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DUE DILIGENCE CULTURAL HERITAGE ASSESSMENT



SOUTH TAMWORTH RURAL LANDS MASTER PLAN GOONOO GOONOO ROAD SITE

TAMWORTH, NSW

PREPARED FOR TAMWORTH REGIONAL COUNCIL



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EXECUTIVE SUMMARY

The following is a report detailing the Cultural Heritage Due Diligence Assessment of Aboriginal cultural heritage for the Tamworth Regional Council's South Tamworth Rural Lands Master Plan Development of the Goonoo Goonoo Road Site, Tamworth, N.S.W. The lands subject to assessment are identified in Figure 2.

The brief for this Project was to undertake a due diligence assessment of suitable standard to be submitted as a standalone report in support of the rezoning of the Goonoo Goonoo Road Site properties by the Tamworth Regional Council as part of the South Tamworth Rural Lands Master Plan.

The methods used for this assessment involved:

- a) a search of relevant Aboriginal heritage registers;
- b) a review of cadastral mapping and tenure;
- c) a review of historic aerial photography and resources relating to past land uses and associated disturbances of the Development Area;
- d) a targeted archaeological survey, sampling key landforms and areas of archaeological potential;
- e) an assessment of the potential for the Development Area to contain significant Aboriginal heritage and the impact the Project may have on said heritage, consistent with the Office of Environment and Heritage *Due Diligence Code for the Protection of Aboriginal Objects in NSW* (2010); and
- f) consultation with the Tamworth Local Aboriginal Land Council.

As part of a desktop study, Everick undertook a search of the OEH Aboriginal Heritage Information Management System ('AHIMS'). The search was conducted on 19 December 2013 and identified three (3) Aboriginal cultural heritage Sites within a 1km radius of the Development Area. None were within the Development Area. Only one (1) of the recorded sites is within immediate proximity to the Development Area.

RESULTS

- Five Aboriginal Sites were identified within the Development Area during the archaeological survey. For the purposes of future Development, further heritage works will need to be conducted to address the known heritage and the low-moderate potential areas identified by this report.



- For the purposes of rezoning the Development Area lands, there are overall minimal cultural heritage constraints.
- No intangible heritage values were noted to exist within the Development Area, though community consultation was outside the scope of this assessment and this may change.

RECOMMENDATIONS

For the purposes of rezoning the Development Area lands, there are overall minimal cultural heritage constraints.

One site, GGO4, is of low to moderate archaeological significance (Figure 6). Best practise for future planning for this area would see impacts from future development within 25m of the centreline of the creek avoided or minimised. In the event that this is not possible, an Aboriginal Heritage Impact Permit may be required, whilst consultation with the local Aboriginal community should occur.

For the remainder of the Development Area, while Aboriginal Objects were located within the Development Area, it is the view of the Consultant that these Objects are evidence of a background scatter of archaeological materials as would be expected given the original environment and history of Aboriginal occupation of the region. The extent of disturbance as a result of European land uses has significantly diminished the scientific value of these Objects and also reduced the potential for intact subsurface deposits to remain within the Development Area.

Aboriginal Heritage Impact Permits (AHIPs) will be required for any works that may impact on the recorded Aboriginal sites identified during this assessment. Owing to the Statements of Significance above, it is reasonable to assume that such permits would be highly likely to be granted by the OEH. It is also relevant that two sites (GGO5 and GGO6) are within a powerline easement, where future development is unlikely in the short to medium term.

Note: The NSW government is currently undertaking an extensive review of cultural heritage legislation in the State. Current models being proposed will involve landusers negotiating directly with cultural heritage committees over future developments. It is anticipated that legislative changes may come into effect as early as 2015. The recommendations below may therefore need to be reviewed following the implementation of the



legislative changes. In particular, recommendations concerning the use of the Due Diligence Code and requirements for Aboriginal Heritage Impact permits may not remain current after 2015.

Recommendation 1: Rezoning of the Development Area

No cultural heritage impediments to the proposed rezoning to the Development Area were identified.

Recommendation 2: Further Assessment at Development Application Stage

It is recommended that TRC ensure that any development activities within the Development Area are undertaken in accordance with the OEH *Due Diligence Code of Practice of the Protection of Aboriginal Objects in NSW*. The Due Diligence Code, read in conjunction with this assessment, should provide the basis for assessing whether further cultural heritage assessment is required. In particular, regard should be had to the following:

- a) is there any known Aboriginal cultural heritage within the area to be developed; and
- b) has the area to be developed (including any access roads and service locations) been subject to extensive ground disturbance such as through consistent ploughing and cultivation of crops.

Where development proposals will not result in substantial ground surface modification, and are in areas that have seen extensive ground disturbance, further cultural heritage assessment is not required. This conclusion would be particularly appropriate for small subdivision application made on the southern lots of the Development Area and for Lots 11 and 12 DP 240631.

Recommendation 3: No Further Assessment at Development Application Stage

It is recommended that Lot 4111 DP1053377 and those parts of the Development Area within Lot 71 DP866139 are subject to no further cultural heritage assessment. Both of these areas were intensively surveyed. They have a history of extensive ground disturbance, good ground surface visibility and contained no Aboriginal Objects.

Recommendation 4: Minimal Disturbance of central creek / drainage line

It is recommended that TRC plans for minimal disturbance to the central drainage line running through Lot 24 DP 95997. This area retains the potential for subsurface Aboriginal Objects. It is of note that this sensitivity



does not extend to the west of Goonoo Goonoo Road (Lots 11 and 12 DP240631), owing to the extensive ground surface modification in this area.

Recommendation 5: Aboriginal Heritage Impact Permits

It is recommended that TRC ensures that the necessary Aboriginal Heritage Impact Permits (AHIPs) are in place should any development applications propose to impact on known cultural heritage sites. It should be noted in planning for developments that AHIPs can take as long as 5 – 12 months to obtain, depending on the complexity of the application, community support and the need to do exploratory testing prior to any consent to destroy or salvage being issued.

Recommendation 6: Aboriginal Objects Find Procedure

As there remains a potential that Aboriginal Objects could be located within all parts of the Development Area, it is recommended that TRC ensure that any development approvals are accompanied with an appropriate Aboriginal heritage Finds Procedure. A suitable Finds Procedure might be drafted as follows:

“ if it is suspected that Aboriginal material has been uncovered as a result of development activities within the Development Area:

- a) work in the surrounding area is to stop immediately;
- b) a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site;
- c) an appropriately qualified archaeological consultant is to be engaged to identify the material; and
- d) if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH guidelines: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).”

Recommendation 7: Aboriginal Human Remains

Although it is highly unlikely that Human Remains will be located at any stage during earthworks within the Development Area, should this event arise it is recommended that the TRC ensure that any development approvals are accompanied with an appropriate Aboriginal Human Remains Procedure. A suitable Aboriginal Human Procedure might be drafted as follows



“in the event of a suspected Aboriginal human remains find, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station (Tamworth), the Tamworth Local Aboriginal Land Council and the OEH Regional Office are all to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the Site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties’ statutory obligations.

Recommendation 8: Notifying the OEH

It is recommended that if Aboriginal cultural materials are uncovered as a result of development activities within the Development Area, they are to be registered as Sites in the Aboriginal Heritage Information Management System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.

Recommendation 9: Historic Cultural Heritage

The literature review and site inspection did not identify any items or places of potential historic heritage significance within the Development Area. It is recommended that no further historic heritage assessment be required for future development applications within the Development Area.



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DEFINITIONS

The following definitions apply to the terms used in this report:

Aboriginal Object or Artefact means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Aboriginal Place means any place declared to be an Aboriginal place (under s. 84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal Objects.

ACHCR Guidelines means the OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010).

Archaeological Code of Practice means the OEH Code of Practice for Archaeological Conduct in New South Wales (2010).

Due Diligence Code means the OEH Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010).

NPW Act means the National Parks and Wildlife Act 1974 (NSW).

NPW Regulations means the National Parks and Wildlife Regulations 2009 (NSW).

OEH means the New South Wales Office of Environment and Heritage.

Development Area means the lands subject to this assessment located in Hillvue, Tamworth NSW, as illustrated in Figure 2.



Proposed Works means all activities associated with construction and landscaping within the Development Area (Figure 2), including activities undertaken by subsequent landholders.

Proponent means Tamworth Regional Council, and all associated employees and contractors and subcontractors of the same.

The Project means the proposed rezoning of lands identified in Figure 2 as part of the South Tamworth Rural Lands Master Plan.

The Consultant means qualified archaeological staff and/or contractors of Everick Heritage Consultants Pty Ltd.

The TRC means the Tamworth Regional Council.



PART A: PROJECT CONTEXT

1. INTRODUCTION

1.1 Report Commissioning & Project Brief

The Tamworth Regional Council (TRC) have developed the South Tamworth Rural Lands Master Plan as part of a larger planning initiative for the Tamworth region. The South Tamworth Rural Lands Master Plan was strategically designed to facilitate the sustainable growth and development through the staged release of rural lands to the south of the city centre in accordance with the *Tamworth Regional Local Environment Plan* (TRLEP) 2010, the *Tamworth Regional Development Control Plan* (TRDCP) and the *State Environmental Planning Policies* (SEPPs). The Master Plan consists of development in three stages (Figure 3).

GHD Pty Ltd has been engaged by the TRC to undertake a range of investigations to support the Planning Proposal for the rezoning of lands identified in Figure 1, referred to during the planning assessment as the Goonoo Goonoo Road site (Development Area). Everick Heritage Consultants (the Consultant) were commissioned by GHD on behalf of the TRC to undertake this assessment.

The brief for this project was to undertake a cultural heritage due diligence assessment of a suitable standard to provide advice to the TRC on the suitability of rezoning the Development Area. The assessment aims therefore to:

- a) identify whether any Aboriginal Objects or places of such cultural heritage significance are located within the Development Area that the intended future use of those lands would be inconsistent with appropriate heritage management standards; and
- b) identify appropriate heritage assessment and management practises that might inform future development applications.



1.2 Methodology used during this assessment

The methods used for this assessment involved:

- a) a search of relevant Aboriginal heritage registers;
- b) a review of cadastral mapping and tenure;
- c) a review of historic aerial photography and resources relating to past land uses and associated disturbances of the Development Area;
- d) consultation with the Tamworth Local Aboriginal Land Council;
- e) a targeted archaeological survey, sampling key landforms and areas of archaeological potential;
and
- f) an assessment of the potential for the Development Area to contain significant Aboriginal heritage and the impact the Project may have on said heritage, consistent with the Office of Environment and Heritage *Due Diligence Code for the Protection of Aboriginal Objects in NSW* (2010)

The methods used for this assessment are in compliance with the OEH *'Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales' 2010* and all relevant legislation as described in Section 2 of this report. The following report complies with the accepted methodology for undertaking a Due Diligence Assessment under the *National Parks and Wildlife Act 1974* (NSW).

1.3 Report Authorship

The desktop study was undertaken by Everick Director and Archaeologist Tim Robins and qualified Archaeologist Jordan Towers. The field inspection was conducted by Tim Robins. This report was written by Tim Robins and Jordan Towers. Technical review was provided by Dr Richard Robins and Clair Davey.

