2 April 2012

The Regional Manager Department Planning and Infrastructure Locked bag 9022 GRAFTON NSW 2460

Dear Sir

Planning Proposal - 18 Coramba Street Glenreagh

Your Ref : PP\_2011\_CLARE\_002\_00 (11/10769)

> Reference: 18 Coramba Street Glenreagh PP Contact: Nick Whitton



Received 3 APR 2012 ארסו ( וו North Coast

I wish to advise that the above mentioned planning proposal will be on public exhibition for 14 days from 6 to 20 April, 2012. In accordance with the Planning Gateway Determination, a preliminary contamination assessment is being advertised with the planning proposal.

Please find the Planning Proposal and all supporting documents attached.

If you require further information please contact me on telephone 66 430 204.

Yours faithfully

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David Morrison Manager Strategic & Economic Planning

## **PLANNING PROPOSAL**

for the rezoning of

Lot 21 DP 6506 18 Coramba Street GLENREAGH

Prepared by:

**Clarence Valley Council** 

Clarence Valley Council Glenreagh Planning Proposal, ver 2.0, 26 May 2011 Lot 21 DP 6506, No. 18 Coramba Street, Glenreagh NSW

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#### 1. PRELIMINARY

#### 1.1. Context

This planning proposal has been drafted in accordance with Section 55 of the Environmental Planning and Assessment Act, 1979 and the Department of Planning's *"A guide to preparing planning proposals"* (July 2009). A gateway determination under Section 56 of the Act is requested.

#### 1.2. Subject Land

This planning proposal applies to Lot 21 DP6506 being 18 Coramba Street, Glenreagh.

The subject land is situated on the corner of Coramba Street and Tallawudjah Creek Road at the northern end of the Glenreagh Village, as shown in Figure 1.



Figure 1: Locality Sketch of Lot 21 DP 6506

The site has an area of approximately 3,404 m<sup>2</sup> and considered flood prone as shown in Figure 2.



Figure 2: Village of Glenreagh Flood Inundation Map 1974.

The site is currently undeveloped and is occupied by a number of mature trees as shown in the aerial photo in Figure 3.





## 1.3 Current Zoning & Use

The land is currently zoned 2 (v) (Village) under the *Ulmarra Local Environment Plan* (*LEP*) 1992. Figure 4 provides an extract from the relevant LEP zoning map.



Figure 4: Existing Zoning Map – Ulmarra LEP 1992

No minimum lot size applies under the current Ulmarra LEP for the 2(v) village zoning.

The lot has the potential (theoretically) to be subdivided in to 2 lots subject to the requirements of the Clarence Valley Council's *Development Control Plan for Development in Residential Zones* and the outcome of a Wastewater Consultant's Report as to the site's suitability for effluent disposal areas, as required under the Clarence Valley Council's On-site Wastewater Management Strategy 2005. The proposed erection of any future dwelling houses on the site would have to the flood prone nature of the land.

The proposed zoning for the subject land under the new LEP will be *RE1 Public Recreation*, as indicated in the proposed zoning map in Figure 5.



Figure 5: Proposed Zoning Plan under the Draft Clarence Valley LEP 2011

Under the proposed zoning the land is to be used for public open space and recreational purposes. The erection of dwelling houses and other forms of residential development will be prohibited under this zoning.

The draft *Clarence Valley LEP 2011* is now with Parliamentary Counsel for legal opinion, which is the last step before it is sent to the Minister's office for final approval. Advice from the Department of Planning suggests that Gazettal of the plan is expected by the end of June 2011. At that time, Ulmarra LEP will cease to exist and the provisions of the new LEP will apply.

## 1.4 Background

A recent planning enquiry relating to the subdivision of the subject land has highlighted a potential zoning anomaly in the incoming Clarence Valley Local Environment Plan (CVLEP) 2011.

The subject allotment was created by a 21 lot subdivision under the Dorrigo Shire Council in registered under the DP 6506 in 1982. The subject land has been in public ownership under the former Dorrigo, Ulmarra and Pristine Waters Shire Councils prior to being taken over by the Clarence Valley Council.

It was officially classified as 'operational' land by a resolution of the Ulmarra Shire Council on the 29 June 1994, which included the site on a Public Land Management List.

In late 2007 a Draft LEP and new proposed zonings were prepared and put to the Department of Planning (DoP) for consideration. The Council records used to prepare the draft zonings indicated that the land was interpreted as a crown reserve under

Council management and as such the subject site was proposed for rezoning for the purpose of public recreation from the current.

At this time the site was being used under license as a bus parking area by the Glenreagh Bus Service. This business was operated by the owners of the adjacent property, No. 20 Coramba St, Glenreagh and used a small area at the southern end of the site for the parking of buses used for the local school bus service.

A Development application DA2009/0484 was lodged by the Glenreagh Bus Service (Hugh MacAdam) and approved by Council subject to conditions of consent on 8 September 2009. The approval required the applicant to construct a shed for the storage of buses upon the subject site.

The MacAdam's submitted a proposal to Council to purchase 1000m<sup>2</sup> of the subject site for the purpose of erecting the shed required by DA2090/0484. The proposal was put to a Meeting of the Clarence Valley Council on the 10 November 2009 and it was resolved that the entire subject site should be put to auction.

The subject site was sold at auction by Clarence Valley Council to Waehaua Pty Ltd, with settlement taking place on 9 April 2010.

In the period between late 2007 and early 2010, the subject site was marketed and sold to a private owner under the current residential zoning. During the final stages of preparing in 2010 the LEP has not been amended to reflect this sale and now a rezoning of the land is required to correct this anomaly.

#### 2. OBJECTIVE OR INTENDED OUTCOME

The objective of this planning proposal is to enable the development of the subject site for residential purposes.

The intended outcome is for the zoning of the site under the incoming Clarence Valley Council LEP 2011 to reflect similar provisions to those applicable to the current zoning under the Ulmarra LEP as low-density residential. This will enable the landholder to develop or sell the land for residential purposes in accordance with the existing potential.

#### 3. EXPLANATION OF PROVISIONS

The objective of the Proposal will be achieved by the amendment of the relevant zoning map under the Clarence Valley LEP 2011 to zone the subject site as R2 Low density residential.

#### 4. JUSTIFICATION

#### 4.1 Is the Proposal a result of any strategic study or report?

The proposal is not the subject of any strategic study or report. The allotment is located within a village zone recognised by the Clarence Valley Settlement Strategy 1999 as a suitable area for residential development.

## 4.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The planning proposal is considered the most effective means of achieving he stated objectives and outcomes. The alternative of retaining the zoning of this privately owned lot as a Public Recreation zone is not considered a suitable outcome.

#### 4.3 Is there a net community benefit?

The land may be used for the provision of additional residential development within the recognised village area, with flow on effects for local contractors, business and the housing market. The Glenreagh Village already has a number of suitably zoned public recreational areas and the provision of residentially zoned land within the village is considered to benefit the local community.

#### 5. RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

### 5.1 Applicable Regional Strategy – Mid North Coast Regional Strategy (MNCRS)

The Mid North Coast Regional Strategy (March 2009) is the applicable regional strategy.

Glenreagh is recognised as an inland village by the regional strategy. The proposal site is located within the existing village of Glenreagh and is proximate to local public bus transport routes and shops. The site is not affected by significant hazard (subject to more detailed flooding analysis) or environmental values.

Accordingly, the proposal is considered to be consistent with the Mid North Coast Regional Strategy.

# 5.2 Consistency with Council's Community Strategic Plan, or other local strategic plan

Valley Vision 2020, July 2008, is Council's adopted corporate strategic plan. This planning proposal is consistent with that plan's vision for human habitat, being;

"to live in sustainable communities, including a healthy natural environment, supported by efficient and effective essential services and transport systems ...".

This planning proposal seeks to retain the residential zoning density in a location that can best integrate with the surrounding settlement hierarchy based on Glenreagh being the recognised inland village for the area under the MNCRS. It is intended to retain the existing local settlement pattern based on Glenreagh as the primary village servicing the surrounding area in a manner that seeks to accommodate the identified population growth needs in a way that minimizes the overall urban footprint. Reducing the available residential land in Glenreagh may potentially result in demand of residential development outside of the village area.

Therefore, the proposal is considered consistent with the Valley Vision Plan.

#### 5.3 Consistency with applicable state environmental planning policies

The proposal is generally consistent with applicable state environmental planning policies. More detailed analysis of flood levels needed. Refer to the checklist against these policies at Appendix 1.

### 5.4 Consistency with applicable Ministerial Directions (s.117 Directions)

The proposal is consistent with applicable Section 117 Directions. Refer to the checklist against these Directions at Appendix 2.

#### 6. ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACT

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

No adverse impacts upon critical habitat or threatened species, populations or ecological communities are considered likely as a result of this proposal.

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

No adverse impacts on the surrounding environment are considered likely as a result of this proposal.

# 6.3 How has the planning proposal adequately addressed any social and economic effects?

No significant matters are considered to be likely. The proposed RE1 zoning would place constraints over the potential uses for the subject site. This may impact upon the development potential of the site and impact upon the owners of the property economically. The planning proposal addresses this matter through the rezoning of this land as R2, thus enabling the land to retain its current potential. The proposal is not considered likely to have any adverse social impacts upon the Glenreagh community.

#### 7. STATE AND COMMONWEALTH INTERESTS

#### 7.1 Is there adequate public infrastructure for the planning proposal?

As the subject site is located within the Village of Glenreagh, the existing public infrastructure is considered adequate to accommodate the proposed development.

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

A gateway determination has not yet been issued.

#### 8. COMMUNITY CONSULTATION

It is considered that the proposal is a "low impact planning proposal" under Section 4.5 of "A guide to preparing local environmental plans".

On this basis, it is intended that the planning proposal be advertised for 14 days in accordance with Section 4.5 of "*Á* guide to preparing local environmental plans".

A public hearing is not, at this stage, considered necessary.

#### 9. GATEWAY DETERMINATION REQUIREMENTS

Due to the potential impacts of flooding and bushfire on the subject site, the Department of Planning and Infrastructure (DoPI) through the Gateway Determination listed a number of conditions that must be adhered to in order for the Planning Proposal to go ahead.

Two of the conditions set forth by the DoPI state that advice must be sought from the Office of Environment and Heritage (OEH) and the Commissioner of the NSW Rural Fire Service and any comments made by these parties relation to the flood or bushfire issues respectively had to be taken into consideration when preparing the Planning Proposal. Appendix 3 contains the Gateway Determination for this Planning Proposal.

Consultation with the OEH and Commissioner of the NSW Rural Fire Service has been carried out, and comments made by both parties taken into account. Appendix 4 shows the response to a letter of enquiry from the OEH. Appendix 5 shows the response to a letter of enquiry from the Commissioner of the NSW Rural Fire Service.

The response received from the OEH acknowledges that the proposed rezoning is consistent with the previous 2(V) Village zoning under the Ulmarra LEP 1992. While not objecting to the draft Planning Proposal, the OEH advice suggests that Council may consider preparing a flood study and floodplain risk management plan for Glenreagh Village. Council has sought and received funding to commence the preparation of a flood model and study, anticipated to commence in 2012/2013. timing however is dependent on CIDAR aerial photography. The overall floodplain risk management plan which will inform flooding based land use decisions in Glenreagh is unlikely to be completed before the end of 2014, in accordance with the Floodplain Development Manuals requirements. Given the sites previous zoning and the fact that land with similar ground levels in the village have had dwellings approved in recent years consistent with Councils flood based development standards, exhibition of the draft Planning Proposal is not inconsistent with the Gateway Determination.

Based on engineering assessment in relation to a Development Application for adjoining land Council has accepted 1% AEP flood level for Glenreagh as 66.30 metres, and this requires the floor height to be 66.80 metres AHD. Information regarding the ground levels of the subject site provided with that application (Lots 61 and 2 DP 805441 and 34500) suggests that the height of the subject site is between 63 and 64 metres. Taking this into account, for a dwelling to be approved on the site, the floor height would have to be between 3.5 and 3.8 metres above ground level depending on the location on the site. This is reasonable, and does not give enough reason to not zone the site R2 Low Density Residential.

More information regarding the potential flooding of the site and required floor heights would need to be acquired if a Development Application for a dwelling is submitted for the site, but is not essential to the Gateway Determination requirements. Flood controls would be included in a Development Application if there was to be a dwelling built on the site in the future.

The response received from the NSW Rural Fire Service stated that there are no issues objections providing proposed development complies with a number of controls, listed in Appendix 5.

The controls put forward by the NSW Rural Fire Service are generic regulations put on any development in bushfire prone areas. These controls for the subject site are only applicable if a Development Application is lodged.

The response from the NSW Rural Fire Service gives no indication that the proposed rezoning of the subject site should be modified due to potential bushfires.

The Gateway Determination also required a Preliminary Contamination Report to be carried out on the subject site. The report has been prepared in accordance with the *Managing Land Contamination Guidelines State Environmental Planning Policy* 55 – *Remediation of Land*. It concludes that based on site history of land uses that it is unlikely to have had potentially contaminating land uses on the site, as defined by the Guidelines, but the site has been previously used for potentially contaminating activites.

Due to the potential contamination of the subject site Council engaged Coffey Geotechnics Pty Ltd to conduct a preliminary site contamination assessment. The report gave no indication that there is a significant problem, and the site meets current guidelines for the assessment and management of contaminated lands. The land has been deemed suitable for residential purposes.

