

# **Aboriginal Cultural Heritage Assessment Report**



## **Woolworths Limited for The Warnervale Town Centre Civic Precinct Development**

**Report to Woolworths Limited  
20 January 2012**

**Darkinjung Local Aboriginal Land Council  
PO Box 401  
Wyong NSW 2259  
Tel 02 - 43512930  
Email: [darkinjung@dlalc.org.au](mailto:darkinjung@dlalc.org.au)**

**Author: Sharon Hodgetts**

## Aboriginal Heritage Site Assessment Report

### Table of Contents

Maps of Study Area	4-5
1. 0 Introduction	6
2. 0 Description of Assessment Area and Development Proposal	6-7
3. 0 Description of Impact	8-9
4. 0 Qualifications/ Experience / Community Endorsement	10
5. 0 Statutory Requirements- Legislation	11-12
6. 0 Aboriginal Cultural Heritage, Values and Significance	13-14
7. 0 The Assessment Site	15- 16
8. 0 Assessment Methodology	17
9. 0 Assessment Fieldworks	18-19
10.0 Photographs	20-27
11. 0 Fieldwork Results.	28
12 Recommendations	29-31
References and Acknowledgments	32-34

## **Aboriginal Heritage Site Assessment Report**

### **List of Figures**

Figure 1 Map, location of assessment area within the region	4
Figure 2 Map, approximate location of the assessment site	5
Figure 3 Diagram of development area	7
Figure 4 Map of assessments sites	19
Figure 5-19 Photographs of site.	20-27

### **List of Tables**

Table 1 Registered Aboriginal sites	16
-------------------------------------	----



Figure 1: Map showing the approximate location of the assessment site, Warnervale NSW indicated by red circle.

Source: Google Maps



## 1. Introduction.

This Report has been prepared as part of an Aboriginal Heritage Assessment for Darkinjung Local Aboriginal Land Council (DLALC) and on behalf of Woolworths Limited. The assessment was undertaken over one day, 20 January 2012.

The aim of the assessment is to inspect the location of the proposed development and to identify any Aboriginal cultural heritage, places, or objects, of significance to the Aboriginal community, and for the site's developer to meet the statutory obligations and requirements under the National Parks and Wildlife Act (1974) and the Environmental Protection Act (1979).

## 2. Description of the Assessment area and Development Proposal

The assessment area is situated within the boundaries of the Darkinjung Local Aboriginal Land Council. DLALC is located on the Central Coast of New South Wales, its boundaries stretch from Catherine Hill Bay to the Watagan Mountains to the North, Hawkesbury River to the South, Pacific Ocean to the East while the western boundary stretching along Judge Dowling Range from Bucketty to Spencer (Darkinjung Local Aboriginal Land Council).

The assessment site and proposed development is located within Warnervale and is located between Hakone Road and Sparks Warnervale and adjacent the Great Northern Railway line.

Warnervale is situated near the suburbs of Woongarah, Hamlyn Terrace and Wallarah.

The landscape and vegetation in the Warnervale area includes various Vegetation communities such as Estuarine Swamp Oak Forest, Freshwater Wetlands, Alluvial Red gum Footslopes Forest, Alluvial Red gum Footslopes Forest, Regrowth Alluvial Floodplain Shrub Swamp Forest, Alluvial Floodplain Shrub Swamp Forest (Sedge-scrub variant), Narrabeen Coastal Blackbutt Shrubby Forest, Narrabeen Buttonderry Footslopes Forest, Narrabeen Buttonderry Footslopes Forest (Disturbed), Dooralong Spotted Gum – Ironbark Forest, Dooralong Spotted Gum – Ironbark Forest (East coast Flora Survey, 2004).

The assessment site is dominated by previously disturbed land and vegetation regrowth. The assessment site was once a commercial plant nursery and as a consequence various introduced tree and shrub species are growing on the site. The main areas of vegetation are located along the property boundaries and predominantly adjacent the railway corridor bordering the western side of the assessment area, the vegetation here includes, Paper barks (*Melaleuca* spp), Tea Trees (*Leptospermum* spp), *Eucalyptus* species and also includes various other shrubs and grass cover. The site also has the potential to be the habitat for the threatened plant species Heath Wrinklewort (*Rutidosia heterogama*), which has been identified on properties within the vicinity the assessments site.

The development proposed for the area is Wyong Shire Councils (WSC) Warnervale Town Centre Development and the assessment site (the Town Centre Civic Precinct) is part of this development. The site consists of 119 ha of which 79 ha are proposed for development with the remainder to be utilised for public recreation, environmental

management and conservation (Warnervale Town Centre Fact sheet WSC). As part of the development the Town Centre Civic Precinct will become the focal point for the community interactions, supported by civic and community facilities and retailing (The Warnervale Town Centre-Development Control Plan) including Woolworths and the construction of the new North Wyong Station. This report is based on the assessment of the location for the Wyong Town Centre Civic Precinct.

