

Appendix A

Heritage Assessment

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Due diligence inspection of:

- **Underground cabling routes**
- **Additional/alternative access tracks and hardstand area**
- **An overhead transmission line**
- **An operation and maintenance building**

1 INTRODUCTION

This letter report is an addendum to the more-comprehensive assessment that took place in 2004 (OzArk 2004).

This assessment is part of a development modification for the Taralga Wind Farm Project (Project Area) which, is approved under Part 4.1 of the *Environmental Planning and Assessment Act 1979*. The current assessment will therefore blend use of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010a) and the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (DECCW 2010b).

The current assessment will apply *Due Diligence* (DECCW 2010a) to those portions of the Study Area to which it is determined appropriate, and ensure that those areas which require further investigation as per the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (DECCW 2010b) are examined as such.

The Study Area for the purposes of this report refers to:

- Study Area 1
 - Underground cabling routes
- Study Area 2
 - Additional/alternative access tracks and hardstand areas
- Study Area 3
 - Overhead transmission line

- Study Area 4
 - An operation and maintenance building

The Study Area is located to the southeast and east of the village of Taralga in the Upper Lachlan Local Government Area, NSW (**Figure 1**).

The Study Area consists of several components within previously approved infrastructure locations for the Taralga Wind Farm (**Figure 2**). These often non-contiguous areas are within a landscape that has been previously assessed for Aboriginal heritage values although the precise locations of the proposed infrastructure assessed in this report were not previously, specifically assessed. All components shown in **Figure 2** were assessed as part of this report with the exception of the Metrological mast locations (shown as 'M' in **Figure 2**).

Figure 1. Location of the Study Area.