The preliminary site contamination assessment is attached to this document.

| STATE ENVIRONMENTAL PLANNING<br>POLICY   | COMPLIANCE      | COMMENTS     |
|--|-----------------|--------------|
| SEPP 1 Development Standards.  | Not applicable  | Not Relevant |
| SEPP 2 Minimum Standards for Residential Flat<br>Buildings. Repealed by SEPP 20.                             | Repealed.       |              |
| SEPP 3 Castlereagh Liquid Waste Depot.<br>Repealed by Infrastructure SEPP.                                   | Repealed.       |              |
| SEPP 4 Development Without Consent and<br>Miscellaneous Complying and Exempt<br>Development.                 | Not applicable  | Not Relevant |
| SEPP 5 Housing for Older People with a Disability.<br>Repealed by Seniors Living SEPP.                       | Repealed.       |              |
| SEPP 6 Number of Storeys in a Building   | Not applicable  | Not Relevant |
| SEPP 7 Port Kembla Coal Loader.<br>Repealed by Infrastructure SEPP.  | Repealed.       |              |
| SEPP 8 Surplus Public Land.<br>Repealed by Infrastructure SEPP.  | Repealed.       |              |
| SEPP 9 Group Homes.<br>Repealed by Infrastructure SEPP.  | Repealed.       |              |
| SEPP 10 Retention of Low Cost Rental<br>Accommodation.   | Not applicable  | Not Relevant |
| SEPP 11 Traffic Generating Developments.<br>Repealed by Infrastructure SEPP.                                 | Repealed.       |              |
| SEPP 12 Public Housing (dwelling houses).<br>Repealed by SEPP 53   | Repealed.       |              |
| SEPP 13 Sydney Heliport. Repealed by Sydney REP 26.  | Repealed.       |              |
| SEPP 14 Coastal Wetlands.  | Not applicable  | Not Relevant |
| SEPP 15 Multiple Occupancy of Rural Land.<br>Repealed by SEPP 42.<br>SEPP 15 Rural Land-Sharing Communities. | Not applicable  | Not Relevant |
| SEPP 16 Tertiary Institutions.<br>Repealed by Infrastructure SEPP.   | Repealed.       |              |
| SEPP 17 Design of Buildings In Certain Business<br>Centres.  | Did not Proceed |              |
| SEPP 18 Public Housing.  | Did not proceed |              |
| SEPP 19 Bushland in Urban Areas.   | Not applicable  | Not Relevant |
| SEPP 20 Minimum Standards for Residential Flat Buildings. Repealed by SEPP 53.                               | Repealed.       |              |
| SEPP 21 Caravan Parks.   | Not applicable  | Not Relevant |
| SEPP 22 Shops and Commercial Premises.   | Not applicable  | Not Relevant |
| SEPP 23  | Not allocated.  |              |
| SEPP 24 State Roads.   | Did not proceed |              |
| SEPP 25 Residential Allotment Sizes. Repealed by SEPP 53.  | Repealed.       |              |
| SEPP 26 Littoral Rainforests.  | Not applicable  | Not Relevant |
| SEPP 27 Prison Sites.<br>Repealed by Infrastructure SEPP.  | Repealed.       |              |

## APPENDIX 1 : STATE ENVIRONMENTAL PLANNING POLICY CHECKLIST

| STATE ENVIRONMENTAL PLANNING<br>POLICY   | COMPLIANCE             | COMMENTS                            |
|--|------------------------|-------------------------------------|
| SEPP 28 Town Houses & Villa Houses. Repealed by SEPP 25 Amendment 4.   | Repealed.              |                                     |
| SEPP 29 Western Sydney Recreation Area.  | Not applicable         |                                     |
| SEPP 30 Intensive Agriculture  | Not applicable         | Not Relevant                        |
| SEPP 31 Sydney (Kingsford Smith) Airport.<br>Repealed by Infrastructure SEPP.  | Repealed.              |                                     |
| SEPP 32 Urban Consolidation (Redevelopment of Urban Land).   | Not applicable         | Not Relevant                        |
| SEPP 33 Hazardous & Offensive Development.   | Not applicable         | Not Relevant                        |
| SEPP 34 Major Employment Generating Industrial<br>Development. Repealed by Major projects SEPP.                                | Repealed.              |                                     |
| SEPP 35 Maintenance Dredging of Tidal<br>Waterways.<br>Repealed by Infrastructure SEPP.  | Repealed/              |                                     |
| SEPP 36 Manufactured Home Estates.   | Not applicable         | Not Relevant                        |
| SEPP 37 Continued Mines & Extractive Industries<br>Repealed by Mining, Petroleum Production and<br>Extractive Industries SEPP. | Repealed.              |                                     |
| SEPP 38 Olympic games & Related Projects.<br>Repealed by Major Projects SEPP.  | Repealed.              |                                     |
| SEPP 39 Split Island Bird Habitat.   | Not Applicable         |                                     |
| SEPP 40 Sewerage Works.  | Did not proceed.       |                                     |
| SEPP 41 Casino/Entertainment Complex.  | Not Applicable         |                                     |
| SEPP 42 Multiple Occupancy & Rural Land.   | Repealed by<br>SEPP 15 |                                     |
| SEPP 43 New Southern Railway.<br>Repealed by Infrastructure SEPP.  | Repealed.              |                                     |
| SEPP 44 Koala Habitat Protection.  | Not applicable         | Not Relevant                        |
| SEPP 45 Permissibility of Mining.<br>Repealed by Mining, Petroleum Production and<br>Extractive Industries SEPP.               | Repealed.              |                                     |
| SEPP 46 Protection & Management of Native<br>/egetation. Repealed by Native Vegetation<br>Conservation Act 1997.               | Repealed.              |                                     |
| SEPP 47 Moore Park Showground.   | Not Applicable         |                                     |
| SEPP 48 Major Putrescible Landfill Sites.<br>Repealed by Infrastructure SEPP.  | Repealed.              |                                     |
| SEPP 49 Tourism Accommodation in Private<br>lomes.   | Draft only.            |                                     |
| SEPP 50 Canal Estate Development.  | Not applicable         | Not Relevant                        |
| SEPP 51 Eastern Distributor.<br>Repealed by Infrastructure SEPP.   | Repealed.              |                                     |
| SEPP 52 Farm Dams & Other Works in Land & Water Management Plan Areas.   | Not Applicable         |                                     |
| SEPP 53 Metropolitan Residential Development   | Not Applicable         |                                     |
| SEPP 54 Northside Storage Tunnel.  | Repealed.              |                                     |
| Repealed by Infrastructure SEPP.   |                        |                                     |
| SEPP 55 Remediation of Land.   | Complies               | No known contamination on this site |
| SEPP 56 Sydney Harbour Foreshores &<br>Fributaries. Repealed by Major Projects SEPP<br>Amendment.                              | Repealed.              |                                     |

| STATE ENVIRONMENTAL PLANNING<br>POLICY  | COMPLIANCE      | COMMENTS  |
|---|-----------------|---|
| SEPP 57   | Not allocated.  |   |
| SEPP 58 Protecting Sydney's Water Supply.<br>Repealed by Drinking Water Catchments REP No<br>1.                   | Repealed.       |   |
| SEPP 59 Central Western Sydney Economic &<br>Employment Area.   | Not Applicable  |   |
| SEPP 60 Exempt & Complying Development.   | Not Applicable  |   |
| SEPP 61 Exempt & Complying Development for<br>White Bay & Glebe Island Ports.<br>Repealed by Infrastructure SEPP. | Repealed.       |   |
| SEPP 62 Sustainable Aquaculture.  | Not applicable  | Not Relevant  |
| SEPP 63 Major Transport Projects.<br>Repealed by Infrastructure SEPP.   | Repealed.       |   |
| SEPP 64 Advertising & Signage.  | Not applicable  | Not applicable to rezoning  |
| SEPP 65 Design Quality of Residential Flat<br>Buildings.  | Not applicable  | Not Relevant  |
| SEPP 66 Integration of Land Use & Transport.<br>Draft.  | Complies        | Site close to public bus<br>transport route.  |
| SEPP 67 Macquarie Generation Industrial<br>Development Strategy.<br>Repealed by Infrastructure SEPP.              | Repealed        |   |
| SEPP 68   | Not allocated.  |   |
| SEPP 69 Major Electricity Supply Projects.<br>Repealed by Infrastructure SEPP.                                    | Repealed.       |   |
| SEPP 70 Affordable Housing (Revised Schemes).   | Not Applicable  |   |
| SEPP 71 Coastal Protection  | Not Applicable  | Not within coastal zone.  |
| SEPP 72 Linear Telecommunications<br>Development - Broadband.<br>Repealed by Infrastructure SEPP.                 | Repealed.       |   |
| SEPP 73 Kosciuszko Ski Resorts<br>Repealed by SEPP Kosciuszko National Park –<br>Alpine Resorts.                  | Repealed.       |   |
| SEPP 74 Newcastle Port & Employment Lands<br>Repealed by Major Projects SEPP.                                     | Repealed.       |   |
| SEPP (Housing for Seniors or People with a<br>Disability) 2004  | Consistent.     | Rezoning may enable<br>development generally<br>consistent with this SEPP on<br>the land. |
| SEPP Building Sustainability Index: BASIX 2004  | Complies.       | Relevant to development<br>application stage.   |
| SEPP (ARTC Rail Infrastructure) 2004<br>Repealed by Infrastructure SEPP.  | Repealed.       |   |
| SEPP (Sydney Metropolitan Water Supply) 2004<br>Repealed by Infrastructure SEPP.                                  | Repealed.       |   |
| SEPP (Development on Kurnell Peninsula) 2005  | Not applicable  |   |
| SEPP (Major Projects) 2005  | Not applicable  | Not Relevant  |
| SEPP (Sydney Regional Growth Centres) 2006  | Not applicable  |   |
| SEPP (Mining, Petroleum Production and<br>Extractive Industries) 2007   | Not applicable. |   |
| SEPP (Temporary Structures) 2007  | Not applicable  | Not Relevant  |
| SEPP (Infrastructure) 2007  | Not applicable  | Not Relevant  |
| SEPP (Kosciuszko National Park – Alpine Resorts)<br>2007  | Not applicable. |   |
| SEPP (Rural Lands) 2008   | Not applicable  |   |

| STATE ENVIRONMENTAL PLANNING<br>POLICY  | COMPLIANCE     | COMMENTS   |
|---|----------------|--|
| SEPP (Exempt and Complying Development Codes) 2008  | Consistent.    | Rezoning may enable<br>development generally<br>consistent with this SEPP on<br>the land.  |
| SEPP (Western Sydney Parklands ) 2009   | Not applicable |  |
| SEPP (Affordable Rental Housing) 2009   | Consistent.    | Rezoning may enable<br>development generally<br>consistent with this SEPP on<br>the land.  |
| SEPP (Western Sydney Employment Area) 2009  | Not applicable |  |
| SEPP (Rural Lands) 2008   | Not applicable |  |
| SEPP – North Coast Regional Environmental Plan<br>1988 (NCREP)  | Applicable     | This document now has the<br>status of a SEPP – specific<br>relevant provisions are<br>addressed below.  |
| NCREP clause 45 – Plan Preparation – Hazards<br>45(1)(b) requires that rezoning of land for urban<br>purposes should not occur on land subject to<br>flooding or poor drainage unless an assessment<br>has been made of the extent of the hazard and<br>provisions to minimize adverse impacts. | Inconsistent   | The site has been traditionally<br>zoned residential and<br>available for residential<br>development. Council has<br>applied to DECCW for funding<br>to undertake a Floodplain Risk<br>Management Plan for<br>Glenreagh but has been<br>unsuccessful |
| NCREP <i>clause 45A – Plan Preparation – flood</i><br><i>liable land</i><br>A draft LEP should not rezone flood liable land<br>zoned, inter alia, open space unless consistent<br>with an adopted floodplain risk management plan.  | Inconsistent   | The site has been traditionally<br>zoned residential and<br>available for residential<br>development. Council has<br>applied to DECCW for funding<br>to undertake a Floodplain Risk<br>Management Plan for<br>Glenreagh but has been<br>unsuccessful |
| NCREP Plan Preparation – servicing urban areas<br>Draft LEPs should ensure that ensuing<br>development will make economic use of existing<br>services.  | Consistent     | Site is serviced by all normal<br>urban services and additional<br>residential development will<br>add to efficiency of service<br>provision.  |
| NCREP – Clause 61 – Plan Preparation – health<br>and education facilities<br>Requires that such facilities are located with good<br>access to other complimentary developments and<br>services  | Consistent     | Glenreagh village is<br>accessible to health and<br>education facilities in Grafton.   |
| NCREP – Clause 65 – Plan Preparation- provision<br>of community, welfare and child care services<br>Land should not be rezoned for residential<br>purposes unless adequately serviced by welfare<br>services etc.   | Consistent     | Local transport provides<br>access to relevant services in<br>Grafton.   |
| NCREP – Plan Preparation – existing zones for<br>public open space<br>A draft LEP should not substantially reduce zones<br>for public open space  | Consistent.    | The proposal is not<br>considered to adversely<br>impact on the provision of<br>public open space as the<br>village has access to an<br>acceptable number of public<br>reserves.   |

| SECTION 117<br>DIRECTION   | COMPLIANCE        | COMMENTS   |
|--|-------------------|--|
| 1. EMPLOYMENT AND RESC   | DURCES            |  |
| 1.1 Business and Industrial<br>Zones                             | Not applicable    |  |
| 1.2 Rural Zones  | Not applicable    |  |
| 1.3 Mining, Petroleum<br>Production and<br>Extractive industries | Not applicable    |  |
| 1.3 Oyster Aquaculture   | Not applicable    |  |
| 1.5 Rural Lands  | Not applicable    |  |
| 2. ENVIRONMENT AND HER   | ITAGE             | and a set on the states in   |
| 2.1 Environmental protection<br>Zones                            | Not applicable    |  |
| 2.2 Coastal protection   | Not applicable    |  |
| 2.3 Heritage Conservation  | Not applicable    |  |
| 2.4 Recreation Vehicle Areas                                     | Not applicable    |  |
| 3. HOUSING, INFRASTRUCT  | URE AND URBAN DEV | VELOPMENT  |
| 3.1 Residential Zones  | Complies          | Will provide the lot remains available for<br>residential development as was the case<br>under the current Ulmarra LEP.  |
| 3.2 Caravan Parks and<br>Manufactured Home<br>Estates            | Not applicable    |  |
| 3.3 Home Occupations   | Not applicable    |  |
| 3.4 Integrated Land Use and<br>Transport                         | Complies          | Subject site in an existing residential area with appropriate access to transport.   |
| 3.5 Development Near<br>Licensed Aerodromes                      | Not applicable    |  |
| 3.6 Shooting Ranges  | Not applicable    |  |
| 4. HAZARD AND RISK   |                   |  |
| 4.1 Acid Sulphate Soils  | Not applicable    | . house contract contract of Dix Dison CL. (2  |
| 4.2 Mine Subsidence and<br>Unstable land                         | Not applicable    |  |
| 4.3 Flood Prone Land   | Inconsistent      | The land is considered flood prone. The<br>lot has been residentially zoned for many<br>years and available for development. The<br>proposed rezoning aims to correct an |

