

Multiquip Quarries

ABN: 44 101 930 714

Ardmore Park Quarry

Aboriginal Heritage Management Plan

Prepared by

Kayandel Archaeological Services

September, 2010

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Aboriginal Heritage Management Plan

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1. INTRODUCTION

The "Ardmore Park" Quarry, located approximately 4 kilometres south of the village of Bungonia and 25 kilometres southeast of the town of Goulburn in the Southern Tablelands of New South Wales (**Figure A**), was approved by the Minister for Planning on 20th September 2009. The owner and operator of the Ardmore Park Quarry, Multiquip Quarries (hereafter Multiquip), intends to extract sand and hard rock from an area of approximately 46.8 hectares. Additional disturbance associated with construction of processing areas, water management structures and an internal road network will result in total disturbance of approximately 61.0 hectares. Collectively, this disturbance and surrounding land is identified as the "Quarry Site". PA 07_0155 also approves the construction of a private haul road, between Oallen Ford Road and Mountain Ash Road which bypasses the village of Bungonia ('the Bungonia Bypass').

1.1 BACKGROUND

PA 07_0155 was approved following the preparation of a comprehensive Environmental Assessment by R.W. Corkery & Co. Pty. Ltd (RWC 2008). Accompanying the Environmental Assessment was a Cultural Heritage Assessment prepared by Cultural Heritage Management Australia (CHMA 2008) which incorporated two earlier archaeological surveys and reports of the quarry site and transport route, namely Kuskie and Webster (2005) and Robert Paton Archaeological Studies Pty. Ltd. (2004).

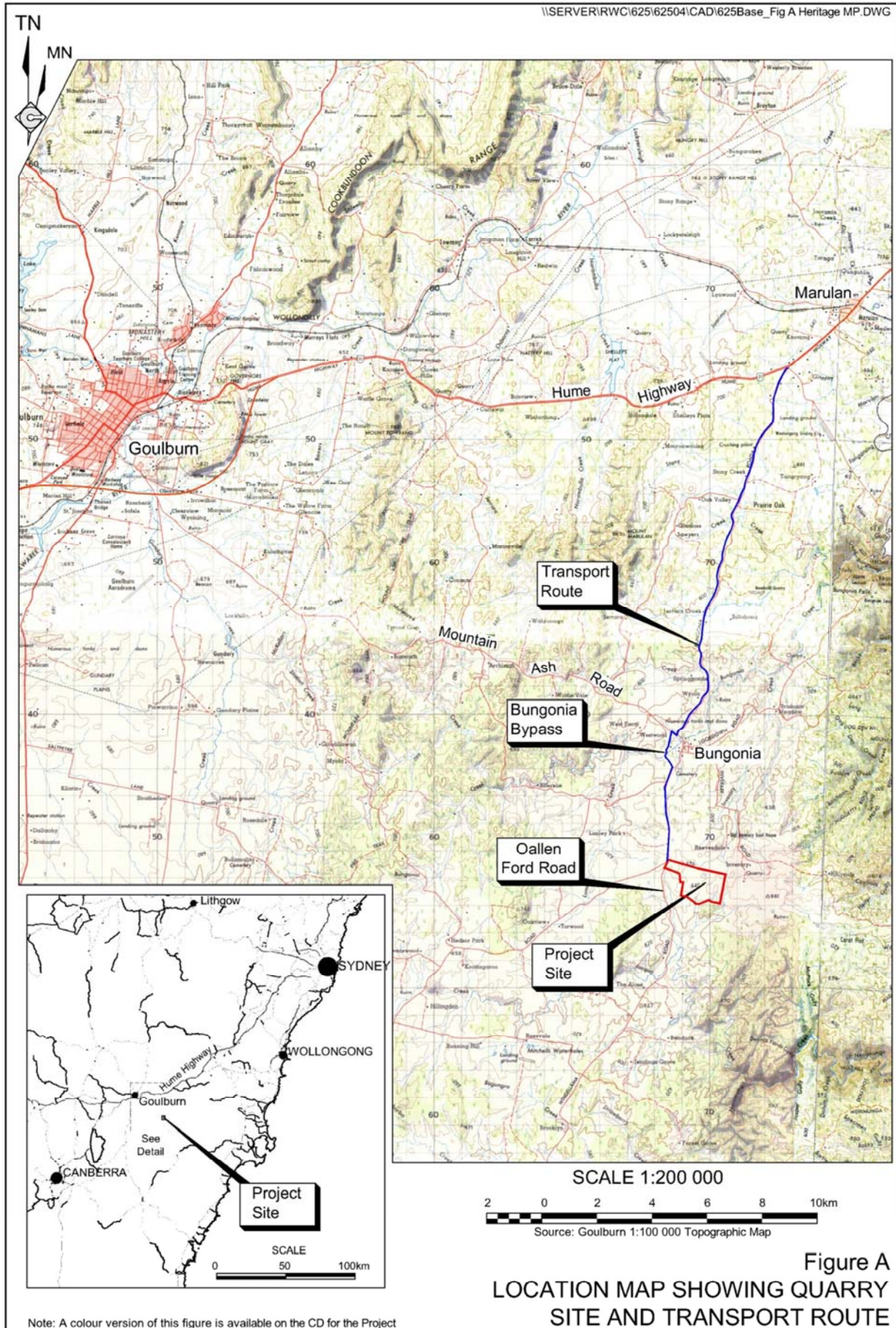
This data set represents a comprehensive assessment of Aboriginal Heritage within the Quarry Site and along the length of the Bungonia Bypass. This Aboriginal Heritage Management Plan elaborates upon their findings and recommendations of these surveys and assessments.

1.2 SCOPE OF MANAGEMENT PLAN

This Aboriginal Heritage Management Plan ('the Plan') has been prepared to satisfy *Condition 3(24)* of PA 07_0155, which is as follows:

The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:

- (a) be prepared in consultation with the DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and*
- (b) include a:*
 - description of the subsurface test pit investigations that would be implemented in the extraction area to determine if archaeological material is present and the significance of any such material;*
 - description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and*
 - Protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.*



