CivilTech
Consulting Engineers

● Subdivision Design ● Civil Engineering ● Town Planning ● Project Management

ABN 21 026 548 150
PO Box 278
Maclean NSW 2463

Phone *6645 3074*
Email *admin@civiltech.net.au*

Planning Proposal

Schedule Amendment to allow a Recreation Facility (Indoor)
Lot 31 DP627
14 Argyle Street, Maclean
on behalf of David Wilks

17 January 2013

Adrian Zakaras
Town Planner, CivilTech

Ref No M12019

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The report relies on information supplied by the other consultants and on findings obtained using accepted survey and assessment methodology.

While due care was taken during field survey and report preparation, CivilTech accepts no responsibility for any omissions that may have occurred due to the nature of the survey methodology.

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1. Introduction

Project Details

CivilTech Consulting Engineers (CivilTech) has been engaged by Mr David Wilks to prepare a Planning Proposal in relation to land located at 14 Argyle Street, Maclean described as Lot 31 in DP627.

The Proposal seeks to amend the Clarence Valley Local Environmental Plan 2011 (CVLEP) to allow the use of the site for a recreation facility (indoor). It is envisaged to use the site for a dance studio.

This Planning Proposal has been drafted in accordance with Section 55 of the *Environmental Planning and Assessment Act 1979* and the Department of Planning and Infrastructure's *"A guide to preparing planning proposals"* (July 2009) to accompany an gateway application to allow the use of the site for a recreation facility (indoor).

Site Details

The land is located at 14 Argyle Street, Maclean and is formally known as Lot 31 DP627. The land has an area of approximately 1555m^2 and is rectangular in shape. The site is bounded by Argyle Street to the north, Clarence Street to the south, Oban Street to the east and residential allotments to the west. Figure 1 identifies the subject land.

The site is zoned R3 Medium Density Residential under the provisions of the CVLEP (see Figure 2). The Maclean Public School is located to the south of the site.

A large shed is erected on the site that was traditionally used for the storage and servicing of buses. In recent times, the shed has remained relatively unused.

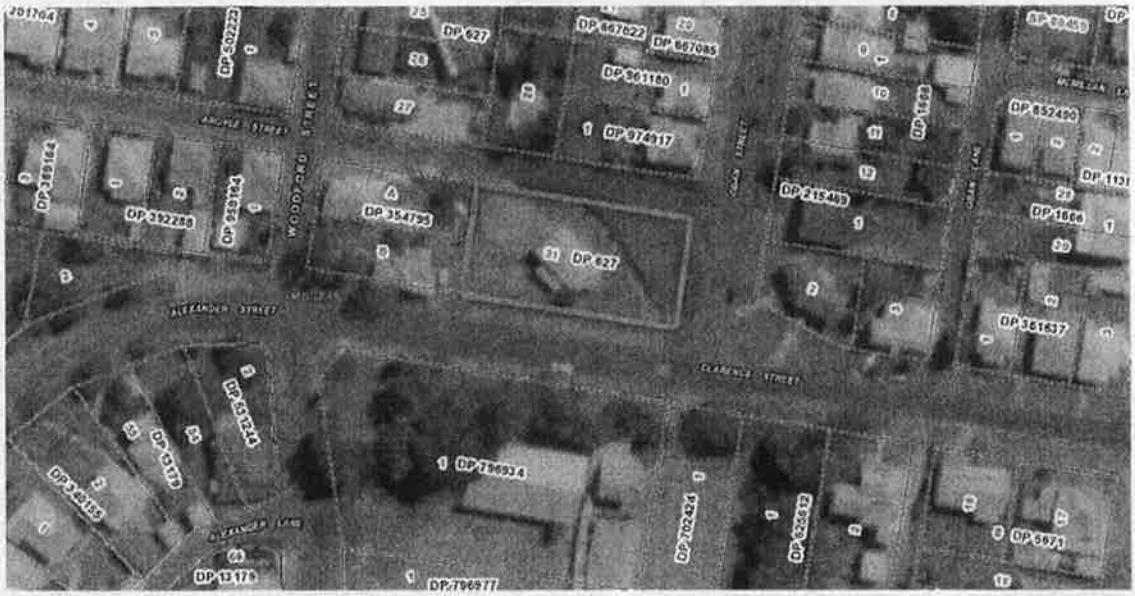

Figure 1: Aerial Photograph of the subject site. Note: boundaries are approximate (source: www.maps.six.nsw.gov.au)

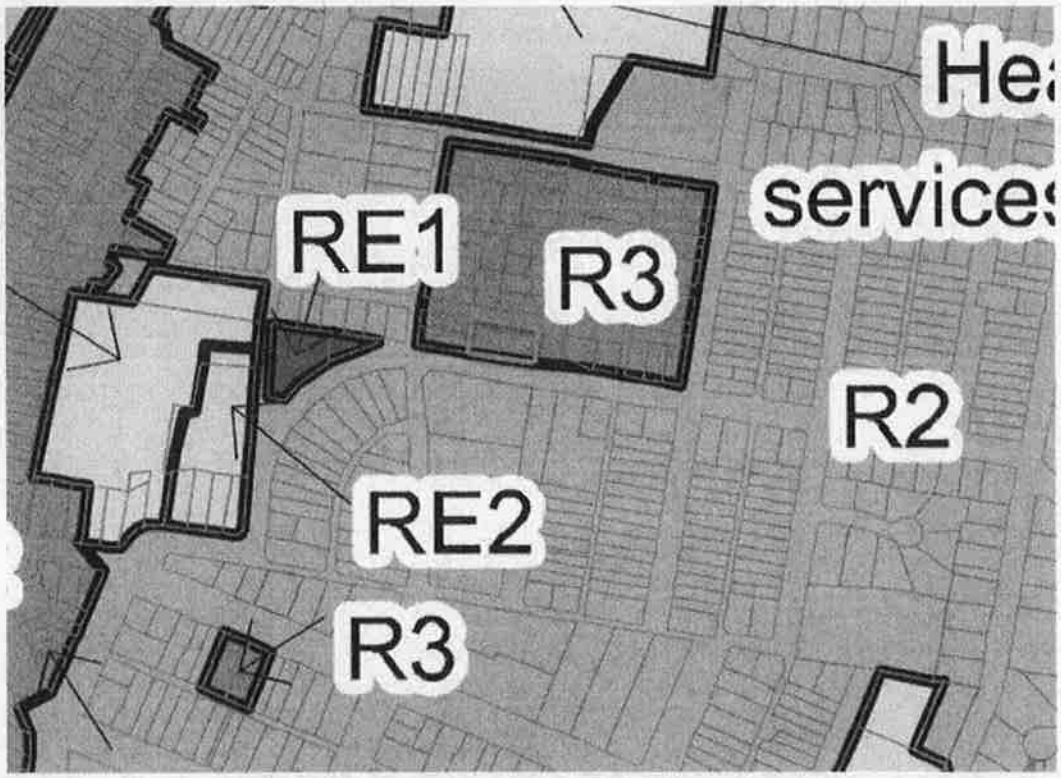

Figure 2: Zoning Map (Source: www.legislation.nsw.gov.au)

2. Objectives or Intended Outcomes

The objective of the proposal is to enable the use of the existing building on 14 Argyle Street, Maclean for a dance studio. As such, a schedule amendment to the CVLEP is required to allow the use of the site for a recreation facility (indoor).