#### APPENDIX 2: SECTION 117 DIRECTION CHECKLIST

| SECTION 117<br>DIRECTION  | COMPLIANCE   | COMMENTS   |
|---|--|--|
|   |  | anomaly that has arisen through the creation of the incoming Clarence Valley LEP 2011.   |
| 4.4 Planning for Bushfire<br>Protection   | Complies   | The subject site is adjacent an identified<br>bushfire prone area. Rezoning of the land<br>is not considered to offend this direction.   |
| 5. REGIONAL PLANNING  |  |  |
| 5.1 Implementation of<br>Regional Strategies  | Consistent<br>(Proposed rezoning is<br>of minor significance)  | No accurate floodplain risk management<br>plan has been prepared for the area. The<br>land has traditionally been zoned<br>residential and the proposal seeks to<br>correct an anomaly created during the<br>development of a new LEP. Council has<br>applied to DECCW for funding to<br>undertake a Floodplain Risk<br>Management Plan for Glenreagh but has<br>been unsuccessful |
| 5.2 Sydney Drinking Water<br>Catchments   | Not applicable.  |  |
| 5.3 Farmland of State and<br>Regional Significance on<br>the NSW Far North Coast          | Not applicable.  |  |
| 5.4 Commercial and Retail<br>Development along the<br>Pacific Highway, North<br>Coast     | Not applicable.  |  |
| 5.5 Development in the<br>Vicinity of Ellalong,<br>Paxton and Millfield<br>(Cessnock LGA) | Not applicable.  |  |
| 5.6 Sydney to Canberra<br>Corridor  | Not applicable.  |  |
| 5.7 Central Coast   | Not applicable.  |  |
| 5.8 Second Sydney Airport:<br>Badgerys Creek  | Not applicable.  |  |
| 6. LOCAL PLAN MAKING  | And the second s |  |
| 6.1 Approval and Referral<br>Requirements   | Complies.  | No additional planning provisions are intended.  |
| 6.2 Reserving Land for Public<br>Purposes   | Consistent   |  |
| 6.3 Site Specific Provisions  | Consistent   |  |

#### APPENDIX 3 : GATEWAY DETERMINATION.





Department Generated Correspondence (Y)

Contact: Carlle Boyd Phone: (02) 6641 6600 Fax: (02) 6641 6601 Email: Carlle.Boyd@planning.nsw.gov.au Postal: Locked Bag 9022, Grafton NSW 2460

Our ref: PP\_2011\_CLARE\_002\_00 (11/10769) Your ref: 736851

Mr Stuart McPherson General Manager Clarence Valley Council Locked Bag 23 GRAFTON NSW 2460

Dear Mr McPherson,

-

#### Re: Planning Proposal to rezone land at 18 Coramba Street, Glenreagh from RE1 Public Recreation to R2 Low Density Residential

I am writing in response to your Council's letter dated 20 June 2011 requesting a Gateway Determination under section 56 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") in respect of the planning proposal to amend the draft Clarence Valley LEP 2011 to rezone land at 18 Coramba Street, Glenreagh from RE1 Public Recreation to R2 Low Density Residential.

As delegate of the Minister for Planning and Infrastructure, I have now determined that the planning proposal should proceed subject to the conditions in the attached Gateway Determination.

It is noted that the historical use of the site was for the purpose of parking and storing of buses by the local bus company. Council is to consider contamination implications as a result of this use through a preliminary contamination assessment and include this information in the planning proposal for the purposes of public consultation.

It is noted that the planning proposal is inconsistent with s117 Directions 4.3 Flood Prone Land and 5.1 Implementation of Regional Strategies, in regards to flooding. Council is therefore to consult with the Office of Environment and Heritage prior to undertaking community consultation in regards to flood affectation, and take into consideration any comments in regards to the impact of flooding on the site. Council is required to demonstrate consistency, or satisfy the Director General that any inconsistency is of minor significance and include this in the planning proposal following public authority consultation.

In regards to the planning proposal's inconsistencies with s117 Direction 4.4 Planning for Bushfire Protection, Council is to consult with the Commissioner of the NSW Rural Fire Service prior to undertaking community consultation, and take into account any comments made as per the requirements of the Local Planning Direction.

The amending Local Environmental Plan (LEP) is to be finalised within 6 months of the week following the date of the Gateway Determination. Council should aim to commence the exhibition of the Planning Proposal within four (4) weeks from the week following this determination. Council's request for the Department to draft and finalise the LEP should be made six (6) weeks prior to the projected publication date.

The State Government is committed to reducing the time taken to complete LEPs by tailoring the steps in the process to the complexity of the proposal, and by providing clear and publicly available justification for each plan at an early stage. In order to meet these commitments, the

 Bridge Street Office: 23-33 Bridge Street, Sydney NSW 2000
 GPO Box 39 Sydney NSW 2001
 DX 22 Sydney

 Telephone: (02) 9228 6111
 Facsimile: (02) 9228 6455
 Website: www.planning.nsw.gov.au

Page 2

Minister may take action under s54(2)(d) of the EP&A Act if the time frames outlined in this determination are not met.

Should you have any queries In regard to this matter, please contact Carlie Boyd of the Regional Office of the Department on 02 6641 6600.

Yours sincerely,

Dettal 4 n Gellibrand 14/7/11

Tom Gellibrand 14/7 Deputy Director General Plan Making & Urban Renewal

 Bridge Street Office: 23-33 Bridge Street, Sydney NSW 2000
 GPO Box 39 Sydney NSW 2001
 DX 22 Sydney

 Telephone: (02) 9228 6111
 FacsImile: (02) 9228 6455
 Website: www.planning.nsw.gov.au



#### **Gateway Determination**

Planning Proposal (Department Ref: PP\_2011\_CLARE\_002\_00): to rezone land at 18 Coramba Street, Glenreagh from RE1 Public Recreation to R2 Low Density Residential

I, the Deputy Director General, Plan Making & Urban Renewal as delegate of the Minister for Planning and Infrastructure, have determined under section 56(2) of the EP&A Act that an amendment to the draft Clarence Valley LEP 2011 to rezone land at 18 Coramba Street, Glenreagh from RE1 Public Recreation to R2 Low Density Residential should proceed subject to the following conditions:

- Council is to consult with the Commissioner of the NSW Rural Fire Service prior to undertaking community consultation, and take into account any comments made as per the requirements of S117 Direction 4.4 Planning for Bushfire Protection.
- Council is to consult the Office of Environment and Heritage prior to undertaking community consultation, and take into account any comments made in regards to the impact of flooding on the site.
- Council is to consider contamination implications as a result of this use through a preliminary contamination assessment and include this information in the planning proposal for the purposes of public consultation.
- Community consultation is required under sections 56(2)(c) and 57 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") as follows:
  - (a) the planning proposal is classified as low impact as described in A Guide to Preparing LEPs (Department of Planning 2009) and must be made publicly available for 14 days; and
  - (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 4.5 of A Guide to Preparing LEPs (Department of Planning 2009).
- Consultation is required with the following public authorities under section 56(2)(d) of the EP&A Act:
  - NSW Rural Fire Service
  - Office of Environment and Heritage

Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material. Each public authority is to be given at least 21 days to comment on the proposal, or to indicate that they will require additional time to comment on the proposal. Public authorities may request additional information or additional matters to be addressed in the planning proposal.

6. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Clarence Valley PP\_2011\_CLARE\_002\_00 (11/10769)



 The timeframe for completing the LEP is to be 6 months from the week following the date of the Gateway determination.

Dated

14th day of July Michael A.

2011.

Tom Gellibrand Deputy Director General Plan Making & Urban Renewal Delegate of the Minister for Planning and Infrastructure

Clarence Valley PP\_2011\_CLARE\_002\_00 (11/10769)

# APPENDIX 4 : LETTER OF RESPONSE - OFFICE OF ENVIRONMENT AND HERITAGE.



The General Manager Clarence Valley Council Locked Bag 23 GRAFTON NSW 2460 Your reference: Our reference: Contact:

300049 Toong Chin, 66270233

Attention: Mr David Morrison

5 August 2011

Dear David

#### Planning Proposal to Rezone 18 Coramba St, Glenreagh

I refer to your letter of 28 July 2011 seeking comments from the Office of Environment and Heritage (OEH) concerning potential impact of flooding on the subject site.

It is understood that Council intends to rezone 18 Coramba St, Glenreagh (Lot 21 DP 6506), to R2 Low Density Residential under the incoming Clarence Valley Council LEP 2011, which will be enable the development of the subject land for residential purposes. This planning proposal will also be in line with the current zoning of the subject land, 2(V) Village, under the Ulmarra LEP 1992.

To OEH's knowledge Council wants to commence a flood study for Glenreagh in order that the village receive floodplain management planning. But in the absence of such a study or plan it would be difficult to comment on the potential impact of flooding on the subject site and whether residential development on the subject land would be appropriate.

Council is encouraged to institute the floodplain management process for Glenreagh as soon as practicable.

Should you wish to discuss this letter further please call me on the contact number above.

Yours sincerely

6

SCANNED

TOONG CHIN Senior Natural Resource Officer Urban and Coastal Water Programs, North Coast Environment and Heritage Policy and Programs

C/- PO Box 856 Alstonville NSW 2477 Tel: (02) 6827 0200 Fax: (02) 6628 3937 ABN 30 841 357 271 www.environment.nsw.gov.au

| DOGL | 0G           |
|------|--------------|
| G    | 1 0 AUG 2011 |

# APPENDIX 5 : LETTER OF RESPONSE - COMMISSIONER NSW RURAL FIRE SERVICE.

All communications to be addressed to:

Headquarters NSW Rural Fire Service Locked Mail Bag 17 Granville NSW 2142

Telephone: (02) 8741 5555 e-mail: csc@rfs.nsw.gov.au

> The General Manager Clarence Valley Council Locked Bag 23 GRAFTON NSW 2460

Attention: David Morrison



Headquarters

15 Carter Street

NSW Rural Fire Service

Homebush Bay NSW 2127

Facsimile: (02) 8741 5550

LEP/0175 DA11080979127 MH

14 September 2011

Dear Sir/Madam,

Planning Instrument for Referral For Comment: Planning Proposal To Rezone 18 Coramba Street Glenreagh

I refer to your letter dated 28 July 2011 seeking advice for the above Planning Instrument.

The NSW Rural Fire Service (RFS) notes that parts of the subject area are identified as bush fire prone on the Clarence Valley Bush Fire Prone Land map. Any future development on land identified as bush fire prone will be required to comply with either section 79BA or section 91 of the *Environmental Planning and Assessment Act* 1979 and may require the issue of a bush fire safety authority as per section 100B of the *Rural Fires Act* 1997.

As such the requirements of *Planning for Bush Fire Protection* 2006 should be considered in the planning stages of future development in bush fire prone areas. The RFS raises no issues with the proposed rezoning subject to the following bush fire protection measures:

- Asset protection zones in accordance with Appendix 2 of Planning for Bush Fire Protection 2006.
- Public access in accordance with section 4.1.3 of Planning for Bush Fire Protection 2006. This includes the provision of perimeter roads.
- Water supply for fire fighting purposes in accordance with section 4.1.3 of Planning for Bush Fire Protection 2006.
- Construction of future dwellings in accordance with Appendix 3 of Planning for Bush Fire Protection 2006 and AS3959 – Construction of Buildings in Bush Fire Prone Areas.

Construction of future dwellings in accordance with Appendix 3 of Planning for Bush Fire Protection 2006 and AS3959 – Construction of Buildings in Bush Fire . Prone Areas. Landscaping in accordance with Appendix 5 of Planning for Bush Fire Protection 2008. Emergency evacuation measures in accordance with section #2.7 of Planning for Bush Fire Protection 2008. For any enquiries regarding this correspondence please contact Mark Hawkins on 8741 5175. Yours sincerely Nika Fomin Team Leader - Development Assessment The RFS has made getting additional information easier. For general information on *Planning for Bush* Fire Protection 2006, visit the RFS web page at <u>www.rfs.nsw.gov.au</u> and search under *Planning for* Bush Fire Protection 2006. APPENDIX 6 : PRELIMINARY CONTMAINATION REPORT.

## Preliminary Contaminated Land Report- 18 Coramba Street Glenreagh.

## 8/2/2012

Prepared by Clarence Valley Council.

clarence

VALLEY COUNCIL

## 1. Introduction.

The site under scrutiny in this preliminary contamination report is18 Coramba Street, Glenreagh Lot 21 DP 6506. Illustration 1 below shows the subject site in blue hatching.

This Preliminary Contaminated Land Report has been prepared in accordance with Managing Land Contamination Planning Guidelines SEPP 55 – Remediation of Land, in particular Parts 1.1, 1.3 1.5, 3.2, 3.2.1, 3.3, 3.5, 3.51 and 4.1. This document can be found on the

#### Illustration 1.



The planning proposal put forth for this site by Clarence Valley Council to amend a zoning irregularity in the Clarence Valley LEP 2011 has been given a Gateway Determination by the Department of Planning with the condition that a Preliminary Contaminated Land Report is to be carried out on the site and exhibited with the Planning Proposal.