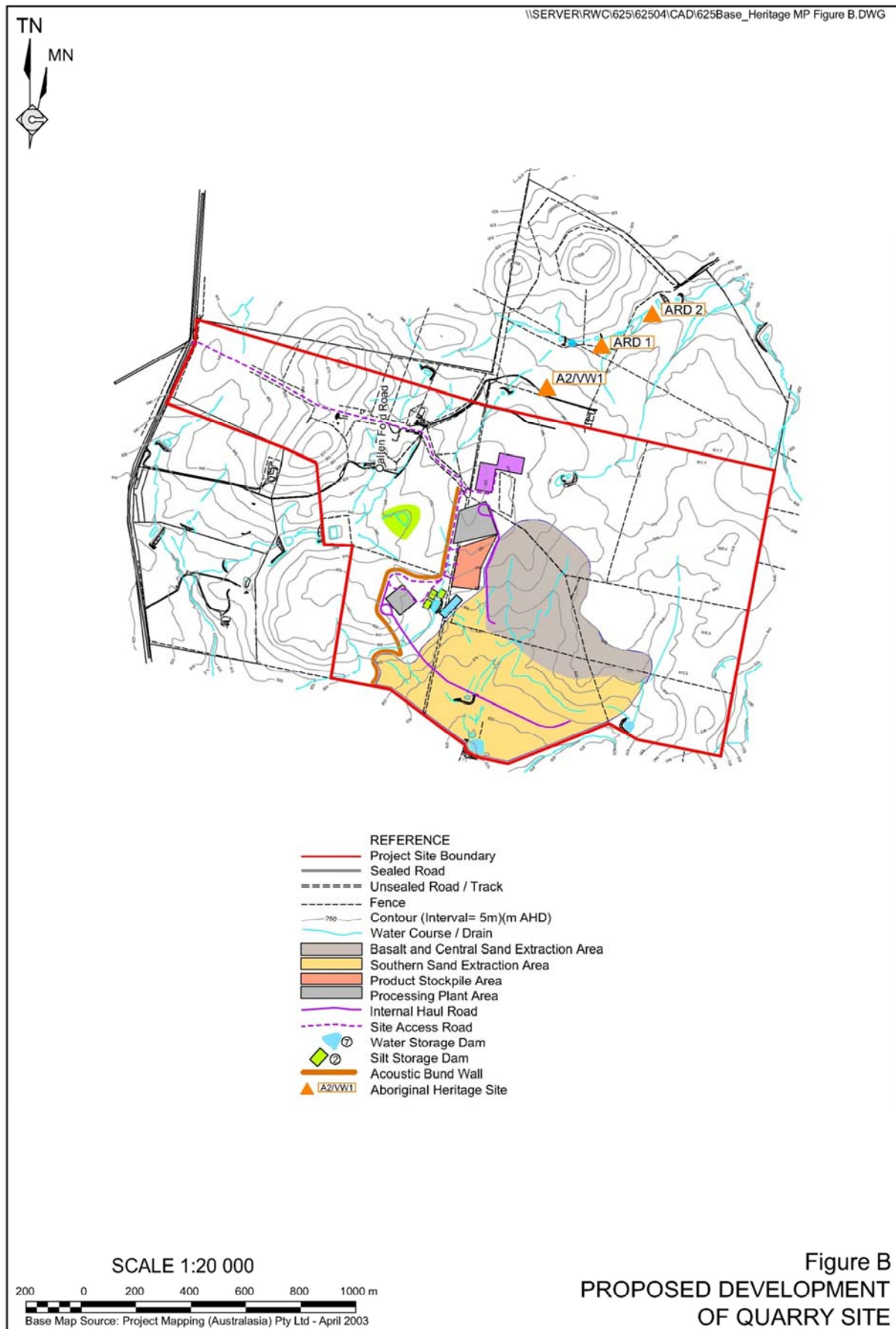
It is noted that a draft version of the Aboriginal Heritage Management Plan was provided to DECCW's Regional Archaeologist in October 2010 for comment. However, despite several attempts to obtain comment, no formal feedback in relation to the report was provided by DECCW.

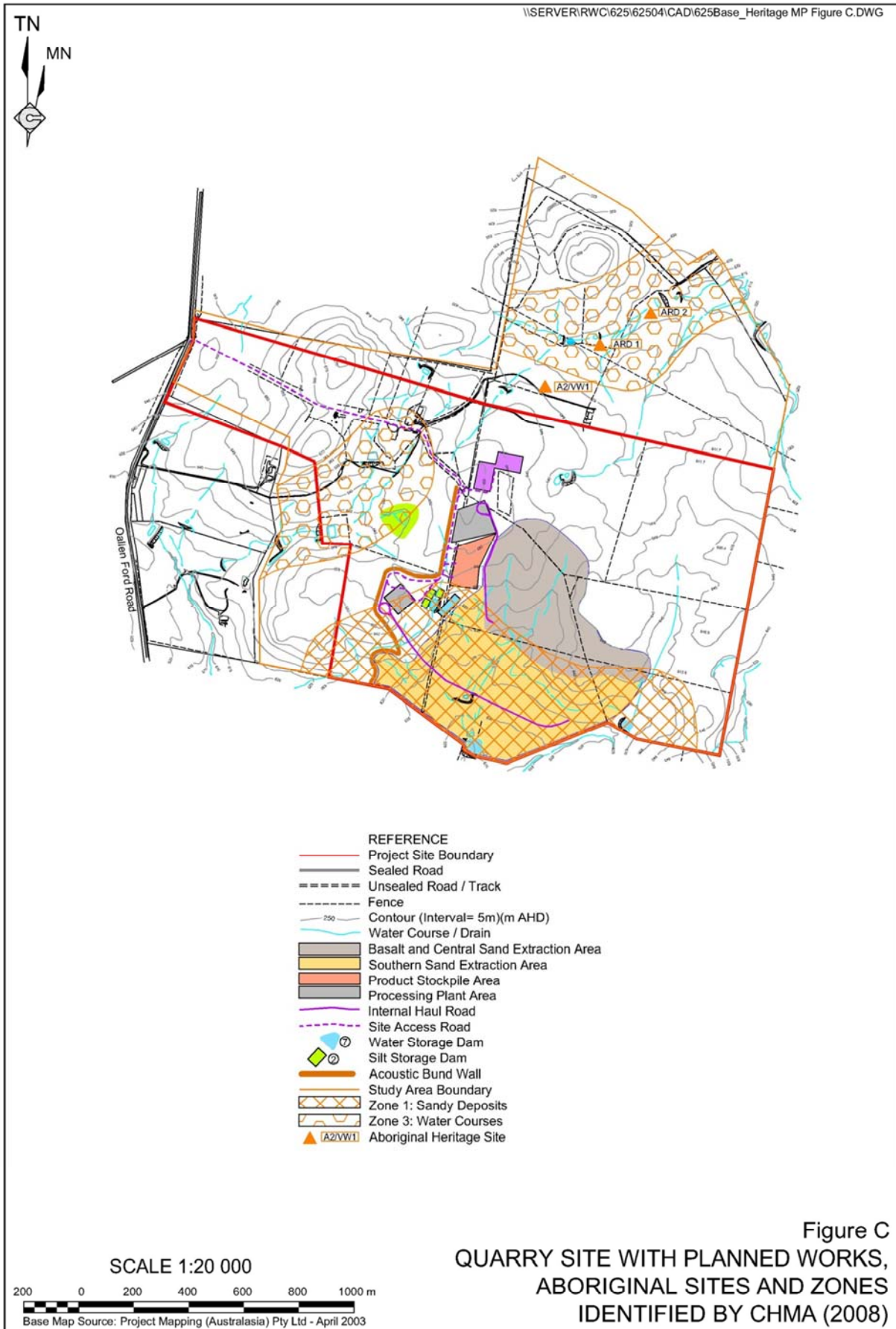
The plan incorporates the heritage principles outlined in the Burra Charter and the Aboriginal Cultural Heritage Standards and Guidelines Kit (NSW National Parks and Wildlife Service 1997).