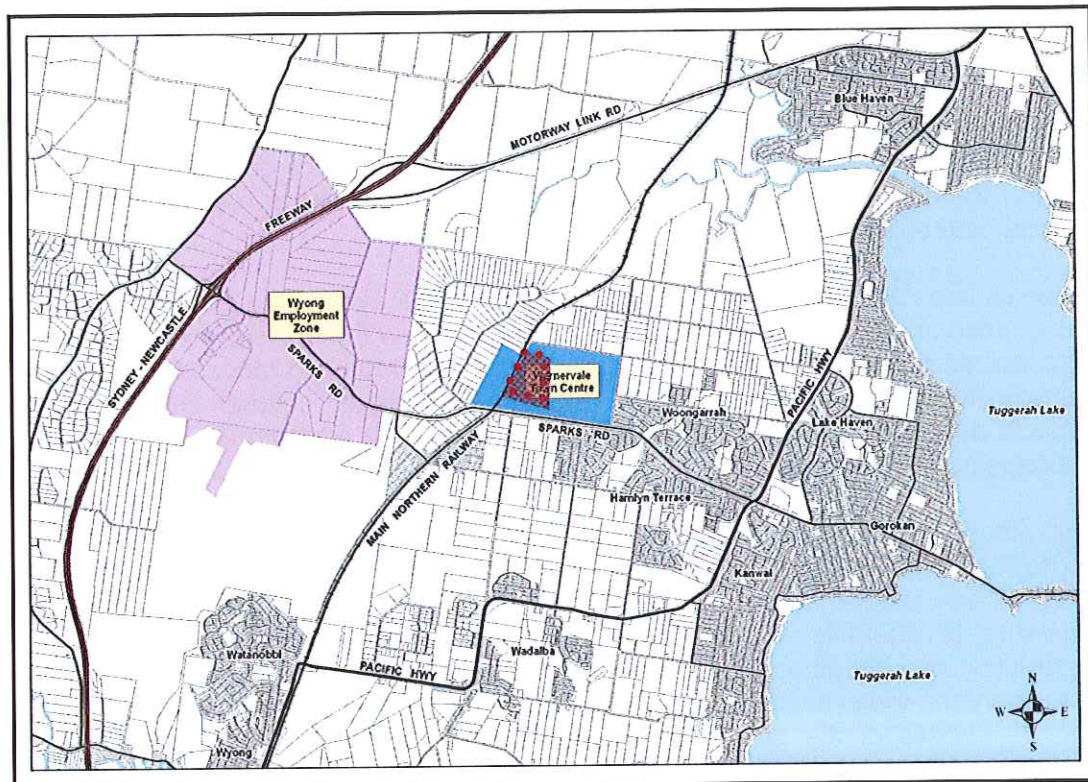


Figure 3: The Diagram shows the location of the Warnervale Town Centre shown in the blue shading and the Town Centre Civic Precinct (assessment site) within the maroon dots.

Source: Wyong Shire Council.

### **3. Description of Impact.**

The assessment location was once part of a commercial plant nursery and associated residence and as a result there have been various types of previous disturb to the land. Some of these disturbances include a number of level pads which have been produced by cutting, filling and levelling to locate the various structures needed for the nursery production such as shed or green houses. The assessment site also has a number of small dams likely used as source of water for the cultivation and irrigation of plants for the nursery production. As a result the site has been highly disturbed by excavations in various degrees.

The development of the site will require the construction of infrastructure and buildings to accommodate the civic and retail development of the Wyong Town Centre, therefore the main type of impact to the area will be a result of vegetation clearing and soil excavation.

Potential impacts to Aboriginal sites in general include excavation and erosion which can expose and/or destroy artefacts on top of, or below the soil surface. Impact can also include the destruction of vegetation and the surrounding landscape which can contain Aboriginal cultural heritage, material remains or cultural places. Other impacts associated with this type of project may include alteration to the water and drainage patterns in the area.

The Aboriginal cultural heritage most at risk from this type of works are, rock engravings, scar trees, open sites and isolated artefact. Other forms of Aboriginal sites at risk include cultural and spiritual places. Adverse impact could include exposure of artefacts and other Aboriginal archaeology or cultural heritage and destruction of Aboriginal places, through water runoff and soil erosion, impact from machinery or tools associated treadage. These impacts could occur during the various phases of the project, while after completion impacts can be a result of altered runoff and natural water movement which are also a threat. The greatest impact on Aboriginal heritage places in NSW occurs in the form of soil erosion (Byrne 1997:1). Runoff and erosion can potentially cause siltation and/or exposure and destruction of Aboriginal cultural heritage sites. Indirect impacts may occur in the form of alterations to drainage and erosion patterns (Byrne 1997:2).

Trampling and treadage has had a significant impact on Aboriginal sites in NSW. The impact of treadage on open sites can result in displacement and damage to individual artefacts. Treadage can also initiate soil erosion (Byrne 1997:3) including for example by people damaging the vegetation and exposing the soil surface, workers unknowingly walking over sites, or being in the vicinity of sites that may be sensitive, sacred or mythical.

Tools and treadage associated with the project during and post construction phases have the potential to destroy or adversely alter sites if the area is not adequately protected.

The main types of Aboriginal sites impacted by soil excavation works and removal in general are middens, occupation sites, burials and isolated artefacts. Also at risk are rock shelters and platforms with occupation sites, and/or art sites including axe grinding groove and rock carvings, scar and carved trees. Aboriginal walking trails and trading routes, mythological, spiritual and ceremonial sites can also be disturbed or destroyed as soil removal can initiate soil erosion or undermine the surface near or



under the site. Excavation may also compromise the landscape which is part of the local Aboriginal people's culture and heritage.

Indirect impact, consist of altered drainage and erosion patterns, which can expose and/or destroy artefacts on top of, or below, the soil surface. Impact can also include the destruction of vegetation and the surrounding landscape which can incorporate Aboriginal people's remains or cultural places. The landscape surrounding an Aboriginal place or site is also a very significant part of Aboriginal culture; the landscape is an extension of the site, and can also be described as a Cultural Landscape.