The proposal does not seek to restrict future residential development on the land and it is the current owners long term plans to utilise the site for residential uses in the future.

3. Explanation of Provisions

The site is currently zoned R3 Medium Density Residential under the provisions of the CVLEP 2011, within which, the use of the site for a recreation facility (indoor) is prohibited (see Zone R3 Land Use Table below).

As a consequence to the current zoning and land use table, the proposal seeks to gain the support of the Clarence Valley Council to include in Schedule 1 of the CVLEP a provision to use the site for a recreation facility (indoor) to facilitate a Dance Studio. Once a schedule amendment has taken place, a Development Application will be lodged with Clarence Valley Council to utilise the site for a dance studio in accordance with applicable legislation and planning controls.

Zone R3 Medium Density Residential

1 Objectives of zone

- *To provide for the housing needs of the community within a medium density residential environment.*
- *To provide a variety of housing types within a medium density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To enable serviced apartments while maintaining the medium density residential character and amenity of a locality.*

2 Permitted without consent

Home-based child care; Home occupations; Home occupations (sex services)

3 Permitted with consent

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Educational establishments; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Group homes; Home businesses; Home industries; Hostels; Information and education facilities; Multi dwelling housing; Neighbourhood shops; Places of public worship; Recreation areas; Residential flat buildings; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Serviced apartments; Water recreation structures

4 Prohibited

Any development not specified in item 2 or 3

4. Justification

Section A – Need for the planning proposal

1. **Is the planning proposal a result of any strategic study or report?**

No. The proposal is only minor in nature and does not form part (nor is one warranted) of any strategic study or report.

2. **Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?**

Yes. A schedule amendment to allow the use of the site for a recreation facility (indoor) will still allow the site to be utilised for future residential purposes. The alternative to a schedule amendment would be a rezoning to an appropriate zone which could prohibit the future use of the site for residential purposes.

3. **Is there a net community benefit?**

Yes. The community will benefit via the establishment of a recreation facility to service a growing need for a dance studio for the children of the Maclean area.

Section B – Relationship to strategic planning framework

4. **Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)?**

The Mid North Coast Regional Strategy 2006-2031 (MNCRS) is the relevant regional strategy encompassing the Clarence Valley Local Government Area.

The Planning Proposal is not inconsistent with this strategy as the proposal simply seeks to use the site for an additional purpose without limiting the future residential use of the site.

5. **Is the planning proposal consistent with the local council's Community Strategic Plan, or other local strategic plan?**

Valley Vision 2020 is the CVC adopted corporate strategic plan. The proposal will contribute to the key goals of Valley Vision 2020 of providing healthy economic activity and meaningful work and employment.

6. Is the planning proposal consistent with applicable state environmental planning policies?

State Environmental Planning Policy	Compliance	Comments
SEPP 1 – Development Standards	Not applicable.	
SEPP 4 – Development Without Consent and Miscellaneous Exempt and Complying Development	Not applicable.	
SEPP 6 – Number of Storeys in a Building	Not applicable.	
SEPP 14 – Coastal Wetlands	Not applicable.	
SEPP 15 – Rural Landsharing Communities	Not applicable.	
SEPP 19 – Bushland in Urban Areas	Not applicable.	
SEPP 21 – Caravan Parks	Not applicable.	
SEPP 22 – Shops and Commercial Premises		
SEPP 26 – Littoral Rainforests	Not applicable.	
SEPP 29 – Western Sydney Recreation Area	Not applicable.	
SEPP 30 – Intensive Agriculture	Not applicable.	
SEPP 32 – Urban Consolidation (Redevelopment of Urban Land)	Complies.	The Planning Proposal does not restrict the land to be used for residential purposes in the future.
SEPP 33 – Hazardous and Offensive Development	Not applicable.	
SEPP 36 – Manufactured Home Estates	Not applicable.	
SEPP 39 – Spit Island Bird Habitat	Not applicable.	
SEPP 4 – Koala Habitat Protection	Not applicable.	
SEPP 47 – Moore Park Showground	Not applicable.	
SEPP 50 – Canal Estate Development	Not applicable.	
SEPP 52 – Farm Dams and Other Works in Land and Water Management Plan Areas	Not applicable.	
SEPP 55 – Remediation of Land	Complies.	Given the site has historically been used for the storage and maintenance of buses, a contamination report was commissioned. This Contamination report is attached in Appendix A and concludes that *"the*

		investigation area does not represent a significant risk of harm to end users of the proposed change of use."
SEPP 59 – Central Western Sydney Regional Open Space and Residential	Not applicable.	
SEPP 60 – Exempt and Complying Development	Not applicable.	
SEPP 62 – Sustainable Aquaculture	Not applicable.	
SEPP 64 – Advertising and Signage	Complies.	Any signage associated with the use of the site will be subject to normal application procedures.
SEPP 65 – Design Quality of Residential Flat Development	Not applicable.	
SEPP 70 – Affordable Housing (Revised Scheme)	Not applicable.	
SEPP 71 – Coastal Protection	Complies.	The land is located within the coastal zone as it is located approximately 500 metres from the Clarence River. The use of the site for a recreation facility (indoor) is not inconsistent with the objectives of the SEPP nor will it be inconsistent with the matters for consideration under Clause 8 of the SEPP. The proposal is also consistent with Part 4 of the SEPP pertaining to public access, effluent disposal and stormwater.
SEPP (Affordable Rental Housing) 2009	Not applicable.	
SEPP (Building Sustainability Index: BASIX) 2004	Not applicable.	
SEPP (Exempt and Complying Development Codes) 2008	Not applicable.	
SEPP (Housing for Seniors or People with a Disability) 2004	Not applicable.	
SEPP (Infrastructure) 2007	Not applicable.	

SEPP (Kosciuszko National Park – Alpine Resorts) 2007	Not applicable.	
SEPP (Kurnell Peninsula) 1989	Not applicable.	
SEPP (Major Development) 2005	Not applicable.	
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	Not applicable.	
SEPP (Penrith Lakes Scheme) 1989	Not applicable.	
SEPP (Rural Lands) 2008	Not applicable.	
SEPP (SEPP 53 Transitional Provisions) 2011	Not applicable.	
SEPP (State and Regional Development) 2011	Not applicable.	
SEPP (Sydney Drinking Water Catchment) 2011	Not applicable.	
SEPP (Sydney Region Growth Centres) 2006	Not applicable.	
SEPP (Temporary Structures) 2007	Not applicable.	
SEPP (Urban Renewal) 2010	Not applicable.	
SEPP (Western Sydney Employment Area) 2009	Not applicable.	
SEPP (Western Sydney Parklands) 2009	Not applicable.	

