

FEBRUARY 2014

## DUE DILIGENCE CULTURAL HERITAGE ASSESSMENT



### SOUTH TAMWORTH RURAL LANDS MASTER PLAN DURI ROAD SITE

TAMWORTH, NSW

PREPARED FOR TAMWORTH REGIONAL COUNCIL



**Report Reference:**

Robins, T and J. Towers.

2014 *Cultural Heritage Due Diligence Assessment of the Tamworth Council's South Tamworth Rural Lands Master Plan for the Duri Road Site, Tamworth, NSW (February 2014)*. Everick Heritage Consultants Pty Ltd unpublished report prepared for the Tamworth Regional Council.

**EVERICK HERITAGE CONSULTANTS PTY LTD**

ABN: 78 102 206 682

47 Arthur Terrace

PO Box 146

RED HILL, QLD 4059

T: (07) 3368 2660

F: (07)3368 2440

E: [info@everick.com.au](mailto:info@everick.com.au)

**Document Status:**

Rev No.	Version	Author(s)	Amended Sections	Date	Authorised
1	Draft	T. Robins, J. Towers	All	04.02.2014	T. Robins
2	Final	T. Robins, J. Towers	All	27.02.2014	T. Robins

© Everick Heritage Consultants Pty Ltd 2014

This document is and shall remain the property of Everick Heritage Consultants Pty Ltd. The document may only be used for the purposes for which it was commissioned. Everick grants authority to reproduce this document for academic purposes. Unauthorised reproduction of this document is prohibited.



## 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 Duri 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 Duri 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; and
- d) a review of photographs taken from a recent site inspection.

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 nine (9) Aboriginal cultural heritage Sites within a 1km radius of the Development Area. Further searches of other heritage registers listed two (2) Indigenous places within the Tamworth Region. No Sites were listed within the Development Area.

## RESULTS

- 15 Aboriginal Sites were identified within the Development Area.
- A large portion of the Development Area has been disturbed in a manner which constitute 'disturbance' within the meaning of the Due Diligence Code. Consistent with the Due Diligence Code.
- No intangible heritage values were noted to exist within the Development Area, though community consultation regarding these issues was outside the scope of this assessment.



## RECOMMENDATIONS

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

Two areas of moderate archaeological significance were recorded within the Development Area. It is recommended that further heritage works be conducted in these areas at Development Application stage. 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, and the location of these sites in their broader landscape context, it is unlikely that such permits would be granted by the OEH without further investigative works and community involvement. However, the proposed future land use plans should be able to appropriately accommodate the Aboriginal cultural heritage of the Development Area through sound planning at the development application stage.

**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 those parts of Lot 6A DP161273 outside of the Burkes Gully cultural area.

#### **Recommendation 4: Minimal Disturbance of Gully**

It is recommended that TRC plans for minimal disturbance to Burkes Gulley. This area retains the potential for subsurface Aboriginal Objects.

#### **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.



---

## TABLE OF CONTENTS

---

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>PART A: PROJECT CONTEXT .....</b>	<b>11</b>
<b>1. INTRODUCTION .....</b>	<b>11</b>
1.1 REPORT COMMISSIONING & PROJECT BRIEF .....	11
1.2 METHODOLOGY EMPLOYED FOR ASSESSMENT.....	12
1.3 REPORT AUTHORSHIP.....	12
<b>2. LEGISLATIVE AND PLANNING CONTEXT .....</b>	<b>15</b>
2.1 THE NATIONAL PARKS AND WILDLIFE ACT 1974 (NSW) AND THE NATIONAL PARKS AND WILDLIFE REGULATIONS 2009 (NSW) 15	
2.1.1 'Low Impact Activities'.....	16
2.2 DUE DILIGENCE CODE OF PRACTICE FOR THE PROTECTION OF ABORIGINAL OBJECTS.....	17
2.3 THE ACHCR (2010) .....	18
2.4 THE TAMWORTH LOCAL ENVIRONMENTAL PLAN 2010 .....	18
<b>3. DESCRIPTION OF DEVELOPMENT PROPOSAL .....</b>	<b>19</b>
<b>PART B: DESKTOP REVIEW.....</b>	<b>22</b>
<b>4. ABORIGINAL CULTURAL HERITAGE .....</b>	<b>22</b>
4.1 THE OEH ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEM (AHIMS) .....	22
4.2 OTHER HERITAGE REGISTERS: ABORIGINAL & HISTORIC CULTURAL HERITAGE.....	23
<b>5. LANDSCAPE CONTEXT .....</b>	<b>25</b>
5.1 ENVIRONMENT LOCALITY .....	25
5.2 GEOLOGY & SOILS.....	25
5.3 VEGETATION .....	25
<b>6. REVIEW OF HISTORIC IMAGERY AND MAPPING .....</b>	<b>26</b>
6.1 HISTORIC AERIAL PHOTOGRAPHY .....	26
6.2 PARISH MAPPING.....	27
<b>7. PREVIOUS ARCHAEOLOGICAL AND CULTURAL HERITAGE ASSESSMENTS.....</b>	<b>28</b>
7.1 SYNTHESIS OF ARCHAEOLOGY AND ETHNO-HISTORY .....	28
7.1.1 <i>Settlement</i> .....	28
7.1.2 <i>Movement</i> .....	29
7.1.3 <i>Economy</i> .....	30
7.2 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS .....	31
7.3 POTENTIAL SITE TYPES: ABORIGINAL ARCHAEOLOGICAL SITES IN THE TAMWORTH REGION .....	34
7.3.1 <i>Isolated Artefacts</i> .....	34
7.3.2 <i>Open Campsites/Artefact Scatters</i> .....	35
7.3.3 <i>Middens</i> .....	35
7.3.4 <i>Quarry Sites</i> .....	36
7.3.5 <i>Scarred Trees</i> .....	36
7.3.6 <i>Burials</i> .....	36
7.3.7 <i>Ceremonial Sites</i> .....	37
7.3.7 <i>Mythological Sites</i> .....	37
7.4 PREDICTIVE MODELLING OF ABORIGINAL CULTURAL HERITAGE (PRE-SURVEY) .....	37
<b>8. FIELD SURVEY METHODS AND RESULTS.....</b>	<b>38</b>



8.1	ABORIGINAL COMMUNITY PARTICIPATION .....	38
8.2	SURVEY METHODS .....	38
8.3	CONSTRAINTS TO SITE DETECTION .....	40
8.4	SURVEY COVERAGE.....	40
8.5	RESULTS .....	40
8.5.1	<i>Duri Road 1 (DR01)</i> .....	42
8.5.2	<i>Duri Road 2 (DR02)</i> .....	42
8.5.3	<i>Duri Road 3 (DR03)</i> .....	43
8.5.4	<i>Duri Road 4 (DR04)</i> .....	44
8.5.5	<i>Duri Road 5 (DR05)</i> .....	45
8.5.6	<i>Duri Road 6 (DR06)</i> .....	46
8.5.7	<i>Duri Road 7 (DR07)</i> .....	47
8.5.8	<i>Duri Road 8 (DR08)</i> .....	48
8.5.9	<i>Duri Road 9 (DR09)</i> .....	49
8.5.10	<i>Duri Road 10 (DR10)</i> .....	50
8.5.11	<i>Duri Road 11 (DR11)</i> .....	51
8.5.12	<i>Duri Road 12 (DR12)</i> .....	52
8.5.13	<i>Duri Road 13 (DR13)</i> .....	53
8.5.14	<i>Duri Road 14 (DR14)</i> .....	56
8.5.15	<i>Duri Road 15 (DR15)</i> .....	56
8.6	INTERPRETATION .....	57
8.7	ABORIGINAL CULTURAL HERITAGE SIGNIFICANCE ASSESSMENT / PREDICTIVE MODEL.....	58
8.8	HISTORIC CULTURAL HERITAGE .....	63
<b>9.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>63</b>
	<b>REFERENCES .....</b>	<b>67</b>
	<b>APPENDIX A: AHIMS SEARCH RESULTS .....</b>	<b>71</b>
	<b>APPENDIX B: HISTORICAL AERIAL PHOTOGRAPHY .....</b>	<b>72</b>
	<b>APPENDIX C: PARISH MAPPING.....</b>	<b>75</b>





---

## List of Figures & Tables

---

FIGURE 1: GENERAL LOCATION OF DEVELOPMENT AREA.....	13
FIGURE 2: SATELLITE IMAGE OF THE DEVELOPMENT AREA.....	14
FIGURE 3: DEVELOPMENT AREA STAGING PLAN (TAMWORTH REGIONAL COUNCIL 2012: 30) .....	21
FIGURE 4: AHIMS SEARCH RESULTS (AERIAL UNDERLAY COURTESY OF GOOGLE MAPS 2013). .....	24
FIGURE 5: SURVEY PLAN .....	39
FIGURE 6: SURVEY RESULTS PLAN .....	41
FIGURE 7: PHOTOGRAPH OF DR01 .....	42
FIGURE 8: PHOTOGRAPH OF DR02 .....	43
FIGURE 9: PHOTOGRAPH OF DR03 .....	44
FIGURE 10: PHOTOGRAPH OF DR04 .....	45
FIGURE 11: PHOTOGRAPH OF DR05 .....	46
FIGURE 12: PHOTOGRAPH OF DR06 .....	47
FIGURE 13: PHOTOGRAPH OF DR07 .....	48
FIGURE 14: PHOTOGRAPH OF DR08 .....	49
FIGURE 15: PHOTOGRAPH OF DR09 .....	50
FIGURE 16: PHOTOGRAPH OF DR10 .....	51
FIGURE 17: PHOTOGRAPH OF DR11 .....	52
FIGURE 18: PHOTOGRAPH OF DR12 .....	53
FIGURE 19: PHOTOGRAPH OF DR13 .....	54
FIGURE 20: PHOTOGRAPH OF DR13 .....	55
FIGURE 21: PHOTOGRAPH OF DR13 .....	55
FIGURE 22: PHOTOGRAPH OF DR14 .....	56
FIGURE 23: PHOTOGRAPH OF DR15 .....	57
FIGURE 24: ARCHAEOLOGICAL SIGNIFICANCE CONTINUUM APPLIED IN THIS ASSESSMENT .....	60
FIGURE 25: DURI ROAD CULTURAL HERITAGE SENSITIVITY PLAN .....	62
FIGURE 26: AHIMS SEARCH RESULTS - NO ITEMS OR PLACES WERE RETURNED. ....	71
FIGURE 27: 1953 HISTORIC AERIAL PHOTOGRAPH (RED DEVELOPMENT AREA OUTLINE IS APPROXIMATE ONLY).....	72
FIGURE 28: 1976 HISTORIC AERIAL PHOTOGRAPH (RED DEVELOPMENT AREA OUTLINE IS APPROXIMATE ONLY).....	72
FIGURE 29: 1984 HISTORIC AERIAL PHOTOGRAPH (RED DEVELOPMENT AREA OUTLINE IS APPROXIMATE ONLY).....	73
FIGURE 30: 1993 HISTORIC AERIAL PHOTOGRAPH (RED DEVELOPMENT AREA OUTLINE IS APPROXIMATE ONLY).....	74
FIGURE 31: 1909 CALALA PARISH MAP (RED DEVELOPMENT AREA BOUNDARY IS APPROXIMATE ONLY) .....	75
FIGURE 32: 1922 CALALA PARISH MAP (RED DEVELOPMENT AREA BOUNDARY IS APPROXIMATE ONLY) .....	75
FIGURE 33: 1932 CALALA PARISH MAP.....	76
FIGURE 34: 1951 CALALA PARISH MAP.....	76
FIGURE 35: 1971 CALALA PARISH MAP.....	77
 TABLE 1: DEVELOPMENT AREA LOT ON PLAN DETAILS.....	 19
TABLE 2: AHIMS REGISTERED SITES.....	22



## DEFINITIONS

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

**Aboriginal Object** 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 land subject to this assessment located at 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.