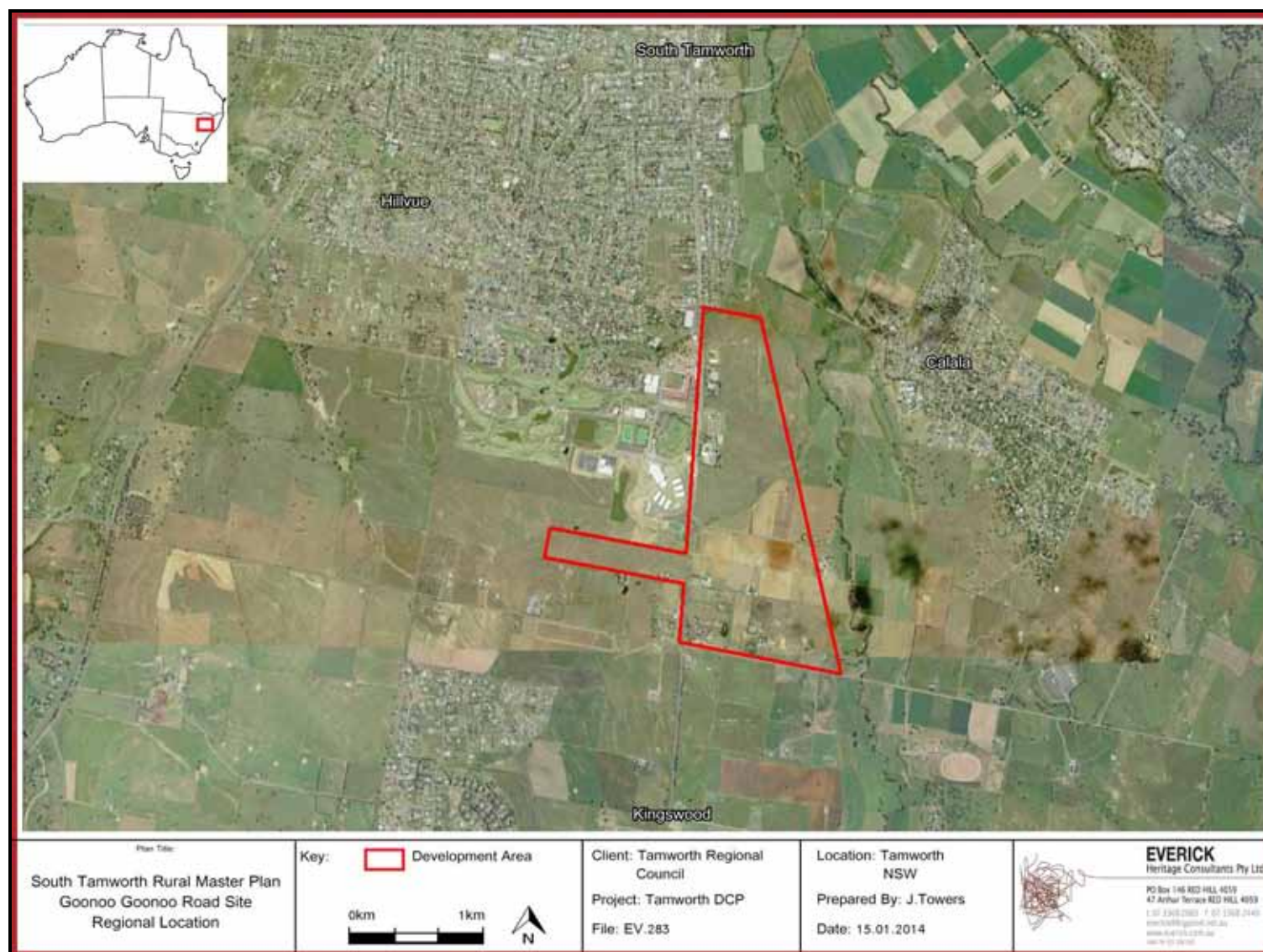


Figure 1: General location of Development Area

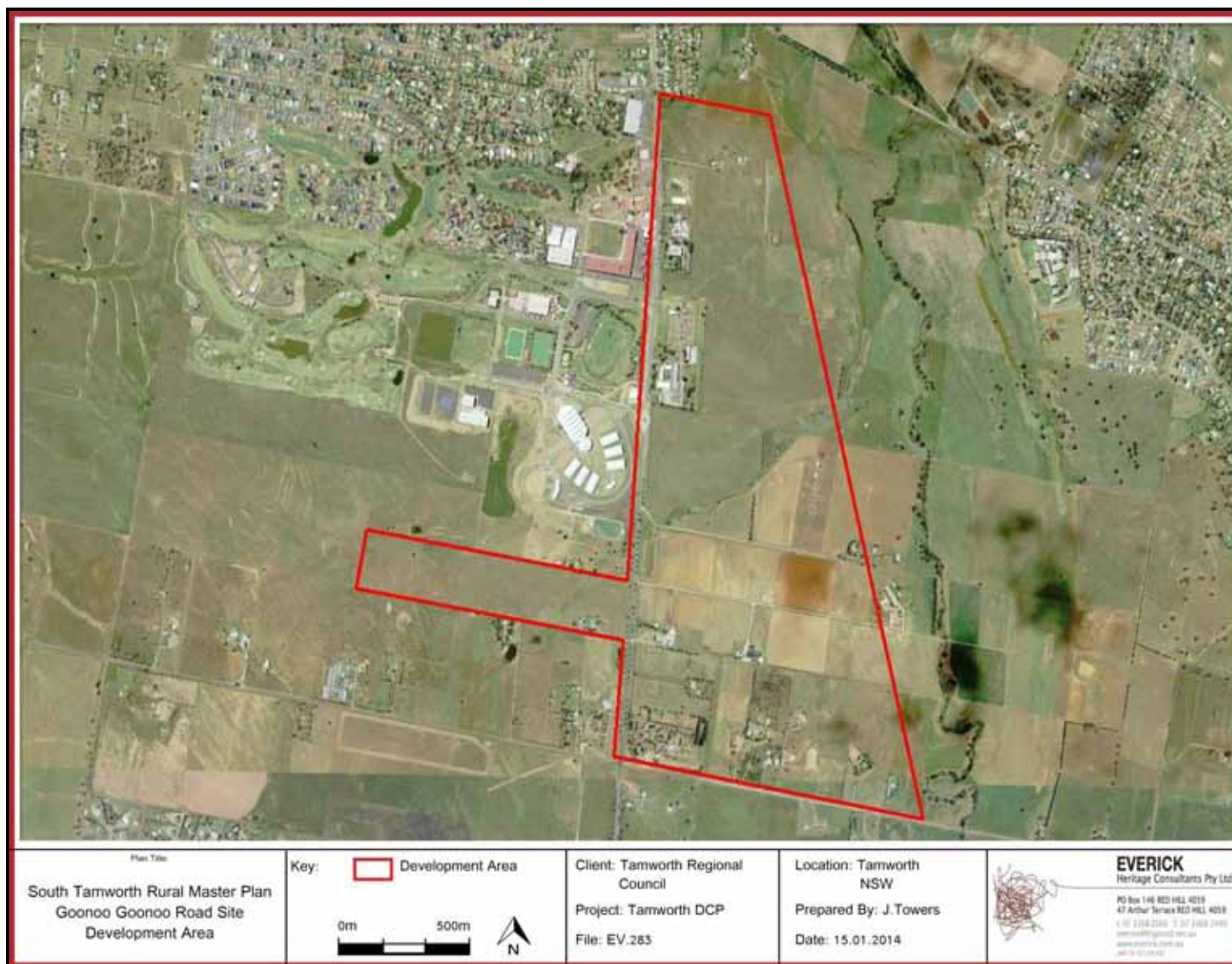


Figure 2: Satellite Image of the Development Area



2. LEGISLATIVE AND PLANNING CONTEXT

The following legislation provides the context for cultural heritage in NSW: the *National Parks and Wildlife Act 1974* (NSW), the *Environmental Planning and Assessment Act 1979* (NSW) and the *Heritage Act 1977* (NSW) and local council Environmental Plans and Development Control Plans. The Commonwealth also has a role in the protection of nationally significant cultural heritage through the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), *The Protection of Movable Cultural Heritage Act 1986* (Cth) and the *Historic Shipwrecks Act 1976* (Cth).

For the purposes of this assessment it is the State and local legislation that are most relevant. The consent authorities will be the Tamworth Regional Council and, where a referral agency is required, the OEH. Approval from the OEH will also be required should the Project impact on identified Aboriginal Objects. The information below lists the legislative and policy framework within which this assessment is set.

2.1 The National Parks and Wildlife Act 1974 (NSW) and the National Parks and Wildlife Regulations 2009 (NSW)

The *National Parks and Wildlife Act 1974* (NSW) (NPW Act) is the primary legislation concerning the identification and protection of Aboriginal cultural heritage. It provides for the management of both Aboriginal Objects and Aboriginal Places. Under the NPW Act, an Aboriginal Object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, regardless of whether the evidence of habitation occurred before or after non-Aboriginal settlement of the land. This means that every Aboriginal Object – regardless of its size or seeming isolation from other Objects – is protected under the Act.

An Aboriginal Place is an area of particular significance to Aboriginal people which has been *declared* an Aboriginal Place by the Minister. The drafting of this legislation reflects the traditional focus on Objects, rather than on areas of significance such as story places and ceremonial grounds. However, a gradual shift in cultural heritage management practices is occurring towards recognising the value of identifying the significance of areas to Indigenous peoples beyond their physical attributes. With the introduction of the *National Parks and Wildlife Amendment Act 2010* (NSW) the former offence provisions under Section 86 of ‘disturbing’, ‘moving’, ‘removing’ or ‘taking possession’ of Aboriginal Objects or Places have been replaced by the new



offence of ‘harming or desecrating’. The definition of ‘harm’ is ‘destroying, defacing or damaging an Object’. Importantly in the context of the management recommendations in this assessment, harm to an Object that is ‘trivial or negligible’ will not constitute an offence.

The new amendments also significantly strengthen the penalty provisions. The issue of intent to harm Aboriginal cultural heritage has been formally addressed by separating it from inadvertent harm. The penalty for individuals who inadvertently harm Aboriginal Objects has been set at up to \$55,000, while for corporations it is \$220,000. Also introduced is the concept of ‘*circumstances of aggravation*’ which allows for harsher penalties (up to \$110,000) for individuals who inadvertently harm Aboriginal heritage in the course of undertaking a commercial activity or have a record for committing similar offences. For those who knowingly harm Aboriginal cultural heritage, the penalty will rise substantially. The maximum penalty will be set at \$275,000 or one year imprisonment for individuals, while for corporations it will rise to \$1,100,000.

Where a land user has or is likely to undertake activities that will harm Aboriginal Objects, the Director General (OEH) has a range of enforcement powers, including stop work orders, interim protection orders and remediation orders. The amended regulations also allow for a number of penalties in support of these provisions. The NPWA also now includes a range of defense provisions for unintentionally harming Aboriginal Objects:

- a) Undertaking activities that are prescribed as ‘*Low Impact*’.
- b) Acting in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (2010) (‘Due Diligence Code’);
- c) Using a consulting archaeologist who correctly applies the OEH *Code of Practice for Archaeological Conduct in New South Wales* (2010) (‘Archaeological Code of Practice’); and
- d) Acting in accordance with an Aboriginal Heritage Impact Permit (AHIP).

2.1.1 ‘*Low Impact Activities*’

The new regulations allow for a range of low impact activities to be undertaken without the need to consult the OEH or a consulting archaeologist. Generally, those who undertake activities of this nature will not be committing an offence, even if they inadvertently harm Aboriginal Objects. These activities include:



- a) Maintenance – For example on existing roads and tracks, or on existing utilities such as underground power cables and sewage lines.
- b) Farming and Land Management – for land previously disturbed, activities such as cropping, grazing, bores, fencing, erosions control etc. *
- c) Removal of dead or dying vegetation - only if there is minimal ground disturbance.
- d) Environmental rehabilitation – weed removal, bush regeneration.
- e) Development in accordance with a Development Certificate issued under the EPA Act 1979 (provided the land is previously disturbed). *
- f) Downhole logging, sampling and coring using hand held equipment.
- g) Geochemical surveying, seismic surveying, costeaning or drilling. *

* This defense is only available where the land has been disturbed by previous activity. Disturbance is defined as a clear and observable change to the land's surface, including but not limited to land disturbed by the following: soil ploughing; urban development; rural infrastructure (such as dams and fences); roads, trails and walking tracks; pipelines, transmission lines; and storm water drainage and other similar infrastructure.

2.2 Due Diligence Code of Practice for the Protection of Aboriginal Objects

The Due Diligence Code has been applied in Section 7 of this assessment. It operates by posing a series of questions for land users before they commence development. These questions are based around assessing previous ground disturbance. An activity will generally be unlikely to harm Aboriginal Objects where it:

- a) will cause no additional ground disturbance; or
- b) is in a developed area; or
- c) is in a significantly disturbed area.

Where these criteria are not fulfilled, further assessment for Aboriginal cultural heritage will typically be required prior to commencing the activity.



2.3 The *ACHCR* (2010)

The OEH has recently published the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) (ACHCR). These requirements replaced the former *Interim Community Consultation Requirements for Applicants* (2004) (ICCR) as of 12 April 2010. The ACHCR provide an acceptable framework for conducting Aboriginal community consultation in preparation for Aboriginal Heritage Impact Permits. Proponents are also required to follow the ACHCR where undertaking a project that is likely to impact on cultural heritage and/or where required by the consent authority.

2.4 The *Tamworth Local Environmental Plan 2010*

The Tamworth LEP 2010 provides statutory protection for items already listed as being of heritage significance (Schedule 5), items that fall under the ambit of the *Heritage Act 1977* (NSW) and Aboriginal Objects under the *National Parks and Wildlife Act 1974* (NSW). It aims to ensure best practice components of the heritage decision making process are followed.

For listed heritage items, or building, work, relic or tree and heritage conservation areas, the following action can only be carried out with the consent of the Tamworth Regional Council:

- a) demolishing or moving a heritage item or a building, work, relic or tree within a heritage conservation area,
- b) altering a heritage item or a building, work, relic, tree or place within a heritage conservation area, including (in the case of a building) making changes to the detail, fabric, finish or appearance of its exterior,
- c) altering a heritage item that is a building by making structural changes to its interior,
- d) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,
- e) disturbing or excavating a heritage conservation area that is a place of Aboriginal heritage significance,
- f) erecting a building on land on which a heritage item is located or that is within a heritage conservation area,
- g) subdividing land on which a heritage item is located or that is within a heritage conservation area.



In addition, Council may not grant development consent without considering the effect the proposed development will have on the heritage significance of heritage item or heritage conservation area concerned.

Furthermore, in regards to Aboriginal heritage significance (Part 5.8) the consent authority must, before granting consent under this clause to the carrying out of development in a place of Aboriginal heritage significance:

- a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal Object known or reasonably likely to be located at the place, and
- b) notify the local Aboriginal communities (in such way as it thinks appropriate) about the application and take into consideration any response received within 28 days after the notice is sent.

3. DESCRIPTION OF DEVELOPMENT PROPOSAL

Site Details: The Development Area is referred to as the Goonoo Goonoo Road Site and consists of either all or parts of the Lots listed in Table 1 to form a total of approximately 217 hectares in total area. The Development Area is bounded by Goonoo Goonoo Road to the west, Burgmanns Lane to the south, Goonoo Goonoo Creek to the east and by properties off Calala Lane to the north. The site generally slopes to the east towards Goonoo Goonoo Creek. The site has been predominantly cleared for pastoral and cultivation purposes with only limited original vegetation, in the form of isolated trees, remaining.