1.3 MANAGEMENT PLAN BOUNDARIES

This Plan has been developed specifically to address the management of known Aboriginal heritage sites within the boundaries of the Quarry Site (See **Figure B**) and along the Bungonia Bypass (see **Figure D**, **Figure E**).

Accordingly it should be noted that management of Aboriginal sites ARD1, ARD2 and A2/VW1 is not considered within this plan as these sites whilst in close proximity to the Quarry Area are outside of the project boundary. The northern element of Zone 3 (see **Figure C**) is also excluded on this basis.





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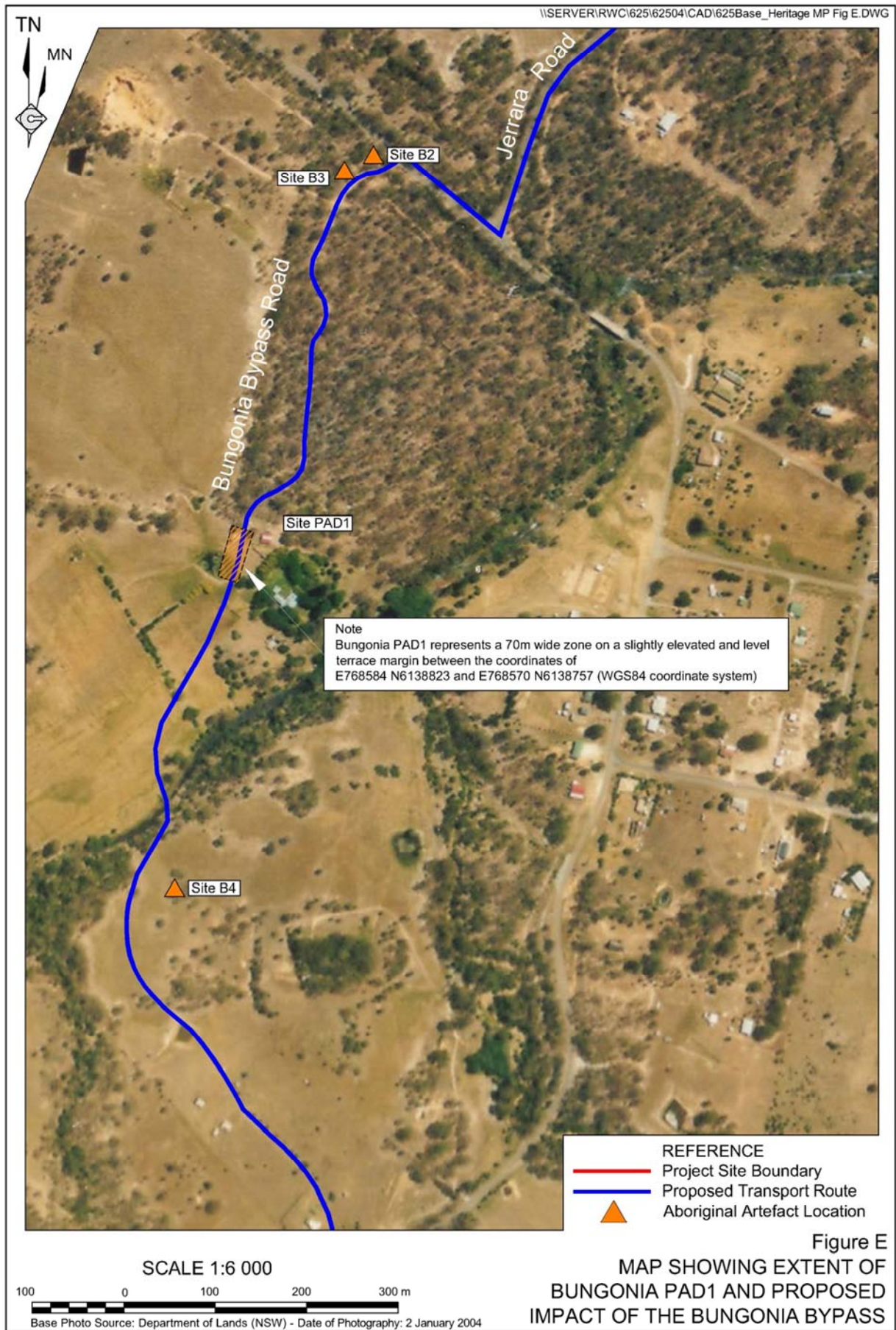
- REFERENCE
- Project Site Boundary
 - Proposed Transport Route
 - ▲ Aboriginal Site Location

SCALE 1:50 000



Base Photo Source: Department of Lands (NSW) - Date of Photography: 2 January 2004

Figure D
SITES IDENTIFIED BY CHMA (2008)
ALONG THE BUNGONIA BYPASS



2. RELEVANT LEGISLATION AND REGULATIONS

This section outlines the state and local legislation to relevant to the operation of the Ardmore Park Quarry and Aboriginal Heritage Management concerning this project. Specifically this section outlines the implications of a Part 3A 'Major Project' approval in relation to other legislation.

2.1 NATIONAL PARKS AND WILDLIFE ACT 1974 (AS AMENDED)

Aboriginal cultural heritage is protected primarily by the National Parks and Wildlife Act 1974 (the Act) which provides a complete suite of protective legislative statutes for all Aboriginal objects and places located within the state of NSW. Section 5 of the Act defines Aboriginal objects and places as:

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.

All Aboriginal objects are afforded protection by the Act and there are penalties for the destruction, damage, or defacing of Aboriginal objects. Section 90 of the Act states specifically:

A person who without first obtaining consent of the Director-General, knowingly destroys defaces or damages, or knowingly causes or permits the destruction or defacement of or damage to, an Aboriginal object or Aboriginal place is guilty of an offence against this Act.

Aboriginal objects are protected regardless of their significance, location, or whether it is registered on the Aboriginal Heritage Inventory Management System (AHIMS). It is an offence to disturb or move an Aboriginal object, conduct exploratory excavations in search of an Aboriginal object, take possession or remove an Aboriginal object from certain lands, and erect a building or structure to store Aboriginal objects on certain land, without gaining prior consent, under Section 87 of the Act from the Director-General of the Department of Environment Climate Change and Water. The Director-General may opt for certain clauses when granting permits over the conduction, completion, and Damage or destruction of indigenous cultural heritage can result in penalties payable under the NSW Act (s.90), including:

- \$5,500.00 for individuals + restitution costs and/or 6 months' gaol; and
- \$22,000.00 for Corporations + restitution costs.

Aboriginal places (areas of gazetted significance to Aboriginal people) are also protected under Section 84 of the Act.

2.2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND THE ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

When considering development proposals under the Environmental Planning and Assessment Act (1979) (EPA Act), all government agencies have to ensure that the proposals conform to state, regional and local environment plans (known as environmental planning instruments). These environmental planning instruments aid in the protection of known heritage places and wider areas of sensitivity from inappropriate and unacceptable development proposals.