## 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 three stages (Figure 3) and was displayed for public exhibition in early 2012.

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 2, 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 employed for 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 Everick Director Dr Richard Robins and Senior Archaeologist (Stone Artefact Specialist) Clair Davey.

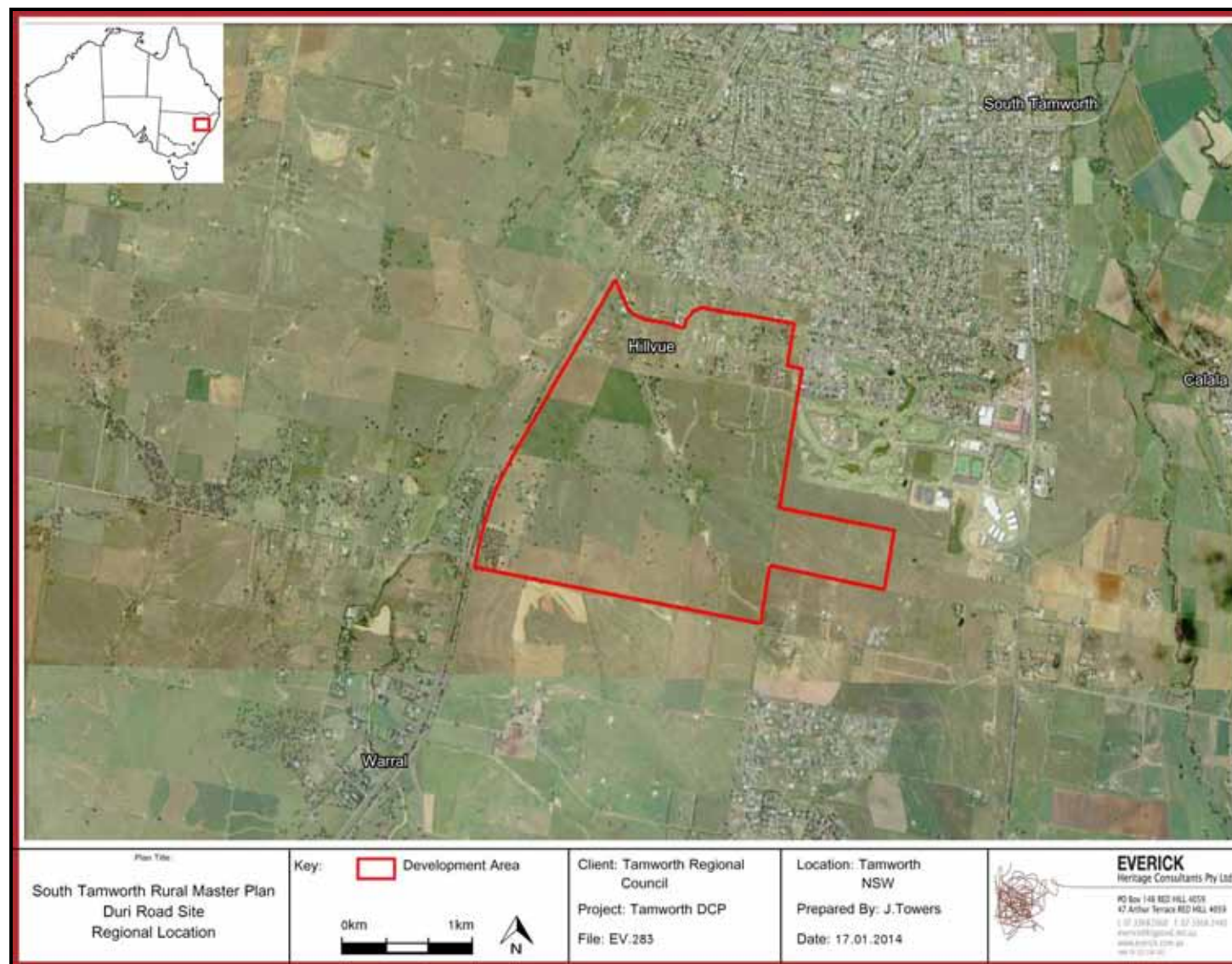


Figure 1: General location of Development Area



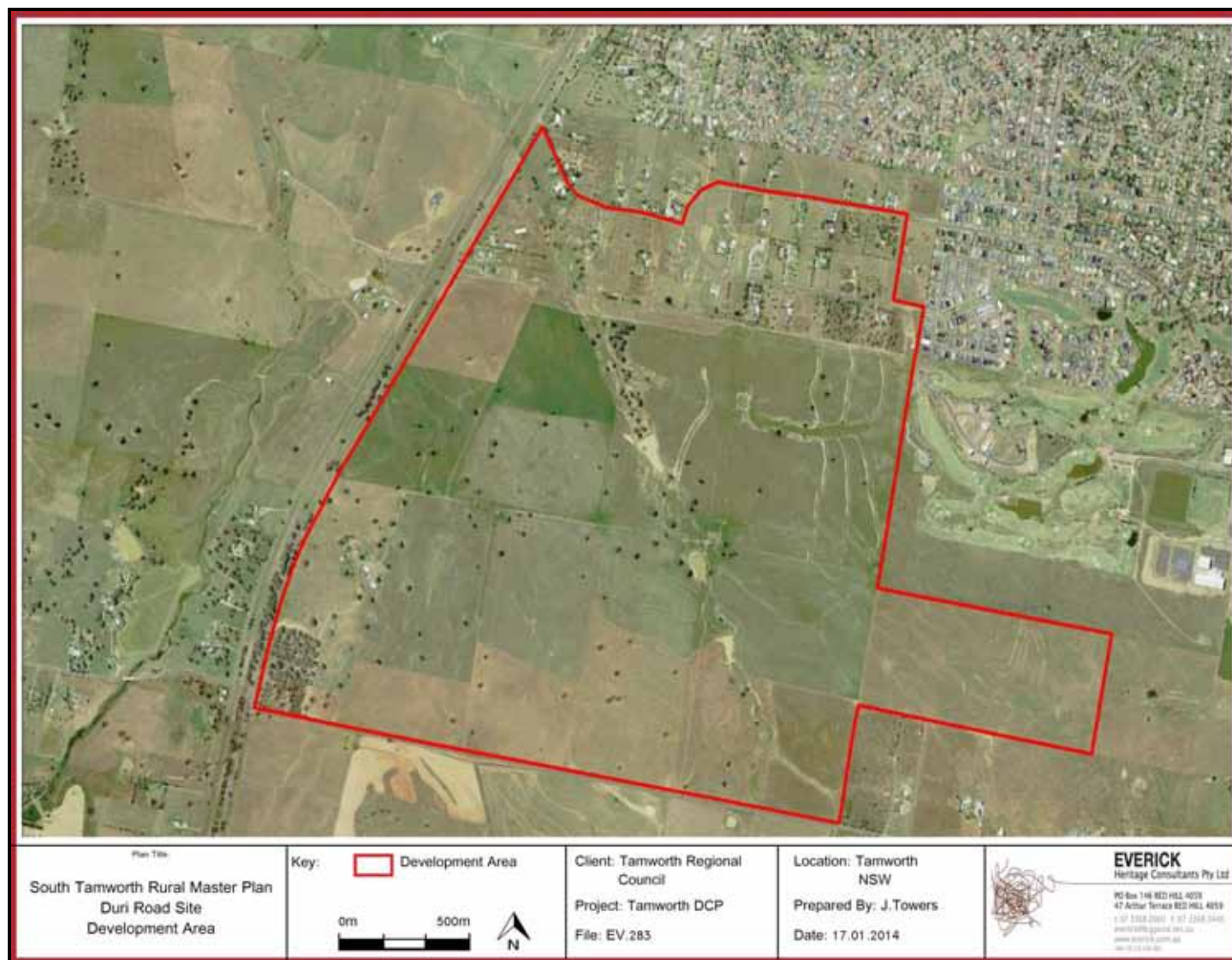


Figure 2: Satellite Image of the Development Area



## 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 development activities 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; and/or
- 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 Duri Road Site and consists of either all or parts of the Lots listed in Table 1 to form a total of approximately 430 hectares in total area. The Development Area is bounded by Duri Road to the west and Burgmanns Lane to the south. Burkes Gully, a small tributary of the Peel River, runs from the north-west to the south-east, diagonally across the Development Area. The site has been predominantly cleared for pastoral and cultivation purposes with only limited remnant vegetation, in the form of isolated trees, remaining.

**Table 1: Development Area Lot on Plan Details**

Duri Road Site Lot On Plan Details			
Lot 51 DP711871	Lot 6 DP38886	Lot 4 DP233288	Lot 23 DP233288
Lot 1 DP795331	Lot 5A DP38886	Lot 3 DP233288	Lot 28 DP233288
Lot 9 DP240631	Lot 16 DP38886	Lot 2 DP233288	Lot 221 DP871012
Lot 6A DP161273	Lot 15 DP38886	Lot 1 DP233288	Lot 222 DP871012
Lot 1 DP38808	Lot 9 DP233288	Lot 33 DP233288	Lot 29 DP233288
Lot 2 DP38808	Lot 8 DP233288	Lot 25 DP233288	Lot 21 DP233288
Lot 3 DP38808	Lot 7 DP233288	Lot 26 DP233288	Lot 30 DP233288
Lot 4 DP38808	Lot 6 DP233288	Lot 241 DP1003428	Lot 20 DP233288
Lot 7 DP38886	Lot 5 DP233288	Lot 27 DP233288	Lot 31 DP233288



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 South Tamworth Rural Lands Master Plan, Tamworth Regional Council propose to rezone the Development Area from primary production small rural lots to residential and equine industry developments. A draft Staging Plan is illustrated in Figure 3.