The greatest impact on Aboriginal heritage places in NSW occurs in the form of soil erosion (Byrne1997:1). Runoff and erosion can potentially cause siltation and destruction of Aboriginal archaeological sites (Byrne 1997:2).

This type of development could impact on any potential Aboriginal archaeological sites located within and outside the boundary of the assessment site.

#### **4. Qualifications, Relevant Experience and Community Endorsement**

I have completed Certificate III Horticulture, Parks and Garden through the TAFE Open Training and Education Network (OTEN), Certificate III Conservation and Land Management, Specialising in Indigenous Land Management through the Ryde College of TAFE Ryde and have completed the Diploma in Indigenous Archaeology at the University of New England, Armidale NSW.

I have gained experience through liaison and collaborating with both Aboriginal and non-Aboriginal representative from such organisation as, State Forest NSW, NSW National Parks and Wildlife Service, NSW Office of Environment and Heritage, Central Coast Hunter Range Regional Aboriginal Co-management Committee, Greater Blue Mountains World Heritage Area Aboriginal Reference Group, Tuggerah Lakes Estuary Coastal and Floodplain Management Committee, Gosford City and Wyong Shire Councils and professionals such as Archaeologist, Anthropologist, Biologist and Environmentalist. I have worked under the guidance and management of Darkinjung Local Aboriginal Land Council and have the endorsement of the council and the local Aboriginal community.

## **5. Statutory Requirements and Legislation.**

Aboriginal heritage and places are protected by law under Legislation. Two basic pieces of legislation concerned with Aboriginal Heritage Management are the National Parks and Wildlife Act 1974 (NPW Act) and The Environmental Planning and Assessment Act 1979 (EP&A Act)

Section 84 of the National Parks and Wildlife Act (1974) provides protection for 'Aboriginal Places'. The act defines Aboriginal places as 'areas of cultural significance to the Aboriginal Community'. Section 90 of this Act gives protection for all 'Aboriginal Relics'. The act defines Aboriginal relics as 'any material evidence of the Aboriginal occupation of New South Wales'. The Minister will gazette areas as Aboriginal places if satisfied that adequate evidence exist to show that the area was or is of special importance to the Aboriginal community.

The National Parks and Wildlife Act 1974 (NPW Act) Legislation does not structure any formal mechanisms to make sure that areas with potential to contain Aboriginal sites or places of special significance are evaluated before impact on those areas. It is the Environmental Planning and Assessment Act (EP&A Act) which carries out this function.

The Environmental Planning and Assessment Acts principal function is to consider 'environmental impacts' in land use and decision making. Environmental impacts include impacts on Aboriginal Heritage. There are three main sections in the EP&A Act which are applicable to Aboriginal Heritage. Part III, administrate the preparation of planning instruments; Part IV relates to development evaluation process for local government (consent) authorities; and Part V which communicate to activity approvals by Government (determining) authorities.

Part III of the Act governs the preparation of the following three planning instruments: 1. State Environmental Planning Policies (SEPPs); 2. Regional Environmental Plans (REPs); 3. Local Environmental Plans (LEPs). These planning instruments dictate allowable uses and potential constraints on land use. When preparing planning instruments the Department of Urban Affairs and Planning have guidelines which should be followed. These guidelines list Aboriginal sites and places of significant to the Aboriginal community as values which should be assessed.

Part IV of the legislation governs the decision making process by local government authorities during a development application. Section 90 of the Act lists impacts which must be considered before development approval is granted. Under section 90 (1) 9b consideration must be given for 'the impact of that development on the environment (whether or not the subject of an environmental impact statement)'. Section 90 (1) 9b includes Aboriginal sites and heritage.

Part V of the legislation governs the decision making process by State Government authorities for activities conducted by that agency or under authority from the agency are controlled by Part V of the EP&A Act. It is mandatory for these agencies to consider environmental impacts of proposed activities then, determine whether the level of impact is adequate to necessitate the planning of an Environmental Impact Statement (EIS). Environmental impacts include Aboriginal sites and places. The Department of Planning New South Wales has created a set of guidelines for explaining Section 112 which requires that Aboriginal Heritage is assessed as part of the process (Byrne 1997: 2-3).

There are number of amendments to the NPW Act 1974. The amendments include a number of guidelines. These guidelines can be viewed on the NSW Office of Environment and Heritage (OEH) website.

The process of due diligence under the OEH guidelines require that a proponent of a development assess impacts of the proposed activity.

Below is a brief explanation of the process from the OEH web site,

The purpose of due diligence is to identify whether Aboriginal objects are present in an area, and to determine whether a proposed activity will have impacts on Aboriginal objects. Therefore it is essential to identify and understand all the expected impacts of the proposed activity.

There are two categories of activity used for assessing impacts:

- (1) Activities involving no additional surface disturbance.
- (2) Activities causing additional surface disturbance.

For activities causing additional surface disturbance, it is necessary to determine whether an activity is proposed for:

- a) a developed area or a previously disturbed area, or
- b) an undisturbed area.

For activities in previously developed or disturbed areas, it is then necessary to determine whether the new activity will create significant additional surface disturbance. If it will, then the process for undisturbed areas will apply'.