7. **Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?**

Section 117 Direction	Compliance	Comments
1. Employment and Resources		
1.1 Business and Industrial Zones	Not applicable.	
1.2 Rural Zones	Not applicable.	
1.3 Mining, Petroleum Production and Extractive Industries	Not applicable.	
1.4 Oyster Aquaculture	Not applicable.	
1.5 Rural Lands	Not applicable.	
2. Environment and Heritage		
2.1 Environmental Protection Zones	Not applicable.	
2.2 Coastal Protection	Complies.	The proposal is not inconsistent with the applicable provisions of this direction (see SEPP 71

		discussion).
2.3 Heritage Conservation	Complies.	The subject site is located within the Maclean Heritage Conservation Area. The proposed change of use does not propose to alter the appearance of the existing building on the site and therefore the heritage values of the area will not be compromised.
2.4 Recreation Vehicle Areas	Not applicable.	
3. Environment and Heritage		
3.1 Residential Zones	Complies.	The Planning Proposal does not limit the use of the land for residential purposes and therefore the proposal is consistent with this direction.
3.2 Caravan Parks and Manufactured Home Estates	Not applicable.	
3.3 Home Occupations	Not applicable.	
3.4 Integrating Land Use and Transport	Complies.	The site is located within the residential area of Maclean and is in close proximity to the Maclean CBD. Therefore, the Planning Proposal is considered consistent with this direction given its minor nature.
3.5 Development Near Licensed Aerodromes	Not applicable.	
3.6 Shooting Ranges	Not applicable.	
4. Hazard and Risk		
4.1 Acid Sulfate Soils	Complies.	The land is mapped as having the potential for Class 5 Acid Sulfate Soils. Any future development consent will require appropriate consideration of Acid Sulfate Soils.
4.2 Mine Subsidence and	Not applicable.	

Unstable Land		
4.3 Flood Prone Land	Complies.	The proposal will not impact upon flooding characteristics in the area as only part of the site is mapped as containing the probably maximum flood line.
4.4 Planning for Bushfire Protection	Not applicable.	
5. Regional Planning		
5.1 Implementation of Regional Strategies	Complies.	The proposal is not inconsistent with the objectives of the Mid North Coast Regional Strategy with no specific provisions of this strategy required to be implemented as part of this Planning Proposal.
5.2 Sydney Drinking Water Catchments	Not applicable.	
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable.	
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable.	
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)(Revoked 18 June 2010)	Not applicable.	
5.6 Sydney to Canberra Corridor (Revoked 10 July 2008)	Not applicable.	
5.7 Central Coast (Revoked 10 July 2008)	Not applicable.	
5.8 Second Sydney Airport: Badgerys Creek	Not applicable.	
6. Local Plan Making		
6.1 Approval and Referral Requirements	Complies.	The Planning Proposal does not create the need to obtain the concurrence, consultation or referral of

		a Minister or public authority in future development applications.
6.2 Reserving Land for Public Purposes	Not applicable.	
6.3 Site Specific Provisions	Complies.	The future use of the site for an indoor recreation facility will be subject to a Development Application and be required to be in accordance with the current planning legislation.
7. Metropolitan Planning		
7.1 Implementation of the Metropolitan Plan for Sydney 2036	Not applicable.	

Section C – Environmental, social and economic impact

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

The subject site has been extensively cleared for a number of years and is located within the Maclean Township. Other than grass cover, there is no vegetation present on the site.

Given the location of the site, it is highly unlikely that the proposal will have an adverse impact upon critical habitat or threatened species, populations or ecological communities or their habitats.

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

Given the site has historically been used for the storage and maintenance of buses, a contamination report was commissioned. This contamination report is attached in Appendix A and concludes that *"the investigation area does not represent a significant risk of harm to end users of the proposed change of use."*

No other environmental effects are likely to result as a consequence of the Planning Proposal.

10. How has the planning proposal adequately addressed any social and economic effects?

The Planning Proposal will have minimal social and economic effects given the minor nature of the proposal.

Section D – State and Commonwealth interests

11. Is there adequate public infrastructure for the planning proposal?

Yes. The subject site is located within walking distance of the Maclean Central Business District. The site is connected to all utility services including reticulated electricity, telephone, water and sewerage. Public transport is readily available in the area.

12. What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

As no gateway determination has been made in respect to this planning proposal at this stage, the views of State and Commonwealth public authorities is unknown.

This section will be revised following the review of the proposal by the Minister of Planning.

5. Community Consultation

Having regard to the scale, nature and issues relating to the Planning Proposal, it is considered that the Planning Proposal is a "low impact planning proposal" under section 4.5 of *"a guide to preparing local environmental plans"*.

Appropriate exhibition material will be made available by the relevant planning authority during the exhibition period and the exhibition period will be undertaken in accordance with normal practices.

6. Conclusion and Recommendations

The Planning Proposal is minor in nature as it seeks to allow an additional use to be located on the site within an existing building. It also does not preclude the site for future residential use.

On this basis it is recommended Clarence Valley Council and the Department of Planning amend Schedule 1 of the Clarence Valley Local Environmental Plan 2001 to allow the use of Lot 37 DP627 for a recreation facility (indoor).

7. Appendix A – Preliminary Contaminated Land Assessment

ENVIRONMENTAL REPORT
Preliminary Contaminated Land Assessment
For a Proposed Change of Use
(to an Indoor Recreation Facility) at
Lot 31 DP 627,
14 Argyle Street, MACLEAN

Melaleuca Group Pty Ltd

Date: 24th December 2012

Prepared for:
Mr David Wilks

Further Information:
Melaleuca Group Pty Ltd
T 02 6687 5725
M 0427 628 847
melissa.vanzwieten@exemail.com.au

M. N Van Zwieten

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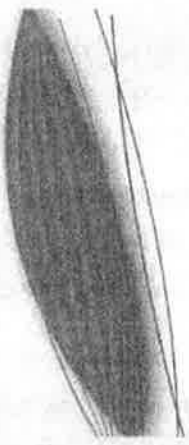
Dr. Melissa Van Zwieten
Environmental Scientist



Melaleuca Group Pty Ltd

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Melaleuca Group Pty Limited

1. Introduction

Melaleuca Group has been engaged by Mr David Wilks to undertake a Preliminary Contaminated Land Assessment and prepare a report for Lot 31 DP 627, 14 Argyle Street, MACLEAN (the site; Figure 1) accompany a Planning Proposal for an amendment to the Clarence Valley LEP to allow for a Recreation Facility (indoor) to be permissible on the site. The total allotment area is approximately 0.16 ha. As depicted in Figure 1, the site is currently occupied by a steel frame shed (approximately 20 x 10m) located centrally within Lot 31. The investigation area consisted of the entirety of Lot 31 with field investigations focused primarily upon the shed structure and its immediate surrounds.

The objective of this preliminary investigation has been to determine if land contamination has occurred from historical and current land use activities occurring on site or immediately nearby. To determine if the site poses a significant risk of harm to end users (and nearby sensitive receptors), soil samples have been collected and analysed for a range of contaminants typically associated with the land uses identified as having occurred on site. The results of the soil analysis are compared to relevant EPA acceptable levels in order to assess the significance of risk.

This investigation is to Stage 1 of the Managing Land Contamination Planning Guidelines (DUAP and EPA, 1998). If contamination levels exceed the adopted EPA acceptable levels, a detailed investigation is then required (i.e. a Stage 2 investigation). If the contamination levels are below the relevant acceptable levels, and information gathered as part of the investigation also supports that contamination was unlikely to have occurred; only a Stage 1 investigation would be required.

This preliminary investigation has been used to identify the following:

- Past and present potentially contaminating activities occurring on or near the site; and
- The presence of Potential Contaminants of Concern associated with the identified land uses.

The investigation will also:

- Discuss the site condition;
- Provide a preliminary assessment of the site's contamination status; and
- Assess the need for further investigations.