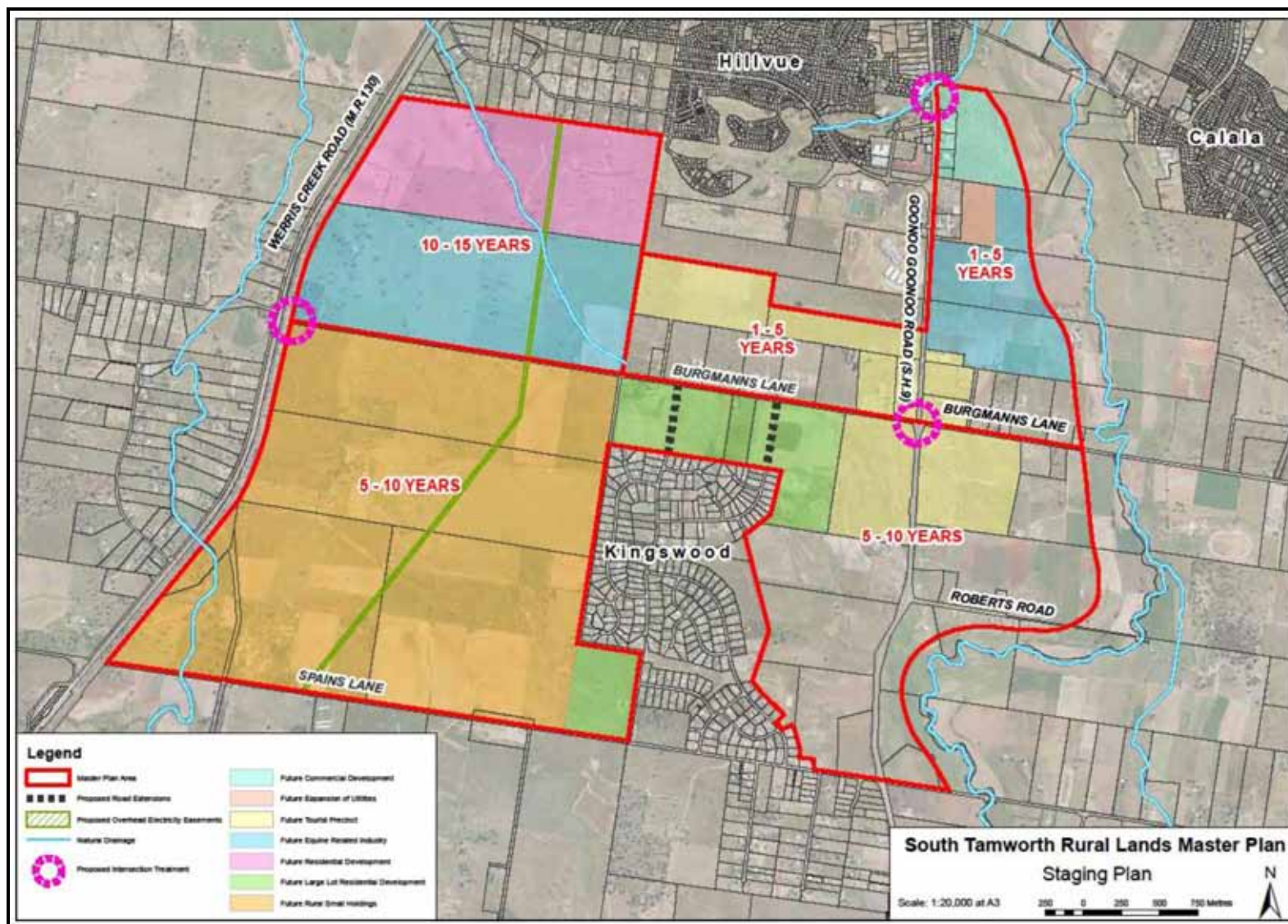


Figure 3: Development Area Staging Plan (Tamworth Regional Council 2012: 30)





## 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 120690) over a one kilometre zone surrounding the Development Area. The search returned nine (9) Aboriginal Cultural Heritage sites within the search zone (Figure 4). A further search of Everick's Cultural Heritage Database (including regional AHIMS registered sites) returned a further four (4) Aboriginal Heritage sites within 1.5km of the Development Area (Figure 4). A description of the Sites has been provided in Table 2. No sites were located within the Development Area (Figure 4).

**Table 2: AHIMS Registered Sites**

AHIMS Site ID	Site Name	Easting (AGD66 56) Easting* (GDA94)	Northing (AGD66 ) Northing*(GDA94)	Description
29-2-0094	DTG/ST1 - Timbumburi Creek	298140	6556700	Open Site; Modified Tree
29-2-0079	T-OS-1 (Timbumburi Creek)	296870	6551300	Open Camp Site
29-2-0001	Tamworth;West Tamworth;	298600	6555800	Not an Aboriginal Site
29-2-0160	Timbumburi Creek Coledale	298575	6556000	Artefact Scatter
29-2-0052	Timbumburi Creek;	297200	6551500	Open Campsite; Artefact Scatter
29-2-0243	Equine 1P/1	301896	6553455	Open Site; Artefacts x 3; Valid
29-2-0277	DTG/ST 1- Timbumburi Ck	298140*	6556700*	Open Site
29-2-0286	Timbumburi Creek/Warral	296875*	6551000*	Open Site



29-2-0287	TCST 1 (Timbumburi Creek Scarred Tree 1)	297108	6551337	Open Site; Modified Tree
29-2-0092**				Open Site; Artefacts
29-2-0093**				Open Site; Artefacts
29-2-0275**				Open Site; Artefacts
29-2-0289**				Open Site; Artefacts

\*\*Sites located through Everick Database, WGS84 (potential restricted access).

## 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 located 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.



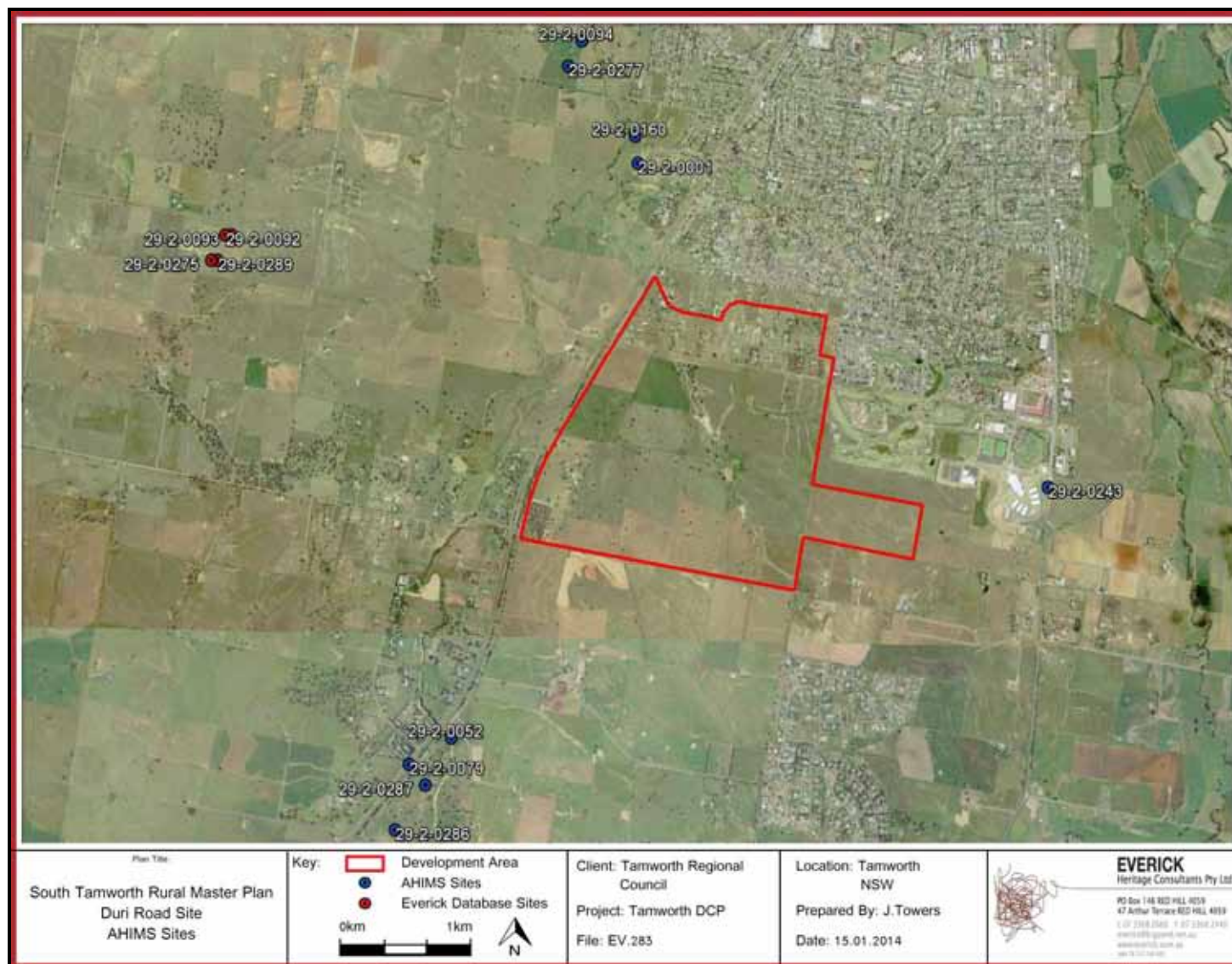


Figure 4: AHIMS Search Results (Aerial underlay courtesy of Google Maps 2013).



## 5. LANDSCAPE CONTEXT

### 5.1 Environment Locality

The Development Area is located south-west of Tamworth and is bounded to the west by Duri Road/Werris Creek Road and by Burgmanns Lane to the south. Burkes Gully, a tributary of the Peel River, runs from the north-west diagonally through the Development Area to the south-east.

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 (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.

### 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 moderated growth bushes and shrubs. The closed grasslands were mainly plains grass (*Stipa aristigulumis*). 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, 1976, 1984 and 1993 were reviewed as part of this assessment (Appendix B).

The 1953 Historic Aerial image only shows the southern portion of the Development Area (Figure 27). The image shows that by the 1950's the Development Area had been cleared, excluding the south-western corner and the margins of Burkes Gully. 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. Duri Road and Burgamanns Lane are well-formed at this time, The Development Area lands appear to be set up for rural uses, likely pastoral or for cultivation purposes 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 aerial photograph from 1976 (Figure 28) shows the entirety of the Development Area. There is little change to the general configuration of the southern section of the Development Area. To the north, buildings likely associated with the agricultural industry and a few small dwellings are visible. It is of interest to note that the vegetation in the south has not greatly changed from the 1953 aerial image, indicating that land use activities did not result in further clearing.

The 1984 (Figure 29) photograph illustrates that the lands remain virtually unchanged, indicating a general uniformity in land use, though further dwellings have been constructed in the north. Terracing or contouring lines are visible in one of the southern paddocks, not far from Burkes Gully. There appears to be little change in the degree of disturbance through time. This consistency suggest that land practices were relatively consistent as the town of Tamworth continued to develop.

Unfortunately the final the 1993 aerial photograph only includes the eastern portion of the Development Area. The quality of this image illustrates the typical landscape formations associated with agricultural activities



(Figure 30). It is clear from this image that the eastern section of the Development Area has been subject to extensive disturbance through agricultural activities.

**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, particularly in the vegetated south-western corner, which remains in a very similar state in contemporary satellite imagery

## 6.2 Parish Mapping

Parish Maps were sourced 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 31) 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 32 - Figure 35).



## 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 Ethno-history

#### 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 identities 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 is 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 the Australian Agricultural Company.

Established in 1824, the 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). Larger species, such as Kangaroo and Wallaby, were often stalked and herded in groups and taken by spears once surrounded by a hunting party, 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, but also because the current frameworks of archaeological investigation in the region are generally targeted cultural heritage assessments. The raw materials recorded ranges from more course 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 Gomilaroi 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 a Burkes Gully, a small ephemeral tributary of the Peel River is located within 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. Visibility of these features will be impacted by previous clearing and 'rock picking' activities.

#### *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, the areas immediately surrounding Burkes Gully have increased archaeological potential to contain burials, though the overall risk is very low. Additionally, 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 (Pre-Survey)**

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 was 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, it was considered that there was a generally low potential for evidence of scientifically significant Aboriginal sites to occur within the Development Area. It was presumed that evidence of Aboriginal occupation would largely be limited to 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 Everick Consultant, Tim Robins from Thursday 16 January through to Friday 17 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.



