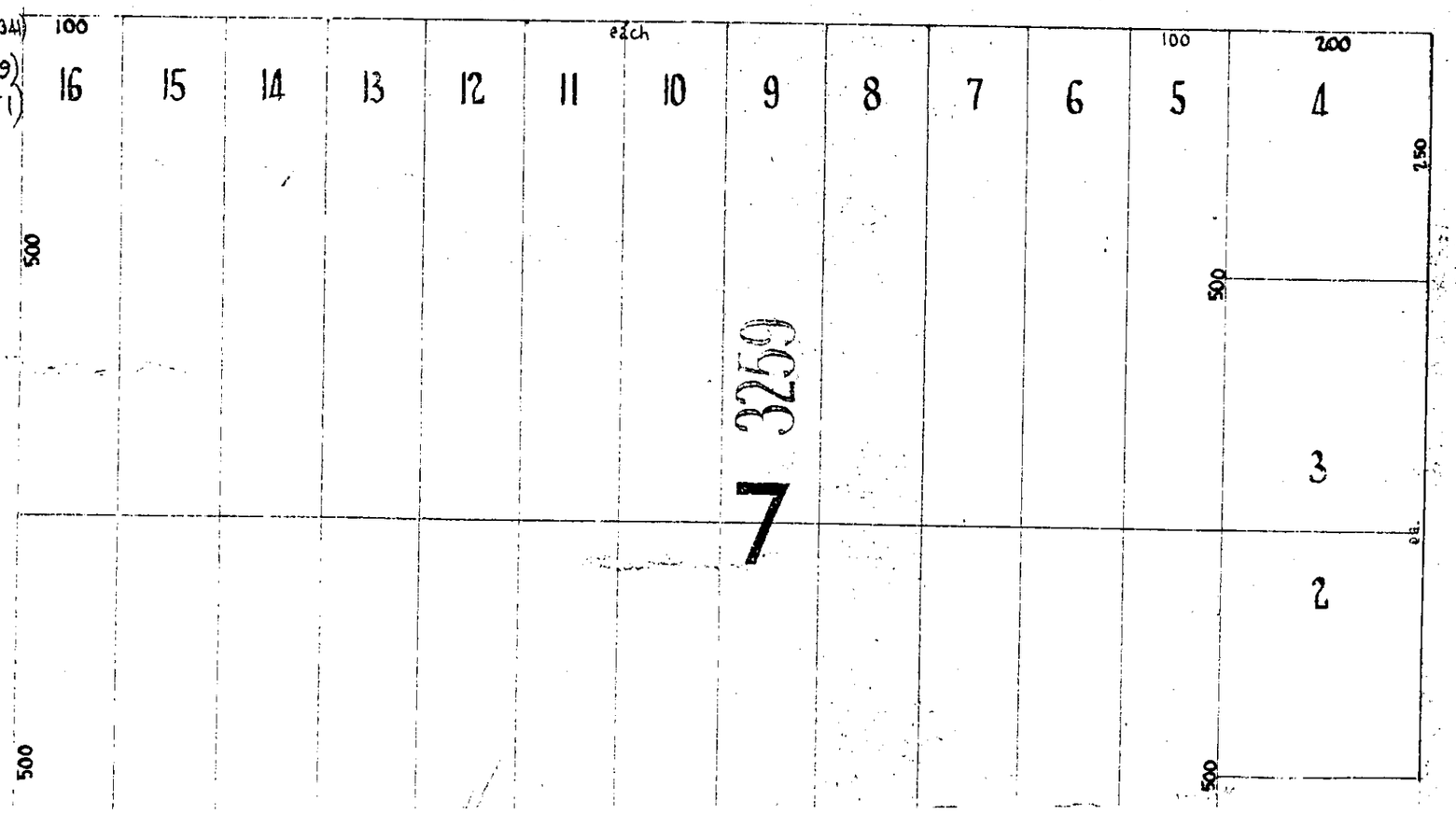
CONTND ABOVE

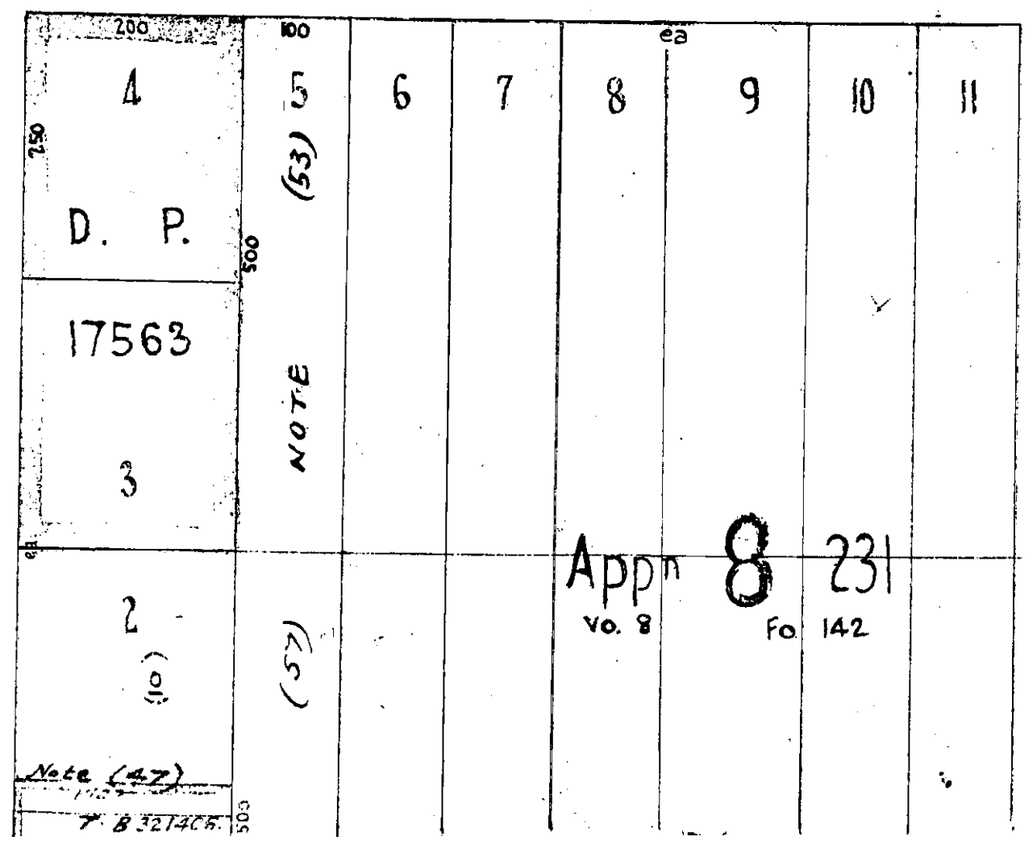
No.	Part	Sec	
(96)	24	13	M.P.S. (R.P.) 121475 (J75011) Comp.
(97)			D.P. 208242 - Easement.
(98)	23	13	M. P. S. (R. P.) 121506 (HG32505) Comp. G4587 (L) - Now P.P. 102230
(99)	2	13	M. P. S. (R.P.) 121493 (J82330) Comp. G4565 (L)
(100)	22	13	M. P. S. (R. P.) 121570 (J75010) G4629 (L)
(101)	Van.	13	Land vested in Council of Mun. of Taree Gaz 24.1.64 fo. 182. See also notes (27) & (28)
102	1 & 11	11	D.P. 206099 (Sur.) - Withdrawn
103	PH35936	13	D.P. 509560 Easement.
(104)	& Por 237	13	Resumed for Parking Site Purps. Gaz 15.10.65 Fo. 3428 (Pt G4801 (L))
(105)	Pt. 17	10	Plan in T/fr. 160053. Now F.P. 165228
(106)	Pt 2	6	D.P. 230787 (P.A) (Sur.) & Easement
(107)	Pt 2.	3	D.P. 521055 (Sur.)
(108)	Pt 18, 19	3	D.P. 524963 - (Sur.)
(109)	Pt 1 & 2	2	D.P. 526823 (P.A) Sur.
(110)	4	11	D.P. 525013 (Sur.)
(111)	Pt 15	6	D.P. 526439 (Sur) - W.A. No. 400
(112)	Pt 20	13	Plan in T/122933