Relevant documents considered in the preparation of this investigation included:

- ANZECC and NHMRC (1992) *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*;
- Council of Standards Australia (2005) *AS 4482.1-2005 Guide to the sampling and investigation of potentially contaminated soil – Non-volatile and semi-volatile compounds*;
- NSW DEC (2006) *Contaminated Sites – Guidelines for the NSW Site Auditor Scheme 2nd Edition*;
- NSW EPA (1995) *Contaminated Sites – Sampling Design Guidelines*; and
- NSW EPA (1997) *Guidelines for Consultants Reporting Contaminated Sites*.

This preliminary assessment report is written in accordance with NSW EPA (1997) Guidelines for Consultants Reporting on Contaminated Sites and the Northern Rivers Regional Councils (NRRC) Regional Policy for the Management of Contaminated Land (NRRC 2006).

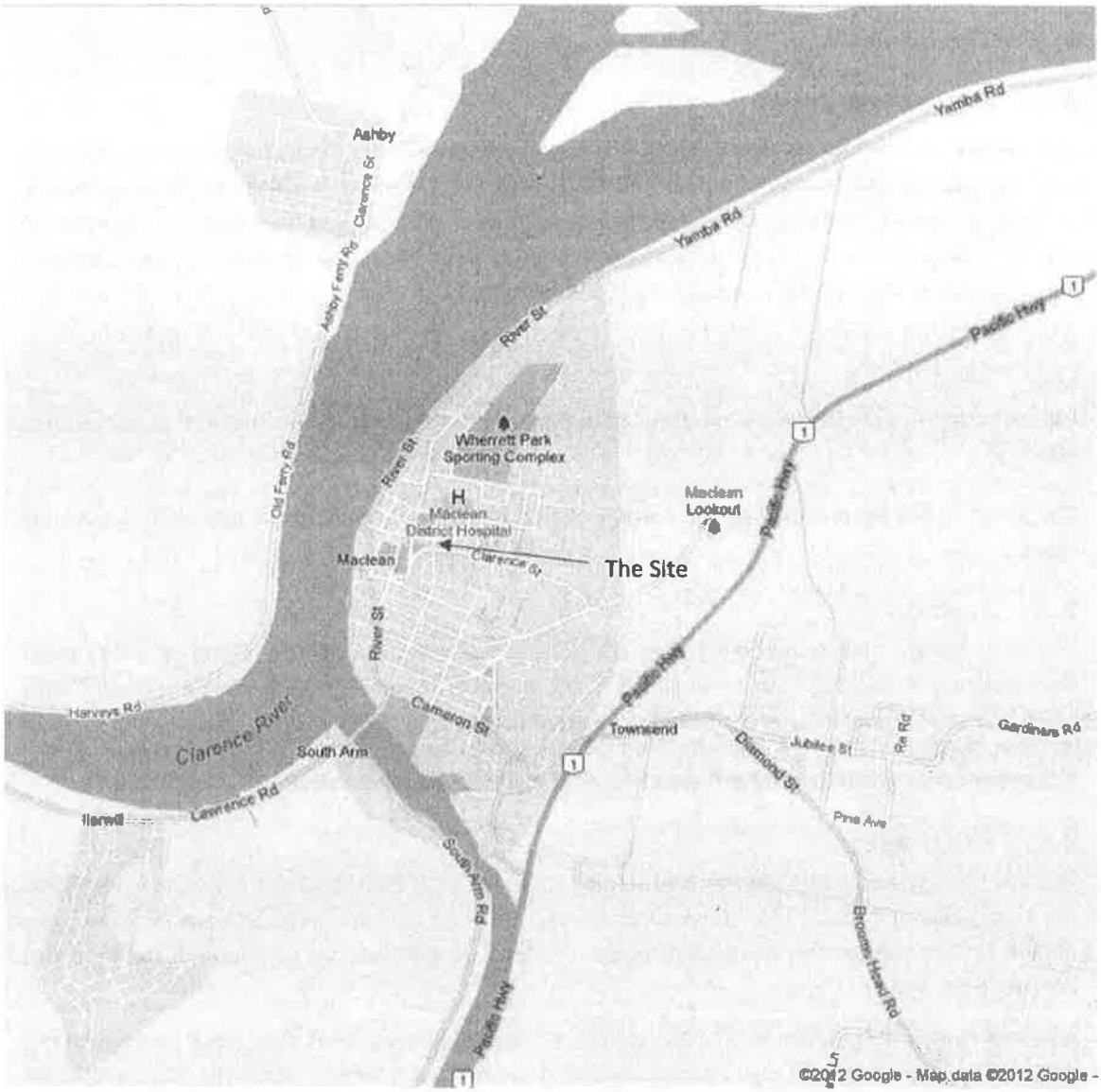

Figure 1. Location Plan

2. The Site

2.1 Site Identification

The subject site is approximately 0.16 ha in size and is rectangular in shape, having been historically cut, retained (western and southern perimeters), levelled and filled for building and traffic purposes. The Site is bounded by Argyle and Alexander Streets to the north and south respectively. The rear of the block fronts Oban Street (to the east) with the access to Argyle Street adjoining the boundary with residential allotments A and B DP 354796 to the west.

The property is located in the catchment of the Clarence River. The site has a moderate westerly aspect although having been significant historic earthworks have levelled the site. A drainage channel adjoins the northern boundary, collecting run off from both the site and up-catchment sources.

The property has been owned by the current owner, Mr Wilks for a period of approximately six (6) years.

2.2 Zoning

The investigation area is zoned R3 Medium Density Residential under the Clarence Valley Local Environmental Plan 2011. Surrounding lands are primarily zoned RS Low Density Residential with Maclean Public School located immediately south of the Site.

Properties on either side of the site are utilised for rural residential purposes.

2.3 Site Usages

The site has been primarily unused for the past six years, with the storage of motor vehicles inside the shed being the major use. Prior to this time, the shed and site were believed to have been utilised for the storage and servicing of buses. Plates 1 - 4 illustrate the condition of the shed and the site in general.

A limited review of historical aerial photography (circa 1980) shows what appears to be a hardstand area with a number of vehicles (buses) parked in an east west orientation. The Maclean Public School is evident as are a number of surrounding dwellings consistent with dwellings currently evident.