Table 1: Development Area Lot on Plan Details

Goonoo Goonoo Road Site Lot On Plan Details		
Lot 11 DP240631	Lot 413 DP1003586	Lot 24 DP95997
Lot 19 DP1111059	Lot 5 DP529656	Lot 230 DP1045797
Lot 2 DP501210	Lot 72 DP866139	Lot 1 DP162623
Lot 1 DP501210	Lot 71 DP866139	Lot 1 DP853320
Lot 1 DP999490	Lot 8 DP537934	Lot 1820 DP1122162
Lot 1 DP516989	Lot 2511 DP1043391	Lot 4111 DP1053377
Lot 24 DP95997	Lot 412 DP1003586	Lot 4112 DP1053377



The Development Area has previously been used for agricultural purposes in the past and contains infrastructure related to agricultural use including dwellings, fencing, tracks and accessways, dams, sheds and shelters.

Proposal: As part of the Stage One of the Master Plan, Tamworth Regional Council propose to rezone the primary production small rural lots for the development of future commercial, tourism and equine industry districts as well as the expansion of utilities to service the new developments. A draft Staging Plan for the Project is illustrated in Figure 3.

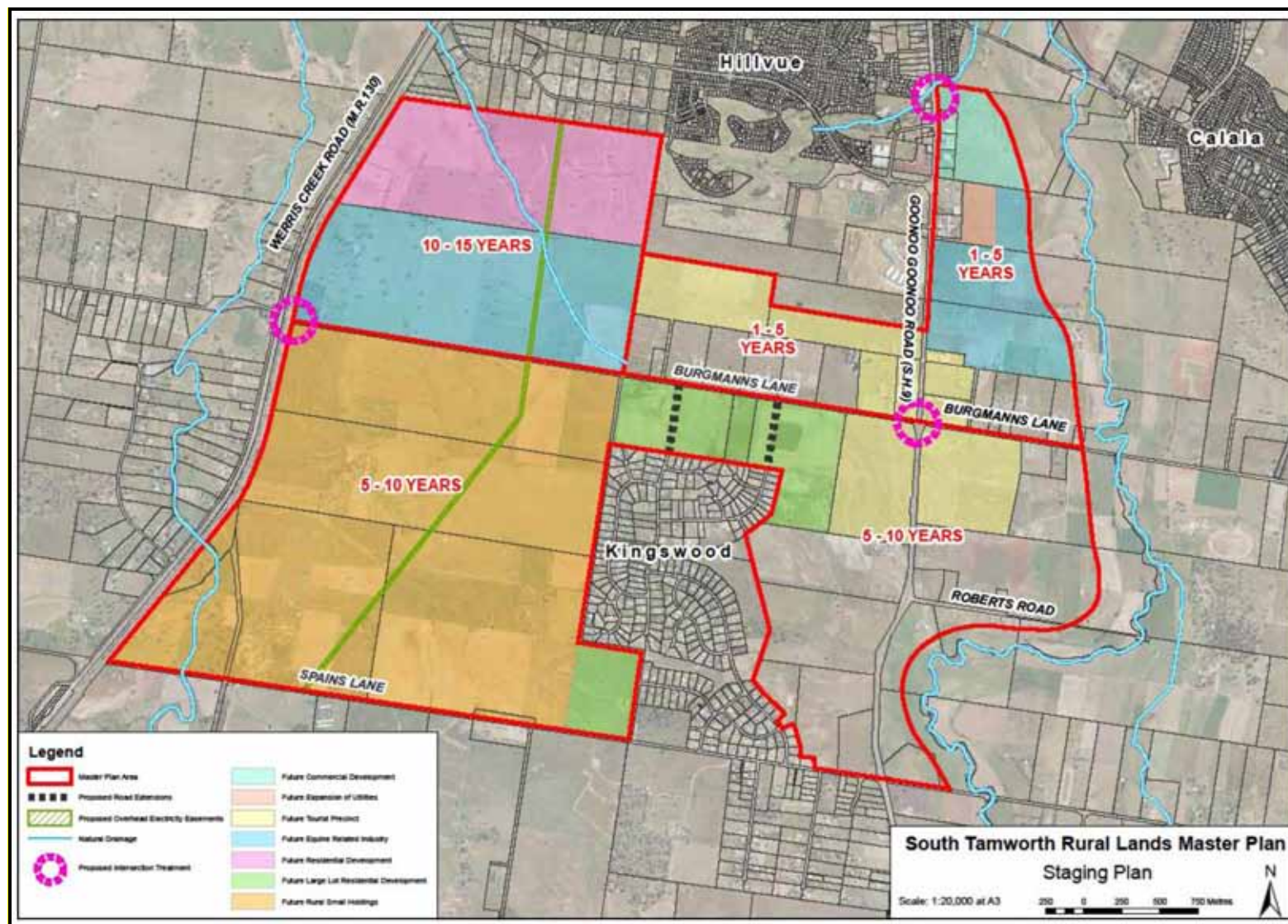


Figure 3: Development Area Staging Plan (Tamworth Regional Council 2012: 30)



PART B: DESKTOP REVIEW

4. ABORIGINAL CULTURAL HERITAGE

4.1 The OEH Aboriginal Heritage Information Management System (AHIMS)

Care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution. For example, a lack of sites in a given area should not be seen as evidence that the area was not occupied by Aboriginal people. It may simply be an indication that it has not been surveyed, or that the survey was undertaken in areas of poor surface visibility. Further to this, care needs to be taken when looking at the classification of sites. For example, the decision to classify a site an Open Campsite containing shell rather than a Midden can be a highly subjective exercise, the threshold for which may vary between archaeologists. A search was conducted on 19 December, 2013 of the OEH Aboriginal Heritage Information Management System (AHIMS service number 120686) over a 1km zone surrounding the Development Area. The search returned three (3) Aboriginal Cultural Heritage sites within the search zone (Figure 4). A further search of Everick's Cultural Heritage Database returned a further two (2) Aboriginal Heritage sites (Figure 4). A description of the Sites has been provided in Table 2. Only one of the registered sites (29-2-0243) is located in an easement near the Tamworth Sports Dome, close to (but not within) the western boundary of the Development Area (Figure 4).

Table 2: AHIMS Registered Sites

AHIMS Site ID	Site Name	Easting (AGD66 - Zone 56)	Northing (AGD66 - Zone 56)	Description
29-2-0243	Equine 1P/1	301896	6553455	Open Site; Artefacts x 3; Valid
29-2-0303	Calala Creek IP/1	303753	6555292	Open Site; Single Artefact; Valid
29-2-0304	Calala Creek IP/2	303454	6555394	Open Site; Artefacts x 2; Valid
25-2-0006*	Redbank 1P/I	305320	6553886	Open Site; Artefacts
25-2-0007*		305590.73	6553742.90	Open Site; Artefacts

*Sites located through Everick Database, WGS84.

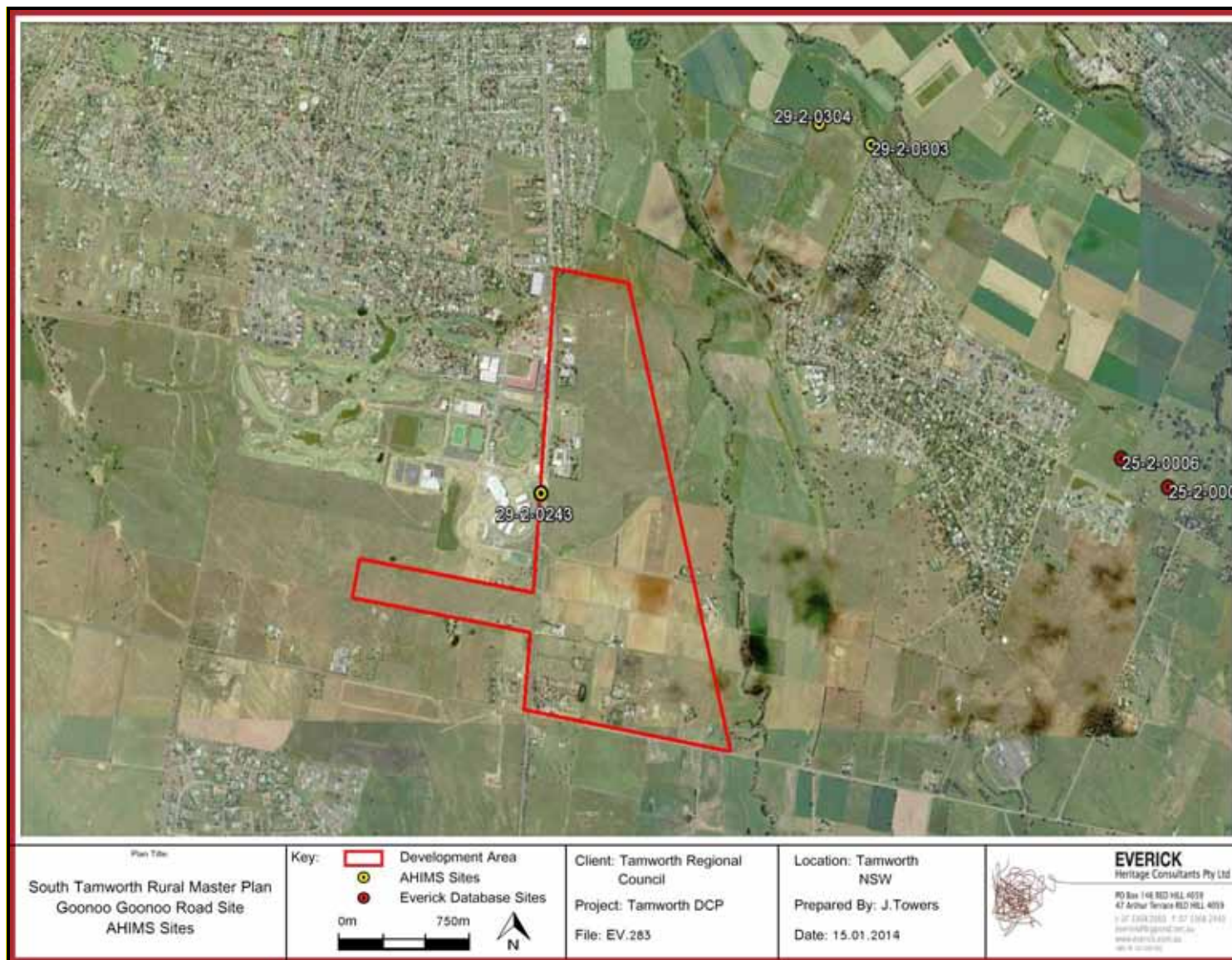


Figure 4: AHIMS Search Results for Goonoo Goonoo Road Site (Aerial underlay courtesy of Google Maps 2013).



4.2 Other Heritage Registers: Aboriginal & Historic Cultural Heritage

The following heritage registers were accessed on 19 December 2013 for the Tamworth region:

- **The National Heritage List** (Australian Heritage Council): Contains no Aboriginal heritage listings within close proximity to the Development Area.
- **Commonwealth Heritage List** (Australian Heritage Council): Contains no Aboriginal heritage listings within close proximity to the Development Area.
- **Register of the National Estate** (Australian Heritage Council): Contains two Indigenous place listings for Moore Creek and Tamworth, neither of which are registered within the Development Area.
- **The State Heritage Register** (NSW Heritage Office): Contains no Aboriginal heritage listings within close proximity to the Development Area.
- **The State Heritage Inventory**: Contains no Aboriginal heritage listings within close proximity to the Development Area.
- **The Register of the National Trust of Australia**: Contains no Aboriginal heritage listings within close proximity to the Development Area.
- **Tamworth Regional Local Environment Plan 2010 (LEP)**: Contains no Aboriginal heritage listings within close proximity to the Development Area.

5. LANDSCAPE CONTEXT

5.1 Environment Locality

The Development Area is located south of Tamworth and is bounded to the west by the New England Highway/Goonoo Goonoo Road and to the west and by Burgmanns Lane to the south. Goonoo Goonoo Creek, a tributary of the Peel River is situated to the east of the Development Area.

The Development Area is situated within a landscape described as undulating to low rolling hills with long gently waning side slopes (Banks 2001). The environments range from cleared open woodlands through to heavily cultivated open grasslands (Banks 2001). The Development Area, being relatively flat, is subject to sheet flow drainage toward the Goonoo Goonoo Creek (Banks 2001).



5.2 Geology & Soils

The Development Area is located within the Duri Geological landscape, a complex geological setting being a mixture of the Devonian sedimentary rocks of the Tamworth belt and interdigitated carboniferous geological units (Banks 2001). The distribution of soils is highly variable as a result of the underlying geology (Banks 2001: 33). Soils range from Chromosols, Rudosols, Vertosols and Sodosols, all of which vary from red through to brown in colouration (Banks 2001:33). The Lithology of the Duri includes arenite, polymictic conglomerate, greywacke and mudstone (Banks, 2001:32) – some of which are known to be resources utilised by Aboriginal people for the manufacture of stone artefacts.

The eastern sections of the Development Area are located within the Goonoo Goonoo landscape, a quaternary age alluvium floodplain originating from the Liverpool Ranges (Banks 2001:198). Soils are diverse within this landscape and generally poorly drained and often subject to sheet, gulley and steambank erosion as well as localised salinity and waterlogging (Banks 2001:199).

5.3 Vegetation

Original vegetation within the Duri landscape was assessed by Banks (2001) to have been open woodland and closed grasslands. The woodlands consisted mainly of various Eucalypt species, but also included acacia species and other moderate growth bushes and shrubs. The closed grasslands were mainly plains grass (*Stipa aristigulumis*). The Goonoo Goonoo landscape shares a similar vegetation profile, though with noted heavy infestations of introduced Willow (Banks 2001:198). The current landscape has since been heavily cleared and extensively cultivated. Currently the Development Area has thick plains grass coverage.