As part of the development application process, some form of environmental assessment must be prepared and submitted to the consent authority(ies) addressing the potential impact(s) that the development may have upon known and potential heritage. Following the completion and submission of this report, further assessments by local authorities are completed which will detail measures to appropriately conserve assessed heritage values.

In the case of the "Ardmore Park" Quarry, the project was deemed to be a 'Major Development' in accordance with Schedule 2 of their State and Environmental Planning Policy (SEPP) (Major Development) and an Environmental Assessment was prepared to accompany an application under Part 3A. The Environmental Assessment was prepared in accordance with the Director-Generals Requirements (DCR), which provide a summary of their key assessment requirements to be included in the Environmental Assessment, issued by the Department of Planning. In preparing the DGRs, the Department of Planning officials consulted with various government agencies and public authorities (including DECCW) who provided a summary of key issues to be addressed. The assessment requirements nominated by the consulted agencies or authorities were included as attachments to the DCRs and were addressed by the Environmental Assessment.

A critical issue associated with the assessment of 'Major Development' under Part 3A of the EP&A Act 1979, is that the waving of project approval provides exemption from the requirements of certain other 'integrated' approvals (such as Section 87 and 90 approvals under the National Parks and Wildlife Act 1974), as the assessment and determination process has been designed to ensure that the issues associated with these approvals are considered as part of the overall approval process. Part 3A developments are also exempt from the LEP's and REP's (in this instance Goulburn Mulwaree Local Environmental Plan 2009 Amendment No. 1 and Goulburn Mulwaree Development Control Plan 2009).

3. RESULTS FROM PREVIOUS ARCHAEOLOGICAL STUDIES AND THEIR RELATION TO THE MANAGEMENT PLAN

A search of the AHIMS conducted by CHMA (2008: 30-31) indicates that although several sites have been recorded in the immediate vicinity of the Quarry and route of the Bungonia Bypass, none are located in areas to be impacted on by approved operations. The completion of the AHIMS search by CHMA was followed by field survey at the Bungonia Bypass.

In August 2003 an area including the Quarry Site was surveyed by Kuskie and Webster (2003) for the proposed construction of a poultry farm. Their investigation, which consisted of approximately 45 hectares on the "Ardmore Park" property, resulted in the discovery of one Aboriginal archaeological site (site A2/VW1). The site consisted of a single stone artefact located on the side of a low, broad ridge overlooking a tributary of Inverary Creek. Kuskie and Webster (2003) noted however, that due to poor conditions of ground surface visibility:

"there remains a moderate to high potential for further heritage evidence to occur in the form of stone artefacts, albeit largely as a low density background scatter reflecting low-intensity Aboriginal occupation."

On 19th July 2004, Rob Paton (archaeologist representing CHMA) and Mr. Pat Little (Pejar LALC) completed a survey of the Quarry. This survey located two Aboriginal Sites (ARD 1 & 2) but failed to re-locate A2/VW1 within the Quarry. Six sites and one PAD (Bungonia 1-6, Bungonia PAD1) were located along the Bungonia Bypass route. CHMA (2008) compiled research data conducted over the Quarry and Bungonia Bypass Route. CHMA (2008) also separated the Quarry into three zones based on their predictive model and rated their potential for encountering items of Aboriginal heritage significance (see **Table 1**, **Table 2**, **Figure C**, **Figure D** and **Figure E**).

3.1 IDENTIFIED ABORIGINAL PLACES WITHIN THE QUARRY SITE AND BUNGONIA BYPASS AREA & THEIR SIGNIFICANCE

Table 1 presents a summary of all Aboriginal objects and places identified within the Quarry Site and along the route of the Bungonia Bypass (see also **Figure C**, **Figure D** and **Figure E**).

3.2 IDENTIFIED AREAS OF ARCHAEOLOGICAL SENSITIVITY WITHIN THE QUARRY SITE AREA & THEIR ARCHAEOLOGICAL POTENTIAL

Table 2 presents a summary of the identified zones of archaeological within the Quarry (see also **Figure C**).

3.3 SIGNIFICANCE ASSESSMENT

The significance assessment for all sites located within the Quarry and Bungonia Bypass were completed as part of the CHMA (2008: 55-6). CHMA (2008: 56) stated that Bungonia 1, 2, 4, 5, 6, ARD 1 & 2 were of very low significance due to the results of previous archaeological investigations within the region combined with information held by the NSW Department of Environment and Climate Change and Water (DECCW) as these prove conclusively that isolated artefacts and low density artefact scatters like those identified within the Quarry and along the Bungonia Bypass are widespread in the general region CHMA (2008: 56).

Table 1: Summary of sites located within the Quarry site and Bungonia Bypass area by CHMA (2008: 43, 47-52) and Kuskie & Webster 2003, when they were located and associated recommendations and conclusions.

Site Name	Archaeological Significance	Site Details	Recommendations and Conclusions in CHMA report	Located by:
Bungonia 1	Very Low	An isolated artefact located on the basal southern slopes of a hill, 50m east of an ephemeral drainage line. Grey silcrete flake 44mm x 28mm x 11mm	Salvage	CHMA 2008
Bungonia 2	Very Low	6 artefacts located 20m north of small creek.	Preserve site <i>in situ</i> . Erect protective boundary prior to commencement of works in the area.	CHMA 2008
Bungonia 3	Low-Moderate	Moderate (+40) artefact scatter on spine of spur line running east to west below small hill. Most artefacts were recorded on erosion scald approximately 50m in length.	Preserve site <i>in situ</i> . Erect protective boundary prior to commencement of works in the area.	CHMA 2008
Bungonia 4	Very Low	5 artefacts identified on summit of small knoll approximately 150m south of a semi-permanent creek line. Artefacts within 20m x 10m area.	Preserve site <i>in situ</i> . Erect protective boundary prior to commencement of works in the area.	CHMA 2008
Bungonia 5	Very Low	Isolated artefact identified on gentle mid slope of spur, 100m south of ephemeral drainage line. Red/grey silcrete flake 37mm x 26mm x 18mm	Salvage	CHMA 2008
Bungonia 6	Very Low	Isolated artefact identified on flat summit of east-west trending spur, approximately 200m south of an ephemeral drainage line. White quartz flake 28mm x 21mm x 7mm.	Salvage	CHMA 2008
Bungonia PAD1	N/A	North side of creek line were the route easement traverses a slightly elevated and level terrace margin, approximately 70m in width.	Test pitting along the river terrace	CHMA 2008
ARD 1	Very Low	2 artefacts located on the side of a low, broad ridge overlooking a tributary of Inverary Creek.	Preserve site <i>in situ</i> . Erect protective boundary prior to commencement of works in the area.	CHMA 2008
ARD 2	Very Low	2 artefacts located on the side of a low, broad ridge overlooking a tributary of Inverary Creek.	Preserve site <i>in situ</i> . Erect protective boundary prior to commencement of works in the area.	CHMA 2008
A2/VW1	N/A	Single stone artefact, which was unable to be relocated as part of the CHMA 2010 survey due to poor ground visibility.	Not relocated, due to reasonable level of ground visibility it is likely to be a reflection of the archaeological patterning (sparse isolated finds and small artefact scatters).	Kuskie & Webster 2003

Details for ARD 1, ARD 2, and A2/VW1 are included for information purposes only refer to Section 1.3)

Table 2: Summary of terrain located within the Quarry site by CHMA (2008: 36, 57-58), as well as their recommendations and conclusions.