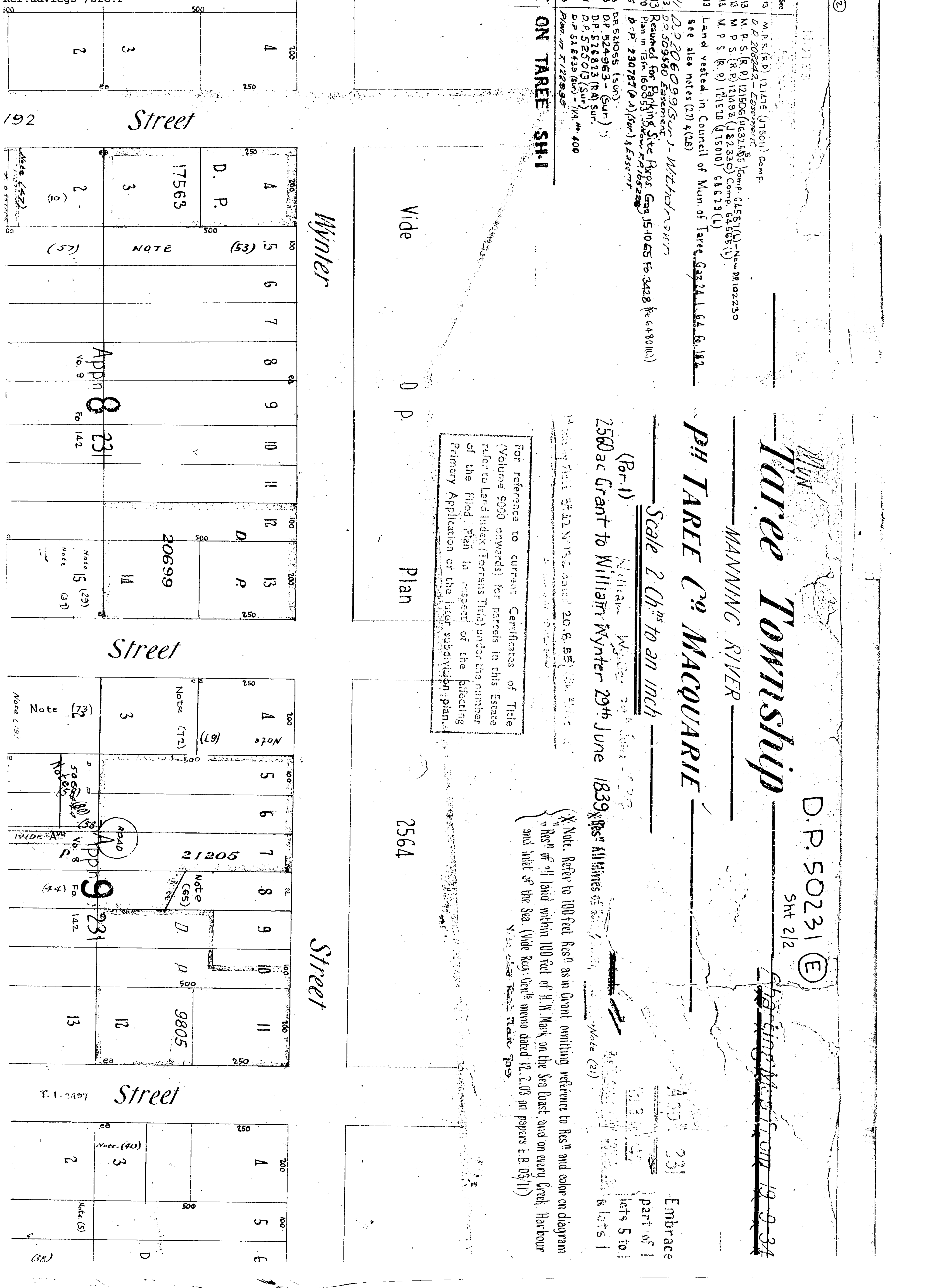
CHART ON TAREE SH-1

D. P. 15872.

Wynter






D.P. 50231 (E)
Sht 2/2
Taree Township
MANNING RIVER
Ph TAREE Co. MACQUARIE
Scale 2 Chns to an inch
(Por-1)
2560 ac Grant to William Wynter 29th June 1839 x Resn All Mines
X Note. Refer to 100 feet Resn as in Grant omitting reference to Resn and color on diagram
" Resn of all land within 100 feet of H.W. Mark on the Sea Coast, and on every Creek, Harbour and Inlet of the Sea. (Vide Reg. Genl's memo dated 12.2.03 on papers E.B. 03/11)
Note (21)
Embrace
part of
lots 5 to
& lots
Appn 8 231
Appn 9 231
For reference to current Certificates of Title (Volume 5000 onwards) for parcels in this Estate refer to Land Index (Torrens Title) under the number of the filed Plan in respect of the affecting Primary Application or the later subdivision plan.
NOTES
Sec
13 M.P.S.(R.P) 121475 (J75011) Comp.
D.P. 208242 - Easement
13 M.P.S.(R.P) 121506 (H632505) Comp. GA587(L) - Now DP.102230
13 M.P.S. (R.P) 121493 (J82330) Comp. GA565(L)
13 M.P.S. (R.P) 121510 (J75010) GA629(L)
13 Land vested in Council of Mun. of Taree Gaz 24.1.64 fo. 182
see also notes (27) & (28)
11 D.P. 206099 (Sur) - Withdrawn
13 D.P. 509560 Easement
13 Resumed for Parking Site Purps Gaz 15.10.65 Fo. 3428 (Pt 64801(L))
10 Plan in Tsfr. 160053 - Now F.P. 105228
6 D.P. 230787 (P.A) (Sur.) & Easement
3 D.P. 521055 (Sur)
3 D.P. 524963 - (Sur.)
2 D.P. 526823 (R.A) Sur.
11 D.P. 525013 (Sur)
6 D.P. 526439 (Sur) - I/A. No. 400
13 Plan in T122939
ON TAREE SH-I
Vide D.P. Plan 2564
Wynter
Street
Street
Street
Street
D.P. 17563
D.P. 20699
21205
D.P. 9805
Note (47)
Note (57)
Note (53)
Note (29)
Note (37)
Note (73)
Note (72)
Note (67)
Note (65)
Note (40)
Note (5)
(38)
(44)
(58)
(80)
ROAD
WIDE Ave
Vo. 8 Fo. 142
T.1.2497
/92

③

D.P. 50231 (E)

...ship

...UARIE

~~Charting Map from 19-9-34~~

Appn 231

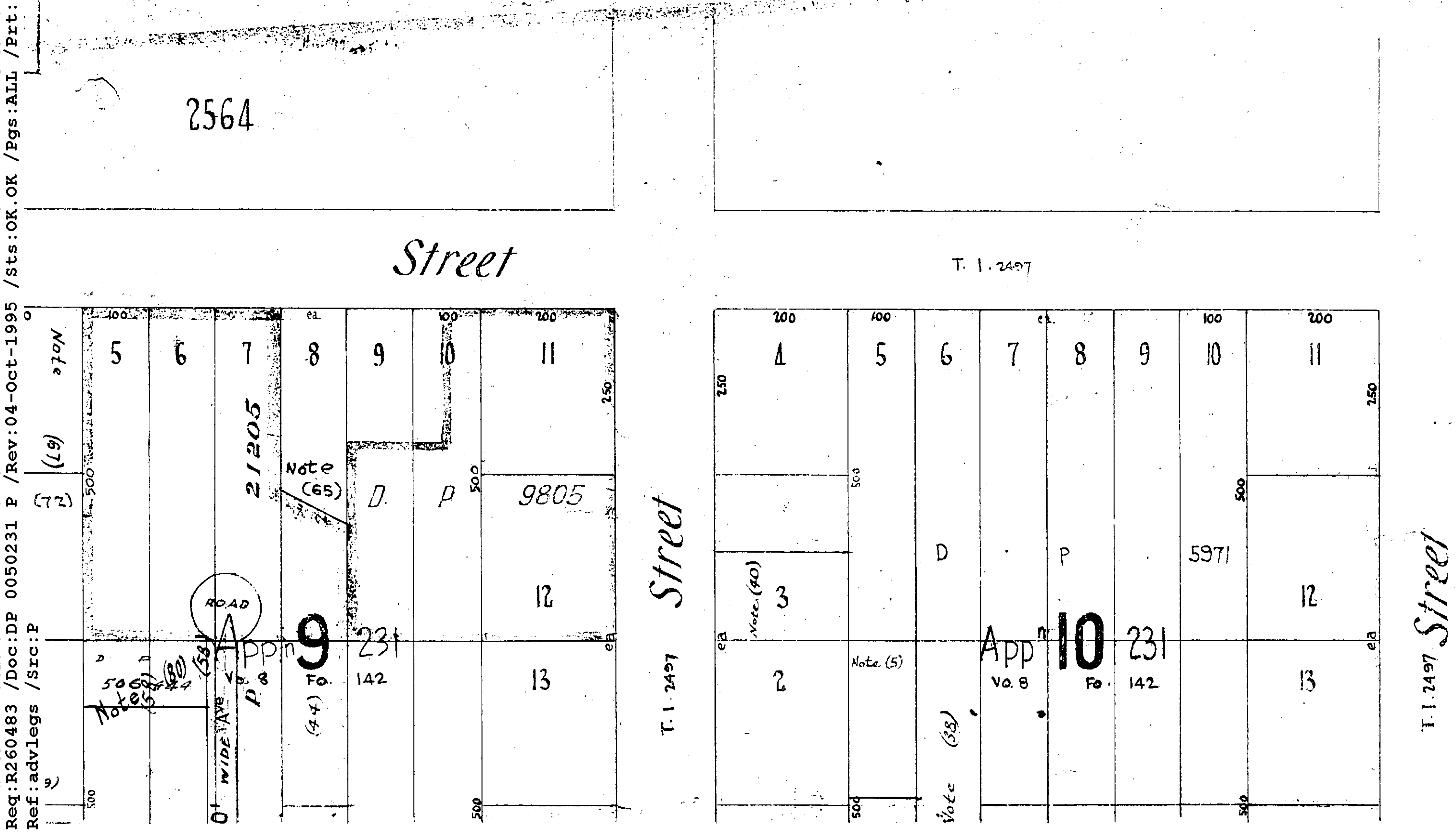
App^n 231 — Embraces the whole of Sections 6, 9 & 10, part of lots 1 & 2 Sec. 4, lots 3 to 8 Sec 5, lots 5 to 10 Sec 6, lots 1 to 11 & 13 Sec 11 & lots 1 to 32 Sec. 13

Vol 8 Fo 142

Vol 437 fo 22

June 1839 x Res^n All Mines of ... → Note (21)

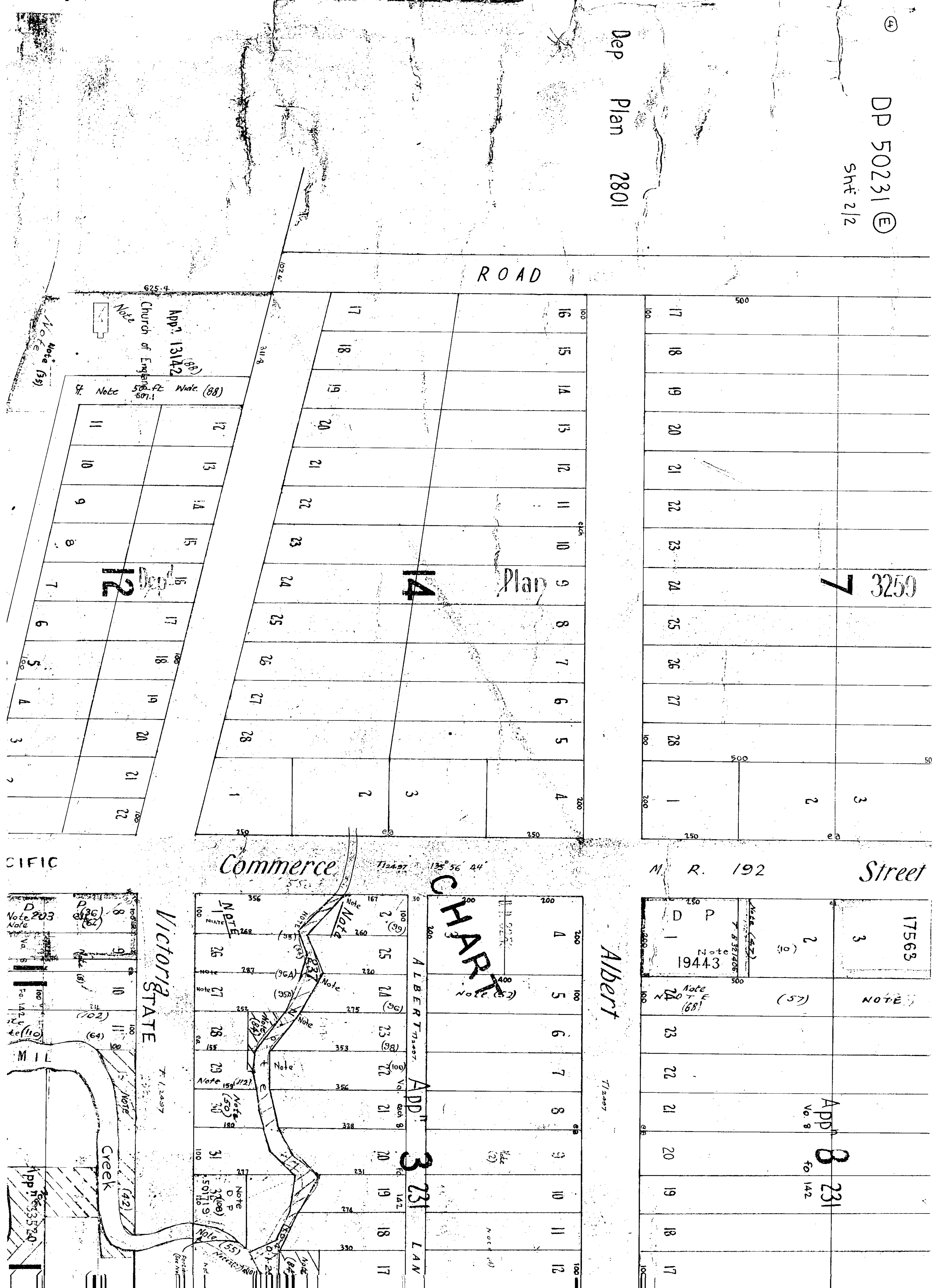
X Note. Refer to 100 feet Res^n as in Grant omitting reference to Res^n and color on diagram "Res^n of all land within 100 feet of H.W. Mark on the Sea Coast, and on every Creek, Harbour and Inlet of the Sea. (Vide Reg: Gen^ls memo dated 12.2.03 on papers E.B. 03/11) — Note (21)



~~F.P. 50231~~ (E)