6. REVIEW OF HISTORIC IMAGERY AND MAPPING

6.1 Historic Aerial Photography

Historic aerial photographs of the Development Area were reviewed to ascertain the level of past ground disturbance. This information is used to assist in developing a predictive model for potential cultural heritage site locations. Aerial photographs from 1953, 1968, 1976, 1984 and 1993 were reviewed as part of this assessment (Appendix B).



The 1953 Historic Aerial image shows the southern portion of the Development Area (Figure 14). The image shows that by the 1950's the Development Area had been extensively cleared. Mitchell (1831) noted the Peel area as generally thinly wooded, it is likely then that the initial clearing of this area was undertaken by hand. The New England Highway/Goonoo Goonoo Road and Burgamanns Lane is well-formed at this time, and a dwelling is clearly visible within the south of the Development Area, as are a number of large trees, situated within close proximity to the dwelling structure. A small drainage channel is visible running through the centre of the Development Area from the north-east to south east. The banks of Goonoo Goonoo creek line to the east of the Development Area appear to also have been subject to clearing. The Development Area lands appear to be set up for rural purposes, likely for pastoral or cultivation activities stemming from the Australian Agricultural Company Grant (Section 6.2 and Section 7), both of which were common land use practices throughout the region.

The 1968 aerial photograph is of poor quality (Figure 15) but does show an intensification in the level of land use for agricultural purposes, with cropping fields and stockyards clearly defined. The southern section of the Development Area appears to be more heavily disturbed in comparison to the northern section, although a large structure has been erected to the north of the drainage channel, likely associated with either the agricultural or equine industries which dominate the region.

By 1976 (Figure 16), there is little change to the general configuration of the Development Area. The lands in the southern section have been utilised for agricultural purposes, although it is of interest to note that the vegetation surrounding the dwelling in the south remains relatively unchanged. Buildings have been erected in the northern section and while the lands do appear to have been subject to some level of disturbance, it does not appear to be as extensive as the levels of disturbance in the south.

The 1984 (Figure 17) photograph illustrates that the lands remain virtually unchanged, indicating a uniformity in land use. The construction of further dwellings in the south suggest perhaps also an intensification of activities. There appears to be little change in the degree of disturbance through time. This consistency suggests that land practices were relatively consistent as the town of Tamworth continued to develop.

The 1993 aerial photograph is of better quality than its predecessors (Figure 18) and further illustrates the extent of land disturbance activities across the Development Area. The southern section of the Development Area has been subject to extensive disturbance through agricultural activities. The northern section, while



showing signs of use, does not appear to be as heavily impacted by land use activities, or that perhaps the lands in the northern section were not utilised for intensive cultivation but for the Equine industry.

Conclusions: From the historic aerial photography, it is clear that initial vegetation clearing activities took place prior to the 1950's. This clearing may have caused significant ground disturbance and may have had an impact to the integrity of any Aboriginal Objects within the Development Area, however this cannot be demonstrated through analysis of the historic aerial photographs alone. Other disturbance likely to have impacted on the integrity of any Aboriginal sites, should they be located within the Development Area, may come as a result of intensive historic use of the Development Area for mustering of stock or cultivation under the Australian Agricultural Company Grant (Section 6.2 and Section 7). With the lack of vegetation clearly evident over this area, and having regard to the soil type, periods of rain would have seen ground disturbance up to half a metre deep. That being said, the lands remain virtually unchanged over the last >30 years. The potential for undisturbed artefacts to be located well below the ground surface within the Development Area cannot be completely ruled out.

6.2 Parish Mapping

Parish Maps were sources for the analysis of land disturbance and tenure of history of the Development Area. This information is used to assist in developing a predictive model for potential cultural heritage site locations. The consulted maps date from 1909, 1922, 1932, 1951 and 1971 and have been included in Appendix C of this report. The 1909 Parish map (Figure 19) indicates that the Development Area and the surrounding lands were part of the Australian Agricultural Company's Grant for lands in the Peel District (Section 7). The Development Area lands was held by the Australian Agricultural Company throughout the 1900's and utilised for cultivation and pastoral purposes (Figure 20 - Figure 23).



7. PREVIOUS ARCHAEOLOGICAL AND CULTURAL HERITAGE ASSESSMENTS

Although a review of previous archaeological and/or cultural heritage assessments is not a requirement of the OEH guidelines for a standard Due Diligence assessment, it is the view of the Consultant that such a review assist in the accurate formulation of archaeological models and associated recommendations.

7.1 Synthesis of Archaeology and Ethnohistory

7.1.1 *Settlement*

The Gamilaroi (also referred to as Komilaroi) has been recognised by researchers as the primary linguistic group for the greater New England region (Wilson and McAdam 2000; Carey 2006; Tindale 1974). The exact territorial boundaries of the Gamilaroi have been disputed. One of the earliest attempts to map the language group territory was by Matthews (1917) who recorded the dialect from Jerry's Plains in the Hunter River region, stretching north to the Gwydir River and into the southern reaches of Queensland (see also Wilson and McAdam 2000). Tindale (1974) disputed Matthews (1917) assertion of the southerly extent of Gamilaroi territory, arguing that the Gamilaroi only maintained a marginal strip of territory which did not extend as far south as Jerry's Plains in the Hunter River region. Carey (2006) argued further that the Gamilaroi territory extended from the Hunter Valley westward to Coonabarabran and north of the township of Moree into south-western Queensland (Carey 2006:5).

As a linguistic group, the Gamilaroi people spoke a range of dialects throughout the New England region. Wilson and McAdam (2000) cite Milliss (1980a; 1980b) who also recognised two district groups, the *Corbon Gamilaroi* who occupied areas surrounding the peel river including Liverpool plains, and the *Gammon Gamilaroi* who occupied the southern part of the language territory. Wilson and McAdams (2000) note that within these two language groups exist a number of subgroups, each maintaining individual group identified and land territories. Carey (2006:5) identifies two sub-communities of the Gamilaroi which occupied the area now known as Tamworth: the Mooni people and the Goonoo Goonoo people. Wilson and McAdam (2000) also record the Gunnedah and Manilla people, originally recorded by Garret (n.d.). The Goonoo Goonoo people are said to have occupied the Peel River flatlands, including the lands which comprise Development Area (Carey 2005).



The antiquity of occupation of northern New South Wales is still debated, with sites dated between 3,600BP and 20,000BP (Wilson and McAdam 2000). Wilson and McAdam (2000) provided a brief summary of the dated sites for the Tamworth region, the oldest of which was Bendemeer II, dating to 4,950BP. This is not to say that occupation of the Tamworth region did not occur prior to this date. Rather, it likely a reflection on the lack of archaeological investigations in the region and the preservation of datable materials in in situ contexts.

7.1.2 Movement

Hobden et al (2005) describes the Gamilaroi Aboriginals as having strict laws based on the intricate relationship with the landscape around them. Early population estimates made by European settlers record that between 4000 and 12,000 Aboriginal peoples inhabited camps located in the Peel River valley, south of modern day Tamworth (Hobden et al 2005; Wilson and McAdam 2000). Groups would gather and move across the landscape, participating in trading practices with other groups throughout the region (Carey 2006). However, it was a way of life that rapidly disappeared under the impacts of disease and restrictions on Aboriginal groups by 'authorities' on the movement of Aboriginal people. Unfortunately, conflicting historical accounts and the lack of detailed reports means that the exact numbers and movement of the Gamilaroi populations in the Tamworth region will never be accurately determined.

The few eyewitness accounts of the Aboriginal occupation of the Tamworth region come from early settlers who entered the region as part of John Oxley's 1818 expedition (Carey 2006). Oxley recorded the Peel River flatlands as an extensive grassed vale ideal for settlement (Carey 2006:8). It was this recommendation that spurred an influx of European settlement north of Liverpool plains through to what is now Tamworth as part of the ambitions of Australian Agricultural Company.

Established in 1824, Australia Agricultural Company was provided unoccupied lands by the crown for the purposes of "cultivation and improvement of wastelands in the colony of New South Wales and other purposes amongst which was the production of fine merino wool as an article of export to Great Britain" (Carey 2006:12). The Peel River flatlands was selected as an area suitable for these purposes.

Increasing presence of Europeans from the 1830's had detrimental impacts for the Gamilaroi peoples inhabiting the Peel River region south of Tamworth (Carey 2006), with conflict and disease decimating the population (Carey 2006). The increasing agricultural cultivation forced groups to extend their subsistence



practices further from the Peel River in pursuit of plant resources and game which had been driven further from the valley as a result of the expanding European settlements (Carey 2006).

7.1.3 Economy

Early historical accounts record the strict division of land territories by Gamilaroi sub-groups, with some accounts of inter-group violence as a result of territory and resource based clashes, particularly after the intensification of European settlement (Wilson and McAdams 2000). A range of materials utilised by the Gamilaroi groups was recorded by Parker (1909); Mitchell (1839) and O'Rourke (1997). The stone tool element in the material culture included axes, though small and unspecialised flakes were also commonly noted (Balme 1986; Parker 1909; O'Rourke 1997), though to the Consultant's knowledge, little analysis of assemblages from this region has been conducted in any great deal. The resources of the Pilliga forests were used extensively in the technology of the Peel River region, which is heavily dependent on wood and bark fibre (Parker 1909). Timbers were used to manufacture spears, a variety of clubs, shields and boomerangs. Bark was also used for shelter. Parker (1909) Also documented the fashioning of bone into fine needle like points which were used to craft water canteens from the skins of possum and kangaroo species.

Subsistence practices of the Aboriginals of the Tamworth area were based on the exploitation of both terrestrial and freshwater resources located within the landscape (Mitchell 1839; Parker 1909; O'Rourke 1997). Parker (1909) records the methods used to trap smaller game such as bird species, possums and pademelons included the crafting of netting from Kurrajong bark and Burraungah grass. Netting was used both actively and as part of snares (Parker 1909). For larger species such as Kangaroo and Wallaby were often stalked and herded in groups and taken by spears once surrounded by men, particularly during ceremonial gatherings (Parker 1909; Wilson and McAdams 2000).

Ethnohistorical records are largely directed towards descriptions of hunting techniques which employed large groups of people and obvious types of technology requiring demonstrable physical skills: the use of spears, clubs, boomerangs, the 'tow-row' (net) etc. The role of plant foods in the local economy is often understated or overlooked entirely. Parker (1909) accounts gathering activities including the raiding of emu nests, sourcing of honey from native bees and procuring thistle tops, pigweed and crowfoot, all of which were eaten raw. Parker also notes extensive seed exploitation and grinding activities (1909), where the seeds of *Sterculia* and



other similar species were ground and made into cakes. She describes the grinding stones as similar to the “saddle-stone querns” occasionally found in ancient British sites” (Parker 1909).

7.2 Previous Archaeological Assessments

Byrne (1989) provided one of the first broad examinations of Aboriginal Sites and Cultural Resources in Northern New South Wales in a report to the National Parks and Wildlife Service. Byrne noted that archaeological studies in the Tamworth region were largely generated by heritage consultants which would impact the patterning of the distribution of archaeological sites across the region.

Balme (1986) also provided an examinations of the regional archaeological character in her report on the Northern-Central Rivers Region to the NPWS. Balme (1986) noted the most common site throughout the region as artefact scatters and scarred trees. It must be noted here that while these are the most commonly recorded Aboriginal sites, it is partially due to their survivability and visibility within the landscape, and also within the current frameworks of archaeological investigation in the region which are generally targeted cultural heritage assessments. The raw materials recorded ranges from more coarse grained materials such as quartzite through to finer grained cherts and silcretes.

An artefact scatter was recorded in a survey of the Tamworth Botanic Gardens site by Gaynor and Wilson in 1995 (Gaynor and Wilson 1995). Two isolated stone artefacts were also recorded by Gaynor and Wilson (1997) during the survey for Baiada Pty Ltd. The artefacts, and an additional one, were salvaged during works conducted in 1999 (Gaynor and Wilson 1999).

A cultural heritage assessment of the Dubbo to Tamworth natural gas pipeline was conducted by McDonald (1998:3), who recorded a total of 98 Aboriginal sites across the 226.2km survey area. The majority of recorded sites were open camps (40) and scarred trees (36). A total of 65 would not be impacted by the pipeline, mitigation measures were required for the 33 recorded sites which included realignment of the pipeline for sites of high significance.

The Hills Plain area was surveyed by Wilson and McAdam in 1999 in preparation for a proposed residential sub-division (Wilson and McAdam 2000). The survey located five sites, including two extensive artefact scatters, a single scarred tree, and a number of isolated artefacts. Mitigation measures were recommended for



some sites, including the implementation of fencing and buffer zones. Hills Plain 3 however was granted a consent to destroy with salvage permit in 2000. The salvage resulted in the collection of 124 artefacts before destruction of the site (Wilson and McAdam 2000).

Wilson and McAdam (2000) in conjunction with the Tamworth Local Aboriginal Land Council, surveyed a number of areas across the Tamworth region as part of the Tamworth Aboriginal and Archaeological Study. The study identified numerous sites across the region, the majority of which being artefact scatters of varying densities and raw materials including chert, cherty argillite, hornfels, quartz, andesitic greywacke tuff and chalcedony. Scarred trees were also noted and Kamilaroi walking tracks were identified (Wilson and McAdam 2000). Gaynor (2004b) notes however that one of the sites recorded in this study was not able to be relocated during a survey conducted of the Mt Falcon estate off Armidale Road. Gaynor (2004b) cites Wilson and McAdam's (2000) notes on site formation processes, and suggested that the artefacts that had been visible during the 2000 survey had likely been washed away during heavy rains onto adjacent lands.

Gaynor (2002) also recorded an abundance of scarred trees in the region in an archaeological survey of the Doona state forest. Further investigations by Umwelt (2010) for BHP in this region located artefact scatters and grinding grooves.