Zone	Archaeological Potential	Description	Recommendation
Zone 1 Sandy Deposits	Medium to High	Zone has potential to contain subsurface deposits; deposits are likely to be disturbed and stratified according to depositional sequence rather than as a result of a cultural event. The area with the most potential is on the southwest of the zone where the sandy deposits are exposed on the hill slope. Deposits along the southern boundary are thought to have low potential due to soil extraction.	Test pitting on the small hillside in the southwest of this zone, where sandy deposits are exposed
Zone 2 Waterless Terrain with Skeletal Soils	Low	Zone may contain localized small density artefact scatters and isolated artefacts. Unlikely to yield large artefact scatters or sub-surface remains due to a thin soil profile.	No recommendations.
Zone 3 Water Courses and Associated Terrain	Low to Medium	May contain small artefact scatters particularly in close proximity to water courses on elevated flat terrain. There is a moderate potential for sub-surface archaeological deposits to be located in these areas.	Test pitting on elevated flat terrain in close proximity to water courses.

Portions of Zone 3 are included for information purposes only refer to Section 1.3)

Bungonia 3 is assessed to have low to moderate significance as this site in comparison to the small artefact scatters and isolated finds located within the Quarry may represent a larger scale camp area. Whilst other sites located are well represented in the wider region, Bungonia 3 may have the potential to yield information which may be beneficial to regional models if investigated further.

As part of the CHMA (2008: 55) report Pejar LALC stated that they consider all archaeological sites to be of significance to their members as they represent a dwindling resource being consumed by urban sprawl and continued rural developments. The Pejar LALC further stated that archaeological sites serve as cultural reminders of the Aboriginal peoples' prior existence and relationship to this region. The Pejar LALC feels that sites are important to the custodians in ensuring their cultural identity through connection with their land, and knowledge of past practices is kept alive.

4. MANAGEMENT STRATEGIES AND IMPLEMENTATION

4.1 INTRODUCTION

This section outlines management strategies which have been developed for the sites and zones of archaeological potential identified within the Quarry and along the Bungonia Bypass. As per *Condition 3(24)* of the Director-General's requirements:

- Management Strategy 1: outlines the procedure for consultation with the Aboriginal community during the course of the project.
- Management Strategy 2 and 3: detail the process for salvaging to established sites within the Quarry.
- Management Strategy 4: details the research design for excavations concerning Bungonia PAD 1 and Zones 1 and 3 within the Quarry and along the Bungonia Bypass.
- Management Strategy 5: details the requirements for staff cultural heritage awareness training.
- Management Strategy 6: outlines the protocol for potential new discoveries uncovered during the quarry operation.

4.2 MANAGEMENT STRATEGY 1: CONSULTATION WITH THE ABORIGINAL COMMUNITY

Previous surveys have completed community consultation according to the former NSW DECCW Interim Community Consultation Requirements for Applicants (2004). This process involved a registration process via notices in print media and written notifications to certain official bodies, identified. This process identified the following groups.

- Pejar LALC.
- Peter Falk (representative for Gavin Andrews of the D'harawal Knowledge Holders).

Consultation will be continued with the Aboriginal stakeholders identified during the previous consultation process will be continued with regard to managing archaeological sites and cultural heritage values within the Quarry and along the Bungonia Bypass. Consultation with regards to the plan will adhere to the following process.

- A community liaison officer is to be appointed to implement the Plan and communicate with Aboriginal stakeholders over the life of the quarry. The community liaison officer will be responsible for:
 - The implementation of the plan;
 - Providing written updates on project progression on a yearly basis from the implementation of the Plan;
 - Consultation with regards to the implementation of all management strategies, and/or issues concerning Aboriginal sites and objects: and
 - Coordinating the review of the Plan.

- Consultation is to take place with previously identified stakeholders, specifically Pejar LALC and Peter Falk.
- Representatives of the Aboriginal stakeholders are to be invited to participate in the implementation of all management strategies concerning Aboriginal sites and objects (this includes all excavation works).
- Aboriginal stakeholder groups will be consulted regarding maintaining the Aboriginal cultural heritage values.
- Systematic review of the Plan will be performed with the local Aboriginal stakeholder groups on the completion of any management strategies outlined within, or should further management strategies be required.

4.3 MANAGEMENT STRATEGY 2: IN SITU PRESERVATION

Of those sites identified by CHMA (2010: 57-58) only three sites (Bungonia 2, 3, 4) and small portions of Zone 3 are within the Quarry Site and Bungonia Bypass. These locations are outside of the areas proposed for impact (**Figure B, Figure E**) and have therefore been recommended for *in situ* preservation.

- Where ground disturbance or heavy vehicle traffic is expected within 50m of the identified location consideration should be given to the erection of a temporary fence with an appropriate buffer, generally not less than 5m. This should be constructed using star pickets and fluorescent 'parawebbing' or a product of similar standard. This should be established using the GPS coordinates contained in CHMA (2008: 43), and should be referred to during construction. Fences are to be checked on a routine basis to ensure they are well maintained.
- At the completion of all extraction works the temporary fences will be removed.

4.4 MANAGEMENT STRATEGY 3: SALVAGE OF SURFACE ARTEFACTS

The following section outlines the management procedure for implementing the archaeological salvage of known Aboriginal sites in areas where the Bungonia Bypass development is likely to have an impact on known sites.

Bungonia 1, 5, and 6 were assessed as having a low level of significance by CHMA (2008: 56), this low level of significance notwithstanding, CHMA recommended salvage of surface artefacts. The following surface salvage program is to be adhered to:

- Written records of each artefact, and the landform within which it was collected, must be completed. These must detail the surface deposits encountered; and include visible disturbances.
- The surface salvage must be conducted with corresponding photographic and illustrative records. Details of raw material type present within the locality must also be collected and compared to the surface assemblage.
- *In situ* locations of each artefact are to be recorded in detail, the artefacts are then to be bagged, appropriately labelled and secured by an appropriately qualified Archaeologist until the completion of the salvage.

4.5 MANAGEMENT STRATEGY 4: ARCHAEOLOGICAL EXCAVATION

The granting of PA 07_0155 negates the requirement to obtain a section87 permit under the National Parks and Wildlife Act 1974, however, *Condition 3(24)* requires the plan to provide a description of the test pit investigations that would be undertaken to determine if archaeological material of significance is present within Bungonia PAD 1 and the landforms identified as having higher archaeological potential (Zones 1 and 3, see **Figure B**). A review of background archaeological studies within the region has been undertaken and aims, objectives and particular research questions have been formulated to frame the methodology presented as part of the research design.

