4.15 ABORIGINAL ARCHAEOLOGY AND CULTURAL HERITAGE

4.15.1 Archaeology Survey

This section responds to the submissions from stakeholders recommending further Aboriginal archaeological surveys are undertaken within the Disturbance Boundary to address concerns regarding survey coverage limitations due to poor ground surface visibility.

Submission reference: SIG10, P5, P6, P17, P23, P24, P29, P31, P33, P34, P46, P47, P54, P58, P59, P75, P80, P81, P85, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98 and P99

Summary response: The results of the Aboriginal archaeological survey conducted for the Project survey a valid basis from which to assess the known and potential Aboriginal archaeological resource of the Project Boundary, to determine probable impacts and formulate appropriate management/mitigation options. Shenhua Watermark will conduct a staged Aboriginal heritage clearance process for all areas to be disturbed.

An Aboriginal Archaeology Impact Assessment was undertaken for the Project (Appendix O of the EIS).

As part of the Aboriginal Archaeology Impact Assessment, an archaeological survey of the Project area was undertaken in two blocks between March 2011 and April 2012 with representatives of the Registered Aboriginal Parties (RAPs) for the Project. The first and primary block of survey was conducted over a period of 25 days between March and May 2011. The second block was conducted over a period of six days between March and April 2012 and provided an opportunity for the Senior Elders and Elders group to visit key sites.

A targeted survey strategy was adopted for the Project, which involved the division of the Project Boundary into its constituent landform types. A proportional field emphasis was then placed on those considered to have higher archaeological potential (i.e. level-to-gently inclined undulating/inclined flood/drainage plains, gently inclined footslopes and level-to-gently-undulating hills on plateau surfaces). The survey effort across the Project Boundary was guided by the predictive model developed on the basis of the desktop review. A total survey coverage of approximately 1,233 ha (12.9%) within the Project Boundary was achieved.

Effective coverage data for the survey suggest that limited surface visibility was a constraint in assessing the surface Aboriginal archaeological record of the Project Boundary. Nonetheless, observations made during survey suggest that a reasonably high sample of exposed ground within the Project Boundary was achieved. Accordingly, the results of survey provide a valid basis from which to assess the known and potential Aboriginal archaeological resource of the Project Boundary, to determine probable impacts and formulate appropriate management/mitigation options.

In recognition of the ground surface visibility conditions within the Project Boundary and RAPs concerns regarding survey coverage, Shenhua Watermark will conduct a staged Aboriginal heritage clearance process for all areas to be disturbed. The archaeological salvage work will be undertaken by, or under the supervision of qualified archaeologists and RAPs as detailed further in the Aboriginal Cultural Heritage Management Plan for the Project.

Management actions for any newly identified Aboriginal archaeological sites during the archaeological salvage work will be managed in accordance with the procedure specified in the Aboriginal Cultural Heritage Management Plan for such finds of unrecorded Aboriginal archaeological evidence (such as human skeletal remains and totemic animal remains).

4.15.2 Archaeology Findings

This section responds to the submissions from stakeholders regarding the identification and interpretation of Aboriginal archaeology within the Project Boundary and how these sites will be managed.

Submission reference: RA9, SIG7, SIG10, SIG13, P5, P6, P17, P18, P23, P24, P25, P29, P31, P33, P34, P41, P43, P46, P47, P48, P50, P51, P52, P53, P54, P55, P58, P59, P61, P69, P70, P75, P76, P77, P78, P79, P80, P81, P85, P87, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100, P103, P104, P106 and P107

Summary response: A total of 55 Aboriginal archaeological sites were identified in the Project Boundary, consisting of the 51 new sites and four sites previously registered on the Aboriginal Heritage Information Management System database. All sites will be managed in accordance with the Aboriginal Cultural Heritage Management Plan to be developed for the Project. Shenhua Watermark proposes to establish the Watermark Gully Aboriginal Cultural Heritage Conservation Area and Mooki River Aboriginal Cultural Heritage Conservation Area which offer both known and potential Aboriginal archaeological resources and cultural values.

As discussed in Section 8.5 of Aboriginal Archaeology Impact Assessment, a total of 55 Aboriginal archaeological sites were identified in the Project Boundary, consisting of the 51 new sites and four sites previously registered on the Aboriginal Heritage Information Management System (AHIMS) database. The newly recorded sites were represented by 17 artefact scatters, 23 isolated finds, eight potential Aboriginal scarred trees and three grinding groove sites. The AHIMS registered sites were entirely represented by artefact scatters.

Grinding Grooves

Grinding groove sites are reasonably well-represented within the region, which is defined for the purposes of assessing Aboriginal archaeology as a 1,600 km² area centred upon the land within the Project Boundary and the lands in, around and between the townships of Spring Ridge, Curlewis, Breeza and Caroona. A total of 23 grinding groove sites are known to occur with the region accounting for 15.4% of all known sites (n = 146).