Sht 2/2

1 {Lot 4 Sec 6} Federal Consent to Transfer vide 13M6081
2 9 Sec 13 Misc Plan Subd^n (R.P.) Reg^d No. 2953 (A767976)
3 1 Sec 9 {Plan in T.A. 871069 (Survey)
(4) 11.12 Sec 13 Misc. Plan Subd^n (R.P.) Reg. No. 5224 (A 871089) " " 5445 (A 884167)
5 Pt 20 10 " " " 5566 (A896895)
(6) Pts 20-10 Plans " " Nos. 8022 (B17836) & 8023 (B17837)
(7) 3&4 5 " " " 10047 (B111790)
(8) 8&pt 10 11 " " " 10199 (B125699) Sketch only
(9) 5 Sec 5 " " " 13523 (B299646)
10 1&2 Sec. 8 " " " 14043 (B321406) Survey
(11) Pt 18 5 Plan " " 15681 (B397382)
(12) 14+Pt 15 10 " " " 16511 (B462348)
(13) Pt. 1 10 { " " " 18184 (B549389) Plan of Sur.
" " " 24386 (B875973) " "
14 {Pt 1. Sec. 1, Pt 1 " 11} Dedicated as public roads Gaz 25.9.25 fol. 4115
(15) "20 " 6 Misc Plan Subd^n (R.P.) Reg^d No 26241 (B 908259) Survey
(16) Pt 3&4, Sec 2 " " " (O.S.) " " 2628 (Doc. 12 in P.A. 31431)
(17) 16 Sec 8 " " " (R.P.) " " 528 (A607516) (Sketch) MPS 33694
(18) Pt 2&20 Sec 5 " " " " 28828 (C190524) Survey 91951 (G227920) Sur.
(19) Pt 2 Sec 9 " " " " 28841 (C194242) "
(20) Pt 13 " 13 " " " " 28885 (C192008) "
(21) { Care should be taken that a C.T. is not made subject to 100' Res^n when it is not actually affected by same vide papers 34M/1098 & Rail Plan B42.
(22) 3 " 3 { Resumed for Rural Bank vide Gaz. 14.12.34 fo. 4389 — Vested in Bank, vide Gaz. 18.1.35 fos. 270/-1.
(23) 13 " 13 35M3777 Query as to Title
(24) Pt. 14 " 5 Mis. Plan Sub. (R.P.) Reg. No 31692 (C367729)
(25) " 11 " 5 " " " " 33623 (C463811)
(26) " 1+2 " 4 " " " " 33852 (C477783)
(27) Pt. Allot. 33 Sec 13. Resumed for Road of Access Gaz 13.11.36 (vide P.A. 16673) No C496620 See also note (101)
(28) Acquired for Pumping Site Gaz 13.11.36 36M9688 C4986... (See also note (101))
(29) Pt 15 Sec 8 Misc Plan Subd^n (R.P.) Reg^d No 37365 (C664598) Survey
(30) Pt 1 " 3 " " " (O.S.) " " 4097, 11949 survey 38300 (L)
(31) Pt 8 " 11 Resumed & declared Public Rd. Gaz. 13.1.39 Fo. 78 Vide 50B39745 N.R.C797382 Survey
(32) Pt 33 " 13 Misc Plan Subd^n (R.P.) Reg^d No 40018 (C781213) Survey
(33) 17 " 5 " Plans " " Nos 42120 (C860797) 42121 (C860799) Sur both leases
(34) 1,26 Sec 13 {Re Definition of southern bank of Mill Creek hereabouts in plan of Survey to be lodged by Surveyor H.S. McGlashan Vide 40M5522
(35) {Plan of Survey of part Sec 12 and part of App^n 13142 Vide 40 M 5327
(36) 7&8 Sec 11 :- C 952330 (Amendt.) now D S ...
(37) Pt 15 " 8 Misc Plan Subd^n (R.P.) 44286 (C989184) Survey
(38) 19 " 10 " " " " 45173 (D33035) Survey.
(39) Pt 1 " 9 " " " " 45460 (D48542) "
(40) Pt 3 " 10 " " " " 50762 (D356995)
(41) 1 to 5 " 1 " " " " 54742 (D472371)
(42) (See Gaz. 3.9.48 Fo. 2271-2) ~~Prop.~~ Resumpt^n for Public Recreation purp^s S.D.B. 48-73 D91495 (Survey) Now FP1102
(43) 3 " 5 — County Cncl Office S.D.B. 48-198
(44) 17 9 M.P.S. (R.P.) 60112 (C883672)
(45) Pt 34 13 Vide Surr No F 1534
(46) Pt 15-16 13 " " — F 1533
(47) Pt 2 8 M.P.S. (R.P.) 65367 (F52669)
(48) 13 5 " " (R.P.) 66381 (F115675) Survey (Lease) 10451 (L)
(49) 15&34 13 " " " " 66823 (F173106) Survey — 10736 (L)
(50) 30 13 " " " " 66824 (F143844) Survey. — 10784 (L)
(51) Pt. 14 5 " " " " 68430 (F134076) Survey. — 11612 (L)
(52) 5 " 13 " " " " 69872 ... 12800


4
DP 50231 E
Sht 2/2
Dep Plan 2801
ROAD
App^n. 13142
Church of England
50 ft Wide (88)
12
Dep^d.
14
Plan
7 3250
Commerce
Street
M. R. 192
CIFIC
Victoria
STATE
Albert
ALBERT LANE
Creek
MIL
CHART
App^n 3 231
App^n 8 231
Vo. 8
fo 142
D P 19443
17563

PACIFIC

Commerce

CHARLES

Victoria STATE HIGHWAY 2497

ALBERT LANE

Albert

M R 192

Stre

Creek

Pulteney

Manning

Street

Stree

ON

Note

Note (110)

Note (42)

Note (64)

Note (55)

Note (84)

Note (94)

Note (49)

Note (56)

Note (106)

Note (109)

Note (4)

Note (59)

Note (30)

Note (68)

Note (57)

Note (10)

Note (2)

Note (23)

Note (20)

Note (17)

Note (29)

Note (37)

Note (73)

Note (39)

Note (19)

Note (3)

Note (54)

Note (80)

Note (58)

Note (47)

Note (93)

Note (70)

Note (43)

Note (86)

Note (78)

Note (33)

Note (74)

Note (76)

Note (26)

Note (24)

Note (18)

Note (90)

Note (88)

Note (101)

Note (32)

Note (97)

Note (45)

Note (51)

Note (100)

Note (98)

Note (96)

Note (96A)

Note (95)

Note (95A)

Note (84A)

Note (83)

Note (82)

Note (81)

Note (80A)

Note (77)

Note (76A)

Note (75)

Note (73A)

Note (72)

Note (71)

Note (69)

Note (66)

Note (65)

Note (63)

Note (62)

Note (61)

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Note (52)

Note (50)

Note (48)

Note (44)

Note (42)

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Note (36)

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Note (27)

Note (22)

Note (16)

Note (15)

Note (14)

Note (13)

Note (12)

Note (11)

Note (9)

Note (8)

Note (7)

Note (6)

Note (5)

Note (4)

Note (3)

Note (2)

Note (1)

D P 223

Note 19443

D P 222196

Vide M15/3900

Easement for Postal purs

D P 222575

D P 222778

D P 222365

REGD PLAN 2264

D P 513712

D P 502593

D P 518548

D P 205693S

D P 216712

D P 218636

D P 216787

App n 33520

App n 16073

App n 11520

App n 30237

App n 41561

App n 30886

App n 30571

App n 29933

App n 14362

App n 14908

App n 14162

App n 31327

App n 48620

Misc Plan of Subd 051 Reg No 57

Misc Plan of Subd (OS) Regd No 3131

Plan in T/829362

Plan in T/294352

Plan in C/138802

Road Stakes 30' WIDE Ave

ROAD

PATHWAY 18.2 WIDE

Portion 39 (See Note 61)

Not Proceeded With

Now Revived

Misc 2 Misc 5 Misc 6

Pla

Appn

Appn 46620

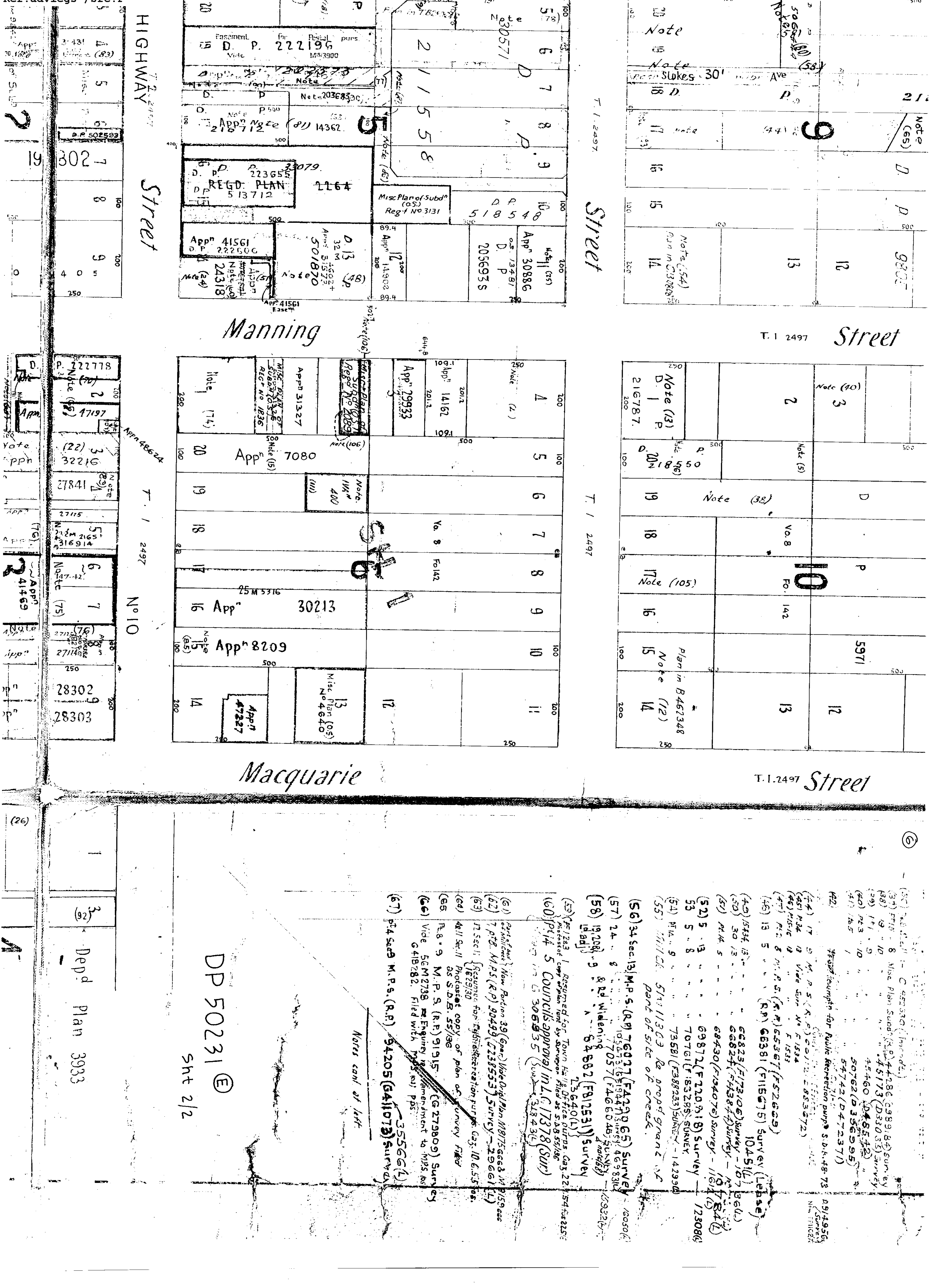
Appn 41561 (Easement)

T/2497

N.R. 5368455

T. 1. 2497

Street


HIGHWAY
Street
Manning
Street
Street
Macquarie
Street
T.1.2497
No 10
Stokes 30' Ave
D.P. 222196
Easement for Postal purs.
REGD. PLAN 513712
D.P. 223655
D.P. 518548
D.P. 205693
D.P. 216787
D.P. 18550
D.P. 502593
D.P. 222778
Misc Plan of Subdn (O.S.) Regd No 3131
Vo. 8 Fo. 142
Plan in B462348
DP 50231 Ⓔ
Sht 2/2
Depd Plan 3933
Notes cont at left
⑥

Appn 231
Appn RH 35

D.P. 50231 (E)
Sht 2/2

Commerce

Victoria

STATE

HIGHWAY

Pultenev

Street

TAREE

Creek

PACIFIC

River

Manning

Vide

Roll

Plan

842

P. 50231 (E)

D.P. 50231 (E)
sht 2/2

Notes cont at left.