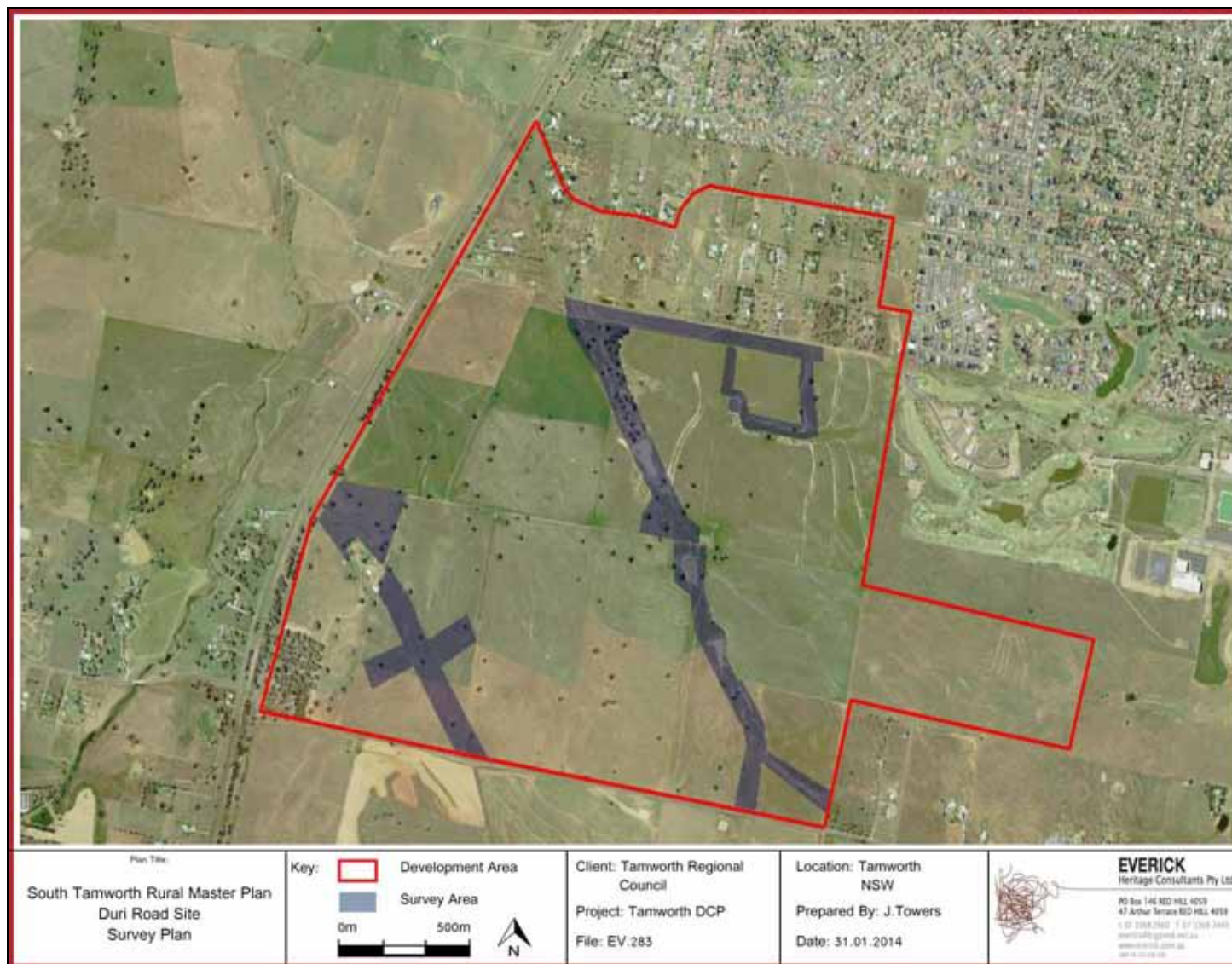


Figure 5: Survey Plan





### 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 the small residential Lots in the north of the Development Area along Bylong Road, and most of 6A DP161273. Ground surface visibility was low over most of the survey area (< 15%).

### 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 60% coverage)

### 8.5 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. The nearest place of significance was the bora / ceremonial ground approximately two kilometres to the north west. A total of fifteen 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.

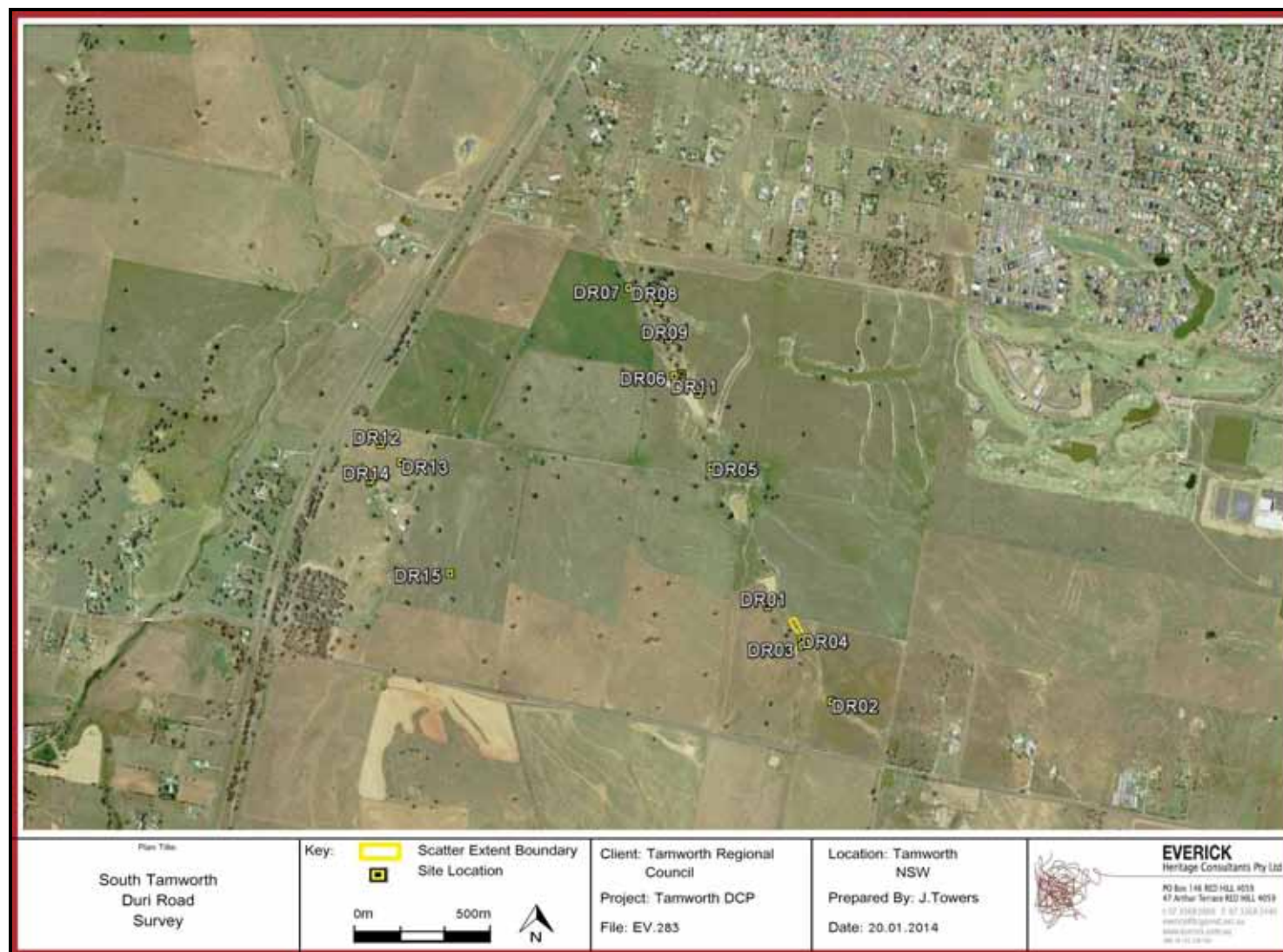


Figure 6: Survey Results Plan



### 8.5.1 Duri Road 1 (DR01)

Duri Road 1 (Figure 7) was situated on the banks of Burkes Gully. The site was a small, low density scatter of basalt stone artefacts located on the eroded banks. As erosion was evident on banks, the artefacts are likely not *in situ*. The scatter consisted of 5 basalt flakes, 3 of which were retouched.



Figure 7: Photograph of DR01

### 8.5.2 Duri Road 2 (DR02)

Duri Road 2 (Figure 8) was situated on the north-eastern banks of Burkes Gully. The site included two isolated artefacts located at point of convergence between two small drainage channels of the gully. The area is highly disturbed and eroding along bank edges. The artefacts were 2 basalt flakes, both of which were left *in situ* and will likely wash away with next heavy rain.





Figure 8: Photograph of DR02

### 8.5.3 Duri Road 3 (DR03)

Duri Road 3 (Figure 9) was situated on the north bank of Burkes Gully. The site consisted of an isolated grey-green fine grained silcrete flake with transverse snap which was left *in situ* and will likely wash away with next heavy rain.



Figure 9: Photograph of DR03

#### 8.5.4 Duri Road 4 (DR04)

Duri Road 4 (Figure 10) was also situated on the north bank of Burkes Gully, approximately 20m north-west of DR03. The site consisted of an isolated grey fine grained silcrete flake which was left *in situ* and will likely wash away with next heavy rain.



Figure 10: Photograph of DR04

#### *8.5.5 Duri Road 5 (DR05)*

Duri Road 5 (Figure 11) was located on the central portion of the south-western bank of Burkes Gully. The site consisted of 2 isolated artefacts including a fine grained grey volcanic backed blade with a transverse snap and a flaked piece, also a highly siliceous grey volcanic. Both artefacts were relocated 30m west by the TLALC.





Figure 11: Photograph of DR05

#### *8.5.6 Duri Road 6 (DR06)*

Duri Road 6 (Figure 12) was located on the south-east bank of Burkes Gully. The site consisted of extensive artefact scatter extending west of GPS point. A sample of 10 artefacts was used to describe scatter. Of the sample OF 10 flakes, 1 was from the Daruka Quarry material (Chert/argillite), 2 were a red/blue chert (river pebbles), 3 were red chert, and four were basalt. The sample was moved to base of an adjacent yellow box tree by the TLALC.





Figure 12: Photograph of DR06

#### *8.5.7 Duri Road 7 (DR07)*

Duri Road 7 (Figure 13) was an Artefact scatter extending 10m south of the Burkes Gully Bank. It is likely that more artefacts exist subsurface which will likely be exposed after heavy rains. A sample of 4 artefacts included flakes and flaked pieces of the Daruka quarry basalt material. The sample was moved to base of an adjacent old growth eucalypt by the TLALC.



Figure 13: Photograph of DR07

#### *8.5.8 Duri Road 8 (DR08)*

Duri Road 8 (Figure 14) was also an Artefact scatter located west of an intersection of Burkes Gully, north of the main drainage channel. The scatter is situated on a floodplain and extends 100m west to transmission line, under stringybark trees, very little disturbance was noted. The scatter included a coarse grained hard volcanic edge ground axe and two grey basalt retouched flakes, one of which displayed a fine linear banding. The sample was moved to base of an adjacent old growth eucalypt by the TLALC.



Figure 14: Photograph of DR08

#### *8.5.9 Duri Road 9 (DR09)*

Duri Road 9 (Figure 15) was an artefact scatter similar to DR08, located on the floodplain to the south east, north of the main drainage channel of Burkes Gully. The scatter included retouched flakes and flaked pieces of fine grained grey basalt. The sample was moved to base of an adjacent old growth eucalypt by the TLALC.