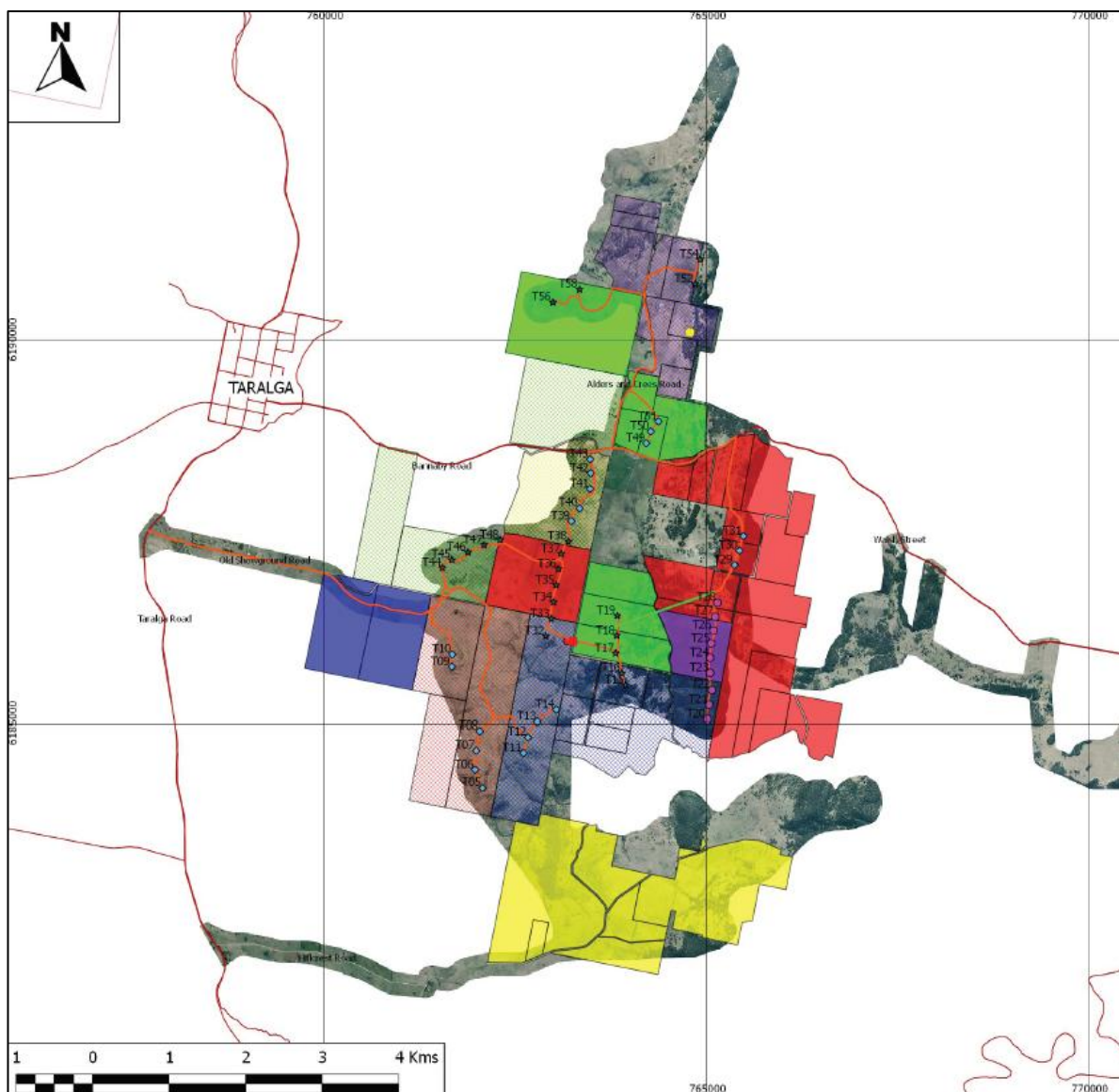
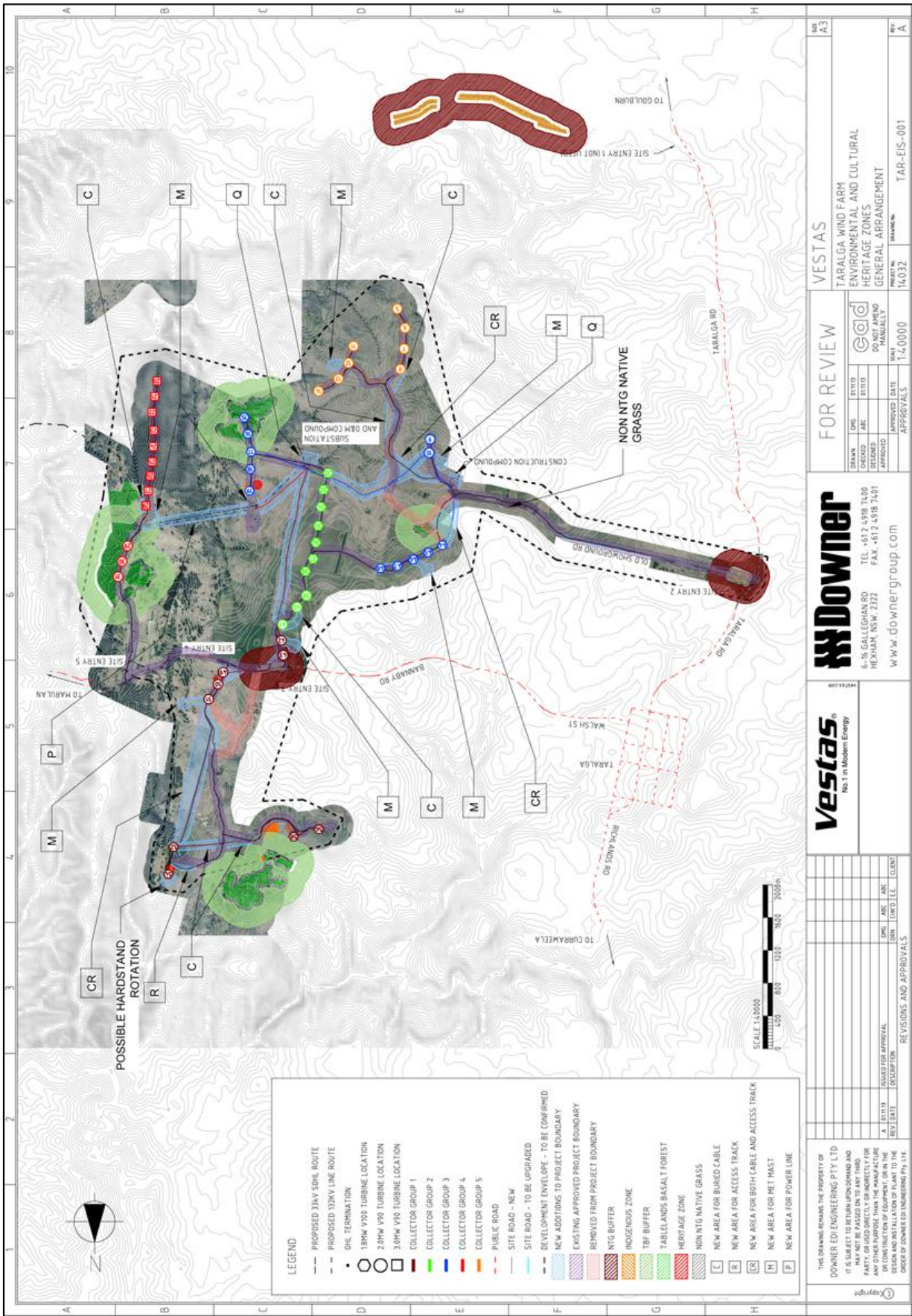