## 1.1 Context.

The subject site was created in a 21 lot sub development by Dorrigo Shire Council in 1982 under DA 6506. Since then the land has been under public ownership through Dorrigo, Ulmarra and Pristine Waters Shire Council before being taken over by Clarence Valley Council.

The site had been classified 'operational' by Ulmarra Shire Council on 29 June 1994.

In 2007, while new zonings were being prepared for the Draft Clarence Valley LEP, the land was being used under licence by Glenreagh Bus Service as a bus parking bay. DA 2009/0484 was put forward by Glenreagh Bus Services owner and operator Hugh MacAdam, who wished to purchase the land.

The proposal was put to Council and the issue was resolved on 10<sup>th</sup> November 2009 by agreeing to put the whole site up for auction. The site was sold through public auction, with the settlement date being 9<sup>th</sup> June 2010.

The issue as presented in the Planning Proposal is that the land is listed as RE1 Public Recreation in the Clarence Valley LEP 2011.

### 2. Site Zoning.

The block was zoned 2(v) Village under the Ulmarra LEP 1992. Under the current Clarence Valley LEP 2011 the land is zoned RE1, as shown in Illustration 2.

## Illustration 2 - Clarence Valley LEP 2011 Zoning.



### 2.1 Site Constraints.

As mentioned in the Planning Proposal, the site is prone to bushfires and flooding. These issues have been dealt with through the Planning Proposal Gateway Determination. The site also has a number of large, mature trees.

### 3. Land Uses.

The subject land has been used for a limited number of different activities since its development in 1982.

The activities and potentially contaminating uses of the subject site are investigated below. Illustration 3 below shows the site in its current state.



## Illustration 3 - Current photograph of 18 Coramba Street.

#### 3.1 Previous uses of the site.

A Parish of Tallawudjah map dated 24<sup>th</sup> July 1962 found through the NSW Department of Lands shows the subject site the site listed as part of the Village Zone. At this point the subject site was part of a 31 acre portion of land.

Since its development in 1982 up to 2007, the land at 18 Coramba Street Glenreagh has been under public ownership through Dorrigo, Ulmarra and Pristine Water Shire Councils, and more recently Clarence Valley Council.

In December 1993 DA93/215 was put forward by the Glenreagh Volunteer Bushfire Brigade indicated that there was a small shed on the site that was used for the purpose of storing fire fighting equipment, namely a fire fighting vehicle. According to Brian Williams, Operations manager for the Grafton (Region North) branch of the NSW Rural Fire Service, the shed had been transported to the subject site in 1976-1977 suggesting the shed was used for approximately 18-20 years. This shed has since been removed. Illustration 4 below shows the proposed shed and approximate location of the old existing shed.

Illustration 4 – DA Plan.



Illustration 4 above shows the approximate location of the fire shed that was previously located on the site.

Illustration 5 shows the approximate location of the shed in relation to the subject site and its surrounding lots.



## Illustration 5 - Approximate Location of Old Fire Shed.

The red rectangle in Illustration 5 indicates the approximate location of the old Glenreagh Volunteer Rural Fire Brigade storage shed.

To help understand and determine the former uses of the subject site and surrounding land, Council planning staff viewed aerial photos of Glenreagh and surrounds from 1994, 1984 and 1974 at the NSW Government Department of Land and Property Information Grafton Office on 21<sup>st</sup> February 2012.

Each aerial photo showed the subject site cleared of significant vegetation. The 1994 photo also showed a shed used by the Glenreagh Volunteer Bushfire Brigade. None of the photos give any indication of potentially contaminating activities, in particular intensive agriculture/horticulture.

Council planning staff contacted long time Glenreagh resident and local historian Elizabeth (Bessy) Webb to attempt to obtain a history of the subject site. Council planning staff spoke with Ms Webb on 20<sup>th</sup> February 2012, when she was able to inform us that there has been no other documented use of the land available other than for stock (pound) yards which can still be seen and for a shed (a shed used by Glenreagh Volunteer Bushfire Brigade). She also stated that she had not been aware of any issues with the subject site in the past.

#### 3.2 Recent uses of the site.

More recently, just preceding its sale in April 2010 the subject site was being used as a bus parking area by Glenreagh Bus Company. Hugh MacAdam who owns and operates the Glenreagh Bus Company was contacted by Council on 10<sup>th</sup> and 20<sup>th</sup> of February 2012. Mr MacAdam was able to inform Council that he used the site as bus parking in approximately 2003, suggesting the site was used for 6-7 years. According to Mr MacAdam the buses were not serviced on site and there were no significant oil or fuel spills. Mr MacAdam also stated that there was no fuel or oil stored on the subject site. The preliminary site inspection carried out by Council supported this claim, as no stains or patches of dead grass were discovered.

After the sale and settlement of the site on 9<sup>th</sup> April 2010, there have been no further activities including bus parking taking place on the site.

It must be noted that there seems to be an old set of stock yards located on the southern boundary of the subject site. Illustration 6 below shows the yards.



### Illustration 6 - Stock Yards.

The stock yards shown in Illustration 6 seem to be very poorly maintained giving the impression they are disused and have not been used for a number of years. Council spoke to Mr MacAdam, whose property is adjacent to the southern boundary of the subject site. When Mr MacAdam moved to his current residence in 2003, the yards were

in a state of disrepair. Mr MacAdam stated that he cleared a number of camphor laurel saplings off the site including within the yards. This suggests a period of disuse extending further back than 2003.

Ms Webb, an old resident and local historian stated that the site had indeed been used as the Glenregh pound yard but had not been in use since the 1960s. This suggests that if there was potential contamination of the site the issues may have arisen by this time.

The timeline below shows the uses of the site from the present time.



3.3 Previous and Current Use of Adjoining Lands.

The Parish Map of Tallawudjah mentioned previously shows the site at the northern tip of the 'Village Area' and this area extending south, closely resembling the land currently zoned for residential purposes within Glenreagh. As mentioned previously, Council planning staff viewed aerial photos from 1994, 1984 and 1974 of the Glenreagh village district. These photos showed the land surrounding the subject site as being mostly cleared of vegetation, with the exception of a number of larger trees. The photos also do not show any 'rows' of plants, which is indicative of intensive horticulture which, particularly in the past, is a potentially contaminating land use because of the chemical treatments used on plants.

When interviewed, Ms Webb also suggested that there was the possibility that there may have been a bakery near the subject site at some point in the past, which would pose no significant potential contamination issues.

The evidence found from the preliminary site inspection carried out by Council suggest land to the north, east and west of the subject site in the past has been used for agriculture, namely grazing of cattle, due to the infrastructure (namely fences) in the area. Illustration 7 below shows the northern boundary of the subject site on the left and the adjacent land north of Tallawudjah Road to the right.



Illustration 7 – View from Corner of Tallawudjah Creek Road and Coramba Street.

Illustration 8 below shows the current zonings of the land surrounding the subject site.

## Illustration 8 – Adjoining Land Zonings.



As shown in Illustration 8, the eastern and northern boundaries of the site are adjacent to Coramba Street and Tallawudjah Road respectively. The land adjacent to the northern boundary of this site is zoned RU2 Rural Landscape and appears seems to be currently used as cattle grazing land.

The remainder of the adjoining boundaries is land that is zoned R2 Low Density Residential, suggesting that there is a very remote chance minimal chance of any activities taking place in the area around the site that could potentially contaminate the subject site.

It must be noted that part of the lot directly to the west of the subject site, Lot 61 DP 805441 zoned R2 Low Density Residential and RU2 Rural landscape, is currently being used for the grazing of cattle. Although this is a potentially contaminating land use, the low concentration of this form of agriculture suggests the potential for contamination of the site is low.

As shown in Illustration 8 there is a portion of land zoned B1 Neighbourhood Centre within the village of Glenreagh. On inspection of the area there appears to be one significant potentially contaminating land use, which was the Glenreagh General Store. The General Store, located approximately 290 metres from the subject site is a potential contamination issue because it uses underground tanks for the storage of diesel and unleaded fuel products.

Illustration 9 below shows the Glenreagh General Stores location in relation to the subject site.


# Illustration 9 - Glenreagh General Store Locality.

The preliminary site inspection carried out by Council found that the subject site is a stormwater runoff path for higher land adjacent to the site. Although this could potentially be an issue, there is no evidence that indicates this could be an issue.

The preliminary site inspection suggests that there is no groundwater reaching or breaking through the surface of the subject site. The groundwater on the subject site could potentially hold some levels of contamination obtained from the underground fuel tanks used for fuel storage at the Glenreagh General Store. There is no evidence that suggests that the groundwater on the subject site is contaminated but there is a possibility that the groundwater could be contaminated from the General Store fuel tanks or any other surrounding land use.

With consideration to the previous and current surrounding land uses there is a minimal chance that the subject land has been contaminated from the use of the surrounding land.

# 4. Potential Contamination.

The low impact and low contamination potential of the uses carried out on the subject site suggest that there is a negligible or very low risk of land contamination at the site.

4.1 Use by Glenreagh Volunteer Rural Fire Service.

There is a small chance of potential contamination due to the storage of fire fighting equipment on the site by Glenreagh Volunteer Rural Fire Service. The storage of equipment such as fire fighting vehicles and drip torches from 1976-1977 to the mid 1990s had the potential to contaminate the study site. Brian Williams, Operations Manager from the NSW Rural Fire Service Grafton (Region North), stated that there was no reported leakage of potential contaminants when the storage shed on the subject site was in use. The storage shed has since been removed.

4.2 Use by Glenreagh Bus Company.

As mentioned previously, Council has engaged Hugh MacAdam, who had previously held a license to use the site for bus parking. While bus parking is a potentially contaminating activity, after discussing these potential contaminating activities such as fuel storage, mechanical servicing and fuel or oil leaks, there seems to be no evidence suggesting potential contamination of the site.

It is likely that the buses did not leave significant quantities of oil or fuel residue on the land. This is further reinforced by the information indicating that no servicing of bus vehicles occurred on the land. Further, there is no evidence of oil or fuel stains or dead grass where the buses parked on the land between approximately 2009 June 2010.

# 4.3 General Use.

According to Mr MacAdam, who discussed the use of this site for bus parking also stated that the stock yards have not been operational since at least 2003 when he moved next door. This statement is confirmed and supported by Ms Webb, who stated the yards had not been in use since the 1960's.

Mr MacAdam also stated he cleared a number of camphor laurel saplings from the yards when he acquired the subject site for use as a bus parking area. The small size of the stock yards also suggests that the site was never used for large scale agriculture, which lowers its potential for contamination.

Because the land has been under Council control since 1982, this suggests that there has been limited opportunity for contamination since then.

While there has been activities carried out on the site that could potentially contaminate the site, there seems to be no evidence that suggests that there could be contamination at the site.

# 5. Issues for consideration.

When dealing with potentially contaminated land the main legislation which provides guidelines is the State Environmental Planning Policy 55 – Remediation of Land 1998 (SEPP 55) Section 3.5.2 Stage 1 – Preliminary Investigation.

SEPP 55 is the legislation which applies to preliminary contaminated land reports, and if there is sufficient information to satisfy the planning authority that the site is suitable for the proposed use, the planning process should proceed in the normal way.

5.1 Activities included in SEPP 55 Table 1 – Some activities that may Cause Contamination.

There are indications that there has been agriculture practiced within the subject site; the stock yards mentioned previous give indication to that. While agriculture/horticulture is listed in SEPP 55 Table 1, the actual situation at the site suggest that the agriculture carried out at the subject site was extensive animal grazing rather than intensive farming. The poor condition of the stock yards and lack of existing agriculture infrastructure suggests that the site has not been used in a significant period of time. Although the stock yards have some contamination potential, the small size of the yards and lack of use according to Mr MacAdam suggests that the potential contamination of the site from the stock yards is limited.

5.2 History of the site.

The site has been considered and at least listed as part of the Glenreagh Village Area since 1962 through the mapping of the area found through the NSW Department of Lands. Before this time there is limited documented history of the site.

Information gathered by interviewing Glenreagh residents and neighbours to the subject site gives insight about the previous uses of the site. While this is not a 'hard copy' recollection of the history of the site, it provides a history of the site. Ms Webb, Mr MacAdam and Mr Williams have provided a significant amount of information about the previous uses of the site, suggesting that while the site had been used for handling stock up until the 1960s and for the storage of a fire fighting vehicle from the mid 1970s until the mid 1990s, there has been no use or significant event that suggests that there could be any substantial amount of contamination of the site from previous land or surrounding use or surrounding.

There are no gaps in the history of the site since its sub development by Dorrigo Shire Council in 1982, suggesting the site has been used for only activities listed previously in Section 3 – Uses in this document. This indicates that while the site has been used for potentially contaminating uses, there is no evidence suggesting the actual contamination of the land. The subject site is not currently accommodating any potentially contaminating activities according to SEPP 55 Table 1 that are known to Council.

# 6. Recommendations.

The evidence supplied through the interviews has with Elizabeth Webb, long time resident and local historian, the Glenreagh Bus Service operator and neighbour to the

subject site Hugh MacAdam and Operations Manager from the NSW Rural Fire Service Grafton (Region North) Brian Williams gives a reasonable insight into the history of the recent uses of the site. These recollections along with other information obtained by Council suggest that while there has been potentially contaminating land uses carried out at the site, there is a low or negligible actual potential for contamination at the subject site.