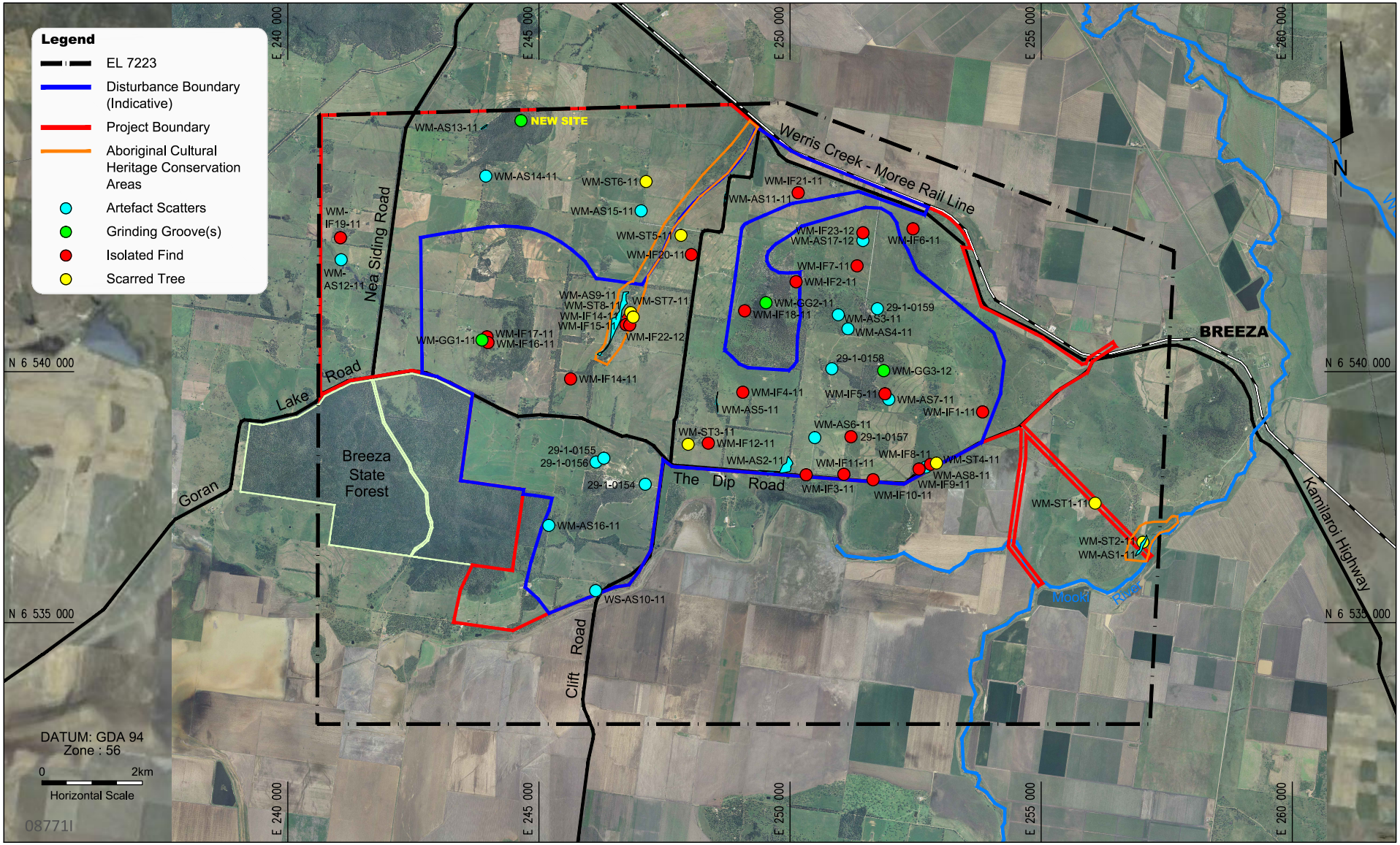
CCAG notes in their submission that there is no mention in the EIS of three grinding groove sites which are located on Springhurst Mountain. Using the coordinates provided by CCAG in their submission, the additional grinding groove sites were mapped in relation to the Project Boundary (see **Figure 75**). It is important to note that the validity of the sites have yet to been confirmed by a qualified archaeologist. As shown on **Figure 75**, these new sites are located on the north-western extent of the Project Boundary, well outside the Disturbance Boundary. Therefore, these sites will not be disturbed by the Project and will be managed in accordance with the procedures outlined in the Aboriginal Cultural Heritage Management Plan. In particular, as specified in Section 7.13.4 of the EIS, archaeological sites that are not impacted by the Project will be protected and conserved by means of fencing and signage.

Three Aboriginal grinding groove sites associated with exposed sandstone bedrock were identified within the Project Boundary (WM-GG1-11, WM-GG2-11 and WM-GG3-12). WM-GG1-11 is the largest of the three grinding grooves consisting of up to 60 grooves at its southern extent and 14 potential grooves at its northern extent. WM-GG3-12 consists of 20 grooves and WM-GG2-11 is a single isolated grinding groove atop Mt Watermark.

Two of the grinding groove sites (WM-GG1-11 and WM-GG3-12) occur within the open cut mining areas and are therefore required to be relocated during the Project life (see **Figure 75**).

Given the high scientific and cultural significance of the grinding groove sites, Shenhua Watermark completed further geotechnical and geomorphological investigations (see Appendix Q of the EIS) to evaluate the effectiveness of relocating WM-GG1-11 and WM-GG3-12. Each site was characterised through the application of three dimensional photogrammetric imaging, soil hand auguring surveys and bedrock coring.

Based on the composition of the grinding groove slab and the surrounding soil profile, the assessment concluded that the sites could effectively be relocated from their current location through manual excavation. Detailed salvage methodologies for each site will be developed in consultation with the RAPs and outlined in the Aboriginal Cultural Heritage Management Plan. The relocation will occur prior to the disturbance of sites.



WATERMARK COAL PROJECT

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Aboriginal Cultural Heritage Sites and Conservation Areas

FIGURE 75

OEH has acknowledged in their submission the concerns of stakeholders regarding the relocation of the grinding grooves but accept the risks and cost benefits of the Project in this circumstance where impacts are unavoidable. However, given the Aboriginal community's strong views on the significance of the sites, OEH expects that an archaeological excavation program and pre-removal program will be undertaken as a component of the Aboriginal Cultural Heritage Management Plan.