Plate 1: North view long drainage line toward Oban Street

Plate 2: Southerly view toward Alexander Street and Maclean Public School

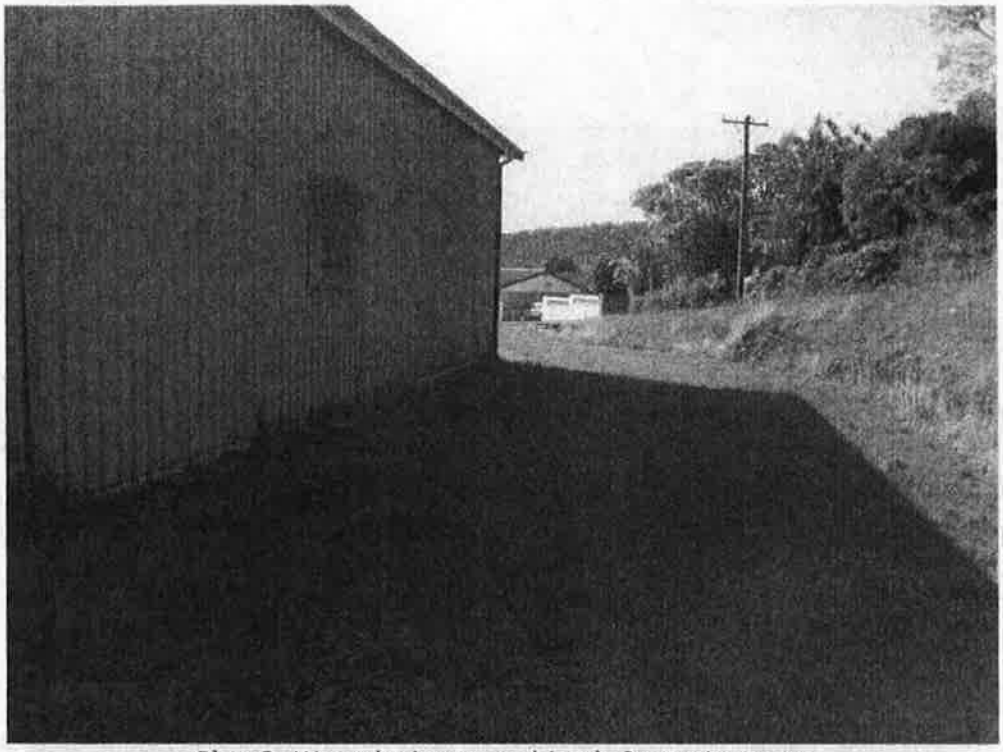

Plate 3: Westerly view toward Argyle Street site access

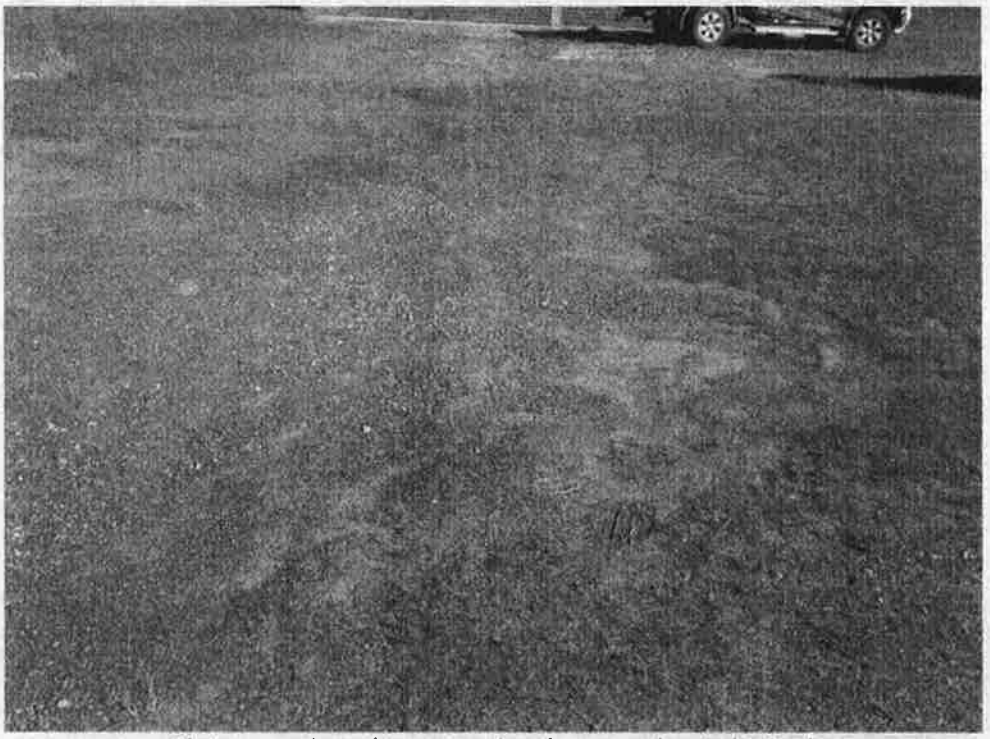

Plate 4: Hardstand access and parking area (easterly view)

2.4 Inventory of Known Chemicals and Wastes and their Location

An inventory of chemicals and/or wastes stored at the site was not available. It is assumed, some general chemical use for building maintenance purposes (e.g. weed control) has occurred at the site and within the investigation area over time.

Anecdotal information suggests that an Above Ground Storage Tank (size and fate unknown) was located at the south-western cornier of the shed and was likely to have been utilised for refuelling of buses. No signs of this AST were identifiable at the time of inspection however its presence was noted and assessed along with other assumed contaminants associated with motor vehicle maintenance.

2.5 Possible Contaminant Sources

Despite the lack of recent use of chemicals at the site, historical use may be possible at the site. Table 1 lists the sources of potential contamination at the site and their associated contaminants of concern.

Table 1: Potential Contaminants of Concern for Identified Activities

Identified Contaminant Source	Potential Contaminants	Targeted Contaminants
Commercial Activities		
Shed Construction **Vehicle Storage and Maintenance** **Site Maintenance**	**Hazardous Building Materials** (Lead, Asbestos) **Petrochemicals** (Petroleum, Diesel, Motor Oil) **Solvents** (Xylene, kerosene, methyl isonutyl ketone, amyl acetate, chlorinated solvents) **Fungicides** (carbamates, copper sulfate, copper chloride, sulfur, chromium, zinc) Herbicides (Ammonium Thyocyanate, carbamates, organochlorines, organophosphates, arsenic, mercury, triazines) **Pesticides** (Arsenic, lead, organochlorines, organophosphates, sodium tetraborate, carbamates, sulfur, synthetic pyrethroids)	**Metals** (Silver, Arsenic, Lead, Cadmium, Copper, Nickel, Selenium, Zinc, Mercury, Iron and aluminium) **Hazardous Building Materials** (Asbestos) **Pesticides** (a-BHC, Hexachlorobenzene, b-BHC, g-BHC (Lindane), d-BHC, Heptachlor, Aldrin, Heptachlor epoxide, transchlordane, Endosulfan I, cischlordane, Dieldrin, 4,4-DDE, Endrin, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, Methoxyxhlor. For specific chemicals related to dipsite, refer Section 2.8.3.) **Petrochemicals** (TPH)

2.6 Historic Use of Adjacent Land

Historically, the general location has been dominated by low density residential dwellings, supported by local amenities such as Maclean Public School, tennis courts, bowling greens and municipal pool.

2.7 Local Usage of Ground/Surface Waters

A search of existing licensed groundwater bores within 250 m of the investigation areas was conducted using the NSW Natural Resource Atlas (NRATLAS 2012) website. There are no groundwater bores within 250m of the investigation area.

2.8 State and Local Authority Records

2.8.1 Contaminated Land Records

A search of the Contaminated Land Record (EPA 2012a) for the Clarence Valley Local Government Area (LGA) did not identify any site notices relating to the site or adjoining the site.

2.8.2 Protection of the Environment Operations Act Licenses

A search of the current list (EPA, 2012b) of licensed activities as per Schedule 1 of the Protection of the Environment Operations Act 1997 did not identify any licensed polluting activities occurring within or adjacent to the site.

2.8.3 Cattle Tick Dip Sites

A search of the NSW Department of Primary Industry (DPI) Cattle Dip Site Locator tool (http://www.dpi.nsw.gov.au/agriculture/livestock/health/specific/cattle/ticks/cattle-dip-site-locator) indicated that the Cattle Tick Dip Site MACLEAN is located approximately 445m north-east of the Site.

3. Site Inspection and Condition

3.1 Topography

The Site formerly consisted of a moderate ridgeline descending toward the Clarence River. Elevation ranges from approximately 8 to 12m AHD across the site with the primary investigation area having been levelled at approximately 8m AHD.