Due diligence involves taking reasonable and practicable measures to determine whether your actions will harm an Aboriginal object and if so avoiding that harm (Office of Environment and Heritage formally NSW Department of Conservation Climate Change and Water).

Note: Any works that may disturb, damage, or destroy Aboriginal cultural heritage requires an Aboriginal Heritage Impact Permit (AHIP) from OEH, this includes impacts to both registered and unknown Aboriginal sites that may require excavation or disturbance to the soil of any kind. Prosecution may result if works are carried without a relevant permit.



## **6. Aboriginal Cultural Heritage, Values and Significance.**

Aboriginal people have inhabited Australia between 50,000 and 60,000 years, evidence for this can be found from material dated from Malakunanja and Nauwalabila rock shelter in the Northern Territory (Mulvaney & Kamminga 1999:141). Further evidence for human occupation is displayed through the skeletal remains of Mungo 3 discovered at Lake Mungo New South Wales. These remains have been dated to be between 28 000 and 32 000 years old (Morwood 2002:12). Aboriginal people's occupation of the Central Coast shown through archaeology, Aboriginal cultural heritage, material and spiritual places provides the local Aboriginal community with a sense of connection to the land, the people and culture. These materials and places present tangible evidence of the past and should be conserved.

The first inhabitants of the Central Coast region were members of the Darkinjung (Darginung, Darginyung), language group. Several researches and publications show tribal or language group boundaries within similar areas, but exact boundaries are unlikely. Boundaries are a European concept and there was likely a zone between language groups which was shared and utilised by neighbouring groups.

Stone artefacts in the Upper Mangrove Creek area of the Central Coast have been dated between 10,000 to 15,000 years old (Attenbrow 2002: 153). These provide some reliable evidence of Aboriginal people's occupation of the region.

European exploration of the Central Coast area began soon after the arrival of the First Fleet in 1788. Settlement of the Hawkesbury River began about 1794 and in 1820 the area between the Hawkesbury and the Hunter Rivers become available for settlement (Brisbane Water National Park Plan of Management 1992:19).

Evidence for Aboriginal habitation, includes middens, which consist of shell, bone, charcoal, tools and sometimes burials. A midden is likely to contain only a selection of shell fish species available in the local environment. It may contain a high proportion of individuals of a edible size, stone artefact, charcoal from camp fires, pumice, coral, faunal bone and human burials (Byrne 1997:5). Shell middens are also important scientifically they can be dated, they provide precious information about Aboriginal use of the environment and changes in behaviour over time. Other evidence includes, fish traps and stone arrangements, deposits in sandstone shelters, including artefact, charcoal, shell and bone remains, rock engravings and pigment art. Additional forms of Aboriginal cultural evidence can consist of abraded channels, grooves and grinding stones, axe grinding grooves, scarred and carved trees, water holes, quarry sites, open sites or camp sites, stone artefact scatters, graves, earth mound, walking trails along trading routes, mythological and ceremonial sites. In some cases landscape modification can provide evidence of Aboriginal people's occupation.

The landscape surrounding an Aboriginal place or site can be seen in a spiritual sense and is very important to Aboriginal people. The landscape can be an extension of a site, or the landforms and features within the landscape can be the site. Aboriginal sites can also be connected through sight lines to other sites or places of significance. These features are all part of the cultural landscape.

Some sites are associated with site lines and tracks, their purpose and associated stories connect these site with others site across Darkinjung country and should not be viewed in isolation of each other. Considering this, changing the context of an Aboriginal site by landscape degradation compromises the spiritual and cultural

connection that Aboriginal people have to the land and or the site. In many cases landscape destruction can be considered, destruction of an Aboriginal site and the Darkinjung cultural landscape.

The Darkinjung people were fishers, hunters and gatherer of plants and animals of the land, rivers, estuaries and sea. These places including the hills, valleys, creeks, wetlands, lakes and coastline provided food, medicines, and raw material for tools, weapons, shelter and decoration. These environments and landforms also provided the basis for spiritual and cultural life and are of value and significance to the local Aboriginal community. Certain environments can be considered to have a higher Aboriginal cultural heritage potential because of their ecology and landform and the associated flora, fauna and other resources needed for everyday life. The proposed development site lies in an area with a high Aboriginal cultural heritage value. This is because of the surrounding, mountains, lakes, creeks, coastline and associated woodland and wetland habitats. These environments and ecological zones provided the local Aboriginal population with many food and other natural resources.

Therefore considering the long Aboriginal occupation of Australia and the Central Coast it could be predicted that most areas, particularly those with minimal disturbance have the potential to produced Aboriginal cultural heritage material or places.

Aboriginal sites are connected to each other within the landscape, a number of places and sites hold spiritual and cultural importance to the local Aboriginal community through their physical link to ancestors and the past. This connection attaches the community to land, traditions and strengthens bonds within the Aboriginal community. Safe guards need to be put in place to protect the spiritual and environmental integrity of a site and the cultural landscape. These Aboriginal materials, places and landscapes have value and significance to the local Aboriginal community and need to be protected.

## 7. The Assessment Site

The assessment site is part of the district of Warnervale. The site is situated approximately 10 kilometres from Wyong on the Central Coast of NSW and covers an area of approximately 135000m<sup>2</sup> between, Hokone and Sparks Roads and the Great Northern Railway Line.

Warnervale and the assessment site are surrounded by hills, ranges, valleys, creeks, wetland, and coast line. As shown previously these types of environments and the resources they provided to local Aboriginal people, was very important.