Figure 2. The various components of the current Study Area.



1.1 PROPOSED WORKS

The proposed works can be summarised as follows:

- Underground cabling (Study Area 1)
 - This involves a trenching machine creating a trench into which the underground power cable will be placed. In many instances the cable route will be followed by an access track that will involve grading and track construction. Whether accompanied by an access track or not, this work will involve considerable disturbance to the ground surface. In order to contain any impact from these works a 50m wide corridor was assessed although it is extremely unlikely that the works will impact such a wide area, especially for cable-only routes where the impact will be much narrower.
- Access tracks and hardstand areas (Study Area 2)
 - The majority of new access tracks follow the new proposed cable routes and are assessed as part of Study Area 1. In a few instances short lengths of new access tracks were assessed. The construction of access tracks involves considerable impact to the ground surface and in order to contain all impacts to an assessed area a 50m buffer was assessed for all new access track locations.
- Overhead transmission line (Study Area 3)
 - A length of overhead transmission line is proposed to cross a steep valley in the east of the Project Area. This line will be carried by single poles and the route will include an access track for construction and maintenance to the final pole on both the eastern and western sides. The valley floor will be spanned and no access track will cross the valley floor and associated drainage line.
- An operation and maintenance building (Study Area 4)
 - In a localised area, this permanent feature will impact the ground surface to a high degree. A suitable buffer surrounding the proposed location of this building was assessed in order to contain any impacts from the construction and use of the building.

1.2 DATE OF ASSESSMENT

The area designated for disturbance by the proposed works was inspected by Ben Churcher (Senior Archaeologist, OzArk EHM) on Thursday 7 November 2013. Ben was guided around the Project Area to ensure that the correct locations of all proposed works were identified in the field.

This brief report was prepared by Ben Churcher (BA Hons [University of Queensland], Dip Ed [University of Sydney]).

2 APPLICATION OF THE DUE DILIGENCE CODE OF PRACTICE

2.1 INTRODUCTION

In late 2010, changes were made to the *National Parks and Wildlife Act 1974* (NPW Act) via the Omnibus Bill. As of October 2010, the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010a) was instituted to assist developers to exercise the appropriate level of caution when carrying out activities that could cause harm to Aboriginal heritage.

2.2 DEFENCES UNDER THE NPW REGULATIONS 2009

The first step before application of the Due Diligence process itself is to determine whether the proposed activity is a “low impact activity” for which there is a defence in the NPW regulations 2009. The exemptions are listed in Section 7.5 of the Regulations (DECCW 2010a: 6).

The activities of Downer Australia do not fall into any of these exemption categories. Therefore the Due Diligence process must be applied.

Relevant to this process is the assessed levels of previous land-use disturbance.

The regulations (DECCW 2010a: 18) define disturbed land as follows:

Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable.

Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.

2.2.1 Application of the Due Diligence Code of Practice to the Proposed Development

To follow the generic Due Diligence process, a series of steps in a question answer flowchart format (DECCW 2010a: 10) are applied to the project impacts and Study Area and the responses documented.

The following paragraphs address this due diligence for the current Study Areas for the Taralga Wind Farm.

- *Step 1: Will the activity disturb the ground surface or any culturally modified trees?*
 - Yes the activity will disturb the ground. Go to Step 2.