3.2 Visible Signs of Contamination

The investigation area was investigated on foot in order to identify any signs of contamination. No obvious signs of contamination (such as plant stress, surface spills, waste materials, imported fill, odours etc.) were evident during the site investigation. There were however, small fragments of potential fibreboard asbestos discovered that were either the result of vandalism on the toilet-shower add-on or from random dumping of materials on the site. These were collected for further analysis.

A visual inspection of adjacent land from the subject land indicated that there were no clearly visible signs of contamination adjoining the study area or across the subject site.

3.3 Flooding Potential

The investigation area is not mapped as flood liable.

3.4 Locally Sensitive Environments

There are no sensitive environments within the locality of the site such as SEPP 14 (Coastal Wetlands) or SEPP 26 (Littoral Rainforest).

3.5 Local Geology and Soil Description

NSW DPI (2004) describes the geology of the study area as the Kangaroo Creek Sandstones.

The investigation area is mapped by Morand (2001) as being the erosional soil landscape unit *Cliff Road*. This soil type is relatively uniform across its extent and are described by Morand (2001) as:

Landscape – rolling low hills and hills on Kangaroo Creek Sandstone (quartz sandstone).

Soils – shallow (30cm), well drained Leptic Rudosols (Lithosols); shallow to moderately deep (50 - 100cm) moderately well drained Orthic Tenosols (Earthy Sands/Siliceous sands). Brown Kandosols (Yellow Podsolic Soils); and Brown Kurosols (Yellow Podsolic soils throughout the slope sequence).

Limitations – shallow, stony, strongly c and highly erodible soils with low fertility and generally high permeability. Steep slopes with common rock outcrops; moderate to high foundation hazard; high sheet erosion risk..

3.6 Location and Extent of Imported and Locally Derived Fill

The hardstand area as depicted in Plate 4 was primarily located both within the built area and the intervening lands between the shed and the access point. Rock fill appeared to be a mix of both site won sandstone and imported crushed rock fill materials (likely Tabbimobile product).

3.7 Location of Bore Hole Tests

All soil samples were taken from surface samples, thus no boreholes were constructed for this investigation.

3.8 Depth to Groundwater Table

Depth to groundwater was not investigated, however, it is anticipated to be greater than 3m below natural ground level given the elevation of the site.

3.9 Local Meteorology

The annual average meteorological data recorded at the Harwood Island (Harwood Sugar Mill) is provided below in Figure 2.

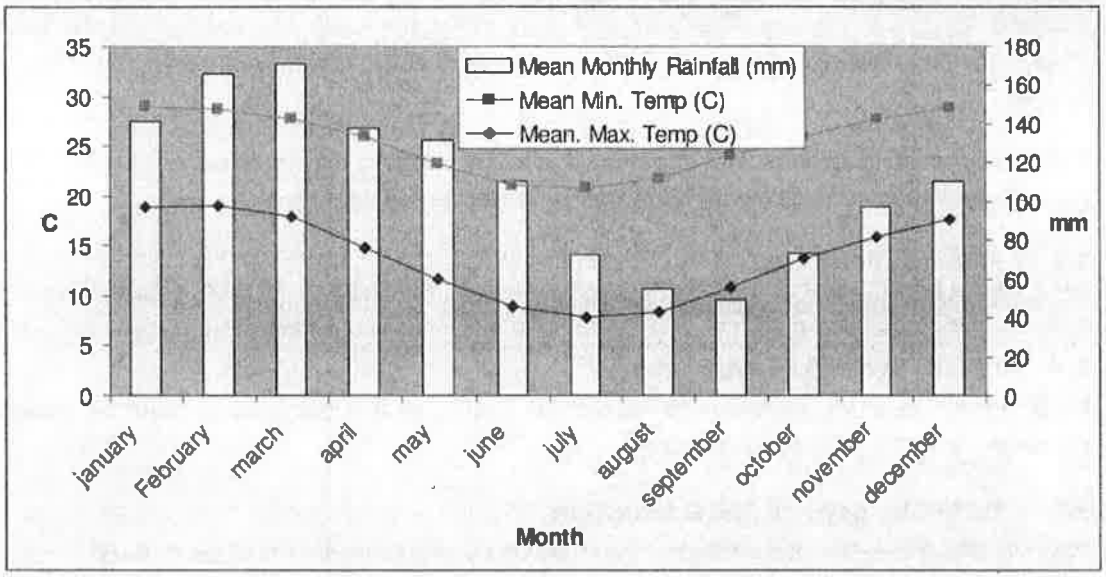

Figure 2: Climate Observation Harwood Island

4. Sampling and Analysis Plan and Sampling Methodology

4.1 Sampling, Analysis and Data Quality Objective (DQOs)

The objective of this preliminary investigation is to gather information with regard to the type, location, concentration and distribution of contaminants to determine if the subject site represents a risk of harm to end users and sensitive receptors. To determine this, soil sampling and laboratory analysis has been conducted upon surface soils collected from the Site.

4.2 Rationale

In general a targeted sampling plan was used within the immediate vicinity of the current built envelope. As a result, eight (8) samples were taken from the immediate periphery of the shed. Samples were to be composited into two (2) samples for analysis. An additional individual soil sample was collected from the area reported to have contained the former AST and submitted for

Total Petroleum Hydrocarbons (TPH) analysis. A few small fibreboard fragments were located and all removed from the site. One was analysed for potential asbestos characterisation.

Figure 3 indicates the location of each individual sample point. Sample density is considered appropriate for the investigation area and is consistent with NSW EPA Guidelines (1995) and as such the sampling effort equates to an area of approximately 2,000m^2 being assessed.

Composite samples were analysed for a full range of heavy metals and organochlorine (OC) pesticides (including Aldrin, Cis-chlordane, Trans-chlordane, HCB, DDD, DDE, DDT, Alpha-BHC, Beta-BHC, Delta-BHC, Lindane, Dieldrin, Endrin, Heptachlor, Heptachor epoxide, Alpha-endosulfan, Beta-endosulfan, Endosulfan sulfate, Methoxychlor).

Organophosphate (OP) pesticides were not analysed as the site history did not identify any likelihood of these pesticides occurring and no elevated levels of OC or arsenic were identified at the site (samples are stored for OP analysis if required). The bacterial decomposition of OP pesticide is very rapid and the occurrence of elevated levels of OP's in the environment is rare (i.e. based on over 1000 soils analysed in soils of Northern NSW by EAL).

Polychlorinated Biphenyls (PCBs) were not analysed, as a source of contamination was not identified (i.e. PCB sources identified from electrical supply industry or mining). Poly-Aromatic Hydrocarbons (PAH) and BTEX were also not analysed on the soils as these organic analytes are only typically analysed for service station sites, or at sites with above or under-ground onsite hydrocarbon storage. TPH was used as a guide to determine if any potential issues may be associated with the site and past uses.

4.3 Sampling Methodology

Surface samples (0 – 200mm depth) were collected using a stainless steel spade, with soil being placed in snap lock plastic sample bags. The sampling procedure utilised in this investigation was in accordance with AS 4482.1 – 2005.

Samples were composited in accordance with NEHF (1998) with samples 1 - 4 being of a sandy silt nature whilst samples 5 - 8 consisted of a similar media containing significant rock fill rubble. Compositing was performed by EAL in accordance with the standard volumetric mixing procedure.