4.5.1 AIMS AND OBJECTIVES

- Determine the presence or absence and extents of archaeological materials with Bungonia PAD 1 and Zone 1.
- Confirm the depth of the potential archaeological deposits within the development, as suggested by the areas of visible stratigraphy in the surrounding area.
- Determine the nature and significance of any archaeological deposits within the application area so as to inform future cultural heritage management recommendations.

4.5.2 RESEARCH QUESTIONS

This investigation will address the following research questions.

1. Do non-disturbed or minimally-disturbed soil profiles exist within the potential archaeological deposit of Bungonia PAD 1, and/or the landform zones identified by CHMA (2008)?
2. Are archaeological materials present within the potential archaeological deposit of Bungonia PAD 1 and Zone 1?
3. Are any of the archaeological materials of significance?
4. Can this management plan be refined on the basis of these results? Are further management strategies required in terms of additional investigation or conversation?

4.5.3 STAGE 1: TEST EXCAVATION

The aim of this excavation is to identify the presence or absence and nature of archaeological deposits within Bungonia PAD 1, and landform zone 1. To do so, the excavation will focus on areas of best preservation and implement an excavation methodology which will test the various areas highlighted in the CHMA report. This will consist of a consistent excavation methodology across each area of investigation.

For Stage 1 works the following processes should be implemented:

For Bungonia PAD 1:

1. A preliminary surface assessment of the Bungonia PAD 1 will be conducted to ascertain the precise extent of the PAD, areas of high potential and areas of visible disturbance.

2. Testing within Bungonia PAD 1 will consist of a linear transect of test pits located within the approximate 20 x 70 metre disturbance area created by the Bungonia Bypass. In order to sample an appropriate percentage of the impact area the transect will consist of four test pits located at 20m intervals, and are to be excavated by hand where possible.
3. Should no stratified deposits remain, no archaeological features be identified, or should the soil be of medium to hard plasticity, then machine excavation will be used on the remaining test pits.

For Zone 1 (Sandy Deposits):

1. CHMA (2008: 57) stated that testing should be isolated small areas of 'the sand body in the south, focusing primarily on the hill slopes'. Prior to any sub surface testing taking place a preliminary surface assessment of the south of the sand body should be conducted to ascertain precise locations for testing and to locate areas of high potential and visible disturbance within areas to be impacted by the development.
2. Areas identified by the surface assessment will have between 4 to 6 test pits excavated by hand (if possible) at regular 15 to 30 meter intervals in order to sample an appropriate percentage of area(s) identified.
3. Based upon the CHMA (2008) report and the size of the southern portion of Zone 3 it is anticipated that the excavation of 12 to 24 test pits may be required. This estimate may be revised upon the completion of the surface inspection.
4. Should no stratified deposits remain, no archaeological features be identified, or should the soil be of medium to hard plasticity, then machine excavation will be used on the remaining test pits.

In general test pits will follow the following excavation methodology:

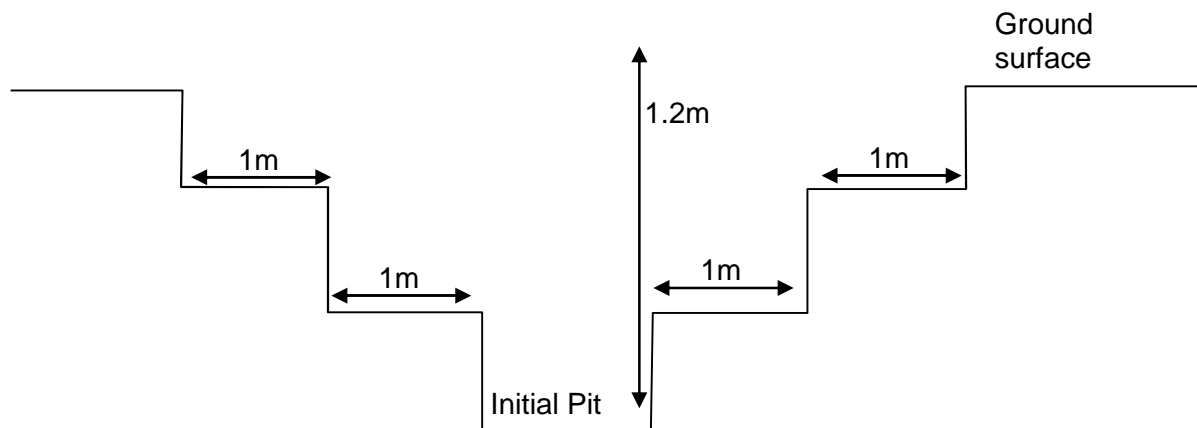
- Test pits will be excavated to the B horizon or bedrock, or to a maximum depth of 125cm.
- Test pits will be excavated in 10cm spits when hand dug
- All excavated material will be sieved through a 3mm mesh. Where excavated material is not falling through the 3mm with ease, a 5mm meshed sieve will be nested inside the 3mm mesh with the smaller mesh being placed at the bottom. Wet-sieving will be the preferred method of sieving.
- Appropriate measures such as silt fences and drainage channels will be implemented where required to deal with disposal of the water and silt from the wet-sieving process.
- Samples of any dateable material will be recovered where identified.

Should sandy deposits be encountered during testing the following protocol will be adhered to:

1. In the event of evidence of occupation occurring near the 1.2m depth cut off for safe excavation in the sand body, it will be necessary to expand the test pits and potentially to shore the pits to provide a safe work environment.
2. The exact nature of the extent and the depth of that expansion will be dependent on the characteristics and stability of the sand deposit during excavation.

3. WorkCover Authority of NSW (2000) Code of Practice: Excavation. 31 March 2000 will be used to guide any excavation and shoring in sand deposits at depth.
4. Where safe work practices differ from the excavation permit methodology, safe work practice and a safe work environment will be take precedence over any archaeological considerations.

Specifically, the initial test pit will be expanded in 1 x 1m increments until work can be safely conducted in the excavated area. It is envisaged that the initial test pit will be expanded by 1 to 2m. Where sand deposits are stable enough, these expansion pits will be stepped to a depth that allows safe work in the initial test pit



4.5.4 TEST PIT/TEST AREA EXPANSION METHODOLOGY

To obtain a larger sample of lithics for analysis, and to inform the management recommendations of the application area, it may be necessary to extend pits to target particular archaeological features such as knapping concentrations and their extents, high densities, or unusual features. Triggers have been developed for this eventuality.

Expansion of test pits will be triggered for:

- Pits with highest artefact densities at Stage 1, and/or
- Pits with diverse lithic materials, unusual materials or artefact types;
- Where evidence of change in raw materials or artefact types occur with depth, based on a preliminary inspection of the artefacts in the field;
- The presence of cultural or geomorphological features such as (but not limited to) hearths, burnt features, or buried land surfaces.

These triggers will only apply to all of the excavations listed.