Several Aboriginal sites have been located and recorded in the area surrounding approximately 4km the assessment site.

Details of recorded Aboriginal sites can be found on the OEH Aboriginal Heritage Information Management System (AHIMS), also see Table 1 on page 16.

The topography of the assessment site is flat within areas of cut and fill although the landscape is mainly sloping towards the west in varying degrees.

Vegetation in the assessment area consists mainly of native and introduced species of plants which includes remnants of various Vegetation communities and a plant Nursery and is dominated by previously disturbed land and regrowth.

The main areas of vegetation are located along the property boundaries and predominantly adjacent the Railway corridor bordering the western side of the assessment area. The vegetation here includes, Paper barks (*Melaleuca* spp), Tea Trees (*Leptospermum* spp), *Eucalyptus* species and also includes various other shrubs and grass cover. The area to the west of the assessment site is the location for the threaten plant species Heath Wrinklewort (*Rutidosis heterogama*) and therefore has the potential to occur on the assessment site.

The Warnervale Town Centre development is surrounded by several areas of bush land, creeks and wetlands while Tuggerah Lake is located approximately 4 kms to the east.

Many of the native plant and faunal species found in these areas of bush land and wetlands surrounding The Warnervale Town Centre assessment site are considered a valuable food and material resource for the local Aboriginal inhabitants. Examples of those resource plants found in the area consist of; Mat Rush (*Lomandra longifolia*) which can be used as string or for food (Stewart & Percival 1997:33-35). Bracken (*Pteridium esculentum*), the rhizomes are used for food, but are toxic if not treated by roasting or baking. The young fronds are also roasted and eaten, while the sap of the crushed leaf is used to relieve ant or nettle stings (Stewart & Percival 1997:44). Many of the Paper barks (*Melaleuca* spp), Tea-trees (*Leptospermum* spp), Bottlebrush (*Callistemon* spp) and Wattle (*Acacia* spp) provide food, medicinal and other resources through the nectar from flowers, leaves and bark (Robinson 1991:55). Lillypilly (*Acmena* and *Syzygium* spp) provided eatable fruit (Robinson 1991:369-371) while the bark of Geebung's (*Persoonia* species) has medicinal qualities and the fruit can be eaten. The plant can be used for sore eyes and to strengthen fishing lines, (Stewart & Percival 1997:42). Native Rock Lily (*Dendrobium speciosum*) has starchy stems that are roasted before eating. The stems could also be chewed and applied to injuries such as burns or wounds (Stewart & Percival 1997:16). The roots of Native Yams (*Dioscorea transversa*) can be eaten raw

(Stewart & Percival 1997:19). The Saw-sedge (*Gahnia aspera*) has seeds that are ground to make flour (Stewart & Percival 1997:33). The Cabbage Tree Palm (*Livistona australis*) has growing tips that are edible raw or roasted. The leaves are also used as thatch for shelters and weaving baskets, while the bark fibres are used for making fishing lines (Stewart & Percival 1997:34). Many of the Gum Trees (*Eucalyptus*, *Angophora*, *Corymbia* spp) provide resources from various parts of the plant. These include string, tools, weapons, shelter, canoes, food, medicinal and spiritual uses.

The area is abundant in various marine and estuary resources including fish, shell fish, marine birds and animals. Middens provide evidence of these resources utilised by Aboriginal people. Middens were once abundant along the NSW coastline, but since colonization many have been destroyed by erosion, urban development and utilised as a resource earlier this century, for such things as lime burning or for building mortar.

Middens contain the remains of meals consumed by Aboriginal people, their tools and also burials. Some of the marine species consumed on the Central Coast include, Turban shell (*Turbo torquata* and *Turbo undulata*), Sydney Rock Oysters (*Saccostrea glomerata*, formerly known as *Saccostrea commercialis*), Sydney Cockle (*Anadara trapezia*), Pipi (*Plebidonax d' toides*), Sydney Whelk (*Pyrazus ebeninus.*), Nerita sp and Limets (*Cellana* sp).

The examples above shows that The Warnervale Town Centre development site and the surrounding area have the potential to provide Aboriginal people with abundant, reliable food and material resources that are within close proximity. Therefore the assessment site is considered to have potential for Aboriginal cultural heritage sites or artefacts which may be concealed by deposits of soil, vegetation and leaf litter.

The areas of the site with a higher potential for Aboriginal cultural heritage include places where there has been minimal disturbance, and areas with intact soil, mainly below the current soil surface. In the past activities on, or near, the site could have negatively impacted on, destroyed or relocated potential Aboriginal cultural heritage material.

Site Name	AHIMS Number
OWP ISO 18	45-3-3421
OWP ISO 17	45-3-3120

Table 1: Shows details of the nearest registered Aboriginal site located between approximately 1.3 and 4 km from assessment site.

Source: DLALC Assets Governor and OHE AHIMS Database.



## **8. Assessment Methodology.**

Prior to any Aboriginal site survey, assessment or monitoring carried out in the field, a desk top analysis of the area is carried out. This involves consulting the relevant topographical, council and survey maps, and the DLALC Asset Governor incorporating, NSW Office of Environment and Heritage (OEH), Aboriginal Heritage Information Management System (AHIMS) Data.