Prepared by: Matt Adams – Development Services Nick Whitton – Strategic Planning

Clarence Valley Council Glenreagh Planning Proposal, ver 1.0, 27 Feb 2012 Lot 21 DP 6506, No. 18 Coramba Street, Glenreagh NSW







28 March 2012

Clarence Valley Council Locked Bag 23 GRAFTON NSW 2460

Sent via email: <u>Nick.Whitton@clarence.nsw.gov.au</u>

Dear Nick,

#### RE: Preliminary Site Contamination Assessment - 18 Coramba Street, Glenreagh NSW

#### 1 INTRODUCTION

The following report presents the results of the preliminary Site Contamination Assessment (SCA) undertaken by Coffey Geotechnics Pty Ltd (Coffey) for the proposed residential use of Lot 21 DP6506, 18 Coramba Street, Glenreagh NSW, the Site.

The SCA objective was to provide a preliminary assessment of site contamination and, if necessary, to provide a basis for a more detailed investigation.

The potential contaminants of concern are those associated with former use of this site as a bus parking area and a small disused stock yard, they include; metals, arsenic, cadmium, chromium (total) copper, lead, nickel, mercury and zinc and petroleum hydrocarbons, total recoverable hydrocarbons (TRH) and benzene, toluene, ethylbenzene and xylene (BTEX) compounds).

This letter report presents the laboratory analysis results from soil samples collected from within the proposed residential area and compares the test results to NSW Health-based investigation levels for residential use.

The work was carried out with reference to the following guidelines:

- NSW DEC Guidelines for the NSW Site Auditor Scheme (2<sup>nd</sup> ed), 2006
- DUAP EPA Managing Land Contamination Planning Guidelines, SEPP 55 Remediation of Land, 1998;
- NSW EPA Guidelines for Consultants Reporting on Contaminated Sites, 1997
- NSW EPA Sampling Design Guidelines, 1995
- NSW EPA Guidelines for Assessing Former Orchards and Market Gardens, 1995

Coffey Geotechnics Pty Ltd ABN 93 056 929 483 1/18 Hurley Drive Coffs Harbour NSW 2450 Australia T (+61) 1300 513 213 F (+61) (2) 6651 5194 <u>www.coffey.com</u> GEOTCOFH02999AA-AB

# 2 SCOPE OF WORKS

The site observations and scope of work carried out for the SCA is summarised below.

A site walkover and photographs were taken by a Coffey Environmental Scientist on 19 March 2012.

The site is cleared land containing several large eucalypt trees within a grass lawn. The land was fenced along its frontage with Coramba Street and Tallawudjah Creek Road. A small stockpile of gravel was observed adjacent to Coramba Street. The southern site boundary was a gravel driveway used by the adjoining residential property and school bus depot.

The rear boundary of the block, to the west, was overgrown long grass and a small disused stock yard was located in the south west corner of the site, see Photo 1. A pile of green waste and tree limbs was observed to the north of the stock yard.



Photo 1, View of the disused timber stock yards. Soil sample SS01 was collected from the foreground. Samples SS02 and SS03 were collected in a transect parallel to the yards to the north.

During the site walkover an area of compacted bare earth was observed adjacent to the gravel driveway and in the south east of the site. Areas of dark surface staining were also observed in this area, see Photo 2.

In discussion with Mr Hugh Macadam, neighbour and operator of the bus depot, he advised that this area had previously been used for secure parking of earthmoving plant by a contractor working on flood

Preliminary Site Contamination Assessment – 18 Coramba Street, Glenreagh NSW

repairs to local roads to the west of Glenreagh. Mr Macadam has lived nearby to the site for more than 10 years and had previously leased the site from Council for bus parking.

Mr Macadam advised that the small stockyard was the former Council pound yard for the Glenreagh village. The yards were now in disrepair but once had included two small timber rail pens and raceway. Mr Macadam also mentioned that a water well, now permanently closed, was located to the north of the yards near the Tallawudjah Creek road and was likely used for getting water for stock held at the yard. No evidence of a cattle tick dip or associated structures was observed nearby to the stock yard.



Photo 2, View of former vehicle parking area and bare patches with surface staining. Soil samples SS05, SS06 and SS07 were collected from the foreground in a transect parallel to the surface staining.

The site is understood to have an area of about 800m2. Table A of the NSW EPA Sampling Design Guidelines requires a minimum of 6 sampling locations for site characterisation purposes. Two sampling transects were marked out in a north-south direction nearby to the stockyard and in the former bus parking area on this site. A total of six surface soil samples, depth of 0-0.15m, were collected using hand tools for screening purposes, see Figure 1.

Upon collection soil samples were immediately placed in a chilled insulated container and couriered under chain of custody to the NATA accredited laboratory. Each soil sample was collected using a clean pair of nitrile gloves and sampling equipment was decontaminated between each sample location to avoid cross contamination.

The laboratory composited the soil samples to create two composite samples (SS04 and SS08) for testing. Primary samples SS01, SS02 and SS03 (stockyard) were composited to create sample SS04 and primary samples SS05, SS06 and SS07 (parking area) were composited to create sample SS08.

The composited samples were analysed for metals (arsenic, cadmium, chromium (total), copper, lead, mercury, and nickel), TRH and BTEX compounds.

The adopted soil investigation levels (SILs) were based on NEHF A criteria for residential with gardens and accessible soil (home-grown produce contributing <10% fruit and vegetable intake; no poultry), including children's day-care centres, preschools, primary schools, town houses, villas (DEC 2006).

NSW DEC (2006) does not provide levels for volatile petroleum hydrocarbon compounds. The *Guidelines for Assessing Service Station Sites* (NSW EPA, 1994) provide threshold levels for sensitive land use, such as residential sites, which have been adopted as SILs for petroleum hydrocarbon compounds.

As composite soil samples were analysed the SILs were adjusted using the formula provided in *Guidelines for Assessing Former Orchards and Market Gardens* (EPA 1995). Any results which exceed the adjusted investigation levels have been highlighted and discussed in Section 3 of this report.

## 3 ANALYSIS RESULTS

# 3.1 Quality Assurance/Quality Control (QA/QC)

Samples were transported under chain of custody conditions to mgt LabMark Environmental Pty Ltd laboratory which is NATA accredited for the analysis performed. A copy of the chain of custody is included with the laboratory test results attached to this report.

The laboratory conducted internal quality control using laboratory duplicates, spikes and method blanks. The results are shown with laboratory report sheets attached to this report. Analytical methods used for the laboratory testing are also indicated on the laboratory report sheets. The results of laboratory quality control testing are considered to be within acceptable limits.

#### 3.2 Comparison of Laboratory Results to Soil Investigation Levels

The laboratory test results for the soil sampling undertaken on the 19 March 2012 are summarised in Table LR1 and laboratory reports are attached to this report. The following points are noted in Table LR1:

- Concentrations of metals were all below the adjusted SIL in the samples analysed.
- Concentrations of TRH were below the adopted criteria or the laboratory's LOR in the samples analysed.
- Concentrations of volatile BTEX compounds were below the adopted criteria and the laboratory's LOR in the samples analysed.

Preliminary Site Contamination Assessment - 18 Coramba Street, Glenreagh NSW

# 4 CONCLUSIONS

Coffey was engaged by Clarence Valley Council to carry out a preliminary site contamination assessment of the vacant land at 18 Coramba Street, Glenreagh to assess if the land was suitable for residential use. The investigation objective was to provide a preliminary assessment of site contamination and, if necessary, to provide a basis for a more detailed investigation.

Based upon observations made during our site walkover and discussions held with Mr Hugh Macadam, neighbour, we understand that this site was previously used for parking of earthmoving equipment during local road works and for parking of school buses. An area of bare soil with dark surface staining was observed in the vicinity of this parking area. At the rear of the site was a disused timber stockyard which is understood to have been the former Council pound yard for the Glenreagh village.

Coffey collected six surface soil samples (0-0.15m depth) from two transects on the site. The soil samples from each transect were composited in the laboratory to create two samples, SS04 and SS08, for analysis. Composite sampling was used for this preliminary assessment to screen for the presence of potential contaminants of concern on this site. The laboratory analysis results were assessed against adjusted soil investigation levels in accordance with NSW EPA contaminated site guidelines.

The laboratory results for the soil samples collected from within the site show that the levels of contaminants are all below the adjusted SIL and are within residential guideline criteria.

Based on the site observations and laboratory analysis findings it is considered that the site at 18 Coramba Road, Glenreagh, is suitable for the proposed residential use.

## **5 LIMITATIONS**

The findings contained in this report are the result of discrete/specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the past and present uses of the site. Under no circumstances, however, can it be considered that these findings represent the actual state of the site at all points.

In preparing this report, current guidelines for assessment and management of contaminated land were followed. This work has been conducted in good faith in accordance with Coffey Geotechnics understanding of the client's brief and general accepted practice for geotechnical consulting.

This report was prepared for Clarence Valley Council with the objective to provide a preliminary assessment of site contamination and, if necessary, to provide a basis for a more detailed Investigation for the property at Lot 21 DP6506, 18 Coramba Street, Glenreagh NSW. No warranty, expressed or implied, is made as to the information and professional advice included in this report. The report is not intended for other parties or other uses. Anyone using this document does so at their own risk and should satisfy themselves concerning its applicability and, where necessary, should seek expert advice in relation to the particular situation.

This report does not address issues relating to potentially hazardous building materials or services which may be present on the site. This report does not address geotechnical issues at the site.

Please note that this report may not be reproduced except in full and must be read in conjunction with the attached 'Important Information about your Coffey Environmental Site Assessment.'

For and on behalf of Coffey Geotechnics Pty Ltd

Jeber Balad

# Andrew Ballard

Associate Environmental Scientist Environmental Team Leader – Coffs Harbour

Distribution: Original held by Coffey Geotechnics Pty Ltd 1 electronic pdf copy to Clarence Valley Council

Attachments: Important Information about your Coffey Environmental Site Assessment Table LR1: Summary of Laboratory Results for Soil Samples Figure 1: Site Sampling Plan Laboratory Certificate of Analysis Chain of Custody



# Important information about your Coffey Environmental Site Assessment

Uncertainties as to what lies below the ground on potentially contaminated sites can lead to remediation costs blow outs, reduction in the value of the land and to delays in the redevelopment of land. These uncertainties are an inherent part of dealing with land contamination. The following notes have been prepared by Coffey to help you interpret and understand the limitations of your environmental site assessment report.

#### Your report has been written for a specific purpose

Your report has been developed on the basis of a specific purpose as understood by Coffey and applies only to the site or area investigated. For example, the purpose of your report may be:

- To assess the environmental effects of an on-going operation.
- · To provide due diligence on behalf of a property vendor.
- To provide due diligence on behalf of a property purchaser.
- To provide information related to redevelopment of the site due to a proposed change in use, for example, industrial use to a residential use.
- To assess the existing baseline environmental, and sometimes geological and hydrological conditions or constraints of a site prior to an activity which may alter the sites environmental, geological or hydrological condition.

For each purpose, a specific approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible, quantify risks that both recognised and unrecognised contamination pose to the proposed activity. Such risks may be both financial (for example, clean up costs or limitations to the site use) and physical (for example, potential health risks to users of the site or the general public).

#### Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man and may change with time. For example, groundwater levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of the subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. Consult Coffey to be advised how time may have impacted on the project and/or on the property.

#### Interpretation of factual data

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from indirect field measurements and sometimes other reports on the site are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions. Actual conditions may differ from those inferred to exist. because no professional, no matter how well gualified, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of Coffey through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other problems encountered on site.

#### Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Coffey, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered with redevelopment or on-going use of the site. If another party undertakes the implementation of the recommendations of this report there is a risk that the report will be misinterpreted and Coffey cannot be held responsible for such misinterpretation.



# Important information about your Coffey Environmental Site Assessment

#### Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Coffey before passing your report on to another party who may not be familiar with the background and the purpose of the report. In particular, a due diligence report for a property vendor may not be suitable for satisfying the needs of a purchaser. Your report should not be applied for any purpose other than that originally specified at the time the report was issued.

#### Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, retain Coffey to work with other professionals who are affected by the report. Have Coffey explain the report implications to professionals affected by them and then review plans and specifications produced to see how they have incorporated the report findings.

#### Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists, engineers or geologists based on their interpretation of field logs (assembled by field personnel), field testing and laboratory evaluation of field samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

### Contact Coffey for additional assistance

Coffey is familiar with a variety of techniques and approaches that can be used to helo reduce risks for all parties to land development and land use. It is common that not all approaches will be necessarily dealt with in your environmental site assessment report due to concepts proposed at that time. As a project progresses through planning and design toward construction and/or maintenance, speak with Coffey to develop alternative approaches to problems that may be of genuine benefit both in time and cost.