- *Step 2: Are there any:*

a) relevant confirmed site records or other associated landscape feature information on AHIMS? and/or

b) any other sources of information of which a person is already aware? and/or

c) landscape features that are likely to indicate presence of Aboriginal objects?

a) No previously recorded AHIMS sites occur within the impact footprint of the proposed modifications, however, this is likely attributable to a lack of prior survey within the specific area in question rather than their absence within the landscape. A wider search of the AHIMS database shows a number of site recordings in the general area. These are located in a range of topographic areas although they are mostly confined to valleys and are in proximity to water courses.

b) No. It is noteworthy that Aboriginal community consultation is not a formal requirement of the Due Diligence process (DECCW 2010a Section 5), although it is noted that the Proponent may wish to consider undertaking consultation if it will assist in informing decision making. Due to the relatively small area of new disturbance within the Project Area and the fact that nearby and contiguous landforms were assessed in the company of Aboriginal community members in 2004, this is not considered necessary for this particular project.

c) Yes. Although the proposed works are not in landforms defined as having archaeological potential (see below), the proposed modifications are not located in 'disturbed lands' (as defined above). As sites have been recorded in both ridge and valley environments within the area, the landforms containing the modification impacts has general potential to contain Aboriginal cultural material, although the potential is low.

Landscape features noted in DECCW 2010a that have archaeological potential are:

- within 200m of waters, or
- located within a sand dune system, or
- located on a ridge top, ridge line or headland, or
- located within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth

- and is on land that is not 'disturbed land' (see definitions above)

If the answer to a), b) or c) is 'yes', then you must go to step 3.

- *Step 3: Can you avoid harm to the object or disturbance of the landscape feature?*

There are no known Aboriginal objects or landform features within the Study Area, however, a low possibility exists that they may be present. As such the Proponent has elected to apply the precautionary principle and proceed to Step 4.

- *Step 4: Desktop Assessment and Visual Inspection.*

Desktop assessment and visual inspection of the Study Areas was completed in order to assess the Study Areas for their archaeological potential and to ground truth existing levels of disturbance across the Study Areas.

The following details the methodology and results of the desktop assessment and visual inspection of the Study Areas.

3 ABORIGINAL HERITAGE ASSESSMENT

3.1 THE STUDY AREAS

The Study Areas are all located within a similar landform being elevated ridge tops or elevated undulating landforms. With the exception of one spring fed soak, none of the Study Areas impact drainage lines beyond run-off gullies. All Study Areas have been cleared of tree cover and have been extensively grazed for at least 150 years. Rock outcropping, indicating shallow soil profiles, is frequent across all Study Areas.

In order to gain an appreciation for the landforms containing the proposed works the following tables describe the salient features of the major areas within the Study Areas.

Study Area 1: cabling routes

The cabling routes are located throughout the Project Area and cover most of the landforms within the Project Area. **Table 3–1** discusses the salient features of the major areas within Study Area 1.

Table 3-1: Landforms with Study Area 1.

Location and description	Indicative photo of area
West of T52 Northernmost location 'C' in Figure 2. From T52 the cable route crosses and then descends a steep ridge line that contains a lot of rock outcropping. The route then crosses some flat lowlands that are intensively grazed and cultivated. The route then joins the access track to T58. This view shows the route from T52 looking towards T58.	
South of T52 Northernmost location 'CR' in Figure 2. Between T52 and T51 the route crosses an elevated, undulating landscape. The route has been fully cleared of tree cover and rock outcroppings are frequent, particularly on the minor ridgelines within the landform. To the east there is a steep drop-off to the nearest water.	

Location and description	Indicative photo of area
Northeast T43 Northeast of T43 in Figure 2. Between T49 and T43 a small area of cable route required assessment. This route cross a gently sloping cleared paddock in which rock outcropping is frequent. In this view the cable route is shown looking southwest.	
South of T41 South of T41 in Figure 2. The cable route cross an elevated, undulating ridge that has been extensively cleared and used for grazing. All portions of this route are distant to water.	
Between substation to overhead transmission line From substation to overhead transmission line in Figure 2. The landform is elevated and consists entirely of cleared paddocks in which rock outcropping is fairly frequent. This view is from the area of the substation to the northeast.	