Purcell (2000; 2002) conducted a regional cultural heritage assessment for the Brigalow Belt South Bioregion, which was presented as a report for NPWS. The report was conducted in two stages over a 52,409sq km survey area. On completion, 1,110 aboriginal sites were identified, and variety of landforms associated with the location of sites, edible plants and other recognised resources were mapped. The large scale assessment provided the basis for most of the recorded aboriginal sites in the region.

In 2004, Archaeological Surveys and Report Pty Limited ('ASR') were commissioned to conduct a cultural heritage assessment for the Werris Creek Mine site, in Werris Creek, NSW situated south-west of the Development Area. The assessment located an extensive grinding groove site (Narrawolga axe grinding grooves) situated on sandstone outcrops. After consultation with the Aboriginal community, ASR (2008) were again commissioned to salvage and relocate the objects.

Gaynor (2004a; 2005a; 2005b and 2005c) has conducted a number of assessments across the Tamworth region. A single stone artefact at the base of a tree was located during a survey of the proposed Taminda



Levee Bank Route (Gaynor 2004a). As a mitigation measure the Tamworth Regional Council ensured that the Levee Bank Route avoided impact to the tree, thus protecting the site. Two stone artefact scatters, an isolated stone artefact and a felled scarred tree were noted on a property on Browns Lane (Gaynor 2005a), while a further six sites were recorded on a property off Moore Creek Road which had been previously cultivated (2005b). A further survey of another section of lands off Moore Creek Road located twenty stone axes (2005c).

Gaynor (2006) conducted further cultural heritage works in the region through an archaeological survey of an area selected for a proposed equine and livestock complex on the southern approaches to Tamworth. The survey was conducted across an approximately 52 hectare area with only two isolated stone artefacts identified. Lack of ground surface visibility was cited as a factor influencing the results of the survey. Gaynor (2006) recommended that the stone artefacts be salvaged so that the Project continue without further disruption.

A survey of a property identified as 'Redbank' was also conducted by Gaynor (2008a). No artefacts were located within the survey area, though known sites had been previously recorded nearby. Stone artefacts were also located in a later survey of a nearby property identified as 'Meadowbank' (Gaynor 2008b).

At the request of the Tamworth Regional Council, Gaynor (2008c) registered five scarred trees previously identified by the Tamworth Local Aboriginal Land Council. The trees were then relocated for display in the Tamworth Botanic Gardens, in an area still containing stone artefacts.

Landscape (2010) conducted a Cultural Heritage Assessment of the proposed extension of the Werris Creek Coal Mine, located at Werris Creek NSW by Whitehaven Coal. The assessment re-located the Narrwolga axe grinding grooves which had been relocated during a previous assessment, to be reinstalled at their original position during rehabilitation on close of Project Activities (Landscape 2010:2-21-22). No other Aboriginal sites were recorded, but recommendations were made to involve the Aboriginal community and update the cultural heritage management plan for the Werris Creek Mine to that effect (Landscape 2010:6-61).

In 2011, Susan R Hudson Consulting completed an archaeological survey of a proposed cattle feeding lot for Pegela Pastoral Company, located at Gunyerwarildi, Warialda NSW. The survey identified the locations of five artefact scatters and a further three isolated artefacts within the survey area. Hudson's recommendations were



such that the feedlot may still proceed after the collection of the located artefacts by the Moree Local Aboriginal Land Council.

Gaynor (2011) surveyed a section of land located near Calala Creek and did not locate any Aboriginal Objects within the Development Area, though a number of sites were noted in close proximity to the Development Area.

In 2013, Everick conducted a cultural heritage due diligence assessment for a residential subdivision at Denman Avenue, Kootingal NSW. Everick did not locate any Aboriginal Objects or places though placed cautionary recommendations for a 10 m exclusion zone around old growth trees on the eastern boundary of the development. While these trees had not showed signs of cultural modification, the area was recognised as having low-moderate potential for subsurface, undisturbed Aboriginal Objects.

7.3 Potential Site Types: Aboriginal Archaeological Sites in the Tamworth Region

From the review of previous archaeological and cultural heritage assessments in the Tamworth and broader regional locality noted specific environment contexts including low lying flood plains, estuarine creek banks and low hills with immediate access estuary systems, are likely to contain evidence of Aboriginal occupation. The following site types and potential types have been identified in the above contexts.

7.3.1 Isolated Artefacts

These will consist of single stone artefacts, which may have been randomly discarded or lost. They may occur in almost any environmental context exploited by Aboriginal people. They are commonly stone axes, single cores, hammer stones, pebbles, flakes and grinding stones and/or grooves. Their presence may indicate that more extensive scatters of stone artefacts exist or existed nearby, perhaps obscured by vegetation or dispersed by mechanical means.

It is considered highly likely that isolated artefacts may be located within the Development Area. Care must also be taken to differentiate between culturally and machine manufactured stone objects.



7.3.2 Open Campsites/Artefact Scatters

Open Campsites/Artefact Scatters generally consist of scatters of stone artefacts and possibly bone, shell and hearth features. Their exposure to the elements means that evidence of food resources used on the site (with the exception of shellfish) is usually lacking. An open campsite containing a large component of shell refuse may be described as a midden. They invariably consist of low or high density scatters of primary and secondary flakes in addition to the types of artefacts found as isolated finds. Open campsites may also contain burials when located on sand strata. Few open campsites are found on kraznozom and podzolic soils, possibly due to the destructive impacts of land clearing and the heavy vegetation cover. Detection is usually unlikely unless high degrees of surface visibility are present.

There is a low to moderate potential that artefacts scatters could be found within the Development Area.

7.3.3 Middens

Middens are campsites which are dominated by shellfish remains, relatively uncommon for the New England region. Middens are usually situated near a source of shellfish and comprise predominantly freshwater bivalve species in areas away from the coast. In addition, middens can contain terrestrial animal and fish bone, stone artefacts, charcoal and ash from fireplaces. Middens may be composed of deep compacted debris reflecting consistent use over long periods of time, or thin scatters of shell which reflect use on a single occasion by a small group, perhaps in transit or gathering food away from a large campsite. As a general rule, middens have been consistently recorded in elevated positions beside estuarine waterways or on elevated sand substrates close to wetlands.

The Peel River and its tributaries would have been a central landscape feature for the Aboriginal occupation of the Tamworth Region. Although Goonoo Goonoo Creek is located between 50m and 500m from the eastern boundary of the Development Area, it is unlikely that middens will be located within the Development Area. Small isolated scatters of shell may be encountered but due to the level of disturbance, the overall potential of encountering these features is low.



7.4.4 Quarry Sites

A stone quarry may occur where a source of opaline silica exists or other siliceous types of stone occur (e.g. chert, chalcedony and silcrete). The area can be identified by a number of different types of stone tools in various stages of production as well as refuse flakes.

If suitable bedded rock outcrops or sources of siliceous material would be located within the Development Area, they would likely be limited to the elevated western and southern boundaries.

7.5.5 Scarred Trees

Scarred trees result from the removal of bark for use as covering, shields, containers or canoes. No doubt, as an outcome of widespread intensive land clearing and natural causes very few have survived.

Owing to the clearing activities that occurred prior to the 1950s (see Section 6), it is unlikely that trees of a sufficient age to bear cultural scarring are located within the Development Area. However, the historical imagery does show that the configuration of trees within the Development Area has remained relatively unchanged since the 1950's. Should a scar or modification of a tree be noted, care must be taken in assessing the origin of the scarring/modification. Scarring of trees can occur through natural processes as well as through mechanical damage associated with heavy earthmoving and/or agricultural machinery.

7.3.6 Burials

Human burials are typically individual or small group internments which can be found in sandy soil substrates, such as creek lines or within small rock crevices. Most of the known burials have been located by accidental means through mechanical disturbance or natural erosion.

Burials can be considered of very low potential to be located within the Development Area given the location of the Development Area within the Duri landscape, and in the high levels of ground disturbance. That being said, any lands within the Goonoo Goonoo landscape system have increased archaeological potential to contain burials. Natural erosion patterns within this landscape may have resulted in the displacement and destruction of these features.



7.3.7 Ceremonial Sites

Ceremonial grounds are typically places identified by Aboriginal groups as places of importance which were visited by groups to mark or commemorate rites or other occasions. One such example is Bora grounds, earthen mounds crafted in a circular formation which were used for the purposes of ceremonial practices.

No knowledge of the presence of a ceremonial site at the Development Area, within it, nor in relation to it, was conveyed during the Cultural Heritage Survey undertaken on 14 and 15 January 2014.

7.3.7 Mythological Sites

These sites are natural features, which derive their significance from an association with stories of the creation and mythological heroes.

No knowledge of the presence of a mythological site at the Development Area, within it, nor in relation to it, was conveyed during the Cultural Heritage Survey undertaken on 14 and 15 January 2014.

7.4 Predictive Modelling of Aboriginal Cultural Heritage

The desktop review identified a moderate potential for archaeological materials to be within the Development Area prior European settlement. It is anticipated that should heritage be located within the Development Area, it is likely to be limited to single artefacts and/or scatters of stone artefacts and shell and scarred or modified trees.

Due to the extensive ground disturbance following European settlement, there is considered an overall low potential for evidence of Aboriginal occupation to occur within the Development Area, apart from perhaps a 'background scatter' of Aboriginal stone tools, as would be expected given the ethnohistorical accounts of occupation of the region (Section 7.1).



8. FIELD SURVEY METHODS AND RESULTS

8.1 Aboriginal Community Participation

The Development Area is within the area administered for Aboriginal cultural heritage purposes by the Tamworth Local Aboriginal Land Council ('Tamworth LALC'). A survey for Aboriginal cultural heritage was conducted by Christopher 'Don' Fermor, Sites Officer of the Tamworth LALC and Consultant, Tim Robins from Tuesday 14 January through to Wednesday 15 January 2014.

8.2 Survey Methods

In addition to assessing the cultural heritage potential of the Development Area, the survey aimed to confirm the interpretation of the nature and degree of ground disturbance observed in historical aerial photographs and satellite imagery.

As this assessment related to the rezoning of the Development Area rather than to any specific development plans, a sampling strategy was adopted. The survey was targeted at inspecting the areas which were considered to have increased archaeological potential based on a review of studies from the region. A system of transects was maintained in these areas of interest, identified in Figure 5.

Photographs were taken to record general features and conditions, and the content/ context of any sites found. Notes were made on:

- ground surface visibility;
- the area or amount of visibility;
- amount of ground cover;
- visible evidence of current land uses; and
- any other relevant features.

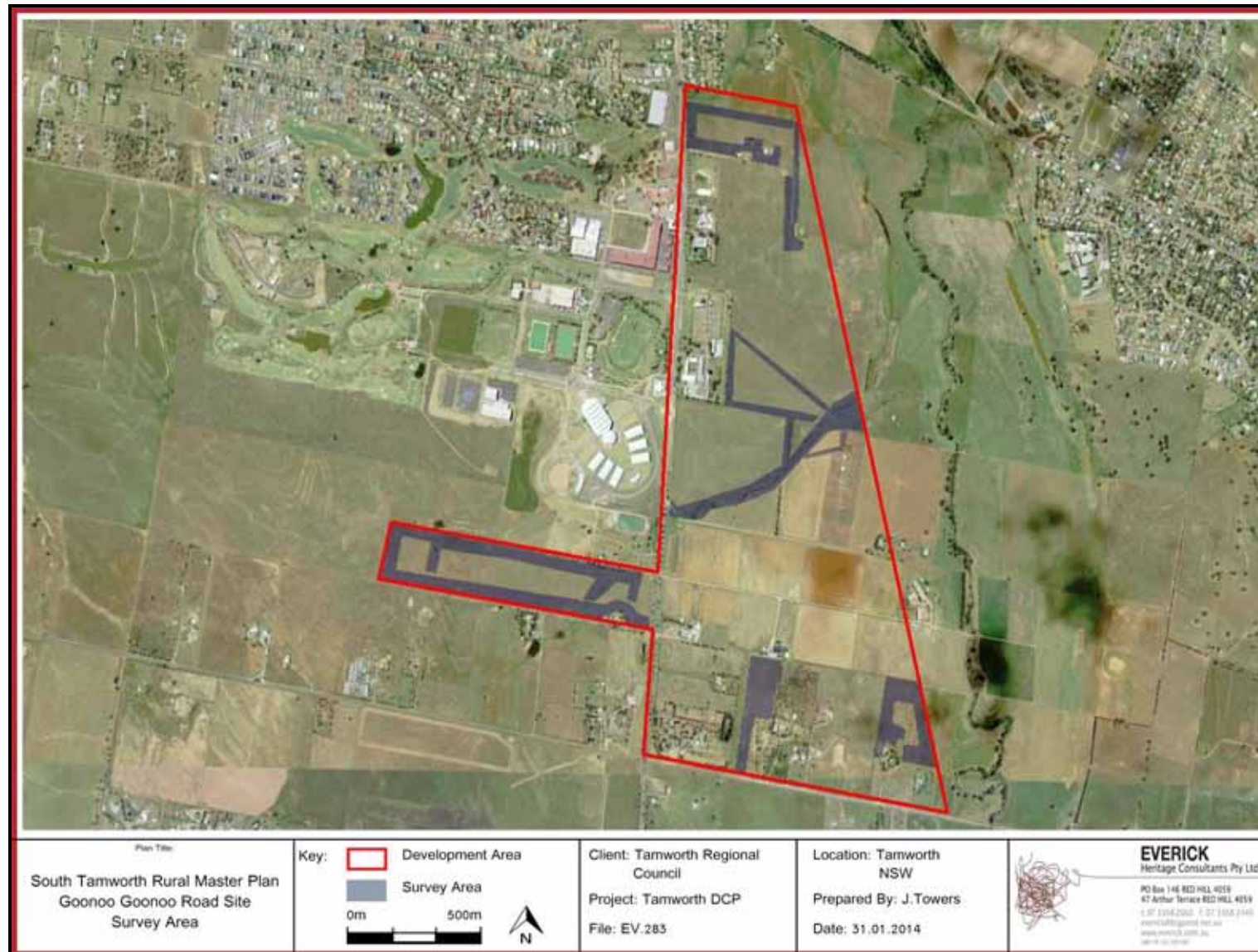


Figure 5: Survey Plan



8.3 Constraints to Site Detection

An assessment of the constraints to site detection is made to assist in formulating a view as to the effectiveness of the field inspection to find Aboriginal sites and cultural materials. It also assists in the forming of a view of the likelihood of concealed sites keeping in mind a site specific knowledge of the impacts that European land uses and natural processes may have had on the 'survivability' of Aboriginal sites in a Development Area.