#### Responsibility

Environmental reporting relies on interpretation of factual information based on judgement and opinion and has a level of uncertainty attached to it, which is far less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. To help prevent this problem, a number of clauses have been developed for use in contracts, reports and other documents. Responsibility clauses do not transfer appropriate liabilities from Coffey to other parties but are included to identify where Coffey's responsibilities begin and end. Their use is intended to help all parties involved to recognise their individual responsibilities. Read all documents from Coffey closely and do not hesitate to ask any questions you may have.

| Sample ID                        |                      |                   | SS04      | SS08      |
|----------------------------------|----------------------|-------------------|-----------|-----------|
| Material                         | NEFH A               | Adjusted SILs for | Soil      | Soil      |
| Date of Sampling                 | Residential Criteria | Composite Samples | 19-Mar-12 | 19-Mar-12 |
| Depth (m)                        |                      |                   | 0-0.15    | 0-0.15    |
| Metals                           |                      |                   |           |           |
| Arsenic                          | 100 <sup>1</sup>     | 37 <sup>3</sup>   | 3.5       | 3.2       |
| Cadmium                          | 20 <sup>1</sup>      | 8 <sup>3</sup>    | 0.3       | 0.3       |
| Chromium                         | 100 <sup>1</sup>     | 33 <sup>3</sup>   | 7.7       | 12        |
| Copper                           | 1,000 <sup>1</sup>   | 349 <sup>3</sup>  | 25        | 13        |
| Lead                             | 300 1                | 117 <sup>3</sup>  | 110       | 94        |
| Mercury                          | 15 <sup>1</sup>      | 5 <sup>3</sup>    | 0.07      | 0.09      |
| Nickel                           | 600 <sup>1</sup>     | 200 <sup>3</sup>  | 5.2       | 4.9       |
| Zinc                             | 7,000 <sup>1</sup>   | 2375 <sup>3</sup> | 250       | 190       |
| Total Recoverable Hydrocarbons   |                      |                   |           |           |
| C <sub>6</sub> -C <sub>9</sub>   | 65 <sup>2</sup>      | 22 <sup>3</sup>   | < 10      | < 10      |
| C <sub>10</sub> -C <sub>14</sub> |                      |                   | < 50      | < 50      |
| C <sub>15</sub> -C <sub>28</sub> |                      |                   | < 100     | < 100     |
| C <sub>29</sub> -C <sub>36</sub> |                      |                   | < 100     | 140       |
| Total C10-C36                    | 1000 <sup>2</sup>    | 333 <sup>3</sup>  | < 100     | 140       |
| BTEX                             |                      |                   |           |           |
| Benzene                          | 1 2                  | 0.33 <sup>3</sup> | < 0.5     | < 0.5     |
| Toluene                          | 1.4 <sup>2</sup>     | 0.47 <sup>3</sup> | < 0.5     | < 0.5     |
| Ethylbenzene                     | 3.1 <sup>2</sup>     | 1.03 <sup>3</sup> | < 0.5     | < 0.5     |
| Xylenes(ortho.meta and para)     | 14 <sup>2</sup>      |                   | < 1.5     | < 1.5     |

## Table LR1: Summary of Laboratory Results for Soil Samples

### Notes:

VALUE

Concentration exceeds the adjusted SIL

<sup>1</sup> Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme (2nd ed) and NEPM (1999) (Residential with gardens and accessible soil - NEHF A)

<sup>2</sup> Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

<sup>3</sup> Adjusted SILs for composite samples based on NSW DEC (2005), Guidelines for Assessing Former Orchards and Market Gardens





Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450

#### Attention: Andrew Ballard

Report Client Reference Received Date 331061-S GEOTCOFH02999AA Mar 21, 2012

| Client Sample ID                                 |             |            | SS01          | SS02         | SS03         | COMPOSITE<br>SS04 |
|--|-------------|------------|---------------|--------------|--------------|-------------------|
| Sample Matrix                                    |             |            | Soil          | Soil         | Soil         | Soil              |
| mgt-LabMark Sample No.                           |             |            | S12-Ma13185   | S12-Ma13186  | S12-Ma13187  | S12-Ma13188       |
| Date Sampled                                     |             |            | Mar 19, 2012  | Mar 19, 2012 | Mar 19, 2012 | Mar 19, 2012      |
| Test/Reference                                   | LOR         | Unit       |               |              |              |                   |
| Total Recoverable Hydrocarbons - 1999 N          | EPM Fractic | ons        |               |              |              |                   |
| TRH C6-C9  | 10          | mg/kg      |               |              | -            | < 10              |
| TRH C10-C14                                      | 50          | mg/kg      |               |              |              | < 50              |
| TRH C15-C28                                      | 100         | mg/kg      |               |              | 27.5         | < 100             |
| TRH C29-C36                                      | 100         | mg/kg      |               |              |              | < 100             |
| TRH C10-36 (Total)                               | 100         | mg/kg      |               | -            |              | < 100             |
| BTEX   |             |            |               |              |              |                   |
| Benzene  | 0.5         | mg/kg      | -             |              |              | < 0.5             |
| Toluene  | 0.5         | mg/kg      |               | -            | <u>a</u>     | < 0.5             |
| Ethylbenzene                                     | 0.5         | mg/kg      | -             |              |              | < 0.5             |
| Total m+p-Xylenes                                | 1           | mg/kg      |               | -            | (a)          | <1                |
| o-Xylene   | 0.5         | mg/kg      |               |              |              | < 0.5             |
| Xylenes(ortho.meta and para)                     | 1.5         | mg/kg      |               | -            |              | < 1.5             |
| Total BTEX                                       | 1.5         | mg/kg      | (m)           |              |              | < 1.5             |
| 4-Bromofluorobenzene (surr.)                     | 1           | %          | -             | -            |              | 90                |
| Total Recoverable Hydrocarbons - Draft 2         | 010 NEPM F  | ractions * |               |              |              |                   |
| Naphthalene <sup>1602</sup>                      | 0.5         | mg/kg      | -             | -            | -            | < 0.5             |
| TRH C6-C10                                       | 20          | mg/kg      | -             |              | -            | < 20              |
| TRH C6-C10 less BTEX (F1) <sup>NC4</sup>         | 20          | mg/kg      | -             |              |              | < 20              |
| TRH >C10-C16                                     | 50          | mg/kg      | (4)           |              |              | < 50              |
| TRH >C10-C16 less Naphthalene (F2) <sup>№1</sup> | 50          | mg/kg      | 141           | -            | -            | < 50              |
| TRH >C16-C34                                     | 100         | mg/kg      | -             |              | 4            | < 100             |
| TRH >C34-C40                                     | 100         | mg/kg      |               |              | :*           | < 100             |
| Heavy Metals                                     |             |            |               |              |              |                   |
| Arsenic  | 1           | mg/kg      | (             |              | ( <b>•</b> ) | 3.5               |
| Cadmium  | 0.1         | mg/kg      | 3:00          |              |              | 0.3               |
| Chromium   | 2           | mg/kg      | 5 <b>1</b> 01 |              |              | 7.7               |
| Copper   | 2           | mg/kg      |               | -            | -            | 25                |
| Lead   | 2           | mg/kg      | -             | -            | •            | 110               |
| Mercury  | 0.05        | mg/kg      |               | -            | 2            | 0.07              |
| Nickel   | 1           | mg/kg      | (2)           |              | 142          | 5.2               |
| Zinc   | 5           | mg/kg      |               |              | -            | 250               |
| % Moisture                                       | 0.1         | %          |               |              |              | 5.9               |

# Certificate of Analysis



WORLD TILCODNIBED

Accredited for compliance with ISO/IEC 17025 The results of the tests, calibrations and/or measuraments included in this document are traceable to Australian/national standards.

First Reported: Mar 27, 2012 Dete Reported: Mar 27, 2012



| Client Sample ID                                 |             |            | SS05         | SS06         | SS07         | COMPOSITE<br>SS08 |
|--|-------------|------------|--------------|--------------|--------------|-------------------|
| Sample Matrix                                    |             |            | Soil         | Soil         | Soll         | Soll              |
| mgt-LabMark Sample No.                           |             |            | S12-Ma13189  | S12-Ma13190  | S12-Ma13191  | S12-Ma13192       |
| Date Sampled                                     |             |            | Mar 19, 2012 | Mar 19, 2012 | Mar 19, 2012 | Mar 19, 2012      |
| Test/Reference                                   | LOR         | Unit       |              |              |              |                   |
| Total Recoverable Hydrocarbons - 1999 N          | EPM Fractio | ons        |              |              |              |                   |
| TRH C6-C9  | 10          | mg/kg      |              |              |              | < 10              |
| TRH C10-C14                                      | 50          | mg/kg      |              | 1.00         | -            | < 50              |
| TRH C15-C28                                      | 100         | mg/kg      |              |              |              | < 100             |
| TRH C29-C36                                      | 100         | mg/kg      |              | 1.2          | -            | 140               |
| TRH C10-36 (Total)                               | 100         | mg/kg      |              |              |              | 140               |
| BTEX   |             |            |              |              |              |                   |
| Benzene  | 0.5         | mg/kg      | 1            |              |              | < 0.5             |
| Toluene  | 0.5         | mg/kg      |              |              |              | < 0.5             |
| Ethylbenzene                                     | 0.5         | mg/kg      | -            |              |              | < 0.5             |
| Total m+p-Xylenes                                | 1           | mg/kg      | *            |              | -            | < 1               |
| o-Xylene   | 0.5         | mg/kg      |              |              |              | < 0.5             |
| Xylenes(ortho.meta and para)                     | 1.5         | mg/kg      |              |              |              | < 1.5             |
| Total BTEX                                       | 1.5         | mg/kg      |              |              |              | < 1.5             |
| 4-Bromofluorobenzene (surr.)                     | 1           | %          |              | -            |              | 97                |
| Total Recoverable Hydrocarbons - Draft 2         | 010 NEPM F  | ractions * |              |              |              |                   |
| Naphthalene <sup>m2</sup>                        | 0.5         | mg/kg      | -            | -            |              | < 0.5             |
| TRH C6-C10                                       | 20          | `mg/kg     |              |              |              | < 20              |
| TRH C6-C10 less BTEX (F1) <sup>N04</sup>         | 20          | mg/kg      | - No         |              |              | < 20              |
| TRH >C10-C16                                     | 50          | mg/kg      |              | -            |              | < 50              |
| TRH >C10-C16 less Naphthalene (F2) <sup>№1</sup> | 50          | mg/kg      |              | -            |              | < 50              |
| TRH >C16-C34                                     | 100         | mg/kg      |              | *            |              | 160               |
| TRH >C34-C40                                     | 100         | mg/kg      | (#C)         | -            |              | < 100             |
| Heavy Metals                                     |             |            |              |              |              |                   |
| Arsenic  | 1           | mg/kg      |              | •            |              | 3.2               |
| Cadmium  | 0.1         | mg/kg      |              |              |              | 0.3               |
| Chromium   | 2           | mg/kg      |              |              |              | 12                |
| Copper   | 2           | mg/kg      | 1            | -            | ¥            | 13                |
| Lead   | 2           | mg/kg      | +            |              |              | 94                |
| Mercury  | 0.05        | mg/kg      | 243          |              |              | 0.09              |
| Nickel   | 1           | mg/kg      | 142          | -            | *            | 4.9               |
| Zinc   | 5           | mg/kg      | 3 <b>9</b> 1 |              |              | 190               |
| % Moisture                                       | 0.1         | %          |              | -            |              | 5,1               |

# MUL O LabMark

#### Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

| Description  | <b>Testing Site</b> | Extracted    | Holding Time |
|--|---------------------|--------------|--------------|
| mgt-LabMark Suite 6  | Second and Advanced |              |              |
| BTEX   | Sydney              | Mar 22, 2012 | 14 Day       |
| - Method: E029/E016 BTEX                                       |                     |              |              |
| Metals M8  | Sydney              | Mar 22, 2012 | 28 Day       |
| - Method: E022 Acid Extractable metals in Solls & E026 Mercury |                     |              |              |
| Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *   | Sydney              | Mar 22, 2012 | 14 Day       |
| - Method: LM-LTM-ORG2010                                       |                     |              |              |
| Total Recoverable Hydrocarbons - 1999 NEPM Fractions           | Sydney              | Mar 22, 2012 | 14 Day       |
| - Method: E004 Petroleum Hydrocarbons (TPH)                    |                     |              |              |
| % Moisture   | Sydney              | Mar 22, 2012 | 28 Day       |
| - Melhod: E005 Moleture Content                                |                     |              |              |

- Method: E005 Moisture Content



ABN - 50 005 085 521 e.mail : enviro@mgtlabmark.com.au web : www.mgtlabmark.com.au

Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 9564 7055 NATA # 1261 Site # 1254 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 8215 6222 NATA # 1261 Site # 18217 Brisbane 1/21 Smallwood Place Murame QLD 4172 Phone : +61 7 3902 4600 NATA # 1261 Site # 20794

| Company Name:<br>Address: | Coffey Geotechnics Pty Ltd COFFS<br>Unit 1 18 Hurley Dve<br>Coffs Harbour<br>NSW 2450 | Order No.:<br>Report #:<br>Phone:<br>Fax: | 331061<br>02 6651 3213<br>02 6651 5194 | Received:<br>Due:<br>Priority:<br>Contact name: | Mar 21, 2012 9:00 AM<br>Mar 28, 2012 4:00 PM<br>5 Day<br>Andrew Ballard |
|---------------------------|---|---|--|---|---|
| Client Job No.:           | GEOTCOFH02999AA   |   |  | mgt-Labl  | Mark Client Manager: Onur Mehmet  |

| Sample Detail     |                  |                  |         |             |   |   | mgt-LabMark Suite 6 |
|-------------------|------------------|------------------|---------|-------------|---|---|---------------------|
| Laboratory w      | here analysis is | conducted        | 1. 1.   |             |   |   |                     |
| Melbourne La      | aboratory - NAT  | A Site # 1254    | & 14271 |             |   |   |                     |
| Sydney Labo       | X                | X                | X       |             |   |   |                     |
| Brisbane Lab      | oratory - NATA   | Site # 20794     |         |             |   |   |                     |
| External Lab      | oratory          |                  |         |             |   |   |                     |
| Sample ID         | Sample Date      | Sampling<br>Time | Matrix  | LAB ID      |   |   |                     |
| SS01              | Mar 19, 2012     |                  | Soil    | S12-Ma13185 |   | x |                     |
| SS02              | Mar 19, 2012     |                  | Soil    | S12-Ma13186 |   | x |                     |
| SS03              | Mar 19, 2012     |                  | Soil    | S12-Ma13187 |   | X |                     |
| COMPOSITE<br>SS04 | Mar 19, 2012     |                  | Soil    | S12-Ma13188 | х |   | x                   |
| SS05              | Mar 19, 2012     |                  | Soil    | S12-Ma13189 |   | X |                     |
| SS06              | Mar 19, 2012     |                  | Soil    | S12-Ma13190 |   | х |                     |
| SS07              | Mar 19, 2012     |                  | Soil    | S12-Ma13191 |   | X |                     |
| COMPOSITE<br>SS08 | Mar 19, 2012     |                  | Soil    | S12-Ma13192 | x |   | x                   |

# () LabMark ENVIRONMENTAL LABORATORIES

#### mgt-LabMark Internal Quality Control Review

#### General

Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request. 1.