Manning Street

Macquarie

HIGHWAY No 10

T.2 2497

T. 1 2497

Plan 842

Dep^d Plan 3933

River

) ft Reservation vide Reg^d Plan 709

D.P. 50231 (E)

D.P. 50231 (E)
Sht 2/2

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 22/8/50231

SEARCH DATE	TIME	EDITION NO	DATE
12/3/2018	10:53 AM	-	-

VOL 8 FOL 244 IS THE CURRENT CERTIFICATE OF TITLE

LAND

LOT 22 OF SECTION 8 IN DEPOSITED PLAN 50231
LOCAL GOVERNMENT AREA MID-COAST
PARISH OF TAREE COUNTY OF MACQUARIE
TITLE DIAGRAM DP50231

FIRST SCHEDULE

HER MOST GRACIOUS MAJESTY QUEEN VICTORIA (T 198)

SECOND SCHEDULE (1 NOTIFICATION)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

DP831016 NOTE: PLAN OF ACQUISITION

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

advlegs PRINTED ON 12/3/2018

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: AUTO CONSOL 172-143

SEARCH DATE	TIME	EDITION NO	DATE
12/3/2018	10:15 AM	-	-

VOL 172 FOL 143 IS THE CURRENT CERTIFICATE OF TITLE

LAND

LAND DESCRIBED IN SCHEDULE OF PARCELS
AT TAREE
LOCAL GOVERNMENT AREA MID-COAST
PARISH OF TAREE COUNTY OF MACQUARIE
TITLE DIAGRAM DP50231

FIRST SCHEDULE

HER MOST GRACIOUS MAJESTY QUEEN VICTORIA (T 10620)

SECOND SCHEDULE (1 NOTIFICATION)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

DP831016 NOTE: PLAN OF ACQUISITION

UNREGISTERED DEALINGS: NIL

SCHEDULE OF PARCELS

LOT 21 SEC. 8 IN DP50231
LOT 23 SEC. 8 IN DP50231.

*** END OF SEARCH ***

advlegs PRINTED ON 12/3/2018

Section 149 Certificates

MIDCOAST council

Taree office
2 Pulteney Street | PO Box 482
Taree NSW 2430

Certificate under Section 10.7
Environmental Planning & Assessment Act 1979

Property Key	428996	Cert No:	20181636
Ref:	E31340K KT:10225	Page No:	1
Date:	13 March 2018	Debtor/Receipt No:	1241049

Jk Group - EIS
PO Box 976
NORTH RYDE NSW 1670

Property Description: 85 Albert Street Taree NSW 2430
Lot 22 Sec 8 DP 50231

Information Provided Pursuant to Section 10.7(2) of the Act

This certificate contains information that Council is aware of through its records and environmental plans, along with data supplied by the State Government and other external agencies. The details contained in this certificate are limited to that required by section 10.7(2) of the Environmental Planning and Assessment Act 1979 and Regulations 2000.

The accuracy and currency of details provided by agencies external to Council have not been verified by Mid-Coast Council and should be verified by the applicant.

1 Names of Relevant Planning Instruments and DCPs

(1) The name of each environmental planning instrument that applies to the carrying out of development on the land.

Local Environmental Plans(s):
Greater Taree Local Environmental Plan 2010 applies to the carrying out of development on the land.

State Environmental Planning Policies:
State Environmental Planning Policy No 14 – Coastal Wetlands
State Environmental Planning Policy No 15 – Rural Landsharing Communities
State Environmental Planning Policy No 21 – Caravan Parks
State Environmental Planning Policy No 26 – Littoral Rainforests
State Environmental Planning Policy No 30 – Intensive Agriculture
State Environmental Planning Policy No 32 – Urban Consolidation (Redevelopment of Urban Land)
State Environmental Planning Policy No 33 – Hazardous and Offensive Development
State Environmental Planning Policy No 36 – Manufactured Home Estates
State Environmental Planning Policy No 44 – Koala Habitat Protection
State Environmental Planning Policy No 50 – Canal Estate Development
State Environmental Planning Policy No 55 – Remediation of Land
State Environmental Planning Policy No 62 – Sustainable Aquaculture

State Environmental Planning Policy No 64 – Advertising and Signage
State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development
State Environmental Planning Policy No 71 – Coastal Protection
State Environmental Planning Policy (Affordable Rental Housing) 2009
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004
State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy (Major Development) 2005
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
State Environmental Planning Policy (Rural Lands) 2008
State Environmental Planning Policy (State and Regional Development) 2011
State Environmental Planning Policy (Temporary Structures) 2007
State Environmental Planning Policy (Urban Renewal) 2010
State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017**.** This Policy applies to the specifically designated non-rural zones under clause 5 of the Policy.
Draft State Environmental Planning Policy (Infrastructure) Amendment (Review) 2016

The land, or part thereof, IS affected by State Environmental Planning Policy No. 71 - Coastal Protection.

(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the Council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

The land IS affected by draft Coastal Management SEPP 2016 (whole of lot).

The land MAY be affected by a general amendment package to Greater Taree LEP 2010.

(3) The name of each development control plan that applies to the carrying out of development on the land.

Development Control Plan 2010 applies to the carrying out of development on the land.

2 Zoning and Land Use under Relevant LEPs

(a) the identity of the zone/s applying to the land:

R1 General Residential

(b) the purposes for which Greater Taree Local Environmental Plan 2010 provides that development may be carried out within the zone without the need for development consent,

See Part 2 (Permitted or Prohibited Development), Part 3 (Exempt & Complying Development) and Schedule 2 (Exempt Development) of the Greater Taree Local Environmental Plan 2010,

(c) the purposes for which Greater Taree Local Environmental Plan 2010 provides that development may not be carried out within the zone except with development consent,

See Part 2 (Permitted or Prohibited Development), Part 3, (Exempt & Complying Development), Schedule 1 (Additional Permitted Uses) and Schedule 3 (Complying Development) of the Greater Taree Local Environment Plan 2010,

(d) the purposes for which Greater Taree Local Environmental Plan 2010 provides that development is prohibited within the zone,

See Part 2 (Prohibited Development) of the Greater Taree Local Environmental Plan 2010.

(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed,

There are NO development standards applying to the land that fix minimum land dimensions for the erection of a dwelling house.

(f) whether the land includes or comprises critical habitat,

The land DOES NOT comprise critical habitat.

(g) whether the land is in a conservation area (however described),

The land IS within a Heritage Conservation Area under the provisions of LEP 2010 under schedule 5. The provisions require development consent for the alteration, addition, damage, demolition of building work, or subdivision of the land.

(h) whether an item of environmental heritage (however described) is situated on the land.

The building/item on the land IS identified as an item of environmental heritage under the provisions of LEP 2010 under schedule 5. The provisions require development consent for the alteration, addition, demolition of building work, move a relic or excavate land to discover/move a relic, erection of new building or subdivide the land on which a heritage item is located.

2A Zoning and Land Use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

3 Complying Development

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (c), (d) and (e) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) If complying development may not be carried out on that land because of the provisions of clauses 1.17A (c), (d) and (e) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, the reasons why it may not be carried out under that clause.

Rural Housing Code

(1) Complying development under the Rural Housing Code may not be carried out on the land unless the complying development is carried out on the part of the lot to which clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 do not apply.

(2) Complying development under the Rural Housing code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Land within a heritage conservation area or a draft heritage conservation area, unless the development is for a detached outbuilding.

Housing Code

(1) Complying development under the Housing Code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Housing Code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Land within a heritage conservation area or a draft heritage conservation area, unless the development is for a detached outbuilding.

General Development Code

(1) Complying development under the General Development code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the General Development code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Housing Alterations Code

(1) Complying development under the Housing Alterations code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Housing Alterations code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Commercial and Industrial Alterations Code

(1) Complying development under the Commercial and Industrial Alterations code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Commercial and Industrial Alterations code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Commercial and Industrial (New Buildings and Additions) Code

(1) Complying development under the Commercial and Industrial (New Buildings and Additions) code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Commercial and Industrial (New Buildings and Additions) code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Land within a heritage conservation area or a draft heritage conservation area, unless the development is for a detached outbuilding.

Container Recycling Facilities Code

(1) Complying development under the Container Recycling Facilities code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Container Recycling Facilities code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Subdivision Code

(1) Complying development under the Subdivision code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Subdivision code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Demolition Code

(1) Complying development under the Demolition code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Demolition code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

Fire Safety Code

(1) Complying development under the Fire Safety code may not be carried out on the land because of the provisions of clauses 1.17A (c), (d) and (e) or 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Complying development under the Fire Safety code may not be carried out on the land because:

Land that is identified as an item of environmental heritage or a heritage item by an environmental planning instrument or on which is located an item that is so identified.

4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the *Coastal Protection Act 1979*, but only to the extent that the council has been so notified by the Department of Finance, Services and Innovation.

The land IS NOT covered by any notice received by Council from the Department of Finance, Services and Innovation stating that the land is affected by Section 38 or 39 of the Coastal Protection Act, 1979.

4A Certain Information Relating to Beaches and Coasts

(1) In relation to a coastal council – whether an order has been made under Part 4D of the *Coastal Protection Act 1979* in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

No order has been made on the land (or on public land adjacent to that land) under Part 4D of the Coastal Protection Act 1979.

(2) In relation to a coastal council:

(a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council HAS NOT been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works have been placed on the land (or on public land adjacent to that land).

(b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not applicable

(3) (Repealed)

4B Annual Charges under Local Government Act 1993 for Coastal Protection Services that Relate to Existing Coastal Protection Works

In relation to a coastal council – whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

The owner (or any previous owner) of the land HAS NOT consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works.

5 Mine Subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*.

The land IS NOT within a mine subsidence district within the meaning of Section 15 of the Mine Subsidence Compensation Act, 1961.

6 Road Widening and Road Realignment

Whether or not the land is affected by any road widening or road realignment under:

(a) Division 2 of Part 3 of the Roads Act 1993, or

(b) Any environmental planning instrument, or

(c) Any resolution of the council.

The land IS NOT affected by any road widening or road realignment under either Division 2 of Part 3 of the Roads Act 1993; any environmental planning instrument; or any resolution of Council.

7 Council and other Public Authority Policies on Hazard Risk Restrictions

Whether or not the land is affected by a policy:

(a) adopted by council, or

(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

The land IS NOT affected by a policy adopted by Council that restricts the development of the land because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

The land IS NOT affected by a policy adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in the planning certificates issued by the Council, that restricts the development of the land because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk.

7A Flood Related Development Controls Information

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) IS NOT subject to flood related development controls.

(2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.

Development on the land or part of the land for any other purpose IS NOT subject to flood related development controls.

(3) Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plans) Order 2006*.

8 Land Reserved for Acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

Greater Taree LEP 2010 DOES NOT make provision for the acquisition of the land by a public authority as referred to in S27 of the Act.

9 Contributions Plans

The name of each contributions plan applying to the land.

The Greater Taree Section 94 Contributions Plan 2016 applies to this land if developed for residential purposes (includes urban and rural subdivisions and dwellings). See plan for exceptions.

The Greater Taree Section 94A Contributions Plan 2016 applies to this land if developed for industrial, commercial, tourist and visitor accommodation and all other non-residential development costing more than $200,000. See plan for exceptions.

9A Biodiversity Certified Land

If the land is biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995)*.

The land IS NOT biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995)*.

10 Biobanking Agreements

If the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director-General of the Department of Environment, Climate Change and Water).