In this regard and as committed to in the EIS (Section 7.13.4), the Aboriginal Cultural Heritage Management Plan for the Project will include provisions for the following at WM-GG1-11 and WM-GG3-12:

- Research design for the salvage program;
- Pre-relocation works:
  - Topographic mapping;
  - Three-dimensional photogrammetric imaging;
  - Cleaning and vegetation clearance for the purposes of sandstone delineation;
  - A program of archaeological test pitting and, if appropriate, open area hand excavation;
  - A geomorphological assessment employing hand auguring; and
- Identification of any temporary or permanent storage location (keeping place) and procedure for care in accordance with the *Code of Practice for Archaeological Investigation for Aboriginal Objects in New South Wales* (DECCW, 2010a).

Further details pertaining to each of the processes will be developed in consultation with RAPs and OEH. All salvage works will be undertaken by or under the supervision of one or more archaeologists and one or more RAPs.

Scarred Trees

Fourteen potential scar-bearing trees were identified during the archaeological survey; eight of which were classified as potential Aboriginal scarred trees. The remaining six trees were determined to be not of Aboriginal origin as per the Aboricultural Assessment (Appendix D to Appendix O of the EIS). As specified in Section 7.13.4 of the EIS, all of these eight scarred trees will be conserved and not disturbed as part of the Project.

OEH highlights in their submissions that RAPs were not involved in the Aboricultural Assessment of the scarred trees and that some members of the Aboriginal community strongly opposed the determination of the assessment. As such, OEH recommends further evaluation of the trees having regard to RAP recommendations and any documentary or physical evidence, in particular past land use and ethnohistory.

As a result of consultation with all RAPs following the completion of field survey, it was agreed to complete a second round of survey with the Senior Elders and Elders group formed in January 2012. This survey was conducted from 27 February 2012 to 2 March 2012 via limited pedestrian transects and primarily vehicular transects. During this survey, the scar-bearing trees were revisited.

As made evident in the Aboricultural Assessment (Appendix D to Appendix O of the EIS), the six scar-bearing trees were not classified as being of Aboriginal origin given that they do not comply with the following key characteristics as provided in Long (2005):

- Aboriginal scars will be more-or-less regular in shape, often with parallel sides and slightly pointed or rounded ends;
- Aboriginal scars will typically terminate above ground level;
- Exposed sapwood on Aboriginal scars will be free of knots or evidence of branches;
- Aboriginal scars may exhibit stone or metal axe marks;
- Aboriginal scars will only occur on native Australian tree species; and
- Aboriginal scars will only occur on trees that are at least 100 years old.

Furthermore, the Aboriginal Archaeology Impact Assessment not only considers these characteristics in the assessment of Aboriginal scarred trees but also accounts for past land use and ethnohistory within the vicinity of each scar-bearing tree. For example, patterned metal axe marks at site WM-ST7-11 and WM-ST8-11 are consistent with European origin for the scars on these trees. Nonetheless, given that Aboriginal people are known to have worked as station hands on local properties throughout the 20th century (J.Delaney-John, pers. comm., 2012); it is possible that they were, in fact, created by an Aboriginal person or persons. The proximity of the trees to a major Aboriginal camp site (WM-AS9-11) is also of note in this respect as is the fact that Aboriginal people living in the North West Slopes and Plains of NSW are known to have been in possession of metal axes as early as 1832 (Mitchell, 1839). Accordingly, such evidence has been considered in determining the origin these scar-bearing trees.

Notwithstanding this, as committed to in Section 7.13.4, a third party review of the aborist assessment of scarred trees will be completed as part of the Aboriginal Cultural Heritage Management Plan in consultation with RAPs, OEH and DP&I.

Tula Adze 'Slug'

A single potential tula adze 'slug' was identified at site WM-AS9-11, which is currently the largest and most complex known Aboriginal artefact scatter known in the Project Boundary. OEH note in their submission that this is an interesting find and recommend ongoing examination. Manufactured out of high-quality chert/tuff, the specimen exhibits a cortical striking platform and measures 12.9 x 28.7 x 7.9 mm. Retouch has been initiated from the ventral surface and, as is typical for tula adze *"slugs"* (Holdaway et al., 2004), almost abuts the platform.

The tula adze *"slug"* is characteristic of the Australian Small Tool Tradition, which is widely believed to have emerged in the mid-Holocene and to have persisted into the contact period (i.e. the last 200 years) (Gould, 1969). It has been suggested that the Australian Small Tool Tradition forms part of a portable, standardised and multifunctional tool kit aimed specifically at risk reduction (Hiscock, 1994; 2006).

The tula adze *"slug"* has significant potential to contribute knowledge not available from another resource or site. Given the research potential of the tula adze *"slug"*, opportunities for further examination of this artefact and the broader Australian Small Tool Tradition will be made available via the Aboriginal Cultural Heritage Management Plan (see **Section 4.15.9**).

Mooki River Sites

As noted in Section 7.14.3 of the EIS, as part of the Aboriginal Cultural Heritage Values Assessment (Appendix P of the EIS), camping areas along the Mooki River were deemed to be of high cultural significance and value by the RAPs in terms of the relationship to cultural and ceremonial importance. CCAG reiterates this in their submission.

As described in Section 7.13.4 of the EIS, Shenhua Watermark propose to establish the Watermark Gully Aboriginal Cultural Heritage Conservation Area (165.7 ha) and the Mooki River Aboriginal Cultural Heritage Conservation Area (40.7 ha) (see **Figure 75**). These areas offer both known and potential Aboriginal archaeological resources and cultural values on land owned by Shenhua Watermark within and adjacent to the Project Boundary.

Provisions for the Aboriginal Cultural Heritage Conservation Areas will be included in the Aboriginal Cultural Heritage Management Plan.

Mt Watermark

As noted in Section 7.14.3 of the EIS, as part of the Aboriginal Cultural Heritage Values Assessment, Mt Watermark was identified to be of moderate to high cultural aesthetic significance and value by the RAPs. CCAG reiterates this in their submission.

As described in Section 3 of the EIS, Mt Watermark will not be disturbed by the Project, thereby assisting to preserve the moderate to high cultural aesthetic significance to RAPs.