- 2 All soil results are reported on a dry basis, unless otherwise stated.
- Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences. 3.
- Results are uncorrected for matrix spikes or surrogate recoveries. 4
- 5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis. 6.
- This report replaces any interim results previously issued. 7

#### **Holding Times**

Please refer to 'Sample Preservation and Container Guide' for holding limes (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control. \*\*NOTE: pH duplicates are reported as a range NOT as an RPD

| UNITS  |                                   |
|--|-----------------------------------|
| mg/kg:milligrams per Kilogram                                  | mg/L:milligrams per litre         |
| µg/L:micrograms per litre                                      | ppm:Parts per million             |
| ppb:Parts per billion  | %:Percentage                      |
| org/100mL:Organisms per 100 millilitres                        | NTU:Nephelometric Turbidity Units |
| MPN/100mL:Most Probable Number of organisms per 100 milliltres |                                   |

#### TERMS

| Dry:              | Where a moisture has been determined on a solid sample the result is expressed on a dry basis.  |
|-------------------|---|
| LOR:              | Limit Of Reporting.   |
| SPIKE:            | Addition of the analyte to the sample and reported as percentage recovery.  |
| RPD:              | Relative Percent Difference between two Duplicate pieces of analysis.   |
| LCS:              | Laboratory Control Sample - reported as percent recovery.   |
| CRM:              | Certified Reference Material - reported as percent recovery.  |
| Method Blank:     | In the case of solid samples these are performed on laboratory certified clean sands.   |
|                   | In the case of water samples these are performed on de-ionised water.   |
| Surr - Surrogate: | The addition of a like compound to the analyte target and reported as percentage recovery.  |
| Duplicate:        | A second piece of analysis from the same sample and reported in the same units as the result to show comparison.  |
| Batch Duplicate:  | A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis,  |
| Batch SPIKE:      | Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.  |
| USEPA:            | U.S Environmental Protection Agency   |
| APHA:             | American Public Health Association  |
| ASLP:             | Australian Standard Leaching Procedure (AS4439.3)   |
| TCLP:             | Toxicity Characteristic Leaching Procedure  |
| COC:              | Chain Of Custody  |
| SRA:              | Sample Receipt Advice   |
| CP:               | Client Parent - QC was performed on samples pertaining to this report   |
| NCP:              | Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within |

#### **QC - ACCEPTANCE CRITERIA**

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

#### QC DATA GENERAL COMMENTS

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided. 1.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples. 2
- Organochlorine Pesticide analysis where reporting LCS data, Toxophene & Chlordane are not added to the LCS. 3.
- Organochlorine Pesticide analysis where reporting Spike data, Toxophene is not added to the Spike. 4
- Total Recoverable Hydrocarbons where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report. 5
- pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding lime, Analysis will begin as soon as possible after sample receipt 6.
- Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte. 7.
- Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's. 8.
- For Matrix Spikes and LCS results a dash \* " in the report means that the specific analyte was not added to the QC sample> 9.
- Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data. 10.

# ENVIRONMENTAL LABORATORIES

**Quality Control Results** 

| Test  | Units                  | Result 1           |                        | Acceptance<br>Limits      | Pass<br>Limits | Qualifying<br>Code |
|---|------------------------|--------------------|------------------------|---------------------------|----------------|--------------------|
| Method Blank  | Sales New York         | Constant States    | Charles and            | 3.5 0 - 2 - 2             | Stand L        |                    |
| otal Recoverable Hydrocarbons - 1999 NEPM Fr                  | actions E004           |                    |                        |                           |                |                    |
| Petroleum Hydrocarbons (TPH)                                  | 1                      | 110                |                        |                           | Deres          |                    |
| TRH C6-C9   | mg/kg                  | < 10               |                        | 10                        | Pass           |                    |
| TRH C10-C14   | mg/kg                  | < 50               |                        | 50                        | Pass           |                    |
| TRH C15-C28   | mg/kg                  | < 100              |                        | 100                       | Pass           |                    |
| TRH C29-C36   | mg/kg                  | < 100              |                        | 100                       | Pass           |                    |
| Method Blank  | DALENDER VOL DE DESSO  | CALCULAR PARTY AND | 1.5.5.1000.050050      | 10000000100000            | 202 OF 244     |                    |
| 3TEX E029/E016 BTEX   |                        |                    |                        |                           | Deser          |                    |
| Benzene   | mg/kg                  | < 0.5              |                        | 0.5                       | Pass<br>Pass   |                    |
| Toluene   | mg/kg                  |                    |                        | 0.5                       |                |                    |
| Ethylbenzene  | mg/kg                  | < 0.5              |                        | 0.5                       | Pass           |                    |
| Total m+p-Xylenes   | mg/kg                  | <1                 |                        | 1                         | Pass           |                    |
| o-Xylene  | mg/kg                  | < 0.5              |                        | 0.5                       | Pass           |                    |
| Xylenes(ortho.meta and para)                                  | mg/kg                  | < 1.5              |                        | 1.5                       | Pass           |                    |
| Total BTEX  | mg/kg                  | < 1.5              |                        | 1.5                       | Pass           |                    |
| Method Blank  |                        | A A LEI ST         |                        | A SAMULTS                 | 212212         |                    |
| Total Recoverable Hydrocarbons - Draft 2010 NE<br>_TM-ORG2010 | PM Fractions * LM-     |                    |                        |                           |                |                    |
| Naphthalene   | mg/kg                  | < 0.5              |                        | 0.5                       | Pass           |                    |
| TRH C6-C10  | mg/kg                  | < 20               |                        | 20                        | Pass           |                    |
| TRH C6-C10 less BTEX (F1)                                     | mg/kg                  | < 20               |                        | 20                        | Pass           |                    |
| TRH >C10-C16  | mg/kg                  | < 50               |                        | 50                        | Pass           |                    |
| TRH >C16-C34  | mg/kg                  | < 100              |                        | 100                       | Pass           |                    |
| TRH >C34-C40  | mg/kg                  | < 100              |                        | 100                       | Pass           |                    |
| Method Blank  | inging                 | 1 100 1            | 1 - CT (CT (S) (S) (S) | 100                       | 1 400          |                    |
| Metals M8 E022 Acid Extractable metals in Soils               | & E026 Mercury         | APR PROPERTY       | A State of Long        | ( 1 1 1 1 A )             | CALCOL N       |                    |
| Arsenic   | mg/kg                  | <1                 |                        | 1                         | Pass           |                    |
| Cadmium   | mg/kg                  | < 0.1              |                        | 0.1                       | Pass           |                    |
| Chromium  | mg/kg                  | <2                 |                        | 2                         | Pass           |                    |
| Copper  | mg/kg                  | <2                 |                        | 2                         | Pass           |                    |
| Lead  | mg/kg                  | <2                 |                        | 2                         | Pass           |                    |
| Mercury   | mg/kg                  | < 0.05             |                        | 0.05                      | Pass           |                    |
| Nickel  | mg/kg                  | < 1                |                        | 1                         | Pass           |                    |
| Zinc  | mg/kg                  | < 5                |                        | 5                         | Pass           |                    |
| LCS - % Recovery  | ing/kg                 |                    | THE REAL PROPERTY AND  | 1                         | Fass           |                    |
| Total Recoverable Hydrocarbons - 1999 NEPM Fr                 | ractions E004          | 1                  | and the second         | The second second         | 2.0212         |                    |
| Petroleum Hydrocarbons (TPH)                                  | actions 2004           |                    |                        |                           |                |                    |
| TRH C6-C9   | %                      | 101                |                        | 70-130                    | Pass           |                    |
| TRH C10-C14   | %                      | 90                 |                        | 70-130                    | Pass           |                    |
| TRH C15-C28   | %                      | 92                 |                        | 70-130                    | Pass           |                    |
| LCS - % Recovery  | SAME TO A STATE        | A STATISTICS       | State States and       | Stores Contraction        | 1000           |                    |
| BTEX E029/E016 BTEX   |                        | 1                  |                        | 1                         |                |                    |
| Benzene   | %                      | 102                |                        | 70-130                    | Pass           |                    |
| Toluene   | %                      | 103                |                        | 70-130                    | Pass           |                    |
| Ethylbenzene  | %                      | 104                |                        | 70-130                    | Pass           |                    |
| Total m+p-Xylenes   | %                      | 101                |                        | 70-130                    | Pass           |                    |
| o-Xylene  | %                      | 103                |                        | 70-130                    | Pass           |                    |
| Xylenes(ortho.meta and para)                                  | %                      | 102                |                        | 70-130                    | Pass           |                    |
| .CS - % Recovery  |                        | 100 C              | and the second second  | ALL RIDER M               |                |                    |
| Total Recoverable Hydrocarbons - Draft 2010 NE<br>LTM-ORG2010 | PM Fractions * LM-     |                    |                        |                           |                |                    |
| Naphthalene   | %                      | 105                |                        | 70-130                    | Pass           |                    |
| TRH C6-C10  | %                      | 100                |                        | 70-130                    | Pass           |                    |
| LCS - % Recovery  | attend being and state | 1                  | Sector States States   | Mail and Mail St          | 1.00           |                    |
| Metals M8 E022 Acid Extractable metals in Soils               | & E026 Mercury         | T                  | COLUMN STORE           | and specify the latter of | 1              |                    |
| Arsenic   | & LOZO METCOTY %       | 91                 |                        | 70-130                    | Pass           |                    |
| - Sourio  | 70                     |                    |                        | 10100                     | 1 400          | 1                  |

First Reported: Mar 27, 2012 Date Reported: Mar 27, 2012 mgt-LabMark Unit F6, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066 ABN : 50 005 085 521 Telephone: +61 2 8215 6222 Facsimile: +61 2 9420 2977 Page 6 of 9 Report Number: 331061-S