Figure 15: Photograph of DR09

#### *8.5.10 Duri Road 10 (DR10)*

Duri Road 10 (Figure 16) was a site that included 2 Isolated artefacts, likely related to DR08 and DR09 scatters. The artefacts were located immediately west of existing dam, and included a volcanic flake and core. The artefacts were moved to the base of an adjacent old growth box apple by the TLALC.





Figure 16: Photograph of DR10

#### *8.5.11 Duri Road 11 (DR11)*

Duri Road 11 (Figure 17) was an Artefact scatter located on the eastern bank of existing dam. The artefacts were noted eroding out of the clay soils and will likely be impacted by rains/flooding. The only exposed artefacts were predominantly flaked pieces, protruding approximately 50mm-150mm below the surface.



Figure 17: Photograph of DR11

#### *8.5.12 Duri Road 12 (DR12)*

Duri Road 12 (Figure 18) consisted on an isolated artefact and scarred tree, located in the main paddock of a homestead on Duri road, approximately 100m east of Duri Road. The artefact was a grey basalt axe head / muller, though TLALC representatives confirmed it was not the Daruka Quarry basalt. The axe was edge ground on one surface, potentially worked on the base, although this could not be confirmed as the base exhibited extensive damage from recent plough activities.

The scarred tree was a yellow box with the scar situated on the south-western face.



**Figure 18: Photograph of DR12**

#### *8.5.13 Duri Road 13 (DR13)*

Duri Road 13 (Figure 19 - Figure 21) consisted of isolated artefacts and a scarred tree with stone cache located 115m northwest of a homestead on Duri road in main paddock, approximately 220m west of Duri Road. The artefacts included a large flake struck from a basalt cobble and a core. The scarred tree was a yellow box, with the scar on the southern face. There was a smaller scar inside the borders of a larger scar.

The stone cache was on the southern face and held at least 3 stones, one of which was potentially a worked axe blank, although confirmation was not possible owing to the height of the stones off the ground and the overgrowth making their removal impossible. The placing of stones in tree hollows has been recorded in Indigenous ethnography. The purpose of placing such stones in a tree hollow is generally:

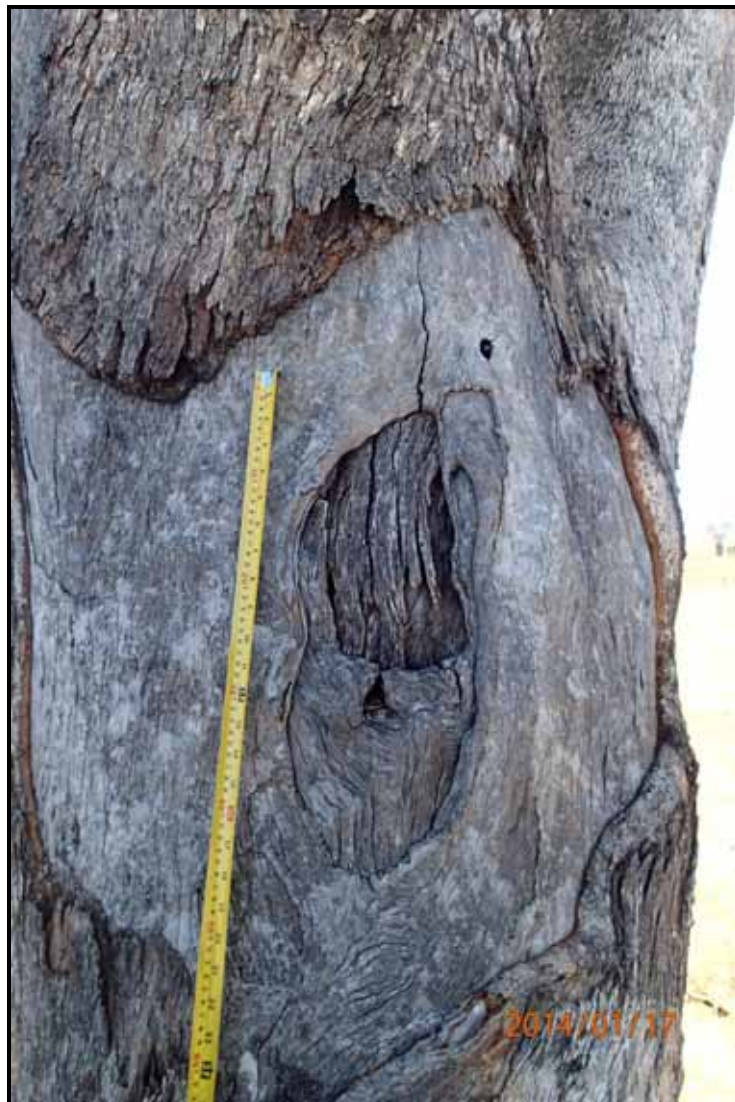
- a) for hunting purposes, such as to trap small marsupials; or
- b) for storage purposes, such as to collect stones for later reduction into axes.





The potential that these stones were placed in the tree following European settlement cannot be ruled out entirely. However, the height of the stones combined with the substantial amount of overgrowth of bark around the hollow indicated that the stones have been in the tree for a very long period of time. The tree itself is a mature box tree and is likely several hundred years old, although coring by an appropriately qualified arborist would be needed to confirm this (Note: consultation with the OEH and the Tamworth LALC should occur prior to any invasive investigations being undertaken on the tree, as invasive investigations may result in 'harm' and be a potential offence under the NPW Act without an appropriate permit).

On consideration, it is believed that these stones are highly likely to have been placed in the tree by Aboriginal persons, and as such constitute Aboriginal Objects under the NPW Act.



**Figure 19: Photograph of DR13**



Figure 20: Photograph of DR13



Figure 21: Photograph of DR13





#### *8.5.14 Duri Road 14 (DR14)*

Duri Road 14 (Figure 22) was an artefact scatter located in main paddock of a homestead on Duri Road. Situated 170 east of Duri Road and 70m north-west of homestead. The scatter included 3 grey-green basalt cobbles, 2 cores and an axe with multidirectional flaking on one face. All artefacts were left under the base of a tree by the TLALC.



Figure 22: Photograph of DR14

#### *8.5.15 Duri Road 15 (DR15)*

Duri Road 15 (Figure 23) was a Scarred Tree located in grassed open paddock, approximately 580m east of Duri Road and 370m north of Burgamanns lane. The Tree is an old yellow box located on the ridge crest with the scar on the southern face.

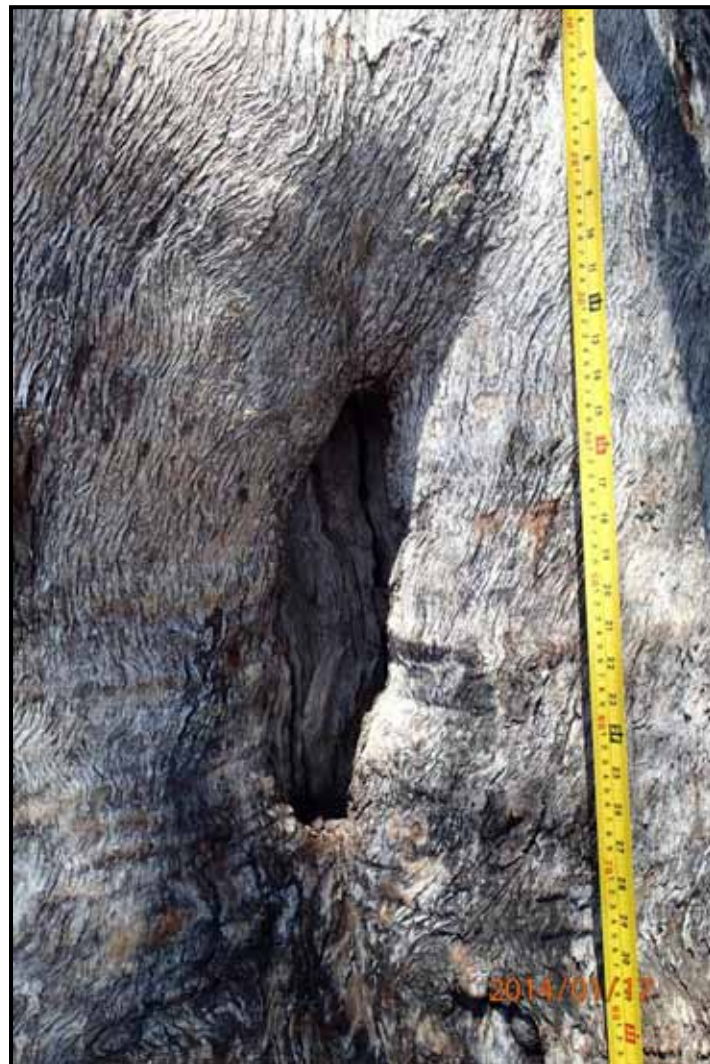


Figure 23: Photograph of DR15

## 8.6 Interpretation

The Development Area retained substantially more evidence of Aboriginal occupation than had been anticipated in the predictive model. This was owing to three factors that, whilst flagged during the desktop review, were only able to be confirmed during a physical inspection. These were:

- a) Burkes Gully likely retained water for long periods prior to European settlement and land clearing, making it a more favourable place for habitation;
- b) considerable numbers of old growth Eucalypts remain throughout the Development Area, preventing erosion in the immediate area and aiding the preservation of any Aboriginal sites; and



- c) a high quality volcanic rock source was located on the western ridge line of Lot 1 DP 795331.

Reviewing the survey results as a whole, the areas containing identified Aboriginal cultural heritage can be considered as two broad cultural / environmental features:

- a) **Burkes Gully:** those lands within 40m of the centreline of Burkes Gully that have not seen extensive ground disturbance from cultivation and erosion; and
- b) **Volcanic Stone Resource Area:** the low area west and north-west of the Smith residence on Lot 1 DP795331, containing high quality (fine grained) volcanic cobbles suitable for stone tool making, together with a number of culturally modified trees.

Isolated artefacts have the potential to be located almost anywhere within the Development Area that contains original ground surface.

## 8.7 Aboriginal Cultural Heritage Significance Assessment / Predictive Model

### *8.7.1 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 24. The intention of Figure 24 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.