All soil samples were placed into an esky with ice bricks, and delivered to the Environmental Analysis Laboratory at Southern Cross University, Lismore. Metals analysis was conducted by EAL and quality control included blanks, duplicates and traceable certified NIST (National Institute of Standards Technology) reference soil in every sample batch. Analysis is conducted using a Perkin Elmer ELANDRC-e ICPMS (Inductively Coupled Plasma Mass Spectrometry). Chain of custody forms, laboratory quality assurance and laboratory quality control documentation are available on request. The analysis of pesticides and TPH was subcontracted to the NATA-registered Labmark laboratory (refer to Appendix A for subcontracted results with all QA/QC results).

Figure 3. Soil Sampling Plan (Source: Google Earth 2011 & DoL 2008)

5. Basis for Assessment Criteria

The acceptable limits of the parameters tested are based on the NSW DEC (2006) Contaminated Sites - Guidelines for the NSW Site Auditor Scheme (2nd Edition)(2006). In particular Column 3 of Table 'Soil Investigation Levels for Urban Redevelopment Sites in NSW'. Column 3 represents Human - Based Investigation Levels (HBIL) for developments being 'Parks, recreational open space, playing fields including secondary schools'. The investigation levels adopted for this investigation are presented below in Table 2.

Table 2: Soil investigation levels for urban redevelopment sites in NSW: Column 1 'Residential with gardens and accessible soil including children's daycare centres, preschools, primary schools, town houses or villas' and Column 3 'Parks, recreational open space, playing fields including secondary schools' (NSW DEC 2006).

Contaminant	Acceptable Limit Column 1 (mg/kg)	Acceptable Limit Column 3 (mg/kg)
Arsenic	100	200
Cadmium	20	40
Chromium (VI)	100	200
Copper	1000	2000
Lead	300	600
Manganese	1500	3000
Nickel	600	600
Zinc	7000	14000
Mercury	15	30
OC's (aldrin and dieldrin)	10	20
OC's (DDT, DDD, DDE)	200	400

As NSW DEC (2006) does not provide guidance for TPH criteria, the threshold values listed in EPA (1994) for TPH C_{10} . $_{40}$ have been adopted. A sensitive land use value of 1,000 mg/kg has been adopted for this investigation.

5.1 Background Levels

Metals occur naturally within soils and are a natural constituent of geological materials that erode and assist in the formation of soils. The background levels of metals analysed, obtained from ANZECC and NHMRC (1992) Table 4 'Environmental Soil Quality Guidelines', are presented below in Table 3.

Table 3: Background ranges for potential contaminants.

Contaminant	Background Range (mg/kg)
Arsenic	0.2 – 30
Cadmium	0.04 - 2
Chromium (VI)	0.5 – 110 (possible underestimate)
Copper	1 - 190
Lead	<2 – 200
Manganese	4 – 12,600
Nickel	2 - 400
Zinc	2 - 180
Mercury	0.001 - 0.1

6. Results

The results from the laboratory soil testing regime and comparison to the guideline limits is provided below in Tables 4a - c. The soil sampling numbers correlate with the soil sampling locations as shown on Figure 3.

The full suite of heavy metals tested are provided below. For organochlorine pesticides, twenty (20) chemical constitutes of these organochlorine pesticides were tested for. A summary of these results are provided below with the laboratory certificate provided in Appendix A.

No analyte was detected that exceeded the assessment criteria adopted for this investigation. All metals, hydrocarbons and pesticides were found to be either at or below expected background ranges, or were below the limit of reporting. The cement fibre fragment analysed returned a positive result for Chrysotile Asbestos.

Table 4a: Composite Sampling Results.

Contaminant	Sample C1 (SP1 - 4)	Sample C2 (SP5 - 8)	Adjusted Acceptable Limit (Column 1)	Adjusted Acceptable Limit (Column 3)	Background Range (mg/kg)
Silver (mg/kg)	<1	<1	**na**	**na**	**na**
Arsenic (mg/kg)	1	2	**25**	**50**	**0.2 – 30**
Lead (mg/kg)	37	26	**75**	**150**	**0.04 - 2**
Cadmium (mg/kg)	<1	<1	**5**	**10**	**0.5 – 110** (possible underestimate)
Chromium (mg/kg)	5	13	**25**	**50**	**1 - 190**
Copper (mg/kg)	5	11	**250**	**500**	**<2 – 200**
Manganese (mg/kg)	50	525	**375**	**750**	**4 – 12,600**
Nickel (mg/kg)	1	6	**150**	**150**	**2 - 400**
Selenium (mg/kg)	<1	<1	**na**	**na**	**na**
Zinc (mg/kg)	156	81	**1750**	**3500**	**2 - 180**
Mercury (mg/kg)	<0.05	<0.05	**3.75**	**7.5**	**0.001 - 0.1**
Iron (%DW)	0.46	2.25	**na**	**na**	**na**
Aluminium (%DW)	0.28	0.84	**na**	**na**	**na**
DDT (mg/kg)	<0.1	<0.1	**<50**	**<100**	**<0.2**
Methoxychlor (mg/kg)	<0.1	<0.1	**<50**	**<100**	**<0.2**
Other Organochlorine Pesticides (mg/kg)	<0.1	<0.1	**<2.5**	**<5**	**<0.05**

Table 4b: Individual Sampling Results.

Contaminant	Sample SP1 (TPH)	Adjusted Acceptable Limit
TPH C10- -C14	<50	**na**
TPH C15- -C28	<50	**na**
TPH C29- -C36	<50	**na**
Sum TPH C10- -C36	Not Detected	**1000**

Table 4c: Fibre Cement Sampling Results.

Contaminant	Description	Asbestos Identification
ASB	Grey Compressed fibre cement material	**Chrysotile Asbestos Detected**

8. Discussion and Conclusion

A Preliminary Contamination Site Assessment for the proposed development on the site was warranted to ensure past land uses have not resulted in contamination of the area.

The site history did not indicate heavy use of any pesticides or chemicals within the investigation area other than the storage and maintenance of heavy vehicles (buses).

Results were compared to both Column 3 and Column 1 acceptable limits. Column 3 would be the required comparison level for the proposed change in use. However, given the site's location within a residential area, Column 1 was also compared. Column 1 provides lower investigation levels and hence provides a more sensitive comparison of results which may identify any contamination issues on the site.

The majority of metal concentrations in the soils were within expected background levels and below Column 1 (and Column 3) HBIL.

The results show elevated levels of Manganese in Composite Sample 2. The metals Manganese and Chromium are typically found in significant background concentrations in the volcanic basalt derived soils in this region (refer Table 3). The elevated levels of Chromium fall below the residential HBIL, however, the levels of Manganese in Composite sample 2 breach the residential (Column 1) HBIL. The elevated levels of Manganese and Chromium are indicative of naturally occurring levels in the local soils (Lancaster, 2006). The NSW EPA 1995 guidelines allows the option of removing background concentrations from site assessment levels hence in many cases reducing potentially elevated levels to negligible levels of no concern. Thereby, the elevated levels of Manganese found at the site are considered due to background levels within natural soils.

All other metal concentrations in the soils are within expected background levels. No pesticides were present above analytical detection limits in the samples analysed. Additionally, the presence of TPH in soils immediately below the former AST was not confirmed indicating that either leakages were remediated privately or that any contamination has been diluted and degraded with time.