# **SolabMark** Environmental Laboratories

| Test   | 5                     |              | Units                                   | Result 1    |               |               | Acceptance<br>Limits   | Pass<br>Limits        | Qualifying<br>Code |
|--|-----------------------|--------------|---|-------------|---------------|---------------|--|-----------------------|--------------------|
| Cadmium  |                       |              | %                                       | 99          |               |               | 70-130   | Pass                  |                    |
| Chromium   |                       |              | %                                       | 103         |               |               | 70-130   | Pass                  |                    |
| Copper   |                       |              | %                                       | 102         |               |               | 70-130   | Pass                  |                    |
| Lead   |                       |              | %                                       | 104         |               |               | 70-130   | Pass                  |                    |
| Mercury  |                       |              | %                                       | 98          |               |               | 70-130   | Pass                  |                    |
| Nickel   |                       |              | %                                       | 95          |               |               | 70-130   | Pass                  |                    |
| Zinc   |                       |              | %                                       | 95          |               |               | 70-130   | Pass                  |                    |
| Test   | Lab Sample ID         | QA<br>Source | Units                                   | Result 1    |               |               | Acceptance<br>Limits   | Pass<br>Limits        | Qualifying<br>Code |
| Spike - % Recovery   | AND STATISTICS        |              | (pronting)                              | 18-11-11-   | Carling and   | M. Card       | No.  | 70-1-1-1              |                    |
| Total Recoverable Hydrocarbons   | s - 1999 NEPM Frac    | tions        |   | Result 1    |               |               | i i  |                       |                    |
| TRH C6-C9  | N12-Ma11149           | NCP          | %                                       | 89          |               |               | 70-130   | Pass                  |                    |
| TRH C10-C14  | S12-Ma12512           | NCP          | %                                       | 70          | 1             |               | 70-130   | Pass                  |                    |
| Spike - % Recovery   | HIGH ROOM STOL        | 014/03/01    | 20. 10                                  | South Secol | Sad rate      | La El Rik     | AND SHOWING  | Tolella               |                    |
| BTEX   |                       |              |   | Result 1    |               |               |  |                       |                    |
| Benzene  | N12-Ma11149           | NCP          | %                                       | 92          |               |               | 70-130   | Pass                  |                    |
| Toluene  | N12-Ma11149           | NCP          | %                                       | 96          |               |               | 70-130   | Pass                  |                    |
| Ethylbenzene   | N12-Ma11149           | NCP          | %                                       | 98          |               |               | 70-130   | Pass                  |                    |
| Total m+p-Xylenes  | N12-Ma11149           | NCP          | %                                       | 90          |               |               | 70-130   | Pass                  |                    |
| o-Xylene   | N12-Ma11149           | NCP          | %                                       | 98          |               |               | 70-130   | Pass                  |                    |
| Xylenes(ortho.meta and para)   | N12-Ma11149           | NCP          | %                                       | 92          |               |               | 70-130   | Pass                  |                    |
| Spike - % Recovery   | 1 3 . W. 18 8 9       |              | 14.5                                    | 3517333 V   | A STATE POINT | 1.0.00        | A STATE OF   |                       |                    |
| Total Recoverable Hydrocarbons   | s - Draft 2010 NEPM   | Fraction     | s*                                      | Result 1    |               |               | 1  |                       |                    |
| Naphthalene  | N12-Ma11149           | NCP          | %                                       | 88          |               |               | 70-130   | Pass                  |                    |
| TRH C6-C10   | N12-Ma11149           | NCP          | %                                       | 88          |               |               | 70-130   | Pass                  |                    |
| TRH >C10-C16   | S12-Ma12512           | NCP          | %                                       | 91          |               |               | 70-130   | Pass                  |                    |
| Spike - % Recovery   | A Coloradore          | A CLANE      | STATES OF                               | The Party   | Soar of       | the first and | and the second | 1015-110              |                    |
| Metals M8  |                       | 1000         | 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Result 1    |               | 10.00         |  |                       |                    |
| Arsenic  | S12-Ma14629           | NCP          | %                                       | 91          |               |               | 70-130   | Pass                  |                    |
| Cadmium  | S12-Ma14629           | NCP          | %                                       | 97          |               |               | 70-130   | Pass                  |                    |
| Chromium   | S12-Ma14629           | NCP          | %                                       | 108         |               |               | 70-130   | Pass                  |                    |
| Copper   | S12-Ma14629           | NCP          | %                                       | 103         |               |               | 70-130   | Pass                  |                    |
| Lead   | S12-Ma14629           | NCP          | %                                       | 109         |               |               | 70-130   | Pass                  |                    |
| Mercury  | S12-Ma13822           | NCP          | %                                       | 80          |               |               | 70-130   | Pass                  |                    |
| Nickel   | S12-Ma14629           | NCP          | %                                       | 99          |               |               | 70-130   | Pass                  |                    |
| Zinc   | S12-Ma13824           | NCP          | %                                       | 94          |               |               | 70-130   | Pass                  |                    |
| Duplicate  | 012-Wia 10024         | NOI          | 70                                      | 34          |               | State State   | 10-100   | 1 433                 | -                  |
| Total Recoverable Hydrocarbon  | A 1000 NEDM Erac      | tions        | 12.000                                  | Result 1    | Result 2      | RPD           |  |                       |                    |
| TRH C6-C9  | S12-Ma12596           | NCP          | mg/kg                                   | < 10        | < 10          | 18            | 30%  | Pass                  |                    |
| TRH C10-C14  | S12-Ma12596           | NCP          | mg/kg                                   | < 50        | < 50          | <1            | 30%  | Pass                  |                    |
| TRH C10-C14<br>TRH C15-C28   | S12-Ma12512           | NCP          | mg/kg<br>mg/kg                          | < 100       | < 100         | <1            | 30%  | Pass                  |                    |
| TRH C29-C36  | S12-Ma12512           | NCP          | mg/kg                                   | < 100       | < 100         | <1            | 30%  | Pass                  |                    |
| Duplicate  | 012-11/2 12012        | nor          | Inging                                  | - 100       | - 100         |               | 1 00 /0  | 1 433                 |                    |
| BTEX   | and the second second | - 01.530     | 0.00000                                 | Result 1    | Result 2      | RPD           | A STREET   | and the second second |                    |
| and a local sector of the sect | S12-Ma12596           | NCP          | malka                                   | < 0.5       | < 0.5         | <1            | 30%  | Pass                  |                    |
| Benzene  |                       | NCP          | mg/kg                                   | < 0.5       | < 0.5         | <1            | 30%  | Pass                  |                    |
| Toluene  | S12-Ma12596           | NCP          | mg/kg                                   |             |               |               | 30%  |                       |                    |
| Ethylbenzene   | S12-Ma12596           |              | mg/kg                                   | < 0.5       | < 0.5         | <1            |  | Pass                  |                    |
| Total m+p-Xylenes  | S12-Ma12596           | NCP          | mg/kg                                   | <1          | <1            | <1            | 30%  | Pass                  |                    |
| o-Xylene   | S12-Ma12596           | NCP          | mg/kg                                   | < 0.5       | < 0.5         | <1            | 30%  | Pass                  |                    |
| Xylenes(ortho.meta and para)   | S12-Ma12596           | NCP          | mg/kg                                   | < 1.5       | < 1.5         | <1            | 30%  | Pass                  |                    |
| Total BTEX   | S12-Ma12596           | NCP          | mg/kg                                   | < 1.5       | < 1.5         | <1            | 30%  | Pass                  |                    |
| Duplicate  | D. 6 0010             | - EXIST      | ERAD AN                                 | Street of   | De l'al       | DBS           | an sheat the   | 00121-2               |                    |
| Total Recoverable Hydrocarbon  |                       |              |   | Result 1    | Result 2      | RPD           |  | -                     |                    |
| Naphthalene  | S12-Ma12596           | NCP          | mg/kg                                   | < 0.5       | < 0.5         | <1            | 30%  | Pass                  |                    |
| TRH C6-C10   | S12-Ma12596           | NCP          | mg/kg                                   | < 20        | < 20          | 16            | 30%  | Pass                  |                    |
| TRH C6-C10 less BTEX (F1)  | S12-Ma12596           | NCP          | mg/kg                                   | < 20        | < 20          | 16            | 30%  | Pass                  |                    |
| TRH >C10-C16   | S12-Ma12512           | NCP          | mg/kg                                   | < 50        | < 50          | <1            | 30%  | Pass                  | h                  |
| TRH >C16-C34   | S12-Ma12512           | NCP          | mg/kg                                   | < 100       | < 100         | <1            | 30%  | Pass                  |                    |
| TRH >C34-C40   | S12-Ma12512           | NCP          | mg/kg                                   | < 100       | < 100         | <1            | 30%  | Pass                  |                    |

First Reported: Mar 27, 2012 Date Reported: Mar 27, 2012

# **S LabMark** ENVIRONMENTAL LABORATORIES

| Test      | Lab Sample ID      | QA<br>Source | Units   | Result 1   |               |               | Acceptance<br>Limits | Pass<br>Limits | Qualifying<br>Code |
|-----------|--------------------|--------------|---------|------------|---------------|---------------|----------------------|----------------|--------------------|
| Duplicate | o Strate Station D | 3.3273       | 1102011 | 49 B 10250 | in all on the | 12 19 18      | Musi al list         | 10135-         |                    |
| Metals M8 |                    |              |         | Result 1   | Result 2      | RPD           |                      |                |                    |
| Mercury   | S12-Ma13356        | NCP          | mg/kg   | < 0.05     | < 0.05        | 13            | 30%                  | Pass           |                    |
| Duplicate |                    | Allan Ray    | and the | Carrie In  | - Sources     | an even state | Sand The Color       | S. Cusi        |                    |
| Metals M8 |                    |              |         | Result 1   | Result 2      | RPD           |                      |                |                    |
| Arsenic   | S12-Ma13192        | CP           | mg/kg   | 3.2        | 2.7           | 16            | 30%                  | Pass           |                    |
| Cadmium   | S12-Ma13192        | CP           | mg/kg   | 0.3        | 0.4           | 40            | 30%                  | Fail           | Q15                |
| Chromium  | S12-Ma13192        | CP           | mg/kg   | 12         | 8.8           | 32            | 30%                  | Fail           | Q15                |
| Copper    | S12-Ma13192        | CP           | mg/kg   | 13         | 12            | 11            | 30%                  | Pass           |                    |
| Lead      | S12-Ma13192        | CP           | mg/kg   | 94         | 100           | 10            | 30%                  | Pass           |                    |
| Nickel    | S12-Ma13192        | CP           | mg/kg   | 4.9        | 3.4           | 35            | 30%                  | Fail           | Q15                |
| Zinc      | S12-Ma13192        | CP           | mg/kg   | 190        | 240           | 21            | 30%                  | Pass           |                    |

# 9) LabMark ENVIRONMENTAL LABORATORIES

#### Comments

| Sample Integrity  |     |
|---|-----|
| Custody Seals Intact (if used)  | N/A |
| Attempt to Chill was evident  | Yes |
| Sample correctly preserved  | Yes |
| Organic samples had Teflon liners                                       | Yes |
| Sample containers for volatile analysis received with minimal headspace | Yes |
| Samples received within HoldingTime                                     | Yes |
| Some samples have been subcontracted                                    | No  |

## Qualifier Codes/Comments

Code Description

F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis). N01

Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid. N02 F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

- N04
- The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details Q15

#### Authorised By

| Onur Mehmet     | Client Services              |  |  |  |  |  |
|-----------------|------------------------------|--|--|--|--|--|
| James Norford   | Senior Analyst-Metal (NSW)   |  |  |  |  |  |
| Laura Schofield | Senior Analyst-Volatile (NSW |  |  |  |  |  |
| Ryan Hamilton   | Senior Analyst-Organic (NSW) |  |  |  |  |  |

#### Dr. Bob Symons Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

mg(-) abblank shall not be liable for loses, coal, damages or expenses incurred by the date, or eny other person or company; neuting from the use of any information or interpretation given in this report, in no care shall mpl, abblank be lable for consequential damages including, bull not laming from the use of any information or interpretation given in this report, in no care shall mpl, abblank be lable for consequential damages including, bull not laming from the use of any information or interpretation given in this report, the last make any information or interpretation given in this report, the last make any information or interpretation given in this report. This document shall not be reproduced except in full and relates only to the items level. Unless indicated otherwise, the least were performed on the samplest as received.

# **ShabMark** ENVIRONMENTAL LABORATORIES

e mail : enviro@motlabmark com au

Melbourne 3-5 Kingston Town Close Oakleigh Vic 3166 Phone: +61 3 9564 7055 NATA # 1261 Site # 1254 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 8215 6222 NATA # 1261 Site # 18217 Brisbane 1/21 Smallwood Place Murarrie QLD 4172 Phone : +61 7 3902 4600 NATA # 1261 Site # 20794

# Sample Receipt Advice

| Com | рапу | name: |
|-----|------|-------|
|-----|------|-------|

ABN - 50 005 085 521

Coffey Geotechnics Pty Ltd COFFS

web : www.motlabmark.com.au

| Contact name:       | Andrew Ballard       |
|---------------------|----------------------|
| Client job number:  | GEOTCOFH02999AA      |
| COC number:         | 7590                 |
| Turn around time:   | 5 Day                |
| Date/Time received: | Mar 21, 2012 9:00 AM |
| MGT lab reference:  | 331061               |

# Sample information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- Organic samples had Teflon liners.
- Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

# Contact notes

If you have any questions with respect to these samples please contact:

Onur Mehmet on Phone : (+61) (3) 9564 7055 or by e.mail: onur.mehmet@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Andrew Ballard - Andrew\_Ballard@coffey.com.

# mgt Labmark Sample Receipt



Environmental Laboratory Air Analysis Water Analysis Soil Contamination Analysis NATA Accreditation Stack Emission Sampling & Analysis Trade Waste Sampling & Analysis Groundwater Sampling & Analysis



35Years of Environmental Analysis & Experience - fully Australian Owned

| coffey 🏞   | Chain d       | of Custod    | У                           | Laboratory Quotation / Order No: |  |       |              |      |      | GEOTOFILB2999 AA<br>Job No: |           |  |  |            |      | No: 7590 |        |                                   |  |  |
|--|---------------|--------------|-----------------------------|----------------------------------|--|-------|--------------|------|------|-----------------------------|-----------|--|--|------------|------|----------|--------|-----------------------------------|--|--|
| Dispatch to: MGT LABMARK ENVIRONMENTAL<br>(Address & Clart FG, Building F<br>Phone No.) 16 Mars Road<br>LANCE COUR WEST, NSW |               |              |                             |                                  | Sampled by: ANDREW<br>BRUCARD  |       |              |      |      |                             |           | Consigning Officer:<br>Date Dispatched: 20/03/2012 |  |            |      |          | #33106 |                                   |  |  |
| Attention: Sample Receipt  |               |              |                             | (report results                  | Project Manager:<br>(report results to)<br>andrew_bollard & coffey.con |       |              |      |      |                             |           |  | Courier Service: TOLL - 30070N<br>Consignment Note No: |            |      |          |        |                                   |  |  |
| Relinquished by: Coffe   | y Ge          | stecher.     | au .                        | Date:                            | Time:  | Recei | ved by:      |      |      |                             |           |  | 1  |            |      | Date:    |        | Time:                             |  |  |
| Relinquished by: Caffey Geotechinites  |               |              | 20/3/12                     |                                  | Sear o.  |       |              |      |      |                             |           | 1  | 90   |            | 2/3/ | 12       | 9100   |                                   |  |  |
|  |               |              |                             |                                  |  |       |              |      |      |                             |           | X  | Analyse  | s Required |      |          |        |                                   |  |  |
| Comments   | Sample Matrix | Con<br>and § | tainer Type<br>Preservative | Sample                           | Sample No.   |       | Date Sampled | PAHs | TPHs | MAHs = BTEX                 | Metals: 8 | martista   | bodulo   |            |      |          | Hold   | Sample<br>Condition<br>on Receipt |  |  |
| na13185  | 50:1          | 25011        | Sloft Int                   | 5501700                          | nanche   | 19/   | 3/12         |      |      | ~                           |           | 1-   |  |            |      |          | 1      |                                   |  |  |
| 86   | 1             |              | 1                           | 5502- 550                        | 1  | 1     |              |      |      |                             |           |  |  |            |      | 1        |        |                                   |  |  |
| 87   |               |              |                             | 5503)                            |  |       |              |      |      |                             |           |  |  |            |      | 1        |        |                                   |  |  |
| 88   |               |              |                             | Comprite                         |  |       |              |      |      | 1                           | /         |  |  |            |      |          |        |                                   |  |  |
| 89   |               |              |                             | 5505) 00                         |  |       |              |      |      |                             |           |  |  |            |      |          |        |                                   |  |  |
| 90   |               | 1            |                             | 55067550                         |  |       |              |      |      |                             |           |  |  |            |      |          |        |                                   |  |  |
| 91   |               |              |                             | 5507)                            |  |       |              |      |      |                             |           | $\land$  |  |            |      |          |        |                                   |  |  |
| 92.  | ¥             | 1            | ٧                           | Composite                        | 5508   | 1     | Y            |      |      |                             |           | 4  |  |            |      |          |        |                                   |  |  |
|  |               |              |                             |                                  |  |       | _            |      |      |                             |           |  | _  |            |      |          |        |                                   |  |  |
|  |               |              |                             |                                  |  |       |              |      |      |                             |           |  |  |            |      |          |        |                                   |  |  |
|  | _             |              |                             |                                  |  |       |              |      |      |                             | _         |  |  |            |      |          |        | _                                 |  |  |
|  |               |              |                             |                                  |  |       |              |      |      |                             | _         |  |  |            | _    |          | _      |                                   |  |  |
|  |               |              |                             |                                  |  |       |              |      |      |                             |           |  |  |            |      |          |        |                                   |  |  |

Copies: WHITE: Sign on release YELLOW: If dispatched to interstate Lab, Lab to sign on receipt and fax back to Coffey BLUE: To be returned with results