4.5.5 STAGE 2: METHODOLOGY FOR EXPANSION OF TEST PITS

Where the expansion test pit criteria have triggered the expansion of a test pit, the test pit will be expanded in a linear pattern due to the limited width of the corridor. It is expected that this will result in the expansion of the pit in 1m x 1m increments. It is anticipated that each test pit identified for expansion in will result in an additional area of 1-8m² being investigated. In some instances where there is a potential for a larger site to be present expansion may be dispersed to ascertain the nature and extent of the remains encountered.

The total number of expansion pits, if any, would depend on the results of the Stage 1 testing. It is envisaged, however, that not more than 50m² would be excavated during Stages 1 and 2 combined.

4.5.6 POST- FIELDWORK ANALYSIS AND RECORDING

Post-field work analysis will include the following:

- Age determinations will be obtained where suitable materials have been recovered. The number of samples submitted will depend on their context and potential to provide additional interpretation of cultural material.
- Artefacts from the application area will be analysed in a manner comparable to other assemblages from New South Wales to provide a suitable comparison set. Recording will include provenance, raw material type, cortex if present, artefact size and weight, artefact type, modification, evidence of flaking techniques on cores, flake shape and platform attributes. Comments may include any other observations. Comparisons will be made with local assemblages and those from the broader region where detailed recordings are available. Data will be presented as tables and figures as appropriate. The recording and analysis will be carried out by specialist Beth White or an appropriately experienced person.

A report on the test excavation will be prepared that:

- describes consultation with the Aboriginal community groups and representatives;
- describes the archaeological fieldwork;
- analyses the results;
- assesses the significance of the Aboriginal objects and sites in the application area;
- makes management recommendations about the proposed impacts that may affect the aboriginal heritage values of the application area; and
- provides raw data of recovered artefacts, sections plans and excavation notes.

4.5.7 CARE AND CONTROL OF ABORIGINAL ARTEFACTS

The registered Aboriginal stakeholders must be consulted with regards to care and control of artefacts collected during the salvage and excavation phases of works (see Management Strategy 1). Where possible a Care and Control Agreement is to be made regarding the storage of artefacts at an appropriate location. Should a Care and Control agreement not be forthcoming then the Australian Museum should be contacted to store the material. If the Australian Museum is not accepting deposits then the cultural heritage advisor(s) commissioned to complete the salvage works and the archaeological excavations must provide temporary storage facilities once they have completed their analysis.

4.6 MANAGEMENT STRATEGY 5: AWARENESS OF ABORIGINAL SITES, ABORIGINAL HERITAGE AWARENESS TRAINING

In order for the Plan to be implemented successfully every person involved in the project involved in the project needs to have an understanding of cultural heritage issues which may be encountered. Every employee, contractor, and visitor who enters the quarry should receive Aboriginal Heritage Awareness Training. This will outline their personal responsibilities regarding Aboriginal Heritage in accordance with the Plan. This training will also inform those entering the site of the locations and restrictions associated with Aboriginal sites which have been fenced in order to be protected *in situ*. Training must be completed prior to any person entering the quarry site.

4.7 MANAGEMENT STRATEGY 6: DISCOVERY OF NEW SITES

Cultural heritage assessments can be constricted by a number of factors such as surface visibility and survey coverage. Additionally where surface surveys have been augmented by excavations it has been found that surface results can differ significantly from sub-surface remains (Navin & Officer 1996; Navin, Office, and Kamminga 1998a). Therefore, there is a potential, even when exhaustive survey and excavation has been completed for cultural heritage to remain undiscovered.

If any cultural heritage is located during the completion of the archaeological excavation or during the construction then an assessment of the sites significance should be undertaken and all conservation options explored in detail. In these circumstances a professional archaeologist should be contacted to assess the significance of the site, the local DECCW office also has to be contacted. The registered Aboriginal groups should be informed and their views sought in accordance with Management Strategy 1.

4.8 REVIEW OF THE MANAGEMENT PLAN

This Plan will be reviewed, and if necessary updated ensure that it is providing the necessary framework for the management of Aboriginal Heritage. This review should be undertaken by the registered stakeholders (see Management Strategy 1) and a senior member of the Ardmore Park Quarry management team:

- on a Bi-annual basis;
- where there is an incident on site relating to Aboriginal cultural heritage management;
- as an outcome of any Independent Environmental Audit;
- when there are changes to the Project Approval or licence conditions relating to aspects of this Aboriginal Heritage Management Plan; or
- in response to a relevant change in technology or legislation.

5. SUMMARY AND CONCLUSION

5.1 SUMMARY OF MANAGEMENT PLAN

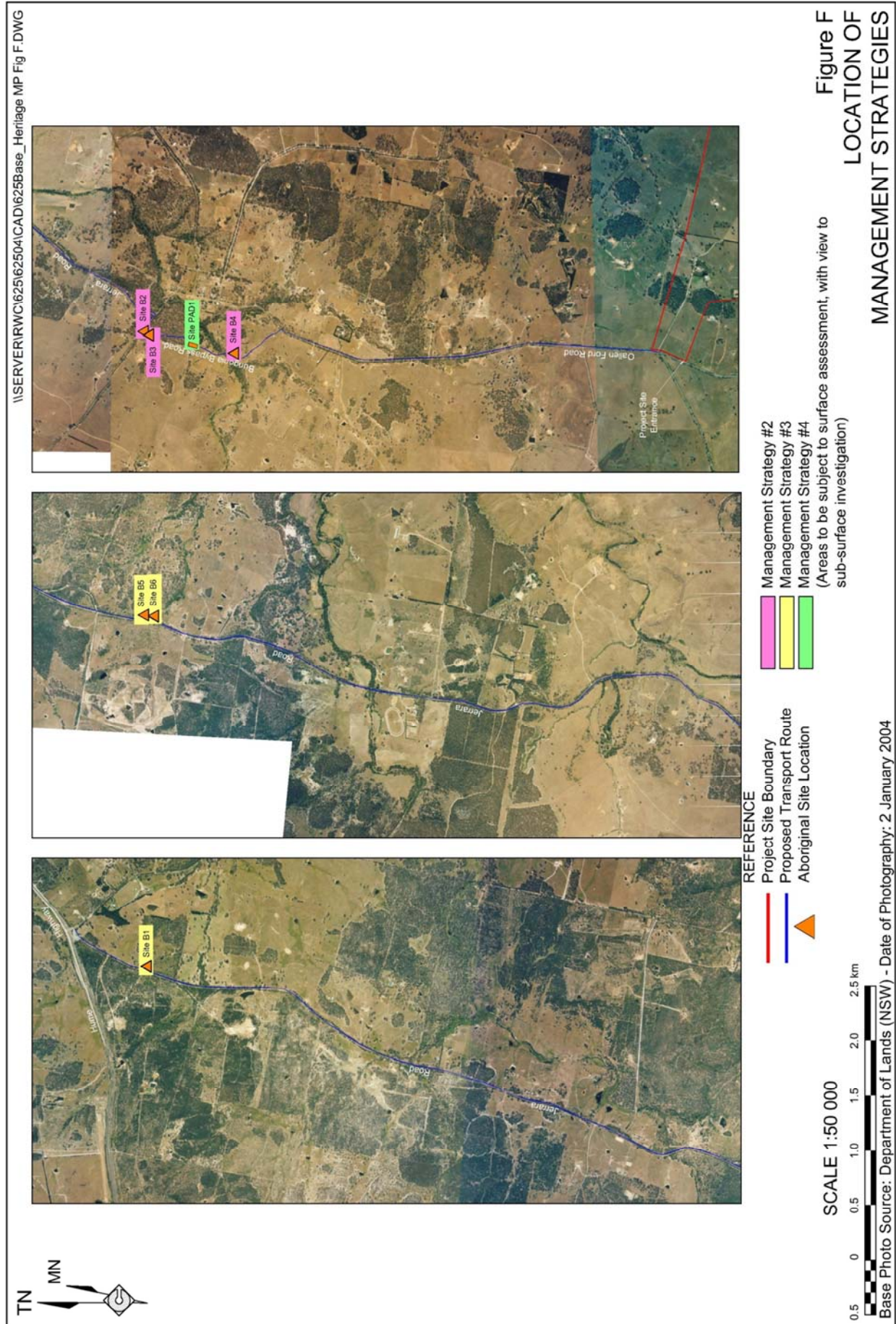
This Plan has outlined six management strategies that will address management of identified Aboriginal sites and zones of high archaeological potential of the “Ardmore Park” Quarry and along the Bungonia Bypass. The main obligations for the client under this plan are as follows.