The constraints to site detection in regions such as northern NSW are almost always most influenced by post European settlement land uses and in some areas by natural erosion processes. The area of surface exposure and the degree of surface visibility within exposed surfaces are usually the product of 'recent' land uses e.g. ploughing, road construction, natural erosion and accelerated (manmade) erosion (McDonald et al 1990:92).

Extensive ground disturbance was identified over most of the Development Area, particularly those areas south of Lot 230 DP104797. Ground surface visibility was extremely low over most of the survey area (< 5%).

8.4 Survey Coverage

A plan of the survey coverage is shown in Figure 5. The survey covered a selection of all major landform elements, being:

- a) Creek / drainage lines (Est 95 % coverage)
- b) Broad ridge slopes (Est 10% coverage)
- c) Broad ridge crests (Est 30% coverage)

8.5 Survey Results

No places of intangible (non-physical) cultural heritage significance were identified in the literature review or by the Tamworth LALC during the archaeological site inspection. A total of five Aboriginal heritage sites were located during the inspection (Figure 6), all of which have since been registered with the OEH AHIMS as per the requirements of the NPW Act. It should be noted that there is no Aboriginal site GGO2, and the omission of such is deliberate.

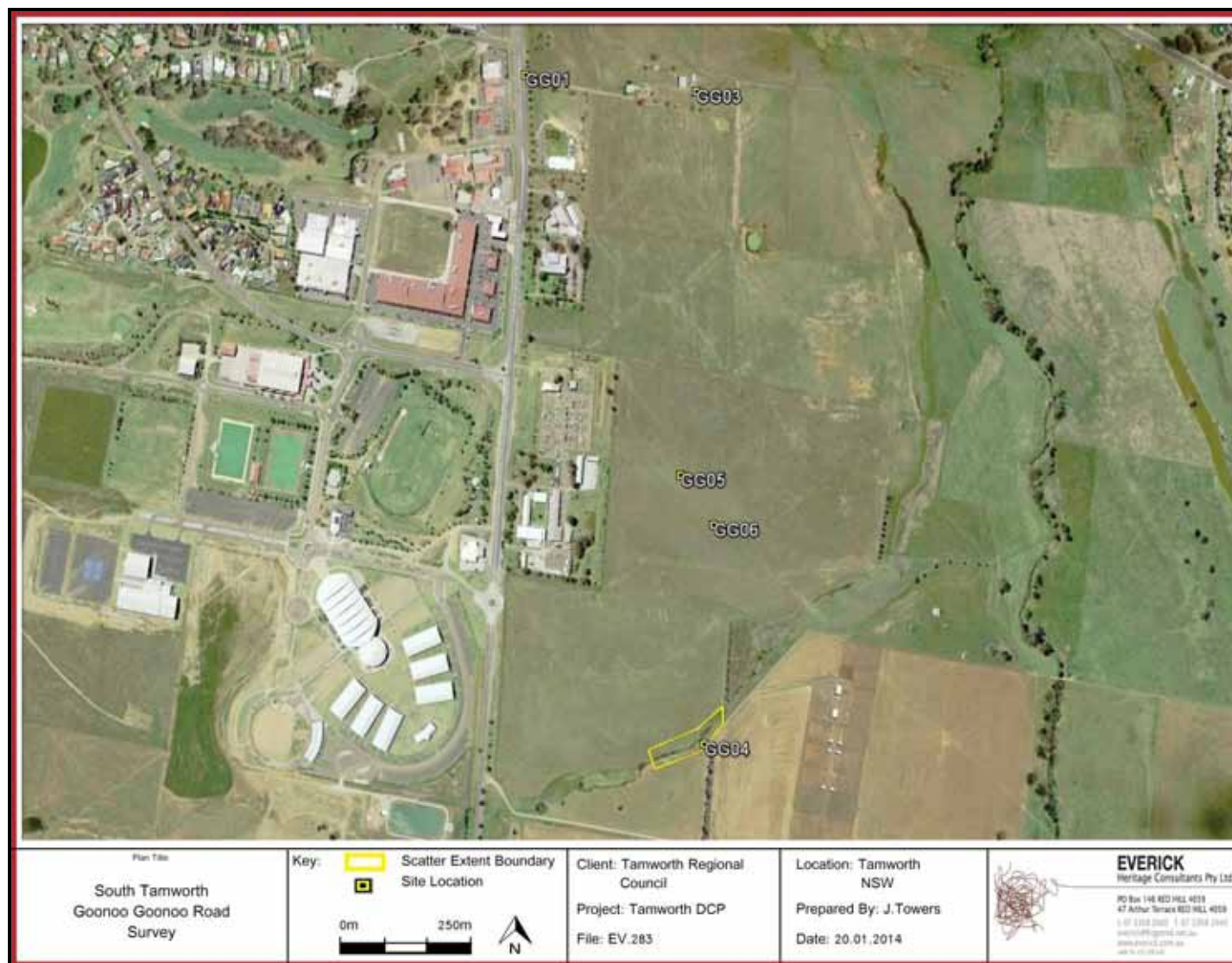


Figure 6: Survey Results Plan



8.5.1 Goonoo Goonoo 1 (GG01)

Goonoo Goonoo 1 (Figure 7) was located in a drain opposite the Tamworth Super Cheap Auto on Goonoo Goonoo Road. It is within the Goonoo Goonoo Road Easment, and is situated adjacent to Lot 19 DP 1111059. The site consisted of a single isolated retouched flake, from Daruka Quarry raw material (Fermor pers. comm. 14.01.14) - metamorphosed andesitic greywacke/basalt.



Figure 7: Photo of GG01

The flake dimensions were recorded as 40mm in length, 60mm in width with a thickness of 6mm. Retouching was restricted to the dorsal face, and some edge damage was also noted. The Tamworth LALC representative recommended that the Artefact be left *in situ*, though it is likely it will be displaced from recorded location with the next heavy rain.



8.5.2 Goonoo Goonoo 3 (GG03)

Goonoo Goonoo 3 (Figure 8) was located in a stock yard immediately east of the former homestead for Lot 19 DP1111059. The Site consisted of two (2) isolated stone artefacts: a basalt modified flake and a chert flake.



Figure 8: Photo of GG03

The modified basalt flake was weathered and potentially very old. Some features indicated it may have been a burin spall though this could not be confirmed without more details analysis. The basalt flake dimensions were recorded as 72mm in length, 60mm in width with a thickness of 30mm.

The chert flake displayed evidence of retouch and measured 25mm in length, 24mm in width and was 8mm thick. Both artefacts were left where they were found, near the base of a fencepost.



8.5.3 Goonoo Goonoo 4 (GGO4)

Goonoo Goonoo 4 (Figure 9) was situated on the banks of a small ephemeral drainage gully off Goonoo Goonoo Creek. The artefacts had eroded out of the thin, silty clay soils that covered a harder clay base, and were not *in situ*.

A number of red chert flakes were recorded as well as two small multiplatform cores. It is considered likely that these artefacts form part of a more extensive scatter which exists subsurface. Artefacts are likely to be situated at depths of 150 mm – 200 mm, having been worked through the upper silty clay soils by livestock and other grazing activities. Further testing will be required to confirm this, though Everick's conservative estimate based on the spread of the isolated finds is that the scatter may extend some 10m back from the creekline on either side of the back, but mainly the southern bank.



Figure 9: Photo of GGO4



8.5.4 Goonoo Goonoo 5 (GG05)

Goonoo Goonoo 5 (Figure 10) was a small artefact scatter situated in the central portion of open grassed paddock on Lot 230 DP 1045797. The artefacts were located on bare earth under a transmission line pole. The scatter included 5 stone flakes and a large river cobble, all of which were left in situ. These flakes were likely from a single occupation event, and are not considered to be indicative of further extensive subsurface artefacts being located nearby.



Figure 10: Photo of GG05

8.5.5 Goonoo Goonoo 6 (GG06)

Goonoo Goonoo 6 (Figure 11) was situated in the central portion of open grassed paddock on Lot 230 DP 1045797. These artefacts were also located on bare earth underneath a transmission line, approximately 100m NW of GG05. The surface scatter consisted of two artefacts, a red chert retouched flake and a brown chert core. It is considered likely that these isolated artefacts consistent with the general background scatter of Aboriginal Object located within the landform unit.



Figure 11: Photo of GGO6

8.5.6 Interpretation

Based on a review of the archaeological literature for the region, a brief investigation of the land use practices and disturbance analysis, the survey results are consistent with Everick's predictive model for the Development Area. The recorded sites are largely isolated artefacts and low density artefact scatters, most of which are not *in situ*. These sites are of low scientific value, though their cultural value to the traditional owners of the Tamworth region has yet to be determined.

The presence of evidence of Aboriginal occupation within landscapes such as the Development Area is common. Sites GGO1, GGO3, GGO4 and GGO6 are likely representative of a background scatter of archaeological materials within the region. The identification of these sites was heavily dependent on ground surface visibility. Each of these sites was located in areas of exposed ground surface. Given the lack of ground surface visibility over the remainder of the Development Area, it is likely that further isolated and/or low density concentrations of archaeological materials are located within the Development Area.



Any further archaeological materials located within the Development Area will likely only be partially representative of occupation of the Tamworth region in general, as land disturbance from intensive pastoral and agricultural activities has likely resulted in the displacement of archaeological materials from their original contexts. It is not anticipated that this type of background archaeological material will impact the future development of these lands, though it is recommended that the future developers proceed with developing management strategies should Aboriginal Objects be located during the course of Project Activities (see Section 10 below).

8.6 Aboriginal Cultural Heritage Significance Assessment / Predictive Model

8.6.1 Principles of This Significance Assessment

The assessment of archaeological (scientific) significance is a key aspect of developing future management strategies for the proposed development. There are many considerations that contribute to the evaluation of a site or landscape's potential archaeological significance. Two important criteria, listed in the New South Wales *Aboriginal Heritage Standards and Guidelines Kit* (1997:88), are research potential (defined as the potential to elucidate past human behaviours) and educational potential. The primary considerations when evaluating a site's research potential are discussed below.

Rarity: This is related to how prevalent a particular site type is in a given region. Sites that are particularly scarce have the potential to contribute more to our knowledge of past behaviours relative to sites which are common place. For example, in the north coast of New South Wales, coastal (beach) middens would have been common prior to European settlement. However, the impacts of sand mining and development have resulted in coastal middens becoming relatively rare, thus increasing their archaeological significance.

Antiquity: The value in a site's antiquity is closely linked to its rarity. As a general rule, the numbers of particularly old sites will reduce as time progresses. When sites of great antiquity are identified, they are of high archaeological significance.

Representativeness: A site's representativeness indicates whether a site is considered to represent a particular pattern of past human behaviour. It is important to identify sites that have high representative value and conserve them for future generations (Pearson and Sullivan 1995:148). Representativeness is assessed



based on current research questions and technologies, and may change through time. It should be noted that a site's representativeness is also related to its cultural value, as distinct from its purely scientific value.

Complexity: A site may demonstrate a range of human behaviours and/or past climate and environmental changes (Pearson and Sullivan 1995:148).

Integrity: The stratigraphic integrity of a site relates to the subsequent disturbance of a site once it has entered the archaeological record. Disturbance may have been the result of impacts by humans (such as land clearing) or natural causes (such as erosion or bioturbation from ants). It is generally the case that the greater a site's integrity, the greater its archaeological significance.

Connectedness: A site should not be viewed in isolation, as the human behaviours that were responsible for the creation of the site were invariably connected to other sites reflecting different behaviours nearby.

8.6.2 Limitations

With all scientific research, including the assessment of 'scientific significance', it is important to acknowledge the limitations of any conclusions that have been drawn in relation to the assessment of the Development Area.

The assessment of archaeological significance is a highly subjective activity, and depends much on the values of the researcher(s) involved. In this assessment, we have categorised the Project Development into areas of 'High', 'Moderate – High', 'Moderate', 'Low – Moderate', 'Low' and 'No/Nil' archaeological significance. The values we have used are not precise. They exemplify arbitrary distinctions that are necessary for ease of demonstrating the scientific value of the Development Area as a whole. These categories represent a relative continuum of significance, which is demonstrated by the diagram in Figure 12. The intention of Figure 12 is to show examples of the values used in this assessment. Of course, it is quite possible that even a single artefact may be of high archaeological significance, where it can be demonstrated that the artefact exhibits one or more of the criteria above.