It should be noted in regards to the OEH AHIMS database that many Aboriginal sites listed on the data base often are not situated within the location as shown on maps referring to the AHIMS information. Therefore it can be difficult to relocate the precise position of many registered Aboriginal sites due to some of the following reasons:

- Registered sites were recorded before the introduction of GPS units.
- In the past many registered Aboriginal sites were recorded on a topographical map with a scale of 1:25000. The co-ordinates were acquired by cross references to easting and northing figures located along the side of the map. The site was then mark as a point on the map and as a result of this, the co-ordinates could be up to 1 millimetre off, on the map, which then results in the sites location recorded as an error of up to 250 metres on the ground.
- Sites were frequently recorded in different datum for example: Some site where recorded in AGD which has now change to GDA 94 therefore the site could be out by as much as 200 metres on the ground.
- Human error, locations of Aboriginal sites may have been incorrectly recorded.
- Inability to visually relocated sites due to thick bush, vegetation, leaf litter, silt and other debris, and hazardous or inaccessible topography.

Having considered the above points, it should also be noted that sites recorded more recently are often situated in the correct location given.

Along with the above the main strategy used to assess the area is to consult the relevant topographical, survey maps, and site plans including the DLALC Asset Governor incorporating AHIMS database along with previous Aboriginal Cultural Heritage Site Surveys conducted by DLALC on neighbouring properties and consider the documented evidence of Aboriginal burials located or removed from these properties, then to consider areas of this site with the potential for Aboriginal cultural heritage material along with access to ground surface visibility.

## **9. Assessment Fieldwork.**

The assessment and inspection of the proposed development site located within the proposed Warnervale Town Centre civic precinct for Aboriginal cultural heritage sites and places was conducted on the 20 January 2012. Involved in the assessment of the site was Sharon Hodgetts representing Darkinjung Local Aboriginal Land Council and Patrick Hall Project Manager Corporate Property Woolworths Limited.

The aim was to physically walk over the assessment sites in the areas of the proposed Warnervale Town Centre Civic area development and also to inspect the surrounding area for any Aboriginal cultural heritage.

The inspection of the proposed development site was required so that any Aboriginal cultural heritage material or sites located within the area could be assessed, protected and properly managed.

Day One.

Weather conditions: Fine.

### **Transect**

One transect was walked. The site was accessed from Hakone Road (GPS location 56 H 0356838 6321587) and proceed towards the south-east, to a elevated area within the site, then making way, down slope to the south and south-west then back toward the north and north-east of the site.

The site is located within the area of Warnervale which may have the potential to contain Aboriginal cultural heritage sites. The area was thoroughly inspected and no Aboriginal sites where located.

Overall the entire site is very disturbed the exception to this is the area in the south-west corner of the assessment site, which has a low level of previous disturbance manly in the form of vegetation clearing.