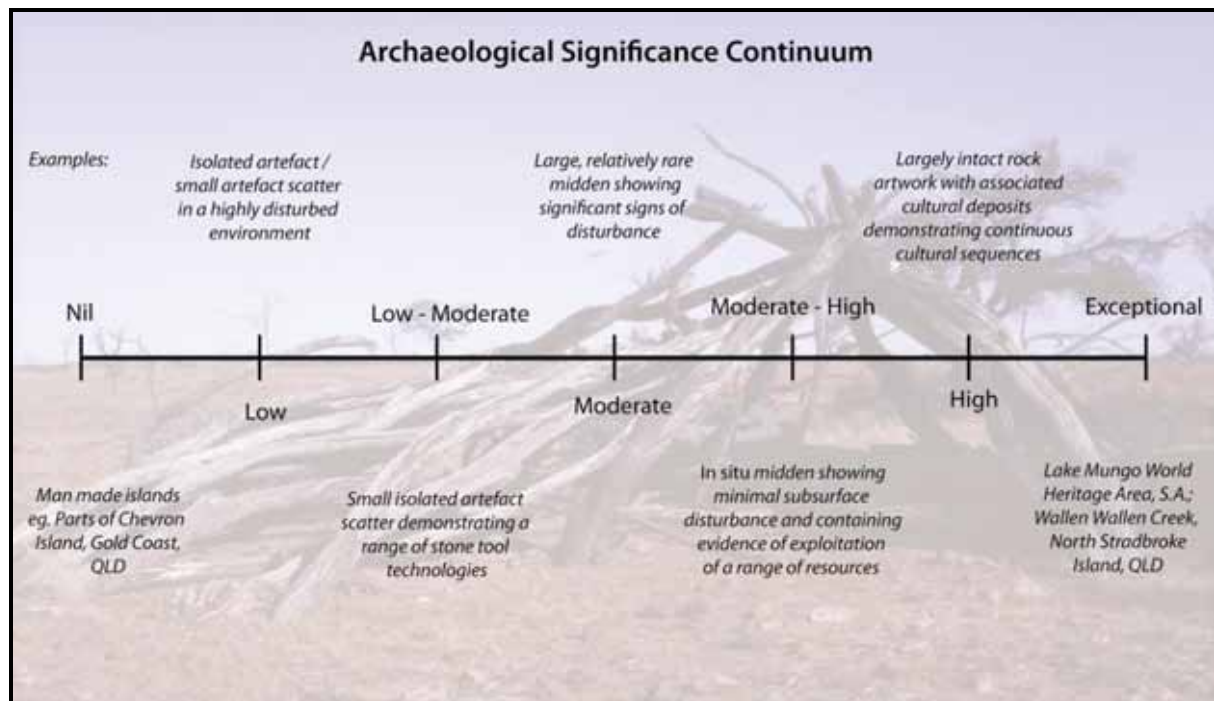


Figure 24: Archaeological Significance Continuum applied in this assessment

### 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 contains two areas that are considered to have a moderate archaeological significance.

- a) **Burkes Gully:** contains a broad, low to medium density artefact scatter. The assemblage demonstrates a range of technologies, including edge ground axe, backed blade and scraper technologies. The assemblage includes stone from a range of rock sources, and has the potential to demonstrate aboriginal movement and trade. The nature of the soils on the river banks combined with historic land uses indicates that substantially more Aboriginal artefacts may be located approximately 100 – 200mm below the ground surface than was identified during the survey. Concentrations of





artefacts such as those at Burkes Gully are relatively rare for minor watercourses in the Tamworth region, predominately owing to the extensive ground disturbance from grazing and cropping.

- b) **Volcanic Stone Resource Area:** The volcanic stone resource area is an area of broad ridge line that contains a number of large, fine grained volcanic cobbles of high quality for stone tool making. This area has been subject to substantial ground disturbance from cultivation and rock picking activities. However, it retains a number of artefacts, with detailed archaeological research likely to yield higher numbers. The area also contains culturally scarred trees and one cache of rocks lodged in a tree hollow, an extremely rare cultural find.

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, areas outside of Burkes Gully and the Volcanic Stone Resource Area have 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 6A DP161273 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 intangible (non-physical) 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. Places of higher cultural significance are both Burkes Gully and the Volcanic Stone Resource Area. Burkes Gully was likely travelled along by groups attending ceremony at the nearby Tamworth bora ground.

The stone cache in the Volcanic Resource Area was considered particularly important, both for its rarity and for its ability to tell a story of past hunting practises and/or resource uses around Tamworth.

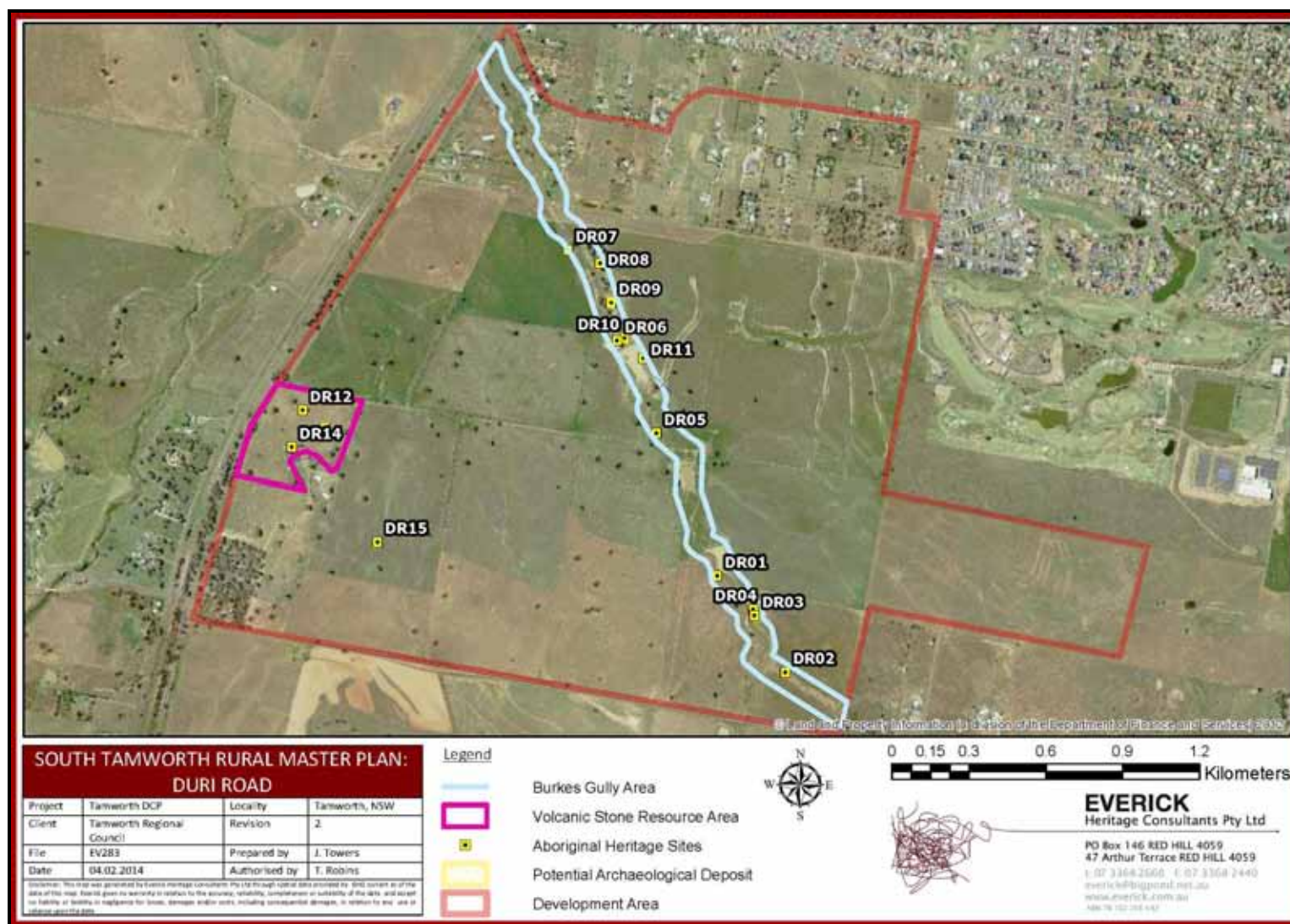


Figure 25: Duri Road Cultural Heritage Sensitivity Plan



## 8.8 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.

The Burkes Gully Area is of moderate archaeological significance (Figure 25). Best practise for future planning for this area would see impacts from future development within 50m of the centreline of the creek avoided or minimised. Finer resolution analysis as development application stage may see this 40m buffer reduced in parts, particularly in areas where extensive erosion, cropping or construction of dams has occurred. In the event that impacts are unavoidable, an Aboriginal Heritage Impact Permit will be required, whilst consultation with the local Aboriginal community should occur.

The Volcanic Stone Resource Area (Figure 25) is also of moderate archaeological significance. Consultation with the local Aboriginal community should occur before further Development of these lands. It is likely that at the very least, and development would have to incorporate retention of the culturally scarred trees.

For the remainder of the Development Area, it is the view of the Consultant that any Aboriginal Objects to be located there are likely to be 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, and the location of these sites in their broader landscape context, it is unlikely that such permits would be granted by the OEH without further investigative works and community involvement. However, the proposed future land



use plans should be able to appropriately accommodate the Aboriginal cultural heritage of the Development Area through sound planning at the development application stage.

**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 those parts of Lot 6A DP161273 outside of the Burkes Gully cultural area.

### Recommendation 4: Minimal Disturbance of Gully

It is recommended that TRC plans for minimal disturbance to Burkes Gully. This area retains the potential for subsurface Aboriginal Objects.



### 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:

- c) work in the surrounding area is to stop immediately;
- d) 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;
- e) an appropriately qualified archaeological consultant is to be engaged to identify the material; and
- f) 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.





## REFERENCES

- Archaeological Surveys and Report Pty Limited (ASR) 2004. Proposed Werris Creek Coal Mine Aboriginal Heritage Assessment. Report to R.W. Corkery and Company Limited.
- Archaeological Surveys and Report Pty Limited (ASR) 2008. The Salvage and Removal of the "Narrawolga" axe-grinding groove site, Werris Creek Coal Mine, Werris Creek, Northern NSW. Report to Werris Creek Coal Pty Limited.
- Balme, J. 1986. North central rivers region archaeological project. Vol. 1 and 2. Report to the NSW NPWS.
- Byrne, D. 1989 Cultural Resource Overview: Aboriginal Sites in the Northern Region, NSW. A report to the National Parks and Wildlife Service NSW.
- Banks, Robert G. 2001 Soil Landscapes of the Tamworth 1:100 000 Sheet (Calala, Currabubula, Duri, Nemingha, Quirindi, Tamworth, Werris Creek). Department of Land and Water Conservation, Sydney.
- Carey, J. 2006 Tamworth and Districts: Early History. Tamworth Regional Council: Tamworth.
- Everick (Ingram, C., T. Robins) 2013 Denman Avenue Residential Subdivision, Kootingal, NSW: Cultural Heritage Due Diligence Assessment (January, 2013). Everick Heritage Consultants Pty Ltd unpublished report prepared for Ardill Payne & Partners.
- Gaynor, P. 2002 An archaeological survey in conjunction with the Walhallow Local Aboriginal Land Council of the State Forests and Travelling Stock Reserves in the Area Assigned to the Walhallow Local Aboriginal Land Council around Caroona. A report to the NSW National Parks and Wildlife Service, Dubbo, NSW.
- Gaynor, P. J. 2004a. An Archaeological Survey of the Projected Levee Bank Route around the Taminda Section of Tamworth in Northwestern NSW. A Report Prepared for the Tamworth Regional Council.
- Gaynor, P. J. 2004b. An Archaeological Survey of the Mt Falcon Estate on the Armidale Road Near Tamworth in Northwestern NSW. A Report Prepared for Annand Alcock Urban.
- Gaynor, P. J. 2005a An archaeological Survey of the Schipp Land on Browns Lane near Tamworth in North-Western NSW. A Report prepared for D. Schipp of "Rockleigh" Browns Lane, Tamworth.