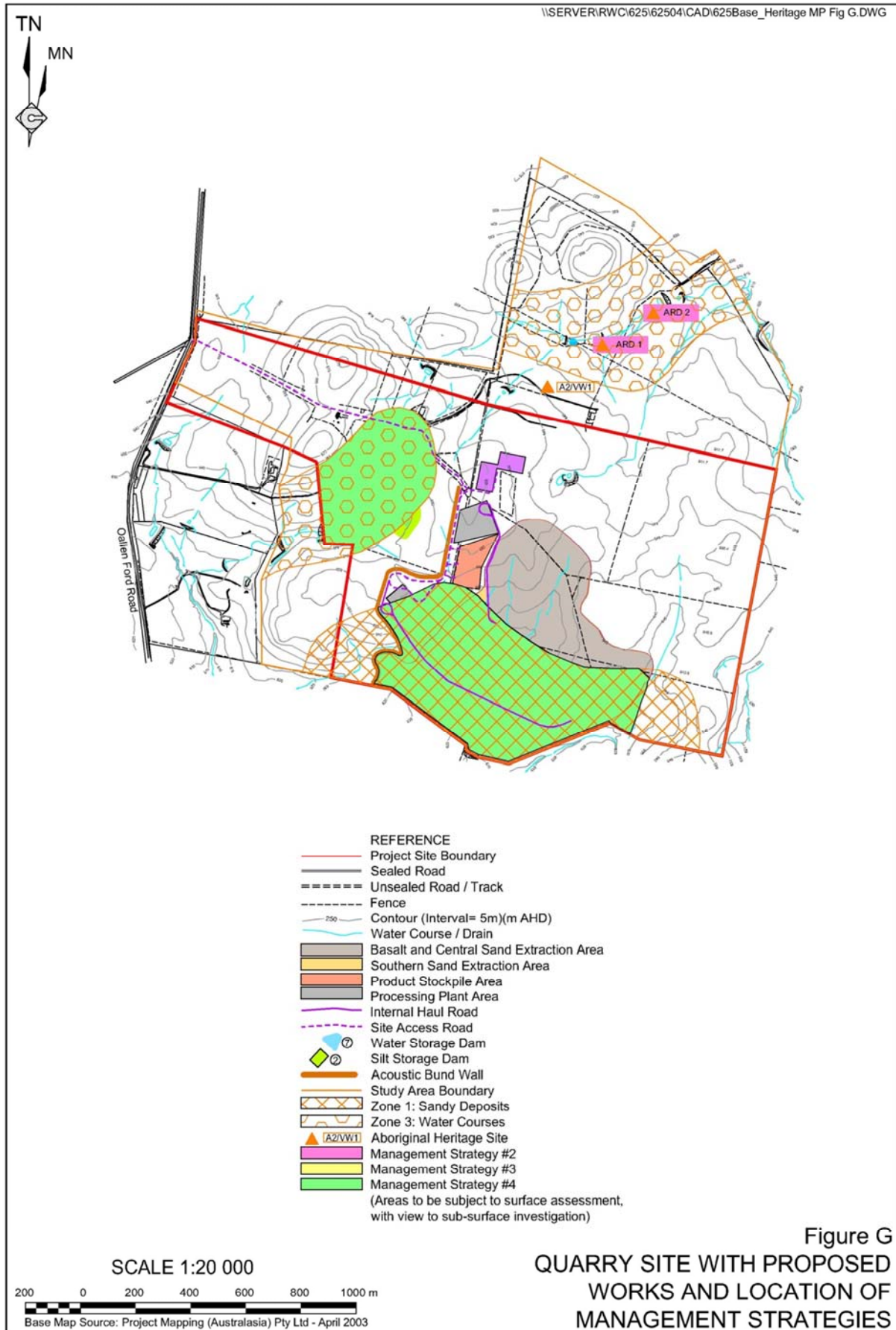
- Maintain an open dialogue with the registered Aboriginal stakeholders to ensure that they are kept informed of matters concerning the cultural heritage to be effected by the quarry.
- Ensure that all personnel, visitors, and contractors receive cultural heritage training and are fully aware of their obligations in accordance with the plan prior to entering the Quarry and Bungonia Bypass.
- Maintain the exclusion zones around sites selected for *in situ* preservation (Bungonia 1, 5, 6, ARD 1, ARD 2, and Zone 3 Water Courses).
- Undertake salvage of selected archaeological sites (Bungonia 2, 3, 4).
- Undertake appropriate archaeological sub-surface assessment of Bungonia PAD 1, and Zones 1 Sandy Deposits.
- Ensure that management strategies are current and incorporate new sites should they be located.

Figures F and **G** summarise the management strategies relevant to the identified sites on the Ardmore Park Quarry site and along the Bungonia Bypass and zones of higher archaeological significance.

5.2 CONCLUSION

The Plan has been prepared in accordance with *Condition 3(24)* of PA 07_0155 and addresses each of the requirements of this condition, and is intended to be an active document to manage the Aboriginal sites. The Plan outlines the results of all the previous studies which have taken place and based on these results has compiled six management strategies to be undertaken with specific reference to these sites. Management Strategies 2 to 4 have been developed to specifically deal with sites and areas of potential located in the CHMA (2008) assessment. These have been supplemented with Management Strategies 1, 5, and 6 which have installed a mechanism for the ongoing management of cultural heritage within the Quarry and along the Bungonia Bypass for the duration of the quarry.





6. REFERENCES

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Kuskie, P. and Webster, V. 2003. *An Aboriginal Heritage Assessment of a Proposed Poultry Farm at Ardmore Park, Bungonia, Southern Tablelands, NSW*. A report to Cowman Stoddart Pty. Ltd.

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