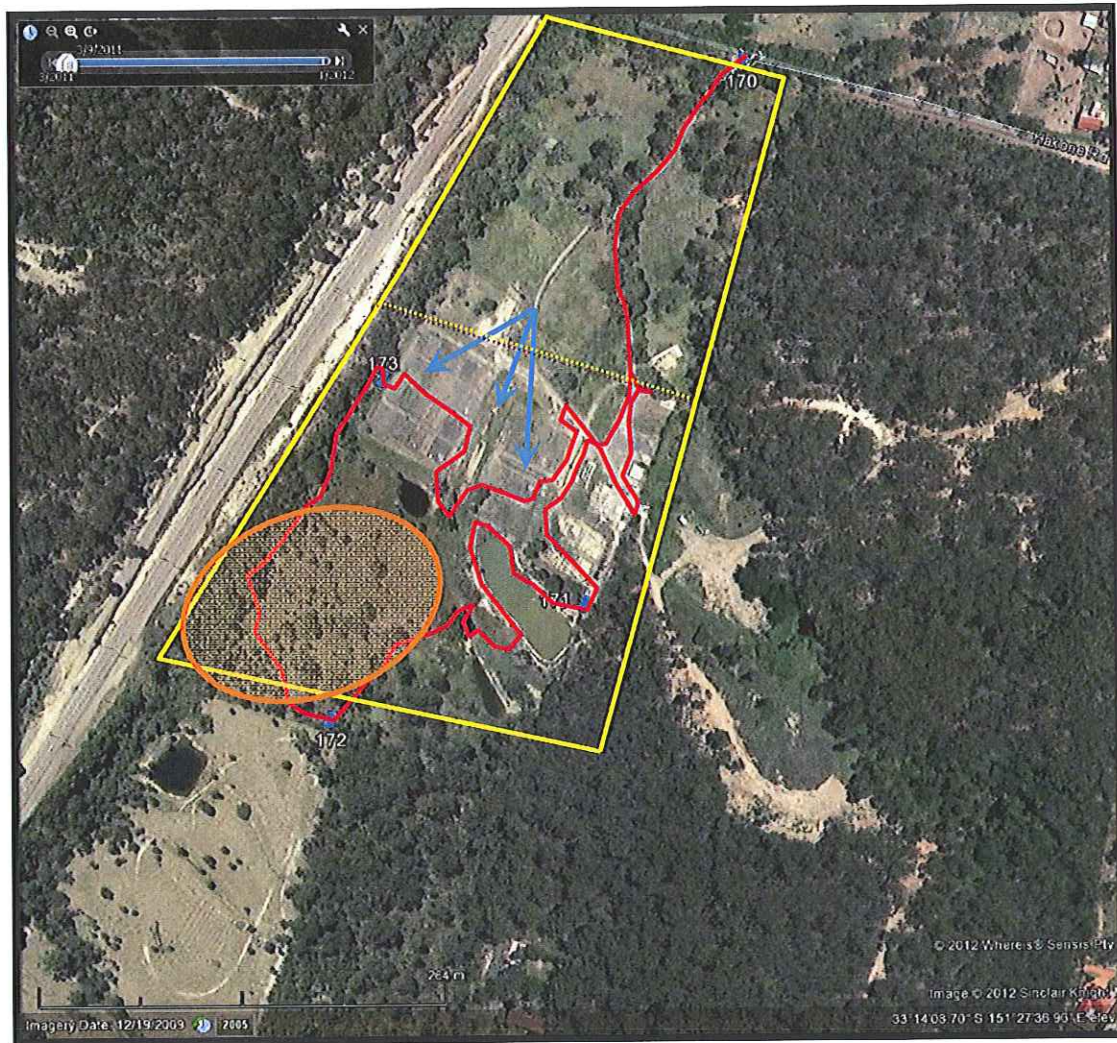


Figure 4: Map shows the approximate boundary of the proposed development site (indicated by Yellow line and dotted line), the transect walked (indicated by the red line) and the area of the site with a low level of disturbance (indicated by the Orange circle). The areas of cut, fill and levelling can be seen as indicated by the blue arrow within the Warnervale Town Centre Civic precinct development area.

Source: Map source and Google earth.



## **10. Photographs.**



(Photograph S. Hodgetts)

Figure 5: Photograph shows the assessment site, the proposed Warnervale Town Centre Civic precinct development area towards the west.



(Photograph S. Hodgetts)

Figure 6: Photograph shows the eastern side of the assessment site on top of the rise.





(Photograph S. Hodgetts)

Figure 7: Photograph shows the north-western side of the assessment site



(Photograph S. Hodgetts)

Figure 8: Photograph shows the midsection of the assessment site facing south-west.



(Photograph S. Hodgetts)

Figure 9: Photograph, shows the cut, fill and levelling within the midsection of the assessment site.



(Photograph S. Hodgetts)

Figure 10: Photograph shows the eastern section of the assessment site facing south.





(Photograph S. Hodgetts)

Figure 11: Photograph shows one of the dams located within the assessment site facing south-west.



(Photograph S. Hodgetts)

Figure 12: Photograph shows view over another of the dams facing south-west across the assessment site.



(Photograph S. Hodgetts)

Figure 13: Photograph shows view to the south-south-west across the assessment site.



(Photograph S. Hodgetts)

Figure 14: Photograph shows one of the dams located on the south-eastern side of the assessment site.





(Photograph S. Hodgetts)

Figure 15: Photograph shows the vegetations on the western side of the assessments site adjacent the rail line, facing north.



(Photograph S. Hodgetts)

Figure 16: Photograph shows a view of the boundary (adjacent the railway line) in the western side of the assessments site facing west.





(Photograph S. Hodgetts)

Figure 17: Photograph shows a view across the assessment site (the area of cutting, filling and levelling) facing towards the east.



(Photograph S. Hodgetts)

Figure 18: Photograph shows the area of cut, fill and levelling in the midsection of the assessment site facing north-east.



(Photograph S. Hodgetts)

Figure 19: Photograph shows concrete slab a remnant of the plant nursery in the rise on the eastern side of the assessment site.

## **11. Fieldwork Results.**

No Aboriginal cultural heritage material was found within the proposed development of The Warnervale Town Centre Civic Precinct.

## **12. Recommendations.**

There is a possibility for objects or sites of Aboriginal cultural heritage within the assessment area. All have Aboriginal cultural heritage value. Areas of higher Aboriginal cultural heritage potential are those areas with minimal ground surface and subsurface disturbance such as within the area to the south-west of the assessment site.

A large area of the assessment site has been highly disturbed in the past. Land disturbance includes, clearing of vegetation, cutting, filling and levelling of the slope to accommodated plant nursery infrastructure and excavations to create irrigation dams has decreased the possibility for objects or sites of Aboriginal cultural heritage to very low.

No Aboriginal cultural heritage material or sites were visibly evident within the assessment site.

Aboriginal cultural heritage has been documented and recorded within approximately 1.3 km of the assessment site. These are tangible evidence of Aboriginal occupation of the area and are considered of high cultural value. Therefore there is a possibility for further Aboriginal objects or sites to be located within the least disturbed areas of the assessment site and surrounding area. All have Aboriginal cultural heritage value.

Considering the points above and at this preliminary stage, without subsoil examination of the south-western section of the assessment area it is difficult to ascertain whether or not the proposed development may impact on any potential Aboriginal cultural heritage located within the assessment site.

Consequently DLALC recommend that within the south-western area of the assessment site, that monitoring of any earthworks and soil excavation take place until such time as the possibility for any Aboriginal cultural heritage sites or material can be definite.

Recommended for excavations works on the south-western side of the proposed assessment site, should precede with caution until the subsoil profile and any inclusions, such as stone, shell or bone associated with Aboriginal cultural heritage can be determined. This is because the soil may contain Aboriginal cultural heritage material.

Employee's, contractors, and personnel employed and contracted by the sites developer as part of the all construction works should receive basic training in the recognition of Aboriginal cultural heritage material. They should be made aware of the importance of such material and places to, in particular the Aboriginal community, but also the non Aboriginal, community. They should also be made aware of the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites.

When vegetation clearing or earth work activities are conducted, workers should be observant and keep a look out for surface shell, bone, rocks, or any other artefact material.