- Gaynor, P. J. 2005b. An archaeological Survey of the Bacon Land on Moore Creek Road near Tamworth in North-Western NSW. A Report prepared for The Tamworth Land Company Tamworth.
- Gaynor, P. J. 2005c. An archaeological Survey of the Jones Land on Moore Creek Road near Tamworth in Northwestern NSW. A Report prepared for The Tamworth Land Company, Tamworth.
- Gaynor, P.J. 2006 An Archaeological Survey of the Peel River Estate Pty Ltd Land on Calala Lane, near Tamworth in North-Western NSW. A Report for Brown and Krippner, Tamworth NSW for their client The Peel River Estate Pty Ltd of Crows Nest NSW.
- Gaynor, P.J. 2008a An Archaeological survey of Lot 190 (DP 1107583) on the property Redbank on Calala Lane near Tamworth in North-western NSW. A report prepared for Brown and Krippner Tamworth NSW for their client Bruce and Frances Moore of Tamworth.
- Gaynor, P.J. 2008b An Archaeological survey of Lot 5 (DP 225554) on the property Meadowbank off Calala Lane near Tamworth in north-western NSW. A report prepared for Brown and Krippner Tamworth NSW for their client Roger Pty Ltd of Tamworth
- Gaynor, P.J. 2009 An AHIP application to remove 5 scarred trees from the property Roseleigh on the Wallamore Road Tamworth and place them in the Aboriginal section of the Tamworth Botanic Gardens. An AHIP application prepared for the Wallamore Alliance Tamworth
- Gaynor, P.J. and Wilson, J.M. 1995. An Archaeological Survey of the Proposed Botanic Gardens on Endeavour Drive Tamworth, N.S.W. Prepared for the Tamworth City Council Tamworth NSW August 1995.
- Gaynor, P.J. and Wilson, J.M. 1997. The Archaeological Survey of the Proposed Rendering Site on the Property "Oakburn" Oxley Highway Tamworth, NSW. A Report prepared for EES Pty Ltd on behalf of Baiada Poultry Pty Ltd., Tamworth.
- Gaynor, P.J. and Wilson, J.M. 1999. Report on the Collection and Analysis of Aboriginal Stone Artefacts from the Proposed Rendering Site on the Property "Oakburn" Tamworth, NSW. A Report prepared for Baiada Poultry Pty Ltd., Tamworth.



Hobden, J., W. Newman and A. Davidson 2005	Jim Hobden's History of Tamworth: Annette Davidson (editor), Tamworth Historical Society, Tamworth, 2005
Landskape 2010	Cultural Heritage Assessment for Whitehaven Coal Werris Creek Coal Mine Life of Mine Project. Report prepared for R.W. Corkery & Co Pty Limited.
Matthews, R.H. 1917	Description of two Bora Grounds of the Kamilaroi tribe. Journal of the Proceedings of the Royal Society of New South Wales. Vol LI pp. 423-430.
McDonald, J. (1998).	Aboriginal archaeology and European heritage assessment of sites along the proposed natural gas pipeline Dubbo-Tamworth (and Gunnedah). Report of Manidis Roberts Consultants on behalf of AGL.
Milliss, R. 1980a	City on Peel. A.H. and A.W. Reed Pty Ltd. Sydney.
Milliss, R. 1980b	The Wallabadah Manuscript: The Early History of the Northern Districts of New South Wales. Recollections of the Early Days by William Telfer Jnr.
Mitchell, T.L. (1839).	Three Expeditions into the Interior of Eastern Australia. T. and W. Boone, London.
NSW Government Department of Land and Property Information	Historic Aerials of the Tamworth and Parsih Mapping of the Calala.
O'Rourke, M. (1995).	Raw Possum and Salted Pork: Major Mitchell and the Kamilaroi Aborigines. Plowpress, Kambah, ACT
O'Rourke, M. (1997).	The Kamilaroi Lands: North-central New South Wales in the early 19th century. Griffith, ACT.
Parker, K. (1905).	The Euahlayi Tribe: a Study of Aboriginal Life in Australia. Archibald Constable, London.
Purcell, P. (2000).	Aboriginal Cultural Heritage Assessment: NSW Western Regional Assessment Brigalow Belt South Bioregion (Stage 1). Resource and Conservation Assessment Council, Sydney.
Purcell, P. (2002).	Aboriginal Cultural Heritage Assessment: NSW Western Regional Assessment Brigalow Belt South Bioregion (Stage 2). Resource and Conservation Assessment Council, Sydney.
Tamworth Regional Council 2013	South Tamworth Rural Development Master Plan. Tamworth Regional Council: Tamworth.



- Tindale, N.B. 1974      Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution Limits and Proper Names. Australian National University Press. Canberra.
- Umwelt (2010).      Review of Environmental Factors For the Caroonna Exploration Program. Trial 3D Seismic Survey 2010. Report to Coal Mines Australia Limited.
- Wilson, J.M. and      The Tamworth Aboriginal/Archaeological Site Study. A
- McAdam, L. 2000.      Report Prepared for the Tamworth City Council, Northern NSW.



## APPENDIX A: AHIMS SEARCH RESULTS

Office of  
Environment  
& Heritage

AHIMS Web Services (AWS)  
Extensive search - Site list report

Your Ref Number : EV283 DCP Duri

Client Service ID : 120690

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	Site Features	Site Types	Reports
29-2-0094	DTG/ST1 - Timbumburi Creek	AGD	56	298140	6556700	Open site	Valid	Modified Tree (Carved or Scarred) :	Scarred Tree	
	<b>Contact</b>	<b>Recorders</b>	Mr Mark Rawson							
29-2-0079	T-OC-1 (Timbumburi Creek)	AGD	56	296870	6551300	Open site	Valid	Artifact :-	Open Camp Site	
	<b>Contact</b>	<b>Recorders</b>	Central West Archaeological and Heritage Services Pty Ltd							
29-2-0001	Tamworth West Tamworth	AGD	56	298600	6555800	Open site	Not a Site	Artifact :-	Not an Aboriginal Site	1474
	<b>Contact</b>	<b>Recorders</b>	Harry Creamer, Davis Heritage Consultants Pty Ltd							
29-2-0160	Timbumburi Creek Coledale	AGD	56	298575	6556000	Open site	Valid	Artifact : 34		
	<b>Contact</b>	<b>Recorders</b>	Janice Wilson							
29-2-0052	Timbumburi Creek	AGD	56	297200	6551500	Open site	Valid	Artifact : 10000	Open Camp Site	
	<b>Contact</b>	<b>Recorders</b>	Gen Morris, Janice Wilson, Leila McAdam							
29-2-0243	EQUINE 17/1	AGD	56	301896	6553455	Open site	Valid	Artifact : 3		102289
	<b>Contact</b>	<b>Recorders</b>	Archaeological Surveys & Salvage, Tamworth LALC							
29-2-0277	DTG/ST 1-Timbumburi Cr	GDA	56	298140	6556700	Open site	Valid	Artifact :-		
	<b>Contact</b>	<b>Recorders</b>	Stephanie Gering							
29-2-0286	Timbumburi Creek/Warral	GDA	56	296875	6551000	Open site	Valid	Artifact :-		
	<b>Contact</b>	<b>Recorders</b>	Janice Wilson, Leila McAdam							
29-2-0287	TCST 1 (Timbumburi Creek Scarred Tree 1)	GDA	56	297108	6551337	Open site	Valid	Modified Tree (Carved or Scarred) :		
	<b>Contact</b>	<b>Recorders</b>	Janice Wilson, Leila McAdam							

Report generated by AHIMS Web Service on 19/12/2013 for Jordan Towers for the following area at Lat, Long From : -31.1511, 150.6703 - Lat, Long To : -31.1147, 150.9161 with a Buffer of 1000 meters. Additional Info : CIA. Number of Aboriginal sites and Aboriginal objects found is 9

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

Page 1 of 1

Figure 26: AHIMS search Results - no Items or Places were returned.



## APPENDIX B: HISTORICAL AERIAL PHOTOGRAPHY



Figure 27: 1953 historic aerial photograph (red Development Area outline is approximate only)



Figure 28: 1976 historic aerial photograph (red Development Area outline is approximate only)





Figure 29: 1984 historic aerial photograph (red Development Area outline is approximate only)



Figure 30: 1993 historic aerial photograph (red Development Area outline is approximate only)





## APPENDIX C: PARISH MAPPING

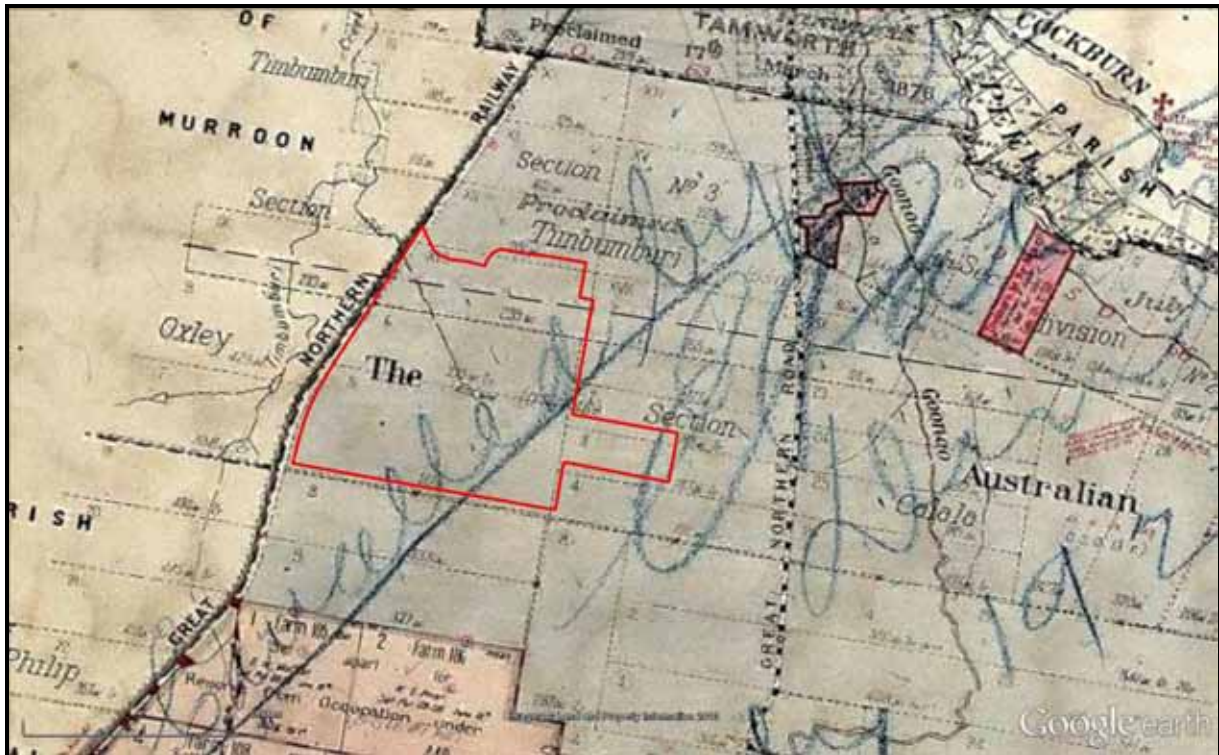


Figure 31: 1909 Calala Parish Map (red Development Area boundary is approximate only)