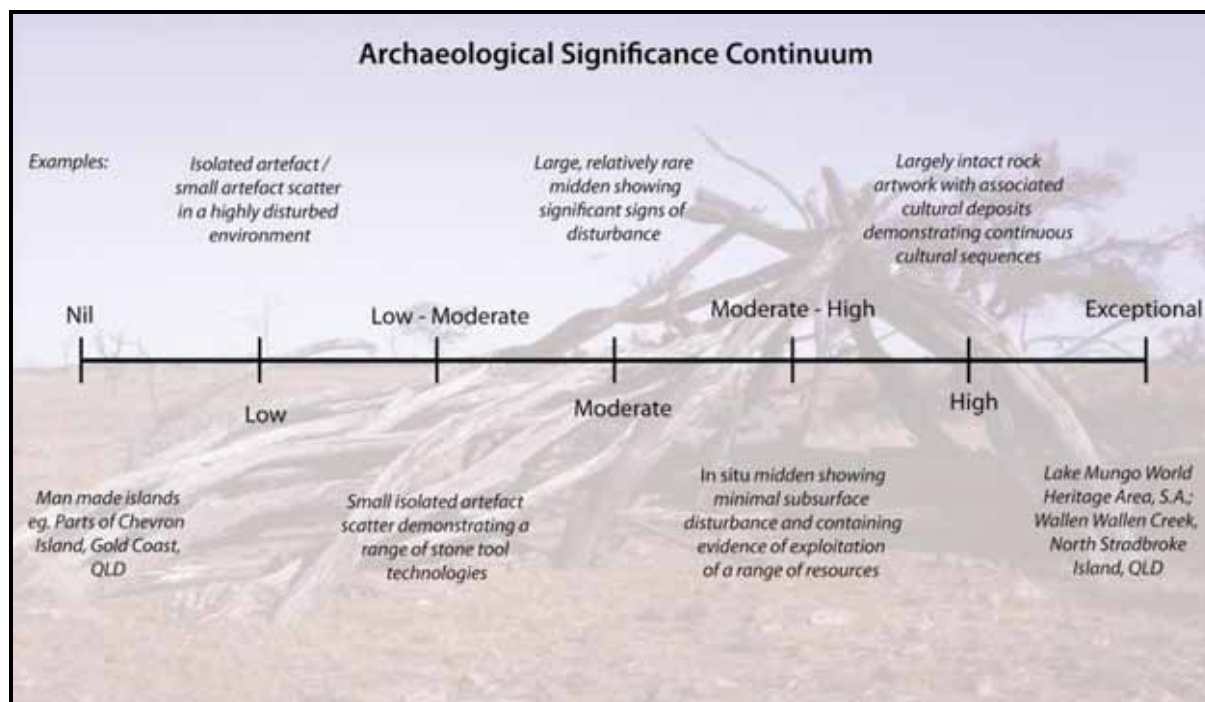


Figure 12: Archaeological Significance Continuum applied in this assessment

8.6.3 Statement of Significance & Predictive Model

Statement of Archaeological Significance: The literature review and archaeological sampling survey have been sufficient to develop an understanding of the potential for artefacts (Aboriginal Objects) to be located within the Development Area.

The Development Area has no features that make it particularly likely to contain high concentrations of scientifically significant Aboriginal Objects, such as prominent water courses, immediate access to marine and aquatic resources and stone resources. The area of most significance is a small portion of creekline on which Site GGO4 is situated (Figure 6). This area was not necessarily the portion of creek line / gully that contained the densest concentration of Aboriginal artefacts prior to European settlement. Rather, it is the area that has seen the least ground disturbance, with the remainder of the creek line being heavily impacted by cultivation and grazing activities. This area has therefore been deemed of **low to moderate** archaeological significance.

It is anticipated that if the remainder of the Development Area is to contain Aboriginal Objects, they would be limited to isolated artefacts, or what is commonly known as a 'background scatter'. Given the high levels of ground disturbance over all of the Development Area, Aboriginal Objects that remain are likely to be of low



scientific value. For these reasons, the Development Area has minimal potential to add to our understanding of past life ways of Indigenous peoples in the region.

There may be areas within the Development Area that have nil scientific value, based on their intensive cultivation over a long period to time. For example, most of Lot 24 DP95997 and Lot 4112 DP1053377 would fall into this category. However, the detailed historic review of each portion of land for such disturbance is beyond the scope of this assessment. It is recommended such works are undertaken at Development Application stage.

Statement of Cultural Significance: Community consultation over the cultural significance of the Development Area has not been undertaken. From consultation with the Tamworth LALC, it is possible to determine that there are no areas of high cultural significance within the Development Area. As the Development Area contains a broad scatter of Aboriginal Objects, a cautionary approach would see the lands classified as of moderate cultural significance. The Development Area was a hunting ground, whilst the low ridges were likely used as observation points and occasional campsites. Semi-permanent water was situated within the Development Area, with potentially more frequent evidence of occupation identifiable adjacent to this water source.

8.7 Historic Cultural Heritage

No items or places of potential historic heritage significance were located within the Development Area. It is unlikely that significant places not identified by this assessment remain within the Development Area.

9. CONCLUSIONS AND RECOMMENDATIONS

For the purposes of rezoning the Development Area lands, there are overall minimal cultural heritage constraints.



One site, GGO4, is of low to moderate archaeological significance (Figure 6). Best practise for future planning for this area would see impacts from future development within 25m of the centreline of the creek avoided or minimised. In the event that this is not possible, an Aboriginal Heritage Impact Permit may be required, whilst consultation with the local Aboriginal community should occur.

For the remainder of the Development Area, while Aboriginal Objects were located within the Development Area, it is the view of the Consultant that these Objects are evidence of a background scatter of archaeological materials as would be expected given the original environment and history of Aboriginal occupation of the region. The extent of disturbance as a result of European land uses has significantly diminished the scientific value of these Objects and also reduced the potential for intact subsurface deposits to remain within the Development Area.

Aboriginal Heritage Impact Permits (AHIPs) will be required for any works that may impact on the recorded Aboriginal sites identified during this assessment. Owing to the Statements of Significance above, it is reasonable to assume that such permits would be highly likely to be granted by the OEH. It is also relevant that two sites (GGO5 and GGO6) are within a powerline easement, where future development is unlikely in the short to medium term.

Note: The NSW government is currently undertaking an extensive review of cultural heritage legislation in the State. Current models being proposed will involve landusers negotiating directly with cultural heritage committees over future developments. It is anticipated that legislative changes may come into effect as early as 2015. The recommendations below may therefore need to be reviewed following the implementation of the legislative changes. In particular, recommendations concerning the use of the Due Diligence Code and requirements for Aboriginal Heritage Impact permits may not remain current after 2015.

Recommendation 1: Rezoning of the Development Area

No cultural heritage impediments to the proposed rezoning to the Development Area were identified.

Recommendation 2: Further Assessment at Development Application Stage

It is recommended that TRC ensure that any development activities within the Development Area are undertaken in accordance with the OEH *Due Diligence Code of Practice of the Protection of Aboriginal Objects*



in NSW. The Due Diligence Code, read in conjunction with this assessment, should provide the basis for assessing whether further cultural heritage assessment is required. In particular, regard should be had to the following:

- d) is there any known Aboriginal cultural heritage within the area to be developed; and
- e) has the area to be developed (including any access roads and service locations) been subject to extensive ground disturbance such as through consistent ploughing and cultivation of crops.

Where development proposals will not result in substantial ground surface modification, and are in areas that have seen extensive ground disturbance, further cultural heritage assessment is not required. This conclusion would be particularly appropriate for small subdivision application made on the southern lots of the Development Area and for Lots 11 and 12 DP 240631.

Recommendation 3: No Further Assessment at Development Application Stage

It is recommended that Lot 4111 DP1053377 and those parts of the Development Area within Lot 71 DP866139 are subject to no further cultural heritage assessment. Both of these areas were intensively surveyed. They have a history of extensive ground disturbance, good ground surface visibility and contained no Aboriginal Objects.

Recommendation 4: Minimal Disturbance of central creek / drainage line

It is recommended that TRC plans for minimal disturbance to the central drainage line running through Lot 24 DP 95997. This area retains the potential for subsurface Aboriginal Objects. It is of note that this sensitivity does not extend to the west of Goonoo Goonoo Road (Lots 11 and 12 DP240631), owing to the extensive ground surface modification in this area.

Recommendation 5: Aboriginal Heritage Impact Permits

It is recommended that TRC ensures that the necessary Aboriginal Heritage Impact Permits (AHIPs) are in place should any development applications propose to impact on known cultural heritage sites. It should be noted in planning for developments that AHIPs can take as long as 5 – 12 months to obtain, depending on the complexity of the application, community support and the need to do exploratory testing prior to any consent to destroy or salvage being issued.



Recommendation 6: Aboriginal Objects Find Procedure

As there remains a potential that Aboriginal Objects could be located within all parts of the Development Area, it is recommended that TRC ensure that any development approvals are accompanied with an appropriate Aboriginal heritage Finds Procedure. A suitable Finds Procedure might be drafted as follows:

“ if it is suspected that Aboriginal material has been uncovered as a result of development activities within the Development Area:

- f) work in the surrounding area is to stop immediately;
- g) a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site;
- h) an appropriately qualified archaeological consultant is to be engaged to identify the material; and
- i) if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH guidelines: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).”

Recommendation 7: Aboriginal Human Remains

Although it is highly unlikely that Human Remains will be located at any stage during earthworks within the Development Area, should this event arise it is recommended that the TRC ensure that any development approvals are accompanied with an appropriate Aboriginal Human Remains Procedure. A suitable Aboriginal Human Procedure might be drafted as follows

“in the event of a suspected Aboriginal human remains find, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station (Tamworth), the Tamworth Local Aboriginal Land Council and the OEH Regional Office are all to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the Site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties’ statutory obligations.



Recommendation 8: Notifying the OEH

It is recommended that if Aboriginal cultural materials are uncovered as a result of development activities within the Development Area, they are to be registered as Sites in the Aboriginal Heritage Information Management System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.

Recommendation 9: Historic Cultural Heritage

The literature review and site inspection did not identify any items or places of potential historic heritage significance within the Development Area. It is recommended that no further historic heritage assessment be required for future development applications within the Development Area.



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Office of Environment & Heritage

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref Number : EV.239 Kootingal

Client Service ID : 88809

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
	Contact							Permits		
There are no sites found for given search criteria.										

Report generated by AHIMS Web Service on 07/01/2013 for Caroline Ingram for the following area at Lot : 13, DP:DP650706 with a Buffer of 1000 meters. Additional Info : Due Dilligence

Assessment. Number of Aboriginal sites and Aboriginal objects found is 0

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 1

EV.283 South Tamworth Rural Lands Master Plan Cultural Heritage Due Diligence Assessment: Goonoo Goonoo Road Site
Prepared for Tamworth Regional Council



APPENDIX B: HISTORICAL AERIAL PHOTOGRAPHY



Figure 14:1953 historic aerial photograph (red Development Area outline is approximate only)



Figure 15: 1968 historic aerial photograph (red Development Area outline is approximate only)

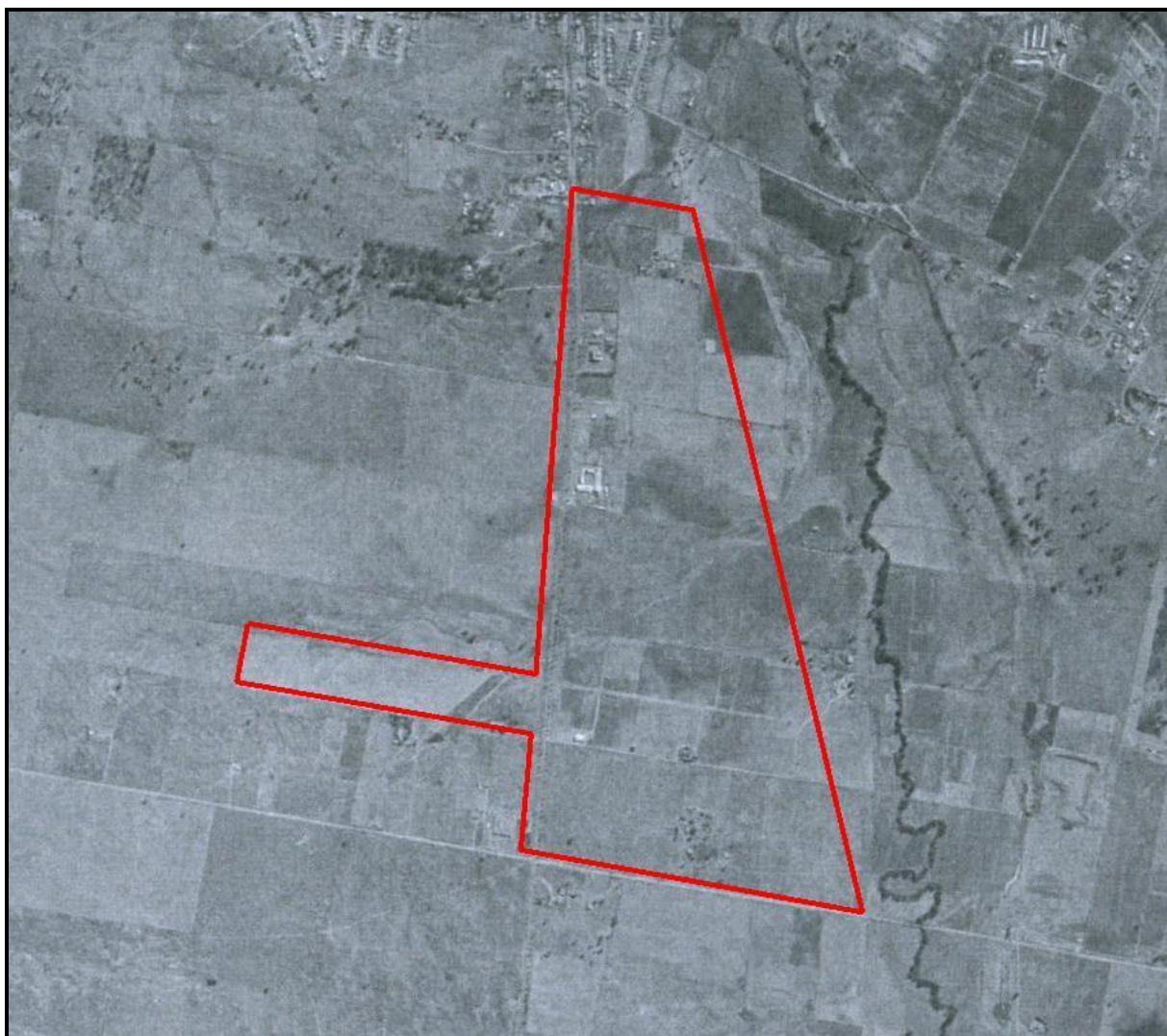


Figure 16: 1976 historic aerial photograph (red Development Area outline is approximate only)