The land IS NOT subject to a biobanking agreement under Part 7A of the *Threatened Species Conservation 1995.*

11 Bushfire Prone Land

If any of the land is bush fire prone land (as defined in the Act), a statement that all or, as the case may be, some of the land is bush fire prone land.

The land IS NOT shown as bushfire prone land on the map marked 'Greater Taree LGA - Bushfire Prone Land Map', endorsed by the NSW Rural Fire Service.

12 Property Vegetation Plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

A property vegetation plan under the Native Vegetation Act 2003 DOES NOT apply to the land.

13 Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

The land IS NOT subject to an order made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.

14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

Part 3A of the Environmental Planning and Assessment Act 1979 has been repealed.

15 Site Compatibility Certificates and Conditions for Seniors Housing

If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:

(a) a statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include

(i) the period for which the certificate is current, and

(ii) that a copy may be obtained from the head office of the Department of Planning, and

(b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

There is NO current site compatibility certificate (seniors housing) of which Council is aware, in respect of proposed development on the land.

16 Site Compatibility Certificates for Infrastructure

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is valid, and

(b) that a copy may be obtained from the head office of the Department of Planning.

There is NO valid site compatibility certificate (infrastructure), of which Council is aware, in respect of proposed development on the land.

17 Site Compatibility Certificates and Conditions for Affordable Rental Housing

(1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is current, and

(b) that a copy may be obtained from the head office of the Department of Planning.

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

There is NO current site compatibility certificate (affordable rental housing), of which Council is aware, in respect of proposed development on the land.

18 Paper subdivision information

(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

(2) The date of any subdivision order that applies to the land.

There is NO development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

There is NO subdivision order that applies to the land.

19 Site verification certificates

A statement of whether there is a current site verification certificate, of which the council is aware, in respect of the land and, if there is a certificate, the statement is to include:

(a) the matter certified by the certificate, and

Note. A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land—see Division 3 of Part 4AA of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

(b) the date on which the certificate ceases to be current (if any), and

(c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure.

There is NO current site verification certificate, of which council is aware, in respect of the land.

20 Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989*) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

There is NO residential dwelling erected on this land that has been identified in the Loose-Fill Asbestos Insulation Register as containing loose-fill asbestos ceiling insulation.
Contact NSW Fair Trading for more information.

Note. The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) that the land (or part of the land) to which the certificate relates is significantly contaminated land within the meaning of that Act,

The land to which the certificate relates IS NOT significantly contaminated land within the meaning of that Act.

(b) that land to which the certificate relates is subject to a management order within the meaning of that Act,

The land to which the certificate relates IS NOT subject to a management order within the meaning of that Act.

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act,

The land to which the certificate relates IS NOT the subject of an approved voluntary management proposal within the meaning of that Act.

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act,

The land to which the certificate relates IS NOT subject to an ongoing maintenance order within the meaning of that Act.

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act,

The land to which the certificate relates IS NOT the subject of a site audit statement within the meaning of that Act.

Information Provided Pursuant to Section 10.7(5) of the Act

Section 10.7(6) of the EP&A Act states that Council shall not incur any liability in respect of any advice provided in good faith pursuant to section 10.7(5) of the EP&A Act.

There is no information relating to this property recorded by Council pursuant to Section 10.7(5) of the Act.

For further information, please contact the Customer Service Department (02) 6591 7222

EIS

SafeWork NSW Records

KT

NSW GOVERNMENT | SafeWork NSW

Locked Bag 2906, Lisarow NSW 2252
Customer Experience 13 10 50
ABN 81 913 830 179 | www.safework.nsw.gov.au

Our Ref: D18/092993
Your Ref: Katrina Taylor

6 April 2018

Attention: Katrina Taylor
Environmental Investigation Services
PO BOX 976
North Ryde BC NSW 1670

Dear Ms Taylor

RE SITE: 81 Albert St Taree NSW

I refer to your site search request received by SafeWork NSW on 16 March 2018 requesting information on Storage of Hazardous Chemicals for the above site.

Enclosed are copies of the documents that SafeWork NSW holds on record number 35/007256 relating to the storage of Hazardous Chemicals at the above-mentioned premises.

For further information or if you have any questions, please call us on 13 10 50 or email licensing@safework.nsw.gov.au

Yours sincerely

Customer Service Officer
Customer Experience - Operations
SafeWork NSW

ISSUE:
Attached communication from WorkCover, Scientific Services Branch, Dangerous Goods Licensing.

BACKGROUND:
The attached communication, dated 5 September, 1997, from WorkCover, relates to the removal of the underground storage facility, which was used to contain petrol, to service police vehicles.

This storage tank was removed during May, 1997.

WorkCover require clarification of the following:-

1. Method used to abandon the underground tank.
2. Whether the 14,205 L aboveground LPG tank has been removed from the site.

COMMENT:
With respect to item 1. The method used to abandon the underground storage facility, was to completely pump out all liquid and fill the tank with sand. All service pipes, including fill, supply, dip and vent lines have also been removed, it remains underground. The area covering the fill site has been completely covered with concrete.

Item 2. The aboveground 14,205 L aboveground LPG tank which was at this station has also been removed, this action taken at the time renovations were carried out, its present whereabouts are unknown to me.

RECOMMENDATION:
WorkCover be advised of the above.

E. Borkowskis
Sergeant
Shift Supervisor
Taree Patrol
Eagle Net 73333
29 September 1997

1. Local Area Commander 3/10/97

2. Please send to Angela McLaren Dangerous Goods Licensing Work Level.

Retrieve File
⇒ Angela.

35/007256

Gilbarco AUST LTD

12 - 38 Talavera Road PO Box 63 North Ryde NSW 2113

Tel:(02) 9888 4888 • Fax:(02) 9878 4038

A.C.N. 000 020 799

Roads

Workcover Authority
The Chief Inspector of Dangerous Goods
Locked Bag 10
SYDNEY NSW 2000

Contractor's Certificate
Abandonment of Underground Tanks

Gilbarco Aust Ltd hereby certifies that the tanks referred to in the Schedule of this Certificate have been taken out of service by the following method:

1. ~~Removal of tank/s to an approved place.~~
2. **Filling with an inert solid material, sand or concrete.**

(Delete as applicable)

The procedure has been carried out under the provisions of the Dangerous Goods Act, 1975, and Section 9.8.13 of Australian Standard 1940-1993 and acceptance of the Chief Inspector of Dangerous Goods.

Owner of Premises: POLICE SERVICE OF NSW

Address of Premises: 83 ALBERT ST

TAREE 35-007256 ???

SCHEDULE

1X Tank 16400 Litres

~~Tank Litres~~

Tank Litres

~~Tank Litres~~

Dated this 21 ST day of MAY 1997.

GILBARCO AUST LTD
Authorised Officer

Box 0010/00173

Application for Licence to Keep Dangerous Goods

WORKCOVER NEW SOUTH WALES

RECEIVED 23 JAN 1997 SCIENTIFIC SERVICES BRANCH

RECEIVED IN 22 JAN 1996 ACCOMMODATION BRANCH

Application for ☐ **new licence** ☐ **amendment** ☐ **transfer** ☒ **renewal of expired licence**

PART A – Applicant and site information

1 Name of applicant

N.S.W. POLICE SERVICE

ACN

Postal address of applicant

P.O. BOX 630

Suburb/Town

TAREE

Postcode

2430

3 Trading name or site occupier's name

N.S.W. POLICE SERVICE

4 Contact for licence inquiries

Phone	Fax	Name
065-521044	065-521396	SERGEANT BORKOWSKIS

5 Previous licence number (if known) 35/ 001256

6 Previous occupier (if known)

* plan for 15000L tank, method used to abandon 4,546L tank.

7 Site to be licensed

No	Street
83	ALBERT.

Suburb / Town

TAREE

Postcode

2430.

8 Main business of site AS ABOVE

9 Site staffing: Hours per day 24 Days per week 7

10 Emergency contact

Phone	Name
AS ABOVE	

11 Major supplier of dangerous goods CLIFTON BROS PIPELINE (SHELL FUEL)

12 If a new site or for amendments to depots

Plan stamped by: Name of Accredited Consultant Date stamped

I certify that the details in this application (including any accompanying computer disk) are correct and cover all licensable quantities of dangerous goods kept on the premises.

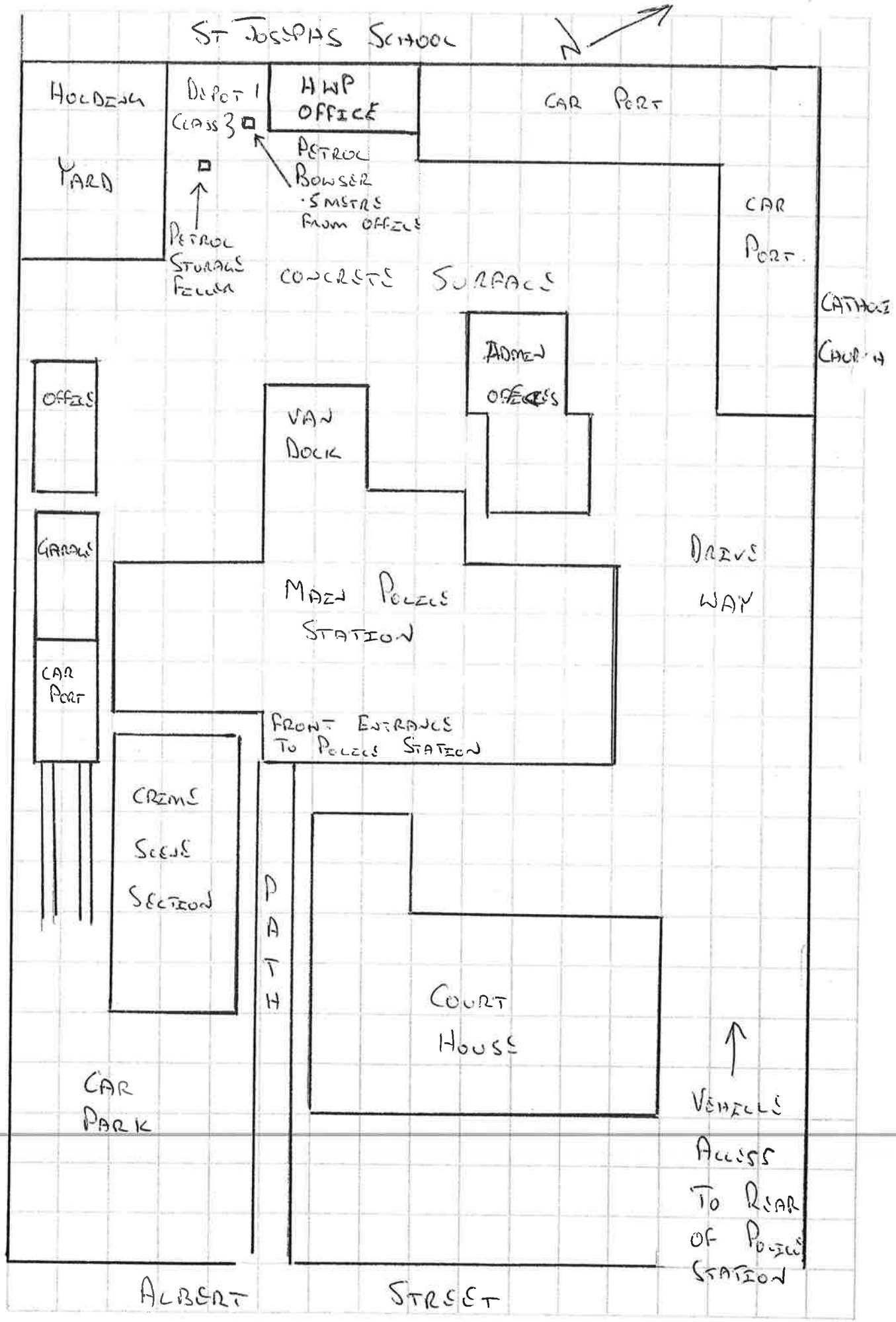
13 Signature of applicant Date

21-01-97

Please send your application, marked *CONFIDENTIAL*, to:

Dangerous Goods Licensing, Level 3, Locked Bag 10, Clarence Street, SYDNEY NSW 2000

„PART B



Site Sketch Please carefully read the instructions on page 3 of the guide before sketching the site.