Location and description	Indicative photo of area
South of T44 South of T44 in Figure 2. The cable route begins on a minor ridge before descending to flatter landforms in the vicinity of the site compound. The route is cleared of tree cover and has been used extensively for grazing. Rock outcrops are not frequent although soils on the sloping portion of the landform although they are thicker in the flatter portions. However the soils in the flatter portions tend to waterlog and disturbance from stock trampling into the mud during rain events is evident.	
Between T32 and T10 Southwestern-most location "CR" in Figure 2. The cable route crosses a shallow valley with a swampy watercourse that is fed, it seems, by a spring to the north. The waterway has defined banks although should be best described as a spring soak rather than a rain fed waterway. The entire route is devoid of tree cover and has been used extensively for grazing. Rock outcrops on the slopes are frequent although soils appear a little deeper in the valley floor. This view is looking from the vicinity of T32 towards T10 to the west.	
North of T8 Southwestern-most and southern central locations 'C' in Figure 2. The landforms to the north of T8 are elevated and undulating devoid of permanent watercourses. Rock outcropping is frequent, particularly on the minor ridges, and generally soil depths appear shallow. The route is cleared of tree cover and has been used extensively for grazing.	

Study Area 2: Additional access tracks

Additional access tracks are proposed throughout the Project Area although most are accompanied by an underground cable route and were assessed as part of Study Area 1.

Table 3–2 discusses the salient features of one area within Study Area 2 where an access track is proposed that is unaccompanied by an underground cable route.

Table 3-2: Landforms with Study Area 2.

Location and description	Indicative photo of area
Access to T49 South of T49 in Figure 2. From Bannaby Road the access track rises to a low ridge on which T49 is located. The route is cleared of tree cover and has been extensively used for grazing. In this view the access track leaves Bannaby Road near this farm gate and traverses the paddocks to the hill in the distance.	

Study Area 3: Overhead transmission line

The overhead transmission line route is located in the east of the Project Area. **Table 3–3** discusses the salient features of Study Area 3.

Table 3-3: Landforms with Study Area 3.

Location and description	Indicative photo of area
Overhead transmission line Location 'P' in Figure 2. This also includes a small area surrounding the eastern termination of the overhead transmission line marked as the southeastern-most location 'C' in Figure 2. From the end of the underground cable route the overhead transmission line crosses a steep V-Shaped valley. No poles associated with the line will be placed within 100m of the waterway as this will be spanned. The area to be impacted by pole construction and access for construction is sloping terrain in cleared paddocks. To the west the paddocks remain largely cleared although the eastern portion is within cleared pockets within regenerating woodland. This view is from the west to the east.	

Study Area 4: Operation and maintenance building

The Operation and Maintenance Building is located in the centre of the Project Area. **Table 3–4** discusses the salient features of Study Area 4.

Table 3-4: Landforms with Study Area 4.

Location and description	Indicative photo of area
An operation and maintenance building Location 'Q' in Figure 2. This area is located adjacent to the approved substation location and occupies an identical landform: an elevated, gently undulating landform devoid of watercourses. The entire area is without tree cover and has been extensively grazed for many years.	

3.2 ARCHAEOLOGICAL CONTEXT

Following OzArk's assessment during 2004 eight open archaeological sites (OS), one Potential Archaeological Deposit (PAD), and one scarred tree (TWF-ST1) were recorded within the Project Area.

As a result of design changes to the Wind Farm which has narrowed the impact area, four of these sites are now within the current Project Area: although all will be avoided by the currently approved works (and the proposed works associated with this current development modification application). These sites are indicated on **Figure 2** and are described below:

- TWF OS1 (near T49)
 - This open site included two quartz flakes located at the end of a ridge line. The artefacts were recorded within a small eucalypt copse at the end of the ridge. Exposures here were intermittent and both flakes were found in bare areas at the base of trees. The artefacts recorded included two quartz flakes (3cm by 5cm by 0.8cm and 1.5cm by 2cm by 1cm respectively). Both flakes are fairly rudimentary but the lack of other quartz fragments in the immediate vicinity suggests that they were transported to the site by human agency. TWF OS1 covers an area of approximately fifteen square metres
- TWF OS2 (near T54)
 - This open site was located in an area of ground that had been ploughed at some time in the near past and included at least seven flakes and two core fragments. Due to the recent ploughing (in 2004) ground visibility was good (in excess of

70%) but as the site lay outside the then survey area it was not as intensively investigated as were the other sites recorded in 2004. The dimensions of the lithics found ranged from a large core fragment (10cm by 6cm by 5cm) to blades (3cm by 2cm by 1cm) and flakes (3cm by 2.5cm by 0.8cm; 3.5cm by 3cm by 0.7cm; 2.5cm by 2cm by 0.5cm). Both quartz and silcrete flakes were present and all were in good condition with very clear previous flake scars. It was impossible to determine exactly where the lithics were originating from, but given their unweathered condition it is assumed that they have not been moved far by ploughing or other agency.