Interpreting and Assessing Archaeology in relation to Cultural Heritage Values

NTSCorp suggested in their submission that the methodology of assessing the archaeology for the Project area as a scientific issue detached from the cultural heritage value of the area severely limits the efficacy of the Aboriginal archaeology and cultural heritage values assessments.

As described in Section 7.13 of the EIS and the Aboriginal Archaeology and Cultural Heritage Assessments Synopsis (Appendix N of the EIS), in order to identify the Aboriginal archaeology and Cultural Heritage values of the Project area and any potential impacts as a result of the Project, five closely linked assessments were completed. The five assessments collectively produced the Aboriginal Archaeology and Cultural Heritage Assessment for the EIS and included:

- An *Aboriginal Archaeology Impact Assessment*, as prepared by AECOM Australia;
- A *Geomorphological Assessment of selected Archaeological Sites*, as prepared by A/Prof Fanning of Macquarie University;
- An *Aboricultural Assessment of potential Aboriginal scarred trees*, as prepared by Australian Tree Consultants;
- A *Geotechnical and Geomorphology Investigation of Grinding Grooves Sites*, as prepared by Strata Control Technology; and
- An *Aboriginal Cultural Heritage Values Assessment*, as prepared by Connect for Effect.

Each of the above assessments had a key role in assisting to determine the Aboriginal archaeological and cultural heritage values and significance of the Project area. Each assessment is intrinsically linked and all should be read in conjunction where possible.

Overall, the assessments combine to provide an understanding of the Aboriginal archaeological and cultural heritage resource of the Project area, beyond conventional assessment strategies. This approach has been integral in developing appropriate recommendations and mitigation management measures for the EIS and is an appropriate assessment approach.

Furthermore, OEH suggested that to focus solely on disturbance history when making site evaluations negates attempts by Aboriginal people to promote cultural values of the archaeology. In this regard, OEH recommends that further work be undertaken, should Development Consent be granted, to interpret the known and unknown Aboriginal archaeological sites within the Disturbance Boundary. Shenhua Watermark will conduct a staged Aboriginal heritage clearance process for all areas to be disturbed. The archaeological salvage work will be undertaken by, or under the supervision of qualified archaeologists and RAPs as detailed further in the Aboriginal Cultural Heritage Management Plan for the Project.

NTSCorp further suggested that the cultural value of Aboriginal archaeological sites was not adequately considered given that an anthropologist or historian was not employed for the EIS, and they are asserted by NTSCorp as being key to the task of identifying the cultural value of sites and objects. However, as part of the development of the Aboriginal Cultural Heritage Values Assessment for the Project, RAPs advised that Aboriginal people were the determinant of cultural values and that they did not wish to have their cultural values assessed by an anthropologist or historian.

4.15.3 Predicted Impacts on Archaeology Findings

This section responds to the submissions from stakeholders regarding the predicted impacts on Aboriginal archaeology within the Project Boundary.

Submission reference: SIG6, SIG8, SIG10, SIG13, P3, P5, P6, P9, P11, P17, P20, P23, P24, P25, P29, P31, P33, P34, P36, P37, P38, P40, P41, P43, P46, P47, P48, P50, P51, P52, P54, P55, P57, P58, P59, P60, P61, P69, P70, P71, P73, P75, P76, P77, P78, P79, P80, P81, P85, P87, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100, P103, P104, P106 and P107

Summary response: A total of 29 archaeological sites within the Disturbance Boundary will be directly impacted by the Project, including 27 open artefact scatters and two grinding groove sites. All remaining 26 sites identified will be conserved. No scarred trees will be impacted by the Project.

The Aboriginal Archaeology Impact Assessment identified that a total of 29 archaeological sites within the Disturbance Boundary will be directly impacted by the Project, including 27 open artefact scatters and two grinding groove sites. All remaining 26 sites identified will be conserved (see Table 59 of the EIS). No scarred trees will be impacted by the Project. A number of stakeholders raised concern regarding the destruction of Aboriginal archaeological sites as a result of the Project. However, as outlined in **Section 4.15.9**, Shenhua Watermark has committed to the staged salvage of those sites predicted to be directly impacted by the mining operations. In this regard, these sites will not be destroyed but rather relocated to a temporary or permanent storage location (keeping place) and/or conservation area, which will remain available for future research and access by the Aboriginal people.

Blasting Impacts

CCAG further suggested in their submission that the blasting assessment for the EIS appeared to consider only some of the cultural heritage sites identified by RAPs as potentially at risk from blasting vibrations.

The key sites identified for further assessment by RAPs included the three Aboriginal grinding groove sites. Two of these sites were identified as occurring within the open cut mining areas (WM-GG1-11 and WM-GG3-12) and are therefore required to be relocated during the Project life. Nonetheless, prior to the relocation of these sites, a 100 m buffer from blasting activities will be implemented (as specified by blasting specialist in Section 7.9.2 of the EIS) is sufficient to protect the sites from overbreak or cracking. WM-GG2-11 is located outside the open cut mining areas, however, is adjacent to the Eastern Mining Area and may be subject to blasting vibration. Breeza Cemetery was also incorporated into the assessment based on Aboriginal community concerns. Other items of heritage significance, such as Curlewis Cemetery as mentioned by CCAG, are located too far (approximately 15 km) from the Project to be potentially affected by blasting impacts.

As described in **Section 4.10.4** of this RTS, slopes, landforms and Aboriginal grinding groove sites associated with underlying bedrock have a low sensitivity to vibration as these features are able to naturally fluctuate with ground movements. Therefore, the primary potential impact on these structures as a result of blasting is overbreak, which is a breakage beyond the excavation limits in the immediate area surrounding blast holes.

A 100 m buffer from blasting activities is considered sufficient to protect the sites from overbreak or cracking. The risk of flyrock damage to the grinding grooves will be controlled by covering the grooves with flexible mats, sand or other suitable materials during blast events within 500 m of the grooves.