A few small fibreboard fragments were located on the site and all collected and removed. These fragments are thought to have come from fibreboard on the rear wall of the toilet and shower add-on as a result of vandalism or from random occurrence due to high trafficked area. The remaining walls of the add-on are intact and no remnants of the vandalised wall remain. The remaining wall potentially consist of chrysotile asbestos materials and in their intact state are considered safe. However, removal in accordance with current NSW asbestos handling guidelines would elevate any concerns.

It is therefore considered that the Investigation Area does not represent a significant risk of harm to end users of the proposed change in use.

9. References

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Appendices

Appendix A: Laboratory Results

RESULTS OF SOIL ANALYSIS

8 soil samples supplied by Melaleuca Group Pty Ltd on the 11th December, 2012 - Lab Job No. C3719
Soil samples supplied were composited by EAL into 2 composite samples for analysis
Analysis requested by Melissa Van Zwieten. **Your Job: Argyle St Maclean**
(North Creek Rd, LENNOX HEAD NSW 2478).

ANALYTE	METHOD REFERENCE	Composite Sample 1 SP1, SP2, SP3, SP4	Composite Sample 2 SP5, SP6, SP7, SP8	RESIDENTIAL Guideline Limit		COMMERCIAL Guideline Limit		Background
				Composite - Column 1	Individual - Column 1	Composite - Column 4	Individual - Column 4	Range
	Job No.	C3719/C1	C3719/C2	See note 1a,b	See note 1a,b	See note 1a,b	See note 1a,b	See note 2
MOISTURE %	c	7	9	--	--	--	--	--
SILVER (mg/Kg DW)	a	<1	<1	na	na	na	na	na
ARSENIC (mg/Kg DW)	a	1	2	<25	<100	<125	<500	0.2-30
LEAD (mg/Kg DW)	a	37	26	<75	<300	<375	<1500	<2-200
CADMIUM (mg/Kg DW)	a	<1	<1	<5	<20	<25	<100	0.04-2.0
CHROMIUM (mg/Kg DW)	a	5	13	<25	<100	<125	<500	0.5-110
COPPER (mg/Kg DW)	a	5	11	<250	<1000	<1250	<5000	1-190
MANGANESE (mg/Kg DW)	a	50	525	<375	<1500	<1875	<7500	4 - 12,600
NICKEL (mg/Kg DW)	a	1	6	<150	<600	<750	<3000	2-400
SELENIUM (mg/Kg DW)	a	<1	<1	na	na	na	na	na
ZINC (mg/Kg DW)	a	156	81	<1750	<7000	<8750	<35000	2-180
MERCURY (mg/Kg DW)	a	<0.05	<0.05	<3.75	<15	<18.75	<75	0.001-0.1
IRON (% DW)	a	0.46	2.25	na	na	na	na	na
ALUMINIUM (% DW)	a	0.28	0.84	na	na	na	na	na
PESTICIDE ANALYSIS SCREEN								
DDT (mg/Kg)	c	<0.1	<0.1	<2.5	<10	<250	<1000	<0.2
Methoxychlor (mg/kg)	c	<0.1	<0.1	<2.5	<10	<12.5	<50	<0.2
Other Organochlorine Pesticides (mg/Kg)	c	<0.1	<0.1	<2.5	<10	<12.5	<50	<0.05
Demeton (total) (mg/kg)	c	<0.1	<0.1	--	--	--	--	<1
Other Organophosphate Pesticides (mg/Kg)	c	<0.1	<0.1	--	--	--	--	<0.5

METHODS REFERENCE

a. [1:3]Nitric/HCl digest - APHA 3120 ICPMS
b. [1:3]Nitric/HCl digest - APHA 3120 ICPOES
c. Analysis sub-contracted - Envirolab report no. 83087

NATA

NOTES

1a. Column 1 ' Residential with gardens and accessible soil including childrens daycare centres, preschools, primary schools, town houses or villas' (NSW EPA 1998)
1b. Column 4 ' Commerical and Industrial' (NSW EPA 1998)
2. Environmental Soil Quality Guidelines, Page 40, ANZECC, 1992.

Additional NOTES

DW = Dry Weight. na = no guidelines available

Organochlorine pesticide (OC's) screen: (HCB, alpha-BHC, gamma-BHC, Heptachlor, delta-BHC, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, Endosulfan 1, pp-DDE, Dieldrin, Endrin, pp-DDD, Endosulfan 2, pp-DDT, Endrin Aldehyde, Endosulfan Sulphate, Methoxychlor)

Organophosphorus pesticide (OP's) screen: (Diazinon, Dimethoate, Chlorpyriphos-methyl, Ronnel, Chlorpyriphos, Fenitrathion, Bromophos-ethyl, Ethion)

Environmental Analysis Laboratory, Southern Cross University.
Tel. 02 6620 3678, website: scu.edu.au/eal

checked:.....

RESULTS OF SOIL ANALYSIS

1 soil sample supplied by Melaleuca Group Pty Ltd on the 11th December, 2012 - Lab Job No. C3718
Analysis requested by Melissa Van Zwieten. **Your Job: Argyle St Maclean**
(North Creek Road, LENNOX HEAD NSW 2478).

ANALYTE	METHOD REFERENCE	Sample 1 SP1 (TPH)	*RESIDENTIAL Guideline Limit*		*COMMERCIAL Guideline Limit*		*Background*
			Composite - Column 1	*Individual - Column 1*	*Composite - Column 4*	*Individual - Column 4*	*Range*
	Job No.	*C3718/1*	*See note 1a,b*	*See note 1a,b*	*See note 1a,b*	*See note 1a,b*	*See note 2*
Total Recoverable Hydrocarbons	c		..	..	..	..	..
C10-C14 Fraction (mg/Kg)	c	<50	..	..	..	..	..
C15-C28 Fraction (mg/Kg)	c	<100	..	..	..	..	..
C29-C36 Fraction (mg/Kg)	c	<100	..	..	..	..	..
Sum of C6-C36 (mg/Kg)	c	Not detected	..	..	..	..	..

METHODS REFERENCE

a. [1:3]Nitric/HCl digest - APHA 3120 ICPMS
b. [1:3]Nitric/HCl digest - APHA 3120 ICPOES
c. Analysis sub-contracted - Envirolab report no. 83086

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NOTES

1a. Column 1 ' Residential with gardens and accessible soil including childrens daycare centres, preschools, primary schools, town houses or villas' (NSW EPA 1998)
1b. Column 4 ' Commerical and Industrial' (NSW EPA 1998)
2. Environmental Soil Quality Guidelines, Page 40, ANZECC, 1992.

Additional NOTES

DW = Dry Weight. na = no guidelines available

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Tel. 02 6620 3678, website: scu.edu.au/eal

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RESULTS OF SAMPLE ANALYSIS (Page 1 of 1)

1 sample supplied by Melaleuca Group Pty Ltd on the 11th December, 2012 - Lab Job No. C3717
Analysis requested by Melissa Van Zwieten.
(North Creek Rd, LENNOX HEAD NSW 2478).

Sample Identification	*EAL Job No.*	SAMPLE DESCRIPTION[1]	ASBESTOS IDENTIFICATION[1]
Asb	*C3717/1*	Grey compressed fibre cement material	**Chrysotile asbestos detected**

Notes:
1. Subcontracted- Envirolab Report No. 83089

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Environmental Analysis Laboratory, Southern Cross University,
Tel. 02 6620 3678, website: scu.edu.au/eal

checked: .....
Graham Lancaster (Nata signatory)
Laboratory Manager