PART C – Dangerous Goods Storage *Complete one section per depot.*

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot Number	Type of depot	Depot Class	Maximum storage capacity
1	PETROL STORAGE TANK	3	15,000 LITRES ?

plan

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

APPLICATION FOR LICENCE (or AMENDMENT or TRANSFER of LICENCE) FOR THE KEEPING OF DANGEROUS GOODS

Application is hereby made for—*a licence (or amendment of the licence) *the transfer of the licence for the keeping of dangerous goods in or on the premises described below.

(*delete whichever is not required)

FEE: ~~$10.00 per Depot~~ NO FEE Recorded

Name of Applicant in full (see over)	PUBLIC WORKS DEPT, LIGHT HEAT & POWER SECTION Surname _____ Given Names _____
Trading name or occupier's name (if any)	
Postal address	STATE OFFICE BLOCK SYDNEY Postcode 2000
Telephone number of applicant	STD Code Number
Address of the premises in or on which the depot or depots are situated (including street number, if any)	NSW POLICE DEPT. ALBERT ST TAREE Postcode 2430
Nature of premises (see over)	POLICE STATION

PLEASE ATTACH SITE PLAN

Particulars of type of depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (see over)	Storage capacity	Dangerous goods: Product being stored	C & C Office use only
1	UNDERGROUND TANK	5000L	PETROL	
2	ABOVEGROUND TANK	14205 L	LPG	
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Name of company supplying flammable liquid (if any)

Have premises previously been licensed?

If known, state name of previous occupier Licence No.

for Chairman
Signature of applicant Light, Heat & Power Committee Date 2/8/75
per

For external explosives magazine(s), please fill in side 2.

FOR OFFICE USE ONLY

CERTIFICATE OF INSPECTION

I, Graeme K. ALARD being an Inspector under the Dangerous Goods Ac
1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Ac

Appendix B: Borehole Logs

JK **Geotechnics**
GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. **1** 1/1

Client: GROUPGSA

Project: PROPOSED TAREE POLICE STATION REDEVELOPMENT

Location: 79 ALBERT STREET, TAREE, NSW

Job No. 31340P **Method:** SPIRAL AUGER JK300 **R.L. Surface:** ~ 16.9m

Date: 9/4/18 **Datum:** AHD

Logged/Checked by: M.S./P.W.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION						0			CONCRETE: 130mm.t				100mm TOP COVER 5mm DIA. REINFORCEMENT
								-	FILL: Clayey sand, fine to medium grained, dark grey brown, with fine to medium grained igneous gravel.	M			ALLUVIAL
								CH	Sandy CLAY: high plasticity, dark grey and green grey.	w>PL	(St-VSt)		HIGH 'TC' BIT RESISTANCE
					N = SPT 4/20mm REFUSAL			-	SANDSTONE: fine to medium grained, light yellow brown, with brown bands.	DW	H		
						1			END OF BOREHOLE AT 1.0m				'TC' BIT REFUSAL
						2							
						3							
						4							
						5							
						6							
						7							

JK **Geotechnics**
GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. **2** 1/1

Client: GROUPGSA

Project: PROPOSED TAREE POLICE STATION REDEVELOPMENT

Location: 79 ALBERT STREET, TAREE, NSW

Job No. 31340P **Method:** SPIRAL AUGER JK300 **R.L. Surface:** ~ 18.2m

Date: 9/4/18 **Datum:** AHD

Logged/Checked by: M.S./P.W.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■					0			CONCRETE: 130mm.t				
								-	FILL: Gravel, fine to medium grained, dark grey, igneous, sub angular.	M	(St)		ALLUVIAL
								CH		w>PL			
					N = SPT 3/20mm REFUSAL			-	Silty CLAY: high plasticity, dark grey, trace of sand.	DW	M-H		MODERATE TO HIGH 'TC' BIT RESISTANCE
				■		1			SANDSTONE: fine to medium grained, light yellow brown, and dark red brown.		H		HIGH RESISTANCE
									END OF BOREHOLE AT 1.1m				'TC' BIT REFUSAL
						2							
						3							
						4							
						5							
						6							
						7							

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GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. **3** 1/1

Client: GROUPGSA

Project: PROPOSED TAREE POLICE STATION REDEVELOPMENT

Location: 79 ALBERT STREET, TAREE, NSW

Job No. 31340P **Method:** SPIRAL AUGER JK300 **R.L. Surface:** ~ 18.6m

Date: 9/4/18 **Datum:** AHD

Logged/Checked by: M.S./P.W.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION AND ON 10/4/18	■					0		-	ASPHALTIC CONCRETE:30mm.t	M			APPEARS WELL COMPACTED
	■			■	N = 26 10,15,11				FILL: Sandy gravel, fine to medium grained, dark grey and green grey igneous, sub angular.				
									FILL: Clayey gravelly sand, fine to medium grained, dark grey and dark yellow brown, fine to medium grained igneous gravel.				
	■		■			1			FILL: Silty sandy clay, low to medium plasticity, dark grey and dark red brown, trace of fine grained igneous gravel.	w<PL			HYDROCARBON ODOUR
									FILL: Gravelly sand, fine to medium grained, orange brown, fine to medium grained sandstone gravel.	M			BANDED LOW TO HIGH 'TC' BIT RESISTANCE
						2			FILL: Sandy gravel, medium to coarse grained dark grey and dark brown igneous, sub angular, with cobbles.				BALLAST TYPE MATERIAL
	■								FILL: Silty clayey sand, fine to medium grained, green grey and dark brown.				HYDROCARBON ODOUR
						3			as above, but trace of fine grained igneous gravel.				
	■												STANDPIPE BLOCKED AT 3.8m
						4		-	SANDSTONE: fine to medium grained, dark orange brown.	DW	L-M		LOW TO MODERATE RESISTANCE
											H		HIGH RESISTANCE
						5			END OF BOREHOLE AT 4.9m				'TC' BIT REFUSAL GROUNDWATER MONITORING WELL INSTALLED TO 4.9m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.4m TO 4.9m. CASING 0m TO 2.4m. 2mm SAND FILTER PACK 2.0m TO 4.9m. BENTONITE SEAL 0.5m TO 2.0m.
						6							
						7							

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GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. **4** 1/1

Client: GROUPGSA

Project: PROPOSED TAREE POLICE STATION REDEVELOPMENT

Location: 79 ALBERT STREET, TAREE, NSW

Job No. 31340P **Method:** SPIRAL AUGER JK300 **R.L. Surface:** ~ 18.0m

Date: 9/4/18 **Datum:** AHD

Logged/Checked by: M.S./P.W.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		N > 25 13, 25/150mm REFUSAL	0		-	BITUMINOUS SURFACE: 16mm.t FILL: Sandy gravel, fine to coarse grained, dark grey and dark brown igneous and sandstone, sub angular.	M			APPEARS WELL COMPACTED
	■			■		1		CH	Silty CLAY: high plasticity, dark grey mottled light yellow brown, trace of fine grained sand.	w>PL	St-VSt		ALLUVIAL
▼ ON 10/4/18	■		■	■	N > 16 5,16/ 150mm REFUSAL							180 220 220	
				■		2		-	SANDSTONE: fine to medium grained, dark orange brown mottled red brown.	DW	VL-L		VERY LOW TO LOW 'TC' BIT RESISTANCE
											H		HIGH STRENGTH
									END OF BOREHOLE AT 2.5m				'TC' BIT REFUSAL GROUNDWATER MONITORING WELL INSTALLED TO 2.5m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 1.5m TO 2.5m. CASING 0m TO 1.5m. 2mm SAND FILTER PACK 1.0m TO 2.5m. BENTONITE SEAL 0m TO 1.0m. COMPLETED WITH A CONCRETE GATIC COVER.
						3							
						4							
						5							
						6							
						7							

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GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. **5** 1/1

Client: GROUPGSA

Project: PROPOSED TAREE POLICE STATION REDEVELOPMENT

Location: 79 ALBERT STREET, TAREE, NSW

Job No. 31340P
Date: 9/4/18

Method: SPIRAL AUGER
JK300

Logged/Checked by: M.S./P.W.

R.L. Surface: ~ 15.9m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 130mm.t				90mm TOP COVER 6mm DIA. REINFORCEMENT
								-	FILL: Clayey gravel, fine grained, dark grey and brown igneous, sub angular.	M			
				■	N = 7 5,2,5				FILL: Sandy clay, medium to high plasticity, dark grey and grey brown, trace of fine to medium grained igneous and sandstone gravel, and ash.	w>PL			APPEARS MODERATELY COMPACTED
▼						1							
									FILL: Sandy gravel, fine to medium grained, orange brown sandstone, sub rounded.	M			
▶								CH	Silty CLAY: high plasticity, grey mottled light yellow brown.	w>PL	F	90 110 100	ALLUVIAL
				■	N = 3 2,2,1								
	■					2					VS-S		
				■	N = 1 0,0,1	3						30 40 50	
				■	N = 0 0,0,0							30 30 20	SPT SUNK UNDER WEIGHT OF HAMMER
				■		5		-	SANDSTONE: fine to medium grained, grey and light brown mottled dark grey.	DW	H		HIGH 'TC' BIT RESISTANCE
									END OF BOREHOLE AT 5.5m				'TC' BIT REFUSAL
						6							
						7							

ENVIRONMENTAL LOGS EXPLANATORY NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

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SYMBOL LEGENDS

SOIL


FILL


TOPSOIL


CLAY (CL, CI, CH)


SILT (ML, MH)


SAND (SP, SW)


GRAVEL (GP, GW)


SANDY CLAY (CL, CI, CH)


SILTY CLAY (CL, CI, CH)


CLAYEY SAND (SC)


SILTY SAND (SM)


GRAVELLY CLAY (CL, CI, CH)


CLAYEY GRAVEL (GC)


SANDY SILT (ML, MH)


PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK


CONGLOMERATE


SANDSTONE


SHALE/MUDSTONE


SILTSTONE


CLAYSTONE


COAL


LAMINITE


LIMESTONE


PHYLLITE, SCHIST


TUFF


GRANITE, GABBRO


DOLERITE, DIORITE


BASALT, ANDESITE


QUARTZITE

OTHER MATERIALS


BRICKS OR PAVERS


CONCRETE


ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_u = \frac{D_{60}}{D_{10}} \quad \text{and} \quad C_c = \frac{(D_{30})^2}{D_{10}\ D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

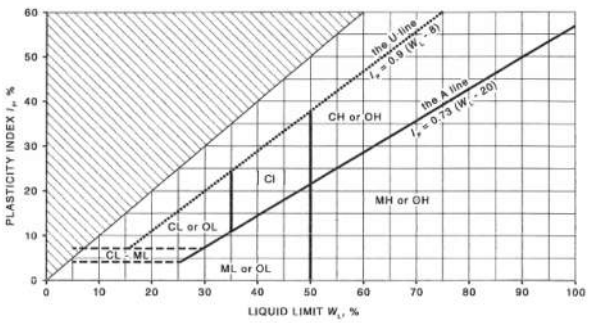
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

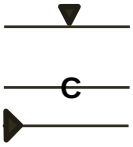
3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record		Standing water level. Time delay following completion of drilling/excavation may be shown. Extent of borehole/test pit collapse shortly after drilling/excavation. Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES U50 DB DS ASB ASS SAL	Sample taken over depth indicated, for environmental analysis. Undisturbed 50mm diameter tube sample taken over depth indicated. Bulk disturbed sample taken over depth indicated. Small disturbed bag sample taken over depth indicated. Soil sample taken over depth indicated, for asbestos analysis. Soil sample taken over depth indicated, for acid sulfate soil analysis. Soil sample taken over depth indicated, for salinity analysis.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25 PID = 100	Vane shear reading in kPa of undrained shear strength. Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL $w \approx$ PL w < PL $w \approx$ LL w > LL	Moisture content estimated to be greater than plastic limit. Moisture content estimated to be approximately equal to plastic limit. Moisture content estimated to be less than plastic limit. Moisture content estimated to be near liquid limit. Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D M W	DRY – runs freely through fingers. MOIST – does not run freely but no free water visible on soil surface. WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS S F St VSt Hd Fr ( )	VERY SOFT – unconfined compressive strength ≤ 25kPa. SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa. FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa. STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa. VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa. HARD – unconfined compressive strength > 400kPa. FRIABLE – strength not attainable, soil crumbles. Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.
Density Index/ Relative Density (Cohesionless Soils)	VL L MD D VD ( )	**Density Index (I_D) Range (%)** / **SPT 'N' Value Range (Blows/300mm)** VERY LOOSE ≤ 15 — 0 – 4 LOOSE > 15 and ≤ 35 — 4 – 10 MEDIUM DENSE > 35 and ≤ 65 — 10 – 30 DENSE > 65 and ≤ 85 — 30 – 50 VERY DENSE > 85 — > 50 Bracketed symbol indicates estimated density based on ease of drilling or other assessment.
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.