All earthworks within the assessment area are to be carried out in a cautious manner until the subsoil profile and any inclusions can be determined in case of Aboriginal cultural heritage material.

The sites developers must give notice to Darkinjung LALC 30 days prior to any commencement of construction work and to engage a Darkinjung LALC Sites Officer to monitor any earthworks or excavations when recommended. This is due to the possibility of uncovering Aboriginal objects/items of significance whilst earthmoving/excavation takes place.

If during the course of excavation, earthmoving and/or construction if suspected Aboriginal cultural heritage material is encountered, work should cease immediately in that area, the area should be flagged, then avoided and the Office of Environment and Heritage (OEH) and Darkinjung LALC be immediately notified. Work should only recommence when an appropriate and approved management strategy has been agreed to be OEH and Darkinjung LALC.

Finally recommended is that if any Aboriginal cultural heritage sites or material be discovered that a Cultural Heritage Management Plan should be developed to protect and preserve registered and potential Aboriginal cultural heritage sites within the Warnervale Town Centre development area.

#### Overview of recommendation

1. Within the south-western area of the assessment site monitoring of any earthworks and soil excavation take place until such time as the possibility for any Aboriginal cultural heritage sites or material can be definite.
2. Excavations works on the south-western side of the proposed assessment site should proceed with caution until the subsoil profile and any inclusions, such as stone, shell or bone associated with Aboriginal cultural heritage can be determined.
3. Employees, contractors, and personnel employed and contracted by the sites developers should receive basic training in the recognition of Aboriginal cultural heritage material.
4. They should be made aware of the importance of such material and places to both the Aboriginal, and non Aboriginal, community and made aware of the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites.
5. When vegetation clearing or earth work activities are conducted, workers should be observant and keep a look out for surface shell, bone, rocks, or any other artefact material.
6. All earthworks within the assessment area are to be carried out in a cautious manner until the subsoil profile and any inclusions can be determined for Aboriginal cultural heritage material.
7. The sites developers must give notice to Darkinjung LALC 30 days prior to any commencement of construction work and to engage a Darkinjung LALC Sites Officer to monitor any earthworks or excavations when recommended.

This is due to the possibility of uncovering Aboriginal objects/items of significance whilst earthmoving/excavation takes place.

8. If during the course of excavation, earthmoving and/or construction if suspected Aboriginal cultural heritage material is encountered, work should cease immediately in that area, the area should be flagged, then avoided and the Office of Environment and Heritage (OEH) and Darkinjung LALC be immediately notified. Work should only recommence when an appropriate and approved management strategy has been agreed to be OEH and Darkinjung LALC.
9. Finally recommended is that in the event that Aboriginal Cultural Heritage sites or material are discovered then a Cultural Heritage Management Plan should be developed for the Warnervale Town Centre development area to protect and preserve registered and potential Aboriginal cultural heritage sites.

## References.

'About us', Darkinjung Local Aboriginal Land Council. Retrieved 17 June 2010 from (<http://www.darkinjung.com.au/default.aspx?id=2>).

Attenbrow, V. 2002, *Sydney's Aboriginal past investigating the archaeological and historical record*, UNSW Press, Sydney.

Byrne, D. 1997, 'National Parks & Wildlife Service Standards Manual', *Aboriginal Cultural Heritage Standards & Guidelines Kit*, New South Wales National Parks and Wildlife Service.

Due diligence guidelines for protection of Aboriginal objects in NSW, Consultation draft; Environment Climate Change and Water; NSW Government. Retrieved 15 July 2010 from <http://www.environment.nsw.gov.au/legislation/DueDiligence.htm>

Forest Fauna Surveys Pty Ltd and Eastcoast Flora Survey, July 2004, *Flora and Fauna Investigations Proposed Warnervale Town Centre Wyong Shire*. Retrieved 7 February 2012 from [http://www.planning.nsw.gov.au/assessingdev/pdf/sss/wtc\\_faunaandflora\\_report.pdf](http://www.planning.nsw.gov.au/assessingdev/pdf/sss/wtc_faunaandflora_report.pdf)

Google Maps. Retrieved 7 February 2012 from <http://maps.google.com.au/maps>

Google Earth. Retrieved 7 February 2012 from <http://earth.google.com>

Morwood, M. J. 2002, *Visions from the Past: The Archaeology of Australian Aboriginal Art*, Allen & Unwin, Crows Nest.

Mulvaney, J & Kamminga, J.1999, *Prehistory of Australia*, Allen & Unwin, St Leonards.

New South Wales National Parks and Wildlife Service. 1992, Brisbane Water National Park Plan of Management.

Office of Environment and Heritage, Aboriginal Heritage Information Management System (AHIMS).

Robinson, L. 1991, *Field Guide to the Native Plants of Sydney*, Kangaroo Press East Roseville.

Stewart, K & Percival, B. 1997, *Bush Foods of NSW: A Botanical Record and Aboriginal Oral History*, Royal Botanical Gardens, Sydney.

Wyong Shire Council, *Warnervale Town Centre Fact Sheet*. Retrieved 7 February 2012 from <http://www.wyong.nsw.gov.au/for-business/warnervale-town-centre/>

Wyong Shire Council, *Warnervale Town Centre Development Control Plan*. Retrieved 7 February 2012 from <http://www.wyong.nsw.gov.au>

**Acknowledgments.**

Patrick Hall Project Manager Corporate Property Woolworths Limited.