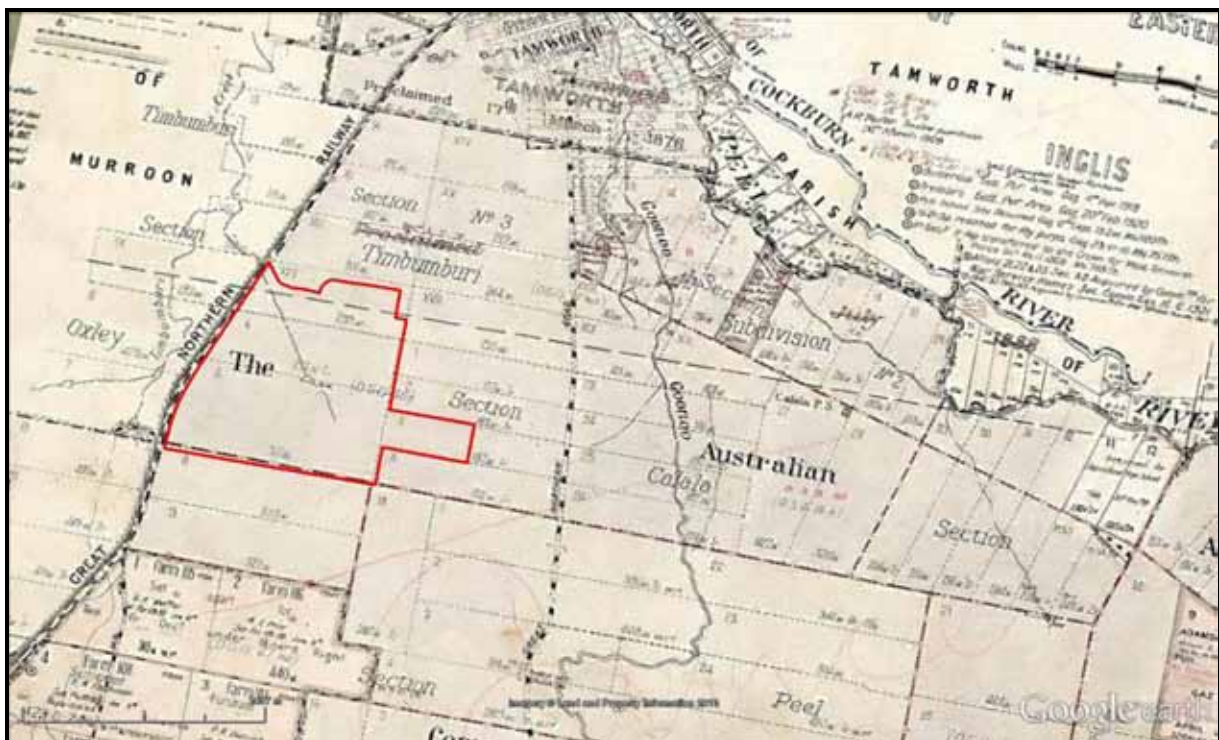


Figure 32: 1922 Calala Parish Map (red Development Area boundary is approximate only)



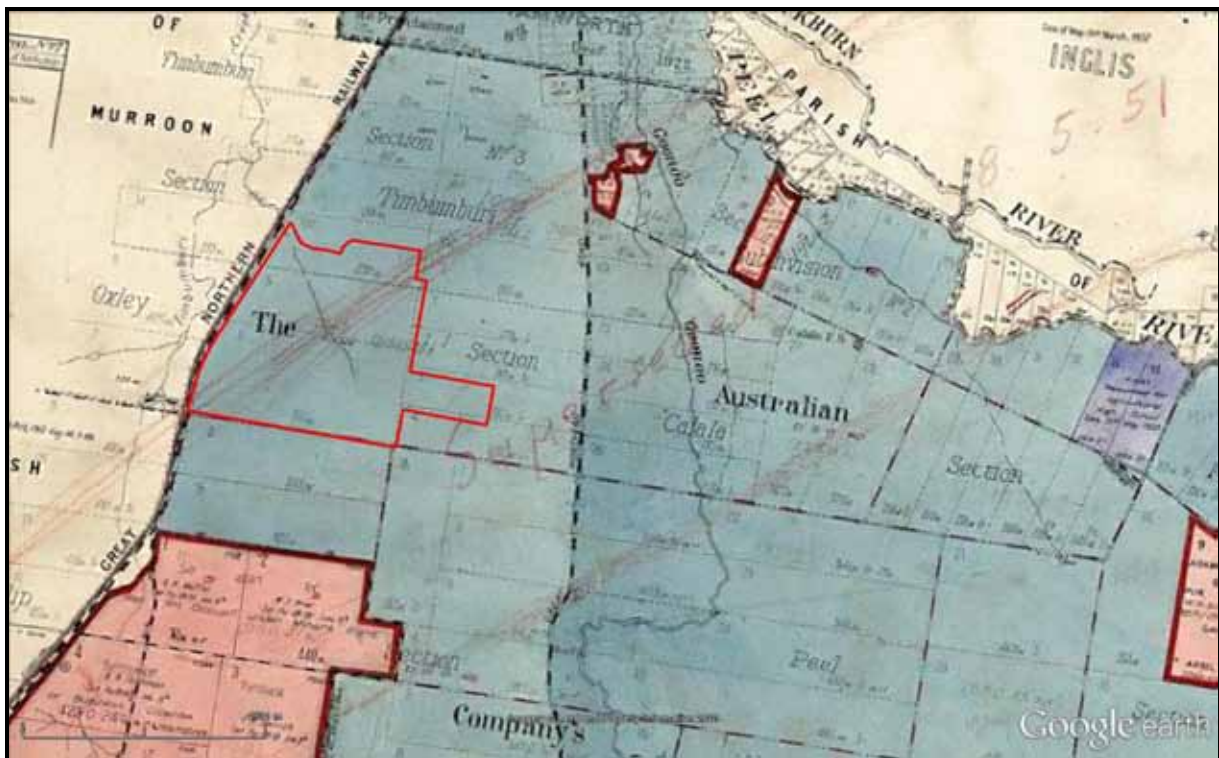


Figure 33: 1932 Calala Parish Map

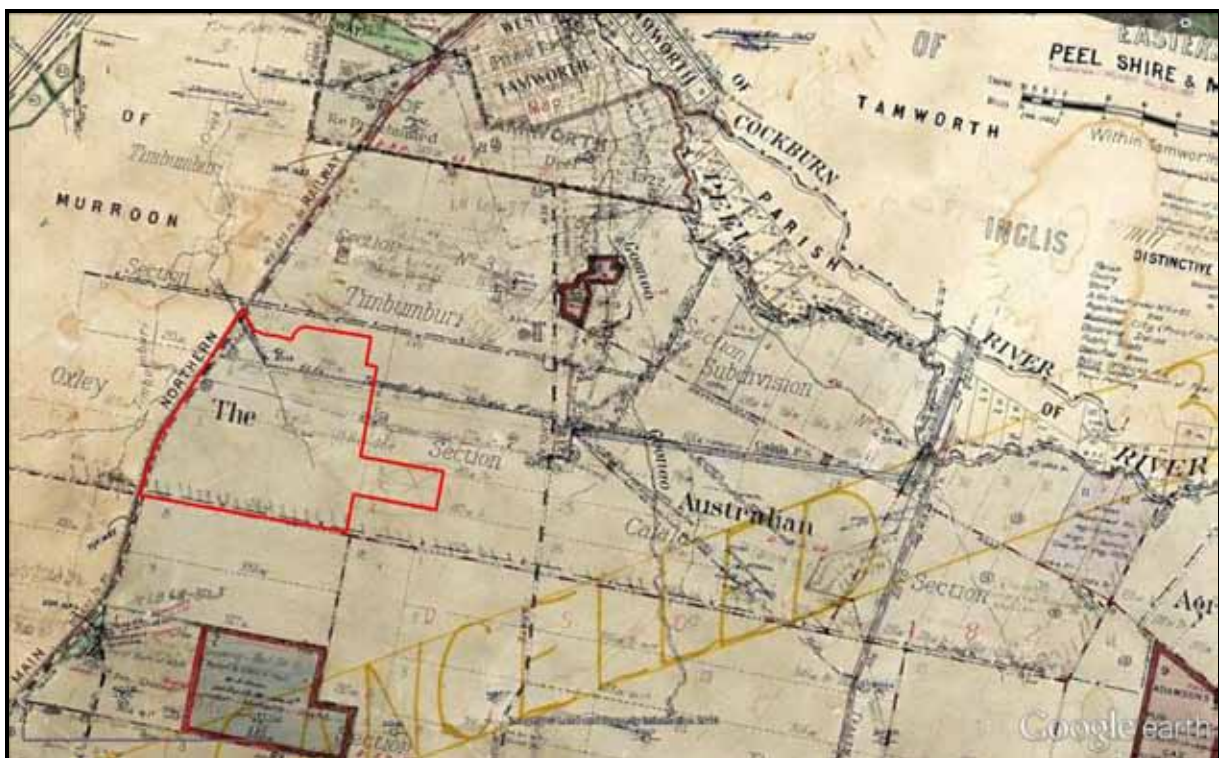


Figure 34: 1951 Calala Parish Map

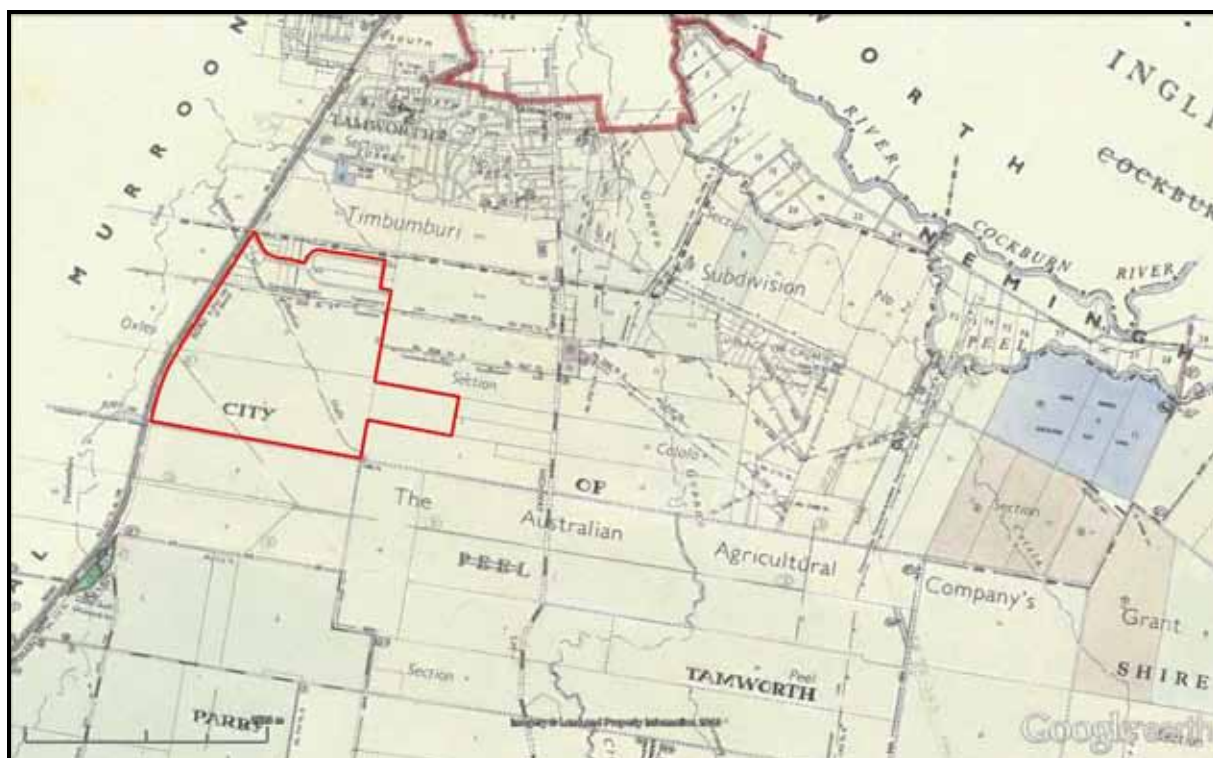
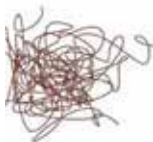


Figure 35: 1971 Calala Parish Map