Log Column	Symbol	Definition
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as:
		RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock.
		EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock.
		ALLUVIAL – soil deposited by creeks and rivers.
		ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents.
		MARINE – soil deposited in a marine environment.
		AEOLIAN – soil carried and deposited by wind.
		COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits.
		LITTORAL – beach deposited soil.

Classification of Material Weathering

Term		Abbreviation		Definition
Residual Soil		RS		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered		XW		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.
Highly Weathered	Distinctly Weathered (Note 1)	HW	DW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered		MW		The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered		SW		Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh		FR		Rock shows no sign of decomposition of individual minerals or colour changes.

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: *'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'*. There is some change in rock strength.

Rock Material Strength Classification

Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Guide to Strength	
			Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Appendix C: Laboratory Report & COC Documents

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CERTIFICATE OF ANALYSIS 189314

Client Details

Client	Environmental Investigation Services
Attention	Katrina Taylor
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E31340K, Taree**
Number of Samples	16 Soil, 1 Material
Date samples received	12/04/2018
Date completed instructions received	12/04/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/04/2018
Date of Issue	19/04/2018
Reissue Details	This report replaces R00 created on 19/04/2018 due to: result entry error

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Leon Ow, Chemist
Lucy Zhu, Asbsestos Analyst

Authorised By

Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		189314-1	189314-4	189314-8	189314-10	189314-11
Your Reference	UNITS	BH1	BH2	BH3	BH3	BH4
Depth		0.1-0.2	0.2-0.3	1.2-1.4	3.6-4.0	0.5-0.8
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	26	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	71	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	58	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	1	<1	<1
m+p-xylene	mg/kg	<2	<2	8	<2	<2
o-Xylene	mg/kg	<1	<1	4	<1	<1
naphthalene	mg/kg	<1	<1	2	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	11	<1	<1
Surrogate aaa-Trifluorotoluene	%	79	76	84	80	86

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		189314-12	189314-13	189314-16
Your Reference	UNITS	BH4	BH5	BH5
Depth		1.0-1.2	0.2-0.3	2.0-2.2
Date Sampled		09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	78	80	77

svTRH (C10-C40) in Soil						
Our Reference		189314-1	189314-4	189314-8	189314-10	189314-11
Your Reference	UNITS	BH1	BH2	BH3	BH3	BH4
Depth		0.1-0.2	0.2-0.3	1.2-1.4	3.6-4.0	0.5-0.8
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	120	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	100	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	100	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	100	<50	<50
Surrogate o-Terphenyl	%	88	85	85	85	84

svTRH (C10-C40) in Soil				
Our Reference		189314-12	189314-13	189314-16
Your Reference	UNITS	BH4	BH5	BH5
Depth		1.0-1.2	0.2-0.3	2.0-2.2
Date Sampled		09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	14/04/2018	14/04/2018	14/04/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	84	82	86

PAHs in Soil						
Our Reference		189314-1	189314-4	189314-8	189314-10	189314-11
Your Reference	UNITS	BH1	BH2	BH3	BH3	BH4
Depth		0.1-0.2	0.2-0.3	1.2-1.4	3.6-4.0	0.5-0.8
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Naphthalene	mg/kg	<0.1	<0.1	2.6	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	2.6	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	102	104	98	97	98

PAHs in Soil				
Our Reference		189314-12	189314-13	189314-16
Your Reference	UNITS	BH4	BH5	BH5
Depth		1.0-1.2	0.2-0.3	2.0-2.2
Date Sampled		09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	99	98	107

Organochlorine Pesticides in soil						
Our Reference		189314-1	189314-4	189314-8	189314-11	189314-13
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.1-0.2	0.2-0.3	1.2-1.4	0.5-0.8	0.2-0.3
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	124	120	123	123	120

Organophosphorus Pesticides						
Our Reference		189314-1	189314-4	189314-8	189314-11	189314-13
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.1-0.2	0.2-0.3	1.2-1.4	0.5-0.8	0.2-0.3
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	124	120	123	123	120

PCBs in Soil						
Our Reference		189314-1	189314-4	189314-8	189314-11	189314-13
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.1-0.2	0.2-0.3	1.2-1.4	0.5-0.8	0.2-0.3
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	124	120	123	123	120

Acid Extractable metals in soil						
Our Reference		189314-1	189314-4	189314-8	189314-10	189314-11
Your Reference	UNITS	BH1	BH2	BH3	BH3	BH4
Depth		0.1-0.2	0.2-0.3	1.2-1.4	3.6-4.0	0.5-0.8
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	<4	<4	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	19	5	6	7
Copper	mg/kg	39	19	10	13	35
Lead	mg/kg	6	9	8	7	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	6	3	4	8
Zinc	mg/kg	56	38	49	64	65

Acid Extractable metals in soil					
Our Reference		189314-12	189314-13	189314-16	189314-18
Your Reference	UNITS	BH4	BH5	BH5	BH4 - [TRIPLICATE]
Depth		1.0-1.2	0.2-0.3	2.0-2.2	1.0-1.2
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	20	16	12
Copper	mg/kg	12	21	29	22
Lead	mg/kg	7	9	21	46
Mercury	mg/kg	<0.1	<0.1	<0.1	0.5
Nickel	mg/kg	3	10	6	4
Zinc	mg/kg	20	41	53	98

Moisture						
Our Reference		189314-1	189314-4	189314-8	189314-10	189314-11
Your Reference	UNITS	BH1	BH2	BH3	BH3	BH4
Depth		0.1-0.2	0.2-0.3	1.2-1.4	3.6-4.0	0.5-0.8
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018	16/04/2018	16/04/2018	16/04/2018
Moisture	%	6.5	20	7.6	10	8.3

Moisture				
Our Reference		189314-12	189314-13	189314-16
Your Reference	UNITS	BH4	BH5	BH5
Depth		1.0-1.2	0.2-0.3	2.0-2.2
Date Sampled		09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil
Date prepared	-	13/04/2018	13/04/2018	13/04/2018
Date analysed	-	16/04/2018	16/04/2018	16/04/2018
Moisture	%	14	12	27

Asbestos ID - soils						
Our Reference		189314-1	189314-4	189314-8	189314-11	189314-13
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.1-0.2	0.2-0.3	1.2-1.4	0.5-0.8	0.2-0.3
Date Sampled		09/04/2018	09/04/2018	09/04/2018	09/04/2018	09/04/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	18/04/2018	18/04/2018	18/04/2018	18/04/2018	18/04/2018
Sample mass tested	g	Approx. 45g	Approx. 50g	Approx. 30g	Approx. 50g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - materials		
Our Reference		189314-17
Your Reference	UNITS	KTSF
Depth		Surface
Date Sampled		09/04/2018
Type of sample		Material
Date analysed	-	17/04/2018
Mass / Dimension of Sample	-	60x50x5mm
Sample Description	-	Beige compressed fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	104	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	104	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	100	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	104	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	113	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	102	[NT]
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	115	[NT]
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	82	1	79	92	15	85	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	128	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	102	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	123	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	128	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	102	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	123	[NT]
Surrogate o-Terphenyl	%		Org-003	93	1	88	86	2	116	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	90	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	77	[NT]
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	97	[NT]
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	97	[NT]
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	98	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	84	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	87	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	101	1	102	101	1	124	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	116	[NT]
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	[NT]
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	[NT]
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	91	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	94	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	102	[NT]
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	112	[NT]
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	109	[NT]
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	[NT]
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	[NT]
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	126	1	124	125	1	129	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	90	[NT]
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	99	[NT]
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	104	[NT]
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	76	[NT]
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	118	[NT]
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	106	[NT]
Surrogate TCMX	%		Org-008	126	1	124	125	1	117	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	112	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	126	1	124	125	1	117	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date prepared	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Date analysed	-			13/04/2018	1	13/04/2018	13/04/2018		13/04/2018	[NT]
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	110	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	104	[NT]
Chromium	mg/kg	1	Metals-020	<1	1	6	6	0	110	[NT]
Copper	mg/kg	1	Metals-020	<1	1	39	40	3	111	[NT]
Lead	mg/kg	1	Metals-020	<1	1	6	6	0	110	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	86	[NT]
Nickel	mg/kg	1	Metals-020	<1	1	11	11	0	107	[NT]
Zinc	mg/kg	1	Metals-020	<1	1	56	56	0	109	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	12	13/04/2018	13/04/2018		[NT]	[NT]
Date analysed	-			[NT]	12	13/04/2018	13/04/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	12	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	12	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	12	8	11	32	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	12	12	22	59	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	12	7	17	83	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	12	<0.1	0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	12	3	5	50	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	12	20	54	92	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 189314-12 for Cu, Pb and Zn. Therefore a triplicate result has been issued as laboratory sample number 189134-18.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 189314-1, 4, 11, 13 were sub-sampled from bags, and sample 189314-8 was sub-sampled from jar provided by the client.