- TWF OS3 and TWF OS4 (near T58).
 - TWF OS3: TWF OS3 is centred on a farm gate where erosion made the detection of artefacts possible. Within a 30m radius of the gate three silcrete flakes, five quartz flakes and six volcanic flakes were recorded ranging in size from large flakes (3.5cm by 2.5cm by 1.2cm) to small blades (2.5cm by 1.5cm by 0.9cm). Like in the case of TWF OS2, these artefacts were relatively unweathered suggesting an *in situ* site. TWF OS3 is part of a site complex that includes TWF OS4 and TWF PAD 1.
 - TWF OS4: TWF OS4 lies at the south-eastern end of this low ridge at a higher elevation, but within the same landform as TWF OS3. Like TWF OS3, TWF OS4 is centred on a farm gate where erosion due to stock movement has exposed artefacts that included two silcrete flakes (3.2cm by 3cm by 0.8cm and 2.8cm by 1.9cm by 0.8cm).

These recordings indicate that the most common site type in the Project Area are low density artefact scatters that are likely to have been displaced/impacted by the on-going disturbances caused by vegetation clearing and grazing/pasture improvement land uses.

3.3 RESULTS OF THE ABORIGINAL HERITAGE ASSESSMENT

The current assessment did not record any Aboriginal cultural material within any of the Study Areas. Further, due to the nature of the landforms and the level of past disturbances, it is assessed that there is a low likelihood of encountering further subsurface archaeological deposits within any of the Study Areas.

3.4 DISCUSSION

The Study Areas represent a relatively small area of land in an area that has been intensively farmed for over 150 years. Further, the Study Areas are located in elevated landforms which would not have been suitable for occupation for a certain amount of the year. The size of the Study Areas and their location in elevated landforms distant to reliable water, indicate that it is unlikely that Aboriginal sites would be recorded within the Study Areas and this was borne out by the visual inspection.

The assessment therefore was able to confirm that there is a low likelihood that the proposed works within these areas would harm Aboriginal cultural heritage items.

4 RECOMMENDATIONS

The following general recommendations are made in relation to the proposed works associated with the development modification application.

To this end it is noted that visual inspection of the Study Areas on 7 November 2013 did not record any sites or any potential that sites may exist in a subsurface context.

In the light of these findings, the following general recommendations can be made.

1. There is no constraint to the proposed works on the grounds of Aboriginal cultural heritage in the area shown in **Figure 2**. This brief report constitutes a due diligence defence to allow the works to proceed.
2. All proposed works should not impact the ground surface outside of the designated assessment areas shown in **Figure 2**.
3. Should ground disturbing works be necessary in areas outside of the areas shown in **Figure 2** then these areas would need further consideration and possibly another site visit to ensure that Aboriginal cultural material is not harmed.
4. In the unlikely event that Aboriginal cultural material, such as a stone artefact, is encountered during the proposed works, all work in the object's vicinity should cease and advice be sought from a suitably qualified archaeologist as to the nature of the find.

5 REFERENCES

- DECCW 2010a Department of Environment, Climate Change and Water. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Department of Environment, Climate Change and Water, Sydney.
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- OzArk 2004 OzArk Environmental & Heritage Management Pty Limited. *Indigenous and Non-Indigenous Heritage Assessment: Taralga Windfarm, Taralga NSW*. Report for Geolyse P/L on behalf of RES Southern Cross.
- OzArk 2007 OzArk Environmental & Heritage Management Pty Limited. *Addendum Indigenous and Non-Indigenous Heritage Assessment: remaining access tracks for the proposed transmission line from Taralga to Marulan, NSW*. Report for Sinclair Knight Merz on behalf of Country Energy.



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