The Acoustics Impact Assessment (Appendix H of the EIS) found that the maximum predicted ground vibration due to the Project at Breeza cemetery was 0.7 mm/s, which is well within the adopted criteria for historic heritage of 2 mm/s.

4.15.4 Archaeology Research Design

This section responds to the submission raised by OEH regarding the refinement of the research design as a component of the Aboriginal Cultural Heritage Management Plan.

Submission reference: RA9

Summary response: The Aboriginal Cultural Heritage Management Plan for the Project will include a detailed research design for the surface collection and excavation components of the salvage program, to be developed in consultation with RAPs and OEH.

As specified in Section 11.2 of the Aboriginal Archaeology Impact Assessment, the Aboriginal Cultural Heritage Management Plan for the Project will include a detailed research design for the surface collection and excavation components of the salvage program. This will be developed in consultation with RAPs and OEH.

As described in Section 4.5.2 of the EIS, pursuant to section 89J(1)(d) of the EP&A Act, the granting of Development Consent for the Project will remove the requirement to obtain an Aboriginal Heritage Impact Permit (AHIP) prior to the salvage or destruction of Aboriginal objects. The Aboriginal Cultural Heritage Management Plan will specify the relevant salvage protocols to be followed, in lieu of an AHIP.

4.15.5 Predicted Impacts on Cultural Heritage Values

This section reiterates the submissions from stakeholders regarding the predicted impacts of the Project on Aboriginal cultural heritage values.

Submission reference: SIG1, SIG10, P5, P6, P17, P18, P20, P23, P24, P29, P31, P33, P34, P46, P47, P54, P58, P59, P75, P80, P81, P85, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98 and P99

Summary response: Aboriginal cultural heritage and landscape features of cultural value were identified to have the potential to be impacted by the Project. RAPs suggested mitigation and management recommendations throughout the consultation period for consideration in the development of the Aboriginal Cultural Heritage Management Plan. Shenhua Watermark will continue to consult with the RAPs in this regard.

As specified in Section 7.14.4 and in the Aboriginal Cultural Heritage Values Assessment (Appendix P of the EIS), aboriginal cultural heritage and landscape features of cultural value were identified to have the potential to be impacted by the Project. Concerns raised during the consultation regarding the perceived impact of the Project include:

- The Project will impact on recorded cultural sites or landscape features of significant cultural value;
- The Project will impact directly on two sets of grinding grooves identified as having high cultural value;
- The Project may impact subsurface cultural sites or unrecorded surface items;
- The Project may increase the threat to cultural values, including the loss of animal habitats and the drawdown of watercourses;
- Loss of bush foods, medicinal plants, cultural resources (for art and ceremony), animals and plants;
- Regional inability to access land on which to hunt or gather bush foods and medicinal plants due to changed land tenure. This reflects a core concern regarding the loss of opportunities for knowledge to be passed down from older to younger generations and the inability to retain fundamentally important cultural practices on Country;
- Reassessment of six potential scarred trees and development of management measures relating to these areas;
- Development of protocols for specific areas of heightened cultural sensitivity, particularly the Mooki River Offset Area; and

- The landscape as a whole becoming unrecognisable as a result of the Project and cumulative development in the region. Such loss of known landscapes is perceived to be a serious threat to Aboriginal cultural heritage, both traditionally and contemporarily, as stories and knowledge are linked to Country.

RAPs suggested mitigation and management recommendations throughout the consultation period for consideration in the development of the Aboriginal Cultural Heritage Management Plan. Additional input and comments were received during the extended draft comment period. The suggested recommendations reflect the importance of Aboriginal communities having a greater involvement in managing cultural heritage.

Shenhua Watermark will continue to consult with the RAPs throughout the development of the Aboriginal Cultural Heritage Management Plan for the Project. The consultation will be undertaken and conducted in accordance with the guiding principle of mutual respect for all cultures.

Interactions with Water

CCAG raised concern that groundwater extraction resulting from the Project could potentially impact culturally significant sites (as per the minimal impact considerations in the AIP or cultural heritage values along watercourses within the vicinity of the Project Boundary.

As specified in Section 7.1.3 of the EIS, the Project complies with the AIP as the predicted impacts of the Project are all less than the Level 1 'minimal harm criteria'. In particular, the groundwater modelling for the Project predicted a maximum drawdown in a private bore of 1.4 m, which is less than the 2 m maximum minimal harm criteria specified by the AIP. Further, it is relevant to note that sites located within the Disturbance Boundary are predominately located on deep porous rock groundwater to which the AIP does not apply.

During operations, the predicted depressurisation will result in a small increase in the rate of seepage from the Mooki River into the underlying aquifer. The increase in seepage from the Mooki River to the underlying alluvium of 0.13 ML/day represents an undetectable proportion of the total river leakage along the Mooki River of 0.4%.As the seepage is from the river into the underlying aquifer, there is no potential for a change in salinity in the surface water source during operations.

The Project will not require any disturbance to sites along the Mooki River. In addition, Shenhua Watermark will establish the Mooki River Aboriginal Cultural Heritage Conservation Area as part of the Project (see **Figure 75**). These areas offer both known and potential Aboriginal archaeological resources and cultural values on land owned by Shenhua Watermark within and adjacent to the Project Boundary.

Therefore, no impacts to culturally significant sites along the Mooki River will occur due to the Project.

Interactions with Ecology

Stakeholders raised concern regarding the potential impact on culturally significant fauna (in particular birds), which are viewed as totems by the Aboriginal community, and how such impacts will be mitigated and managed.

Section 7.10 and Appendix K of the EIS provides an overview and a detailed impact assessment of the Project on the fauna within the Project Boundary.

As part of the Aboriginal Cultural Heritage Values Assessment, RAPs shared information on cultural values (including totems) and landscape features of cultural importance. Due to the cultural sensitivity of this information, this data was recorded in the non-disclosure sections of the Aboriginal Cultural Heritage Values Assessment and thus, cannot be publically disclosed.

4.15.6 Ethnographic Context

This section responds to the submissions raised by NTSCorp regarding the apparent unbalanced focus on recent ethnohistorical literature and the failure to utilise the services of an anthropologist or historian.

Submission reference: SIG7

Summary response: The additional information sourced from the ethnohistorical literature was discussed in workshops with RAPs and considered in conjunction with oral historic accounts provided by knowledge holders. Further, RAPs advised that Aboriginal people were the determinant of cultural values and that they did not wish to have their cultural values assessed by an anthropologist or historian.

NTSCorp suggested in their submission that many of the early authors whom each published extensively on the topics of Gomeroi social organisation, traditional country, kinship systems, land use, customs and mythology (Elkin, 1944, 1945 and 1979; Greenway, 1878, 1901, and 1902; Radcliffe-Brown, 1915, 1916, 1930, 1931 and 1940; Bootie, 1899; Cameron, 1885 and 1902; and Palmer, 1884) were only referenced briefly in the Aboriginal Cultural Heritage Values Assessment. In this regard, NTSCorp questioned the efficacy and veracity of the cultural heritage assessments performed.

In the preparation of the Aboriginal Cultural Heritage Values Assessment, a draft report was issued to all RAPs and relevant agencies for review and comment (see **Section 4.15.7**). In response to the feedback received from NTSCorp regarding the ethnohistorical literature (as described above), further information pertaining to these publications was incorporated in the final Aboriginal Cultural Heritage Values Assessment. Furthermore, NTSCorp was invited to contribute anthropological information to inform the assessment; however, no additional information was provided by NTSCorp.

The additional information sourced from the ethnohistorical literature was discussed in workshops with RAPs and considered in conjunction with oral historic accounts provided by knowledge holders. The oral historic accounts from RAPs are culturally sensitive statements and have not been publicised in accordance with the agreed protocols established for the preparation of the Aboriginal Cultural Heritage Values Assessment.

NTSCorp further suggested that the ethnohistory of Aboriginal cultural heritage was inadequately reviewed given that an anthropologist or historian was not employed.

However, during the development of the Aboriginal Cultural Heritage Values Assessment, RAPs advised that Aboriginal people were the determinant of cultural values and that they did not wish to have their cultural values assessed by an anthropologist or historian. Although such services were not utilised, the broader assessment in consultation with RAPs, considered relevant information from the Archaeology Australian National University, Mitchell Library (Oral History Training), Australian Archaeological Association and Australasian Society for Historical Archaeology.

4.15.7 Adequacy of Consultation

This section responds to the submissions from stakeholders regarding the adequacy of the consultation undertaken with the Aboriginal community as part of the Aboriginal archaeology and cultural heritage values assessments.

Submission reference: RA9, SIG10, SIG7 and SIG10

Summary response: Shenhua Watermark actively sought out comments on the Aboriginal archaeology and cultural heritage values assessments for the Project, including survey methods, assessment of findings/values and suitability of mitigation and management recommendations. A range of engagement methods were adopted to consult with RAPs, including letters, workshop meetings, presentations, Walk on Country, field surveys and targeted site inspections. This facilitated the exchange of comments and allowed for sharing of additional cultural information for consideration in the assessments.

As part of the consultation process, Shenhua Watermark sought the assistance of Gomeroi People native title claim group spokespersons that actively identified groups of knowledge holders; general RAPs, Senior Elders and Elders.

Consultation Method and Community Involvement

The land to which the Project applies is of cultural and historical significance to Aboriginal people who maintain a strong connection with this Country. Shenhua Watermark acknowledged the significance of the land and as such endeavoured to actively consult with the local Aboriginal community.

OEH and CCAG have acknowledged that Shenhua Watermark has complied with the relevant guidelines as required for the Aboriginal stakeholder consultation program for the Project, including the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Consultation Guidelines) (DECCW, 2010b) and the *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC, 2005).

NTSCorp however suggests in their submission that during the consultation process Shenhua Watermark, in the Aboriginal Cultural Heritage Values Assessment, provided no identifiable mechanism to ensure that appropriate involvement of suitable knowledge holders (or Traditional Owners).

As such, NTSCorp suggests there is no certainty that the cultural significance of identified sites and objects has been properly assessed.

In accordance with the Consultation Guidelines and the DGRs, Shenhua Watermark actively sought the involved of RAPs to participate in the preparation of the Aboriginal archaeology and cultural heritage values assessments.

Shenhua Watermark also invited relevant regulatory agencies and organisations (including NTSCorp) to identify/notify Aboriginal parties who may hold knowledge of the archaeology and cultural heritage values specific to the area to which the Project applies. NTSCorp was notified in writing by Hansen Bailey (on behalf of Shenhua Watermark) of the Project on 31 January 2011; however, no details of relevant Aboriginal parties were provided.

During the consultation period, a total of 145 RAPs formally registered an interest in the Project and contributed to the inputs for the assessments, including claimants and descendants of the Gomeroi people.

NTSCorp further suggested Shenhua Watermark failed to identify knowledge holders who could "Speak for Country", being those persons who are recognised by the community as being an elder by virtue of his/her senior position and as such a traditional knowledge holder for their traditional country.

As part of the consultation process, Shenhua Watermark sought the assistance of Gomeroi People native title claim group spokespersons that actively identified groups of knowledge holders; general RAPs, Senior Elders and Elders. Individual RAPs, as agreed by the wider local Aboriginal community, self-identified themselves as Senior Elders and Elders.

As acknowledged by OEH, Shenhua Watermark actively sought out comments on the Aboriginal archaeology and cultural heritage values assessments for the Project, including survey methods, assessment of findings/values and suitability of mitigation and management recommendations. A range of engagement methods were adopted to consult with RAPs, including letters, workshop meetings, presentations, Walk on Country, field surveys and targeted site inspections. This facilitated the exchange of comments and allowed for sharing of additional cultural information for consideration in the assessments.

NTSCorp further suggested there was insufficient information presented in the Aboriginal Cultural Heritage Values Assessment, such as workshop meeting attendance lists and individual consultation records, to demonstrate that adequate consultation had occurred with the Aboriginal community.

Appendix 1 of the Aboriginal Cultural Heritage Values Assessment provides a correspondence register, which includes information pertaining to consultation efforts. However, given the cultural sensitivity of some information, inputs into Appendix 1 of the Aboriginal Archaeology Impact Assessment and Appendix 2 and 3 of the Aboriginal Cultural Heritage Values Assessment were not publicly disclosed (consistent with the consultation protocols agreed with all RAPs) including Senior Elders and Elders. As such, neither NTSCorp nor the general public have this information, which is restricted for viewing only by regulatory agencies in their assessment of the Project (as requested by the contributors).

Inspection of Grinding Grooves and Monitoring of Geotechnical Activities

NTSCorp suggested that as part of the consultation program for the Aboriginal archaeology and cultural heritage assessments, a group of Senior Elders and Elders were invited to inspect the grinding groove sites within the Project Boundary. However, upon arrival, Senior Elders and Elders were requested to monitor geotechnical investigations at the sites, in contradiction of the purposes initially implied. NTSCorp further suggests that members of the Gomeroi people native title claim group met with NTSCorp and Shenhua Watermark to discuss the incident; however, this was not addressed in the EIS.

Appendix Q of the EIS presents in detail the Geotechnical and Geomorphological Investigation of Grinding Grooves Sites undertaken for the Project. This is also summarised in Section 7.13.4 of the EIS.

The geotechnical investigation of WM-GG1-11 and WM-GG3-12 was required to evaluate the effectiveness and reliability of mitigation and management measures proposed.

Since WM-GG1-11 was identified in May 2011, discussion regularly occurred with all stakeholders in regard to the axe grinding grooves and what additional work may be required. Nonetheless, formal consultation in relation to the axe grinding grooves sites and the proposed assessment process involved:

- 12 April 2012 – Letter provided to all stakeholders notifying of three newly identified sites (including WM-GG3-12) and the need of further assessment and visitation by the Senior Elders Group;
- 23 April 2012 – Senior Elders Group site visit of WM-GG1-11 and WM-GG3-12;
- 21 May 2012 – Letter provided to all stakeholders following Senior Elders Group visit detailing the three newly identified sites and WM-GG3-12;
- 8 June 2012 – Phone calls made to the Senior Elders Group regarding the geotechnical field investigation;
- 14 June 2012 – Letters provided to all stakeholders outlining the proposed geotechnical field investigation to be undertaken in the presence of Senior Elders Group; and
- 18 - 20 June 2012 – Senior Elders Group supervision of grinding groove geotechnical work.

As noted above, the Senior Elders Group was advised of the geotechnical field work on 8 June 2012. Formal letters were provided to all 150 stakeholders on Thursday 14 June 2012 in relation to the geotechnical field work assessment of the axe grinding groove sites on Monday 18 June to Wednesday 20 June 2012.

The geotechnical field investigation of WM-GG1-11 and WM-GG3-12 was conducted in the presence of the 28 representatives of the Senior Elders Group. Prior to undertaking the work, all Senior Elders were consulted on the purpose of the work and proposed methodology and were provided the opportunity to stop work at any time if they had concerns.

Therefore, all representatives of the Senior Elders Group were clearly informed of the proposed geotechnical investigation in advance via written correspondence, followed by detailed discussion in the field. The suggestion by NTSCorp that the Senior Elders Group was invited to inspect the sites and then requested ad-hoc to monitor the geotechnical field investigation is incorrect.

Registered Aboriginal Parties Recommendations

NTSCorp suggested that recommendations made by RAPs were not adequately incorporated into the Aboriginal archaeology and cultural heritage values assessments and as such potentially misrepresented and mischaracterised the consultation program.

As described in the Aboriginal Cultural Heritage Values Assessment and Section 5.5.4 of the EIS, all RAPs, including representatives from the Gomeroi People native title claimant group, were invited to attend workshop meetings on 29 August 2012, 30 August 2012, 31 August 2012, 12 September 2012, 25 September 2012, 26 September 2012, 27 September 2012 and 3 October 2012 to review the draft Aboriginal archaeology and cultural heritage values assessments. Such meetings facilitated the exchange of RAP recommendations, which were displayed via PowerPoint and discussed as a group in whole. Editing and amendments to the recommendations were undertaken during the meeting to the satisfaction of RAPs. Following this review, RAPs signed a letter of endorsement listing the agreed recommendations to be adopted by Shenhua Watermark for the assessments.

Details pertaining to each of the workshop meetings are provided in the correspondence register of the Aboriginal Cultural Heritage Values Assessment. However, given the cultural sensitivity of some information, inputs into Appendix 1 of the Aboriginal Archaeology Impact Assessment and Appendix 2 and 3 of the Aboriginal Cultural Heritage Values Assessment are not publicly available as per the consultation protocols agreed with all RAPs, including Senior Elders and Elders.

4.15.8 Director-General's Requirements

This section responds to the submissions from stakeholders regarding the adequacy of the Aboriginal archaeology and cultural heritage values assessments to fulfil the DGRs in accordance with the broader EIS framework.

Submission reference: RA9, SIG7 and SIG10

Summary response: The Aboriginal Cultural Heritage Values Assessment, in conjunction with the Aboriginal Archaeology Impact Assessment, was developed on the basis of extensive consultation with the Aboriginal community. As such, these assessments complied with the DGRs for the Project. This is further recognised by OEH in their submission.

CCAG recognises that, for the most part, the Aboriginal Archaeology Impact Assessment and Aboriginal Cultural Heritage Values Assessment addresses and has been conducted in a manner consistent with the DGRs.

Only NTSCorp disagrees with this position which is based on the adequacy of consultation with the Aboriginal community, in particular the Gomeroi people native title claim group (see **Section 4.15.7**).

OEH acknowledges the efforts demonstrated in the Aboriginal Cultural Heritage Values Assessment with regard to presenting the Aboriginal cultural, social and contemporary values and agrees in principle with the Connect for Effect's approach.

The Aboriginal Cultural Heritage Values Assessment addresses the DGRs for the Project, which require the preparation of an Aboriginal cultural heritage assessment, for both cultural and archaeological values, which must:

- Demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting options and mitigation measures;
- Outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and
- Include an historic assessment (including archaeology) which must contain detailed history and a land-use summary of the site.

The Aboriginal Cultural Heritage Values Assessment, in conjunction with the Aboriginal Archaeology Impact Assessment, was developed on the basis of extensive consultation with the Aboriginal community. As such, these assessments complied with the DGRs for the Project which stipulate that the EIS must:

- Describe the consultation process used and demonstrate that effective consultation has occurred;
- Describe the issues raised by public authorities, service providers, community groups, and land owners;
- Identify where the design of the development has been amended in response to issues raised; and
- Demonstrate that issues have been appropriately addressed in the assessment.

As highlighted by OEH, the Aboriginal Cultural Heritage Values Assessment provides a suite of measures to mitigate and manage the impacts of the Project on Aboriginal heritage and meet the intent of the DGRs (as noted above).

4.15.9 Mitigation and Management Measures

This section responds to the submissions from stakeholders regarding the management of Aboriginal archaeology and cultural heritage values, which will be directly impacted or protected "in situ" within the Project Boundary.

Submission reference: RA9, SIG10, P5, P6, P17, P23, P24, P29, P31, P33, P34, P46, P54, P58, P59, P75, P80, P81, P85, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98 and P99

Summary response: An Aboriginal Cultural Heritage Management Plan for the Project will be developed in consultation with RAPs, OEH and DP&I, with specific consideration of the management recommendations made by the RAPs and in recognition of the importance of Aboriginal communities having a greater involvement in managing cultural heritage.

Aboriginal Cultural Heritage Management Plan

In order to manage the predicted impacts of the Project on Aboriginal archaeology and cultural heritage values, Shenhua Watermark has committed to preparing an Aboriginal Cultural Heritage Management Plan for the Project in consultation with RAPs, OEH and DP&I, with specific consideration of the management recommendations made by the RAPs and in recognition of the importance of Aboriginal communities having a greater involvement in managing cultural heritage. As specified in Section 7.13.4 of the EIS, the Aboriginal Cultural Heritage Management Plan will include:

- Establishment of Watermark Gully and Mooki River Aboriginal Cultural Heritage Conservation Areas;
- A staged Aboriginal heritage clearance/salvage process for all areas to be disturbed;
- A detailed research design for salvage methodologies;
- Detailed salvage methodologies to be carried out, including:
  - Surface collection of select archaeological sites;
  - Combined surface collection and excavation of select archaeological sites;
  - A program of archaeological test pitting and open area excavation in selected areas of low and high archaeological sensitivity within the Project's indicative Disturbance Boundary, as determined through consultation with RAPs; and
  - Relocation of select archaeological sites.
- Provision for all archaeological salvage work to be undertaken by, or under the supervision of qualified archaeologists and RAPs;
- Protection and conservation of archaeological sites that are not impacted by the Project by means of fencing and signage;
- Requirements for annual monitoring of protected sites by a qualified archaeologist and RAPs;
- Third party review of aborist assessment of scarred trees (as per RAPs request);
- Identification of the storage location (keeping place) and procedure for the care of salvaged artefacts in accordance with the *Code of Practice for Archaeological Investigation for Aboriginal Objects in New South Wales* (DECCW, 2010a);
- Provisions to facilitate continuing access to non-salvaged Aboriginal archaeological sites within and outside of the Disturbance Boundary for archaeological research purposes; and
- Periodic review of the Aboriginal Cultural Heritage Management Plan.

OEH highlighted in their submission that there may be challenges in the development of the Aboriginal Cultural Heritage Management Plan given the large number of RAPs and their associated inputs. Shenhua Watermark has acknowledged the complexity of the task and will implement a variety of consultation methods to incorporate RAP feedback.

Conservation Areas

In order to reduce the loss of archaeological resources further, Shenhua Watermark has committed to in-situ conservation of 26 sites during the life of the Project. These sites will be identified on site plans and fenced under the supervision of an archaeologist and RAPs, where appropriate.

Shenhua Watermark will commit to the establishment of the Watermark Gully Aboriginal Cultural Heritage Conservation Area (165.7 ha) and the Mooki River Aboriginal Cultural Heritage Conservation Area (40.7 ha) (see **Figure 75**). These areas offer both known and potential Aboriginal archaeological resources and cultural values on land owned by Shenhua Watermark within and adjacent to the Project Boundary.

In consideration of the impacts predicted on Aboriginal archaeology and cultural heritage values within the Project Boundary and cumulatively within the region, OEH supports the identified Aboriginal conservation areas. Shenhua Watermark will engage with OEH to discuss conservation options for the long term protection of the Aboriginal conservation areas.

All employees and contractors will be made aware of Aboriginal conservation areas by means of inductions. Such inductions will also be provided throughout the life of the Project. Provisions for the Aboriginal Cultural Heritage Conservation Areas will be included in the Aboriginal Cultural Heritage Management Plan.