Figure 17: 1984 historic aerial photograph (red Development Area outline is approximate only)



Figure 18: 1993 historic aerial photograph (red Development Area outline is approximate only)



APPENDIX C: PARISH MAPPING

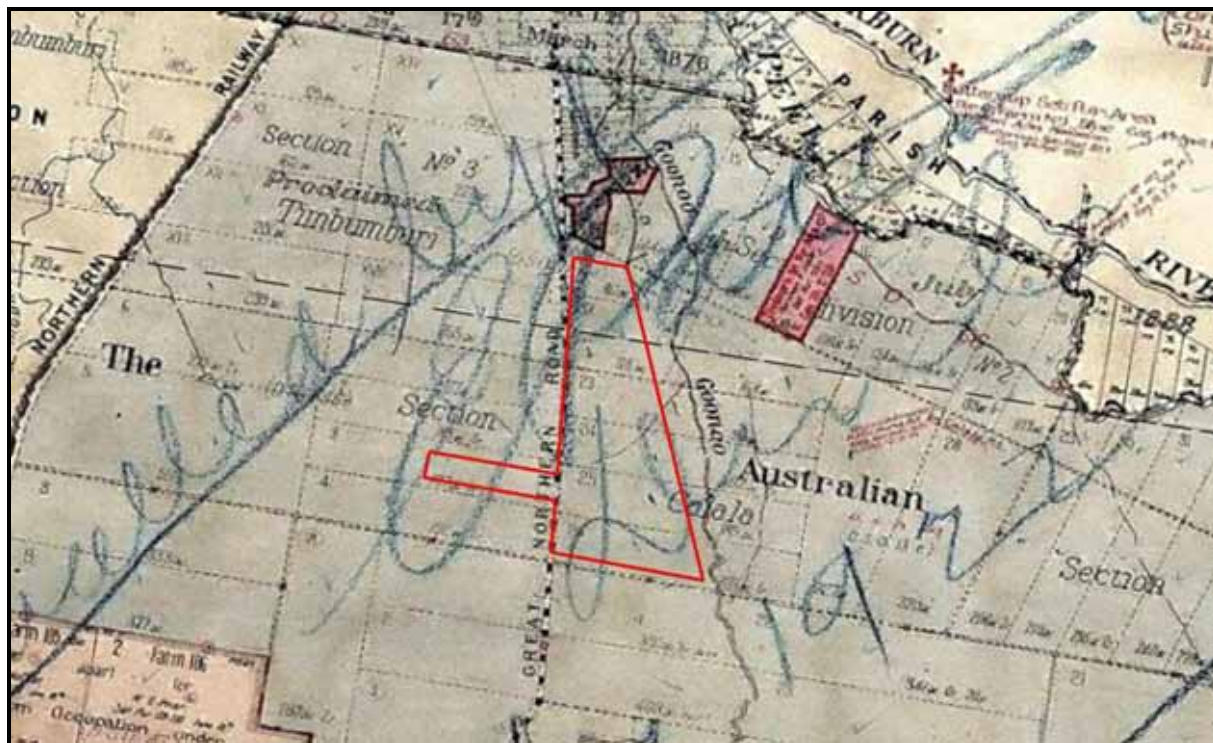


Figure 19: 1909 Calala Parish Map (red Development Area boundary is approximate only)

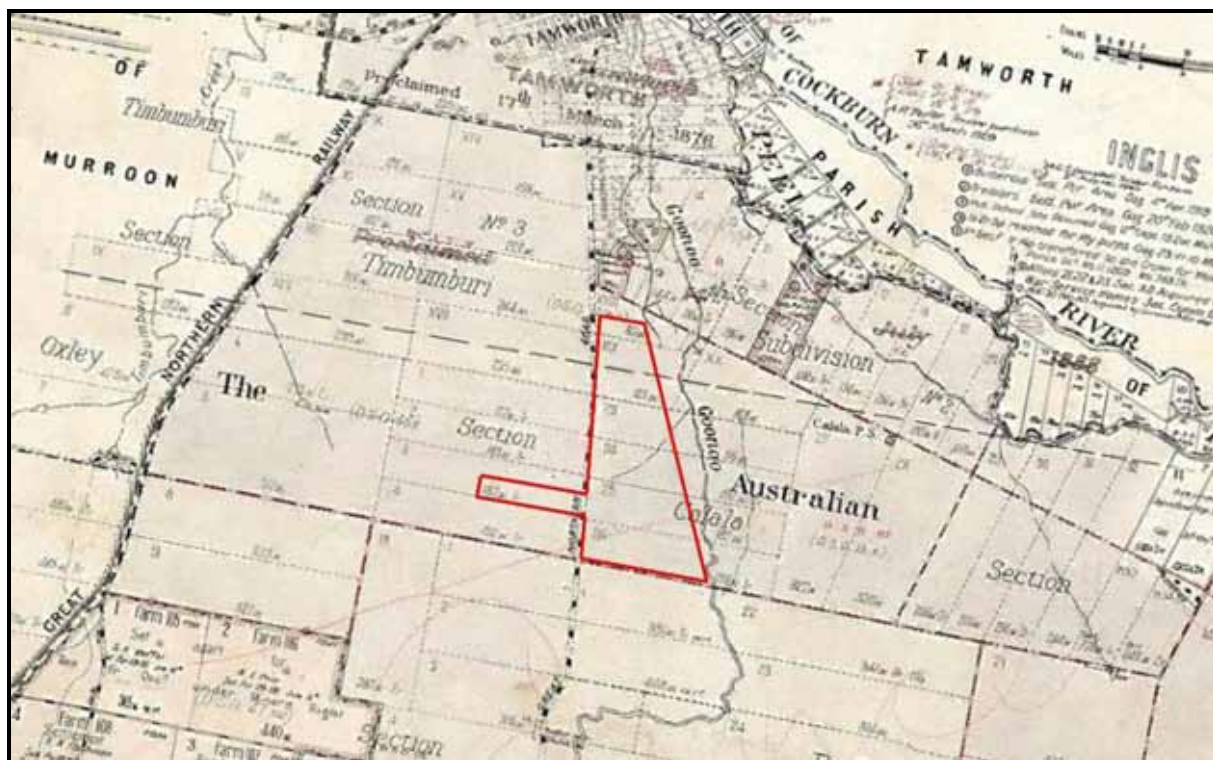


Figure 20: 1922 Calala Parish Map (red Development Area boundary is approximate only)

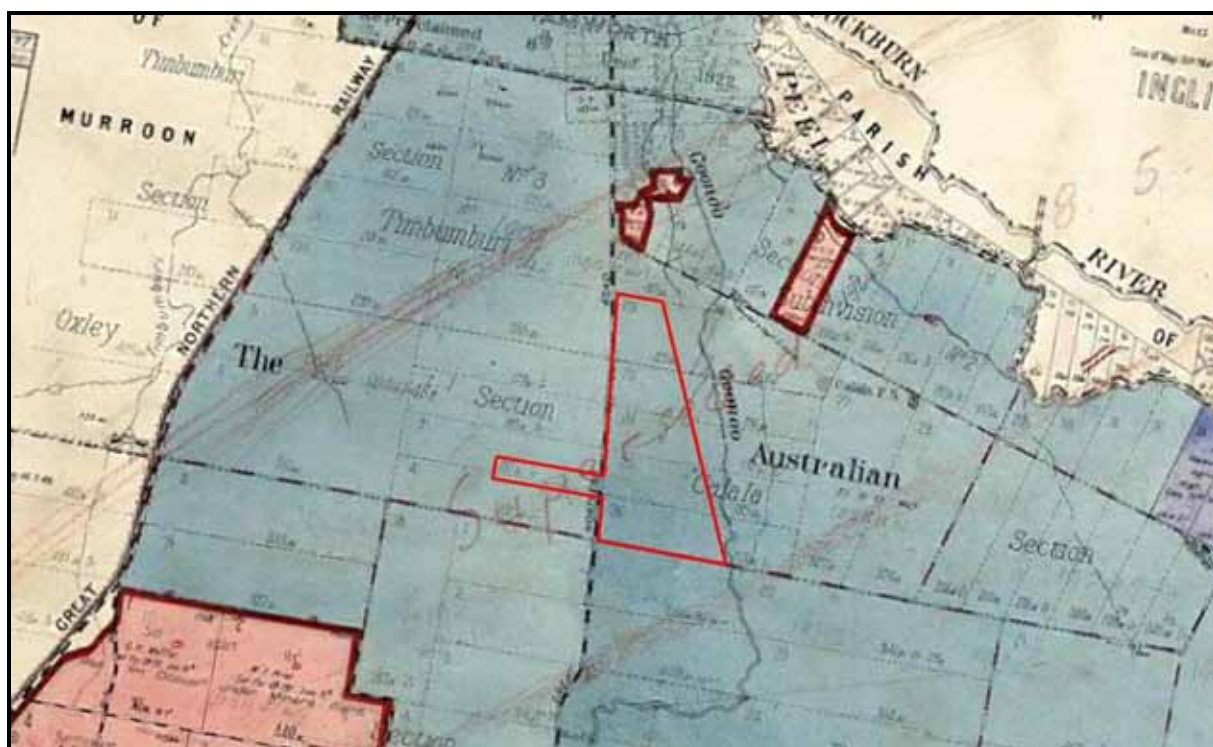
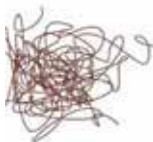


Figure 21: 1932 Calala Parish Map



Figure 22: 1951 Calala Parish Map

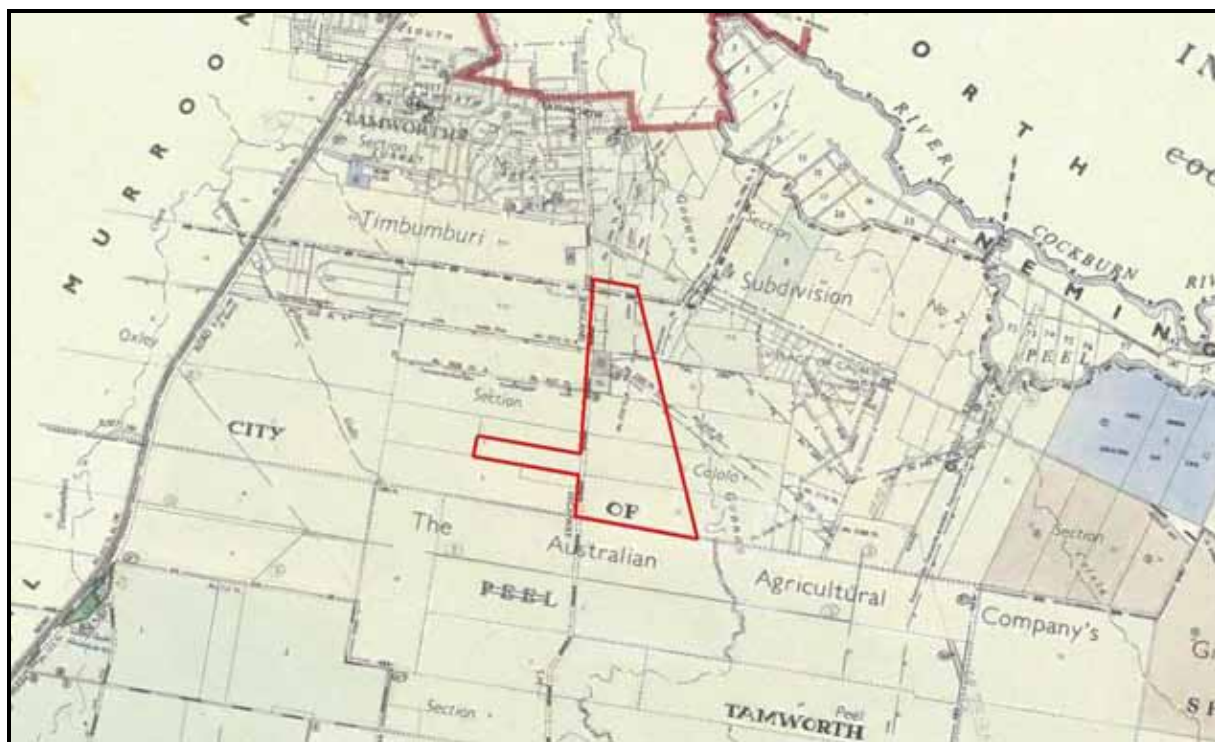


Figure 23: 1971 Calala Parish Map