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SAMPLE RECEIPT ADVICE

Client Details

Client	Environmental Investigation Services
Attention	Katrina Taylor

Sample Login Details

Your reference	E31340K, Taree
Envirolab Reference	189314
Date Sample Received	12/04/2018
Date Instructions Received	12/04/2018
Date Results Expected to be Reported	19/04/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	16 Soil, 1 Material
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	20.6
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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Analysis Underway, details on the following page:

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Asbestos ID - soils	Asbestos ID - materials	On Hold
BH1-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓		
BH1-0.2-0.4										✓
BH1-0.6-1.0	✓	✓	✓				✓			
BH2-0.2-0.3	✓	✓	✓	✓	✓	✓	✓	✓		
BH3 -0.1-0.2										✓
BH3 -0.5-0.95										✓
BH3 -1.0-1.2										✓
BH3 -1.2-1.4	✓	✓	✓	✓	✓	✓	✓	✓		
BH3 -2.5-3.0										✓
BH3 -3.6-4.0	✓	✓	✓				✓			
BH4 -0.5-0.8	✓	✓	✓	✓	✓	✓	✓	✓		
BH4 -1.0-1.2										✓
BH5 -0.2-0.3	✓	✓	✓	✓	✓	✓	✓	✓		
BH5 -0.5-0.95										✓
BH5 -1.0-1.2										✓
BH5 -2.0-2.2	✓	✓	✓				✓			
KTSF-Surface									✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	EIS Job Number: E31340K	ENVIRONMENTAL INVESTIGATION SERVICES
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		Attention: ktaylor@jkgroup.net.au
Attention: Aileen	Page: 1 of 1	

Location:	Taree	Sample Preserved in Esky on Ice
Sampler:	M.Serra	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6a	Combo 3	Asbestos									
9/4/18	1	BH1	0.1-0.2	G,A		FILL	X											
	2		0.2-0.4	G,A		FILL												
	3		0.6-1.0	G		NATURAL		X										
	4	BH2	0.2-0.3	G,A		FILL	X											
	5	BH3	0.1-0.2	G,A														
	6		0.5-0.95	G,A														
	7		1.0-1.2	G,A	0.9													
	8		1.2-1.4	G	523		X											
	9		2.5-3.0	G,A	270													
	10		3.6-4.0	G,A	128			X										
	11	BH4	0.5-0.8	G,A	0.8		X											
	12		1.0-1.2	G	0.9	NATURAL												
	13	BH5	0.2-0.3	G,A	0.4	FILL	X											
	14		0.5-0.95	G,A	0.3													
	15		1.0-1.2	G	0													
	16		2.0-2.2	G	0.5	NATURAL		X										
	17	KTSF	surface	A		MATERIAL			X									4

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

ID: 189314
Date Received: 12/4/18
Time Received: 15:45
Received By: MP
Temp: Cool/Ambient 20.6
Cooling: Ice/Icepack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By:	Date:	Time:	Received By:	Date:
	12.4.18.		MP ECS	12/4/18 15:45

Appendix D: Report Explanatory Notes

STANDARD SAMPLING PROCEDURE

These protocols specify the basic procedures to be used when sampling soils or groundwater for environmental site assessments undertaken by EIS. The purpose of these protocols is to provide standard methods for: sampling, decontamination procedures for sampling equipment, sample preservation, sample storage and sample handling. Deviations from these procedures must be recorded.

Soil Sampling

- Prepare a borehole/test pit log or made a note of the sample description for stockpiles.
- Layout sampling equipment on clean plastic sheeting to prevent direct contact with ground surface. The work area should be at a distance from the drill rig/excavator such that the machine can operate in a safe manner.
- Ensure all sampling equipment has been decontaminated prior to use.
- Remove any surface debris from the immediate area of the sampling location.
- Collect samples and place in glass jar with a Teflon seal. This should be undertaken as quickly as possible to prevent the loss of any volatiles. If possible, fill the glass jars completely.
- Collect samples for asbestos analysis and place in a zip-lock plastic bag.
- Label the sampling containers with the EIS job number, sample location (eg. BH1), sampling depth interval and date. If more than one sample container is used, this should also be indicated (eg. 2 = Sample jar 1 of 2 jars).
- Photoionisation detector (PID) screening of volatile organic compounds (VOCs) should be undertaken on samples using the soil sample headspace method. Headspace measurements are taken following equilibration of the headspace gasses in partly filled zip-lock plastic bags. PID headspace data is recorded on the borehole/test pit log and the chain of custody forms.
- Record the lithology of the sample and sample depth on the borehole/test pit log generally in accordance with AS1726-1993[20].
- Store the sample in a sample container cooled with ice or chill packs. On completion of the sampling the sample container should be delivered to the lab immediately or stored in the refrigerator prior to delivery to the lab. All samples are preserved in accordance with the standards outlined in the report.
- Check for the presence of groundwater after completion of each borehole using an electronic dip metre or water whistle. Boreholes should be left open until the end of fieldwork where it is safe to do so. All groundwater levels in the boreholes should be rechecked on the completion of the fieldwork.
- Backfill the boreholes/test pits with the excavation cuttings or clean sand prior to leaving the site.

Decontamination Procedures for Soil Sampling Equipment

- All sampling equipment should be decontaminated between every sampling location. This excludes single use PVC tubing used for push tubes etc. Equipment and materials required for the decontamination include:
  - Phosphate free detergent (Decon 90);
  - Potable water;
  - Stiff brushes; and
  - Plastic sheets.
- Ensure the decontamination materials are clean prior to proceeding with the decontamination.
- Fill both buckets with clean potable water and add phosphate free detergent to one bucket.

[20] Standards Australia, (1993), *Geotechnical Site Investigations.* (AS1726-1993)

- In the bucket containing the detergent, scrub the sampling equipment until all the material attached to the equipment has been removed.
- Rinse sampling equipment in the bucket containing potable water.
- Place cleaned equipment on clean plastic sheets.

If all materials are not removed by this procedure, high-pressure water cleaning is recommended. If any equipment is not completely decontaminated by both these processes, then the equipment should not be used until it has been thoroughly cleaned.

Groundwater Sampling

Groundwater samples are more sensitive to contamination than soil samples and therefore adhesion to this protocol is particularly important to obtain reliable, reproducible results. The recommendations detailed in AS/NZS 5667.1:1998 are considered to form a minimum standard.

The basis of this protocol is to maintain the security of the borehole and obtain accurate and representative groundwater samples. The following procedure should be used for collection of groundwater samples from previously installed groundwater monitoring wells.

- After monitoring well installation, at least three bore volumes should be pumped from the monitoring wells (well development) to remove any water introduced during the drilling process and/or the water that is disturbed during installation of the monitoring well. This should be completed prior to purging and sampling.
- Groundwater monitoring wells should then be left to recharge for at least three days before purging and sampling. Prior to purging or sampling, the condition of each well should observed and any anomalies recorded on the field data sheets. The following information should be noted: the condition of the well, noting any signs of damage, tampering or complete destruction; the condition and operation of the well lock; the condition of the protective casing and the cement footing (raised or cracked); and, the presence of water between protective casing and well.
- Measure the groundwater level from the collar of the piezometer/monitoring well using an electronic dip meter. The collar level should be taken (if required) during the site visit using a dumpy level and staff.
- Purging and sampling of piezometers/monitoring wells is done on the same site visit when using micro-purge (or other low flow) techniques.
- Layout and organize all equipment associated with groundwater sampling in a location where they will not interfere with the sampling procedure and will not pose a risk of contaminating samples. Equipment generally required includes:
  - Stericup single-use filters (for heavy metals samples);
  - Bucket with volume increments;
  - Sample containers: teflon bottles with 1 ml nitric acid, 75mL glass vials with 1 mL hydrochloric acid, 1 L amber glass bottles;
  - Bucket with volume increments;
  - Flow cell;
  - pH/EC/Eh/Temperature meters;
  - Plastic drums used for transportation of purged water;
  - Esky and ice;
  - Nitrile gloves;
  - Distilled water (for cleaning);
  - Electronic dip meter;
  - Low flow peristaltic pump and associated tubing; and
  - Groundwater sampling forms.

- Ensure all non-disposable sampling equipment is decontaminated or that new disposable equipment is available prior to any work commencing at a new location. The procedure for decontamination of groundwater equipment is outlined at the end of this section.
- Disposable gloves should be used whenever samples are taken to protect the sampler and to assist in avoidance of contamination.
- Groundwater samples are obtained from the monitoring wells using low flow sampling equipment to reduce the disturbance of the water column and loss of volatiles.
- During pumping to purge the well, the pH, temperature, conductivity, dissolved oxygen, redox potential and groundwater levels are monitored (where possible) using calibrated field instruments to assess the development of steady state conditions. Steady state conditions are generally considered to have been achieved when the difference in the pH measurements was less than 0.2 units and the difference in conductivity was less than 10%.
- All measurements are recorded on specific data sheets.
- Once steady state conditions are considered to have been achieved, groundwater samples are obtained directly from the pump tubing and placed in appropriate glass bottles, BTEX vials or plastic bottles.
- All samples are preserved in accordance with water sampling requirements specified by the laboratory and placed in an insulated container with ice. Groundwater samples are preserved by immediate storage in an insulated sample container with ice.
- At the end of each water sampling complete a chain of custody form for samples being sent to the laboratory.

Decontamination Procedures for Groundwater Sampling Equipment

- All equipment associated with the groundwater sampling procedure (other than single-use items) should be decontaminated between every sampling location.
- The following equipment and materials are required for the decontamination procedure:
  - Phosphate free detergent;
  - Potable water;
  - Distilled water; and
  - Plastic Sheets or bulk bags (plastic bags).
- Fill one bucket with clean potable water and phosphate free detergent, and one bucket with distilled water.
- Flush potable water and detergent through pump head. Wash sampling equipment and pump head using brushes in the bucket containing detergent until all materials attached to the equipment are removed.
- Flush pump head with distilled water.
- Change water and detergent solution after each sampling location.
- Rinse sampling equipment in the bucket containing distilled water.
- Place cleaned equipment on clean plastic sheets.
- If all materials are not removed by this procedure that equipment should not be used until it has been thoroughly cleaned

QA/QC DEFINITIONS

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[21] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[22].

Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;

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[21] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[22] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide.*

- All blank data reported;
- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

SCREENING CRITERIA DEFINITIONS

The following definitions have been adopted based on Schedule B(1) of NEPM (2013) and are relevant to Tier 1 screening criteria adopted for contamination assessments.

Health investigation levels (HILs) have been developed for a broad range of metals and organic substances. The HILs are applicable for assessing human health risk via all relevant pathways of exposure. The HILs are generic to all soil types and apply generally to a depth of 3 m below the surface for residential use. Site-specific conditions should determine the depth to which HILs apply for other land uses.

Health screening levels (HSLs) have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depths below surface to >4 m. HSLs have also been developed for asbestos and apply to the top 3m of soil.

Ecological investigation levels (EILs) have been developed for selected metals and organic substances and are applicable for assessing risk to terrestrial ecosystems. EILs depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2 m of soil.

Ecological screening levels (ESLs) have been developed for selected petroleum hydrocarbon compounds and total petroleum/recoverable hydrocarbon (TPH/TRH) fractions and are applicable for assessing risk to terrestrial ecosystems. ESLs broadly apply to coarse- and fine-grained soils and various land uses. They are generally applicable to the top 2 m of soil.

Groundwater investigation levels (GILs) are the concentrations of a contaminant in groundwater above which further investigation (point of extraction) or a response (point of use) is required. GILs are based on Australian water quality guidelines and drinking water guidelines and are applicable for assessing human health risk and ecological risk from direct contact (including consumption) with groundwater.

Management Limits for Petroleum hydrocarbons are applicable to petroleum hydrocarbon compounds only. They are applicable as screening levels following evaluation of human health and ecological risks and risks to groundwater resources. They are relevant for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites.

Interim soil vapour health investigation levels (interim HILs) have been developed for selected volatile organic chlorinated compounds (VOCCs) and are applicable to assessing human health risk by the inhalational pathway. They have interim status pending further scientific work on volatile gas modelling from the sub-surface to building interiors for chlorinated compounds.

Appendix E: Data (QA/QC) Evaluation

DATA (QA/QC) EVALUATION

INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in Section 6.1 of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs; and
- Laboratory QA/QC results.

Data Assessment Criteria

EIS adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

DATA EVALUATION

Sample Collection, Storage, Transport and Analysis

Samples were collected by trained field staff in accordance with the EIS SSP. The SSP was developed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken within specified holding times in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies.

Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this assessment.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;
- All analytical results were reported; and
- Consistent units were used to report the analysis results.

Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC.

Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this assessment.

A review of the laboratory QA/QC data identified the following minor non-conformance:

- Acid extractable metal in soil: The laboratory RPD acceptance criteria was exceeded for copper, lead and zinc in one sample therefore a triplicate results was issued.

DATA QUALITY SUMMARY

EIS are of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Appendix F: Guidelines and Reference Documents

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

CRC Care, (2017). Technical Report No. 39 – Risk-based management and guidance for benzo(a)pyrene

Contaminated Land Management Act 1997 (NSW)

Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map (Series 9130N3, Ed 2)

Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998)

NSW EPA, (1995). Contaminated Sites Sampling Design Guidelines

NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy No.55 – Remediation of Land 1998 (NSW)

Western Australia Department of Health, (2009). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia