

## 7 Aboriginal cultural heritage

This chapter summarises the Aboriginal cultural heritage assessment prepared by EMM which is provided in full in Appendix D. The assessment was prepared with reference to the Aboriginal cultural heritage assessment (ACHA) of the GGP prepared by AECOM (2009b).

### 7.1 Existing environment

#### 7.1.1 Environmental, landscape and ethnographic context

The environmental, landscape and ethnographic context of an area provides valuable information on the expected spatial distribution and likelihood of archaeological material. For example natural resources including the flora and fauna that may have provided food and material resources are linked to the hydrology, geology and soil types in a region. Given the relatively minor changes proposed to the pipeline corridor alignment, the environmental, landscape and ethnographic context is generally consistent with that described by AECOM (2009b) for the approved alignment. A summary is provided below.

The approved pipeline corridor alignment from Gloucester to Hexham covers a number of major river valleys, including the Avon, Wards, Karuah, Williams and Hunter River valleys. Numerous smaller order watercourses are also present. Geologically the area is part of the NSW North Coast region which principally consists of Devonian and Permian age bedrock. The soils are generally sandy in areas of sedimentary and quartz rich geology and highly fertile loams occur over basalts. The main types of rock are slates, shales, quartzites, carboniferous mudstones, claystones and sandstone lithic to quartz (AHMS 2008). Common soil types include yellow podzolic, erosional and colluvial with alluvial plains. Topsoils range from loamy sand through to clay loam.

The realigned sections of pipeline corridor generally traverse rural and semi-rural landscapes that have been highly disturbed by clearing and agricultural activities and construction of access tracks, utilities and other infrastructure. There are isolated pockets of regrowth and remnant vegetation in the Seaham, Brandy Hill and Tomago sections, however the Millers Forest section has been completely cleared and disturbed and has no remnant vegetation. Land use becomes progressively more urbanised to the south, with residential areas near the Brandy Hill, Millers Forest and Tomago sections. The pipeline corridor ends at the proposed TRS, which is within an industrial area. Land use and the existing environment are described further in Section 2.1 and Chapters 6 and 10.

Prior to European settlement three Aboriginal language groups inhabited the area traversed by the approved pipeline corridor, being the Birpai, Worimi and Awabakal. In the central portion, covering the Seaham and Brandy Hill sections and part of the Tomago section, the dominant language group was the Worimi. In the southern section, around the end of the pipeline corridor, and including the Millers Forest section and part of the Tomago section, the dominant language group was the Awabakal.

#### 7.1.2 Previous archaeological investigations

Numerous archaeological investigations have been undertaken in the lower Hunter Valley, where the modification is proposed. This has included Aboriginal cultural heritage assessments by AECOM (2009b), Scarp Archaeology (2010) and RPS (2011) covering the area of the proposed modified pipeline corridor alignment, and including both desktop analysis and archaeological field survey.

The AECOM (2009b) assessment identified 15 Aboriginal sites (open camp sites, low density artefact scatters, isolated finds, scarred trees and a previously recorded bora ground) and 14 areas of PAD along the approved corridor. It included surveys near the Brandy Hill, Millers Forest and Tomago sections, however none of these identified any Aboriginal sites or potential archaeological deposit (PAD) sites.

Scarp Archaeology (2010) surveyed an area adjoining and partly overlapping the Millers Forest section as part of the Review of Environmental Factors (REF) for the TransGrid high voltage transmission line from Tomago to Stroud Road. The area was found to be highly disturbed and no Aboriginal sites, objects or PADs were identified.

The RPS (2011) ACHA for the NGSF, adjacent to the proposed TRS, identified undisturbed landforms within 300 m of watercourses to be archaeologically sensitive in the local area. Salvage fieldwork within the NGSF site in 2012 and 2013 collected 66 Aboriginal stone artefacts from within a sand dune landform. This area had not experienced significant ground disturbance prior to the NGSF construction. Pipeline and TRS construction works in the vicinity of this area will be restricted to areas that have already been disturbed, including in association with the NGSF Project.

In summary, past archaeological investigation in the region and the Aboriginal Heritage Information Management System (AHIMS) records (refer Section 7.1.3 below) indicate that the main Aboriginal site types in the region are open stone artefact scatters and isolated finds, usually situated close to reliable water. These are typically buried within the upper soil horizon and mostly manufactured from silcrete or mudstone. Past investigations demonstrate that occupation was also focused along the margins of the wetlands. Lesser numbers of other site types such as axe grinding grooves, middens, scarred trees, bora/ceremonial sites, burials, stone arrangements, rock shelters with art, fish traps and places of historic or traditional Aboriginal significance have also been recorded (AECOM 2009b).

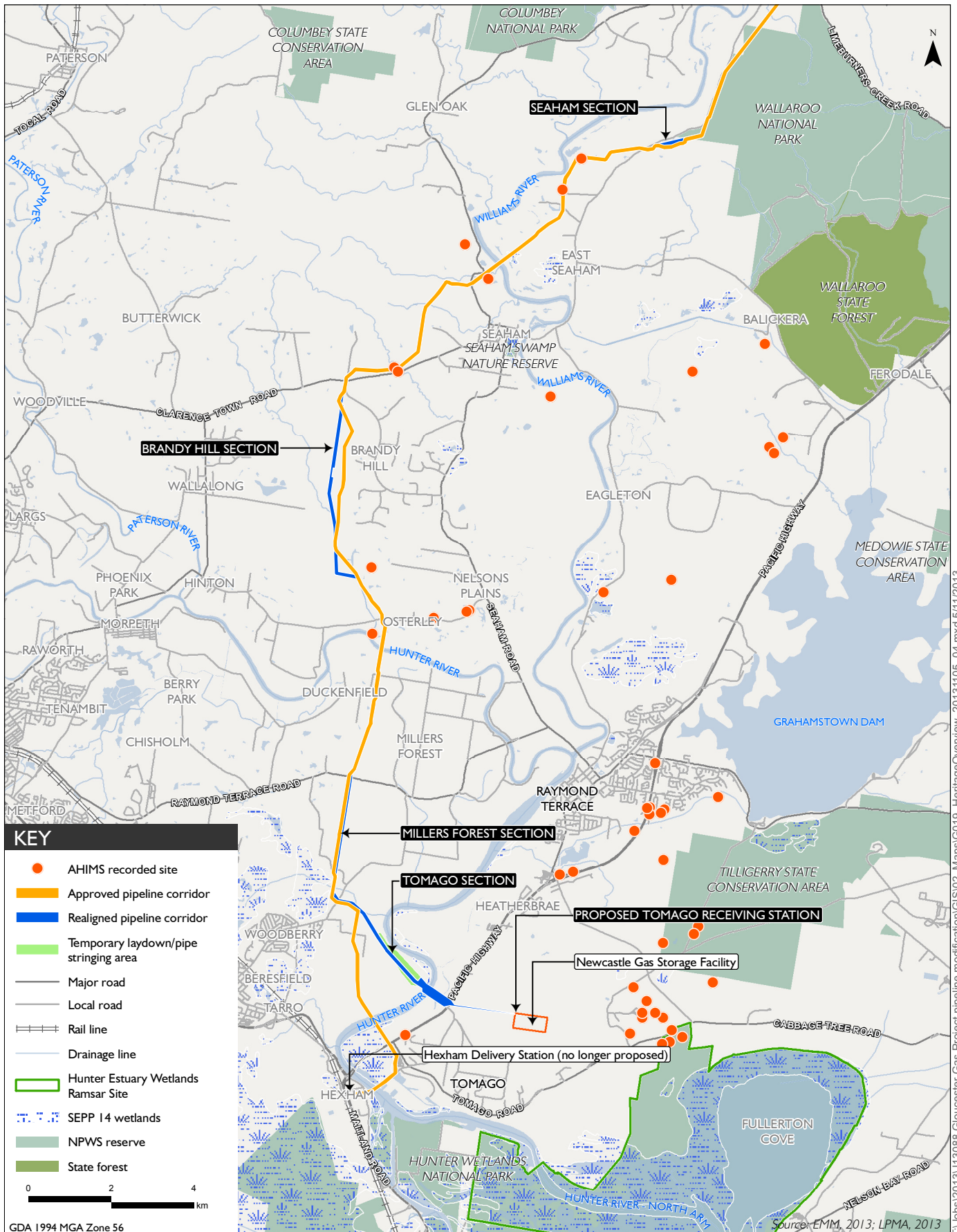
### 7.1.3 Aboriginal Heritage Information Management System search

A search of the AHIMS register was completed on 11 September 2013 (search number 111324) (refer Appendix D). It encompassed a 10 km by 10 km area centred on the modified pipeline corridor alignments. The search identified 50 registered Aboriginal sites (Figure 7.1), none of which were recorded within the four sections. Of the 50 sites identified, 22 are open artefact sites. These are the most common site type. The next most common site type was PAD sites (11), followed by isolated finds (6). The AHIMS search results are provided in Appendix D.

### 7.1.4 Method

The method used to identify potential Aboriginal cultural heritage sites and/or values associated with the Seaham, Brandy Hill, Millers Forest and/or Tomago sections and the surrounding area comprised:

- reviewing the ACHA prepared by AECOM (2009b) as part of the original GGP EA;
- reviewing the Scarp Archaeology (2010) *Cultural Heritage Assessment and Test Pitting Program for a Proposed Transmission Line from Tomago to Stroud Road* prepared as part of the REF for this transmission line, and which covered the area of the Millers Forest section;
- reviewing landscape data and other previous Aboriginal heritage investigations in the local area;
- an extensive search of the AHIMS database to identify previously recorded Aboriginal sites near the modified pipeline corridor alignment; and
- archaeological survey of the Seaham, Brandy Hill and Tomago sections by EMM archaeologists in conjunction with Registered Aboriginal Parties (RAPs). It was not considered necessary to survey the Millers Forest section for the reasons outlined in Section 7.1.5 and Appendix D.



Locality plan showing AHIMS search results

Minor pipeline corridor realignments EA

Figure 7.1

Seven Aboriginal groups registered for the GGP in 2009 as part of the original ACHA and project application process. All of these groups, referred to as RAPs, were contacted and invited to participate in the field survey for the proposed modification. The RAPs are the:

- Awabakal Local Aboriginal Land Council (LALC);
- Awabakal Descendants Traditional Owners Aboriginal Corporation (TOAC);
- Awabakal TOAC;
- Forster LALC;
- Karuah LALC;
- Mindaribba LALC; and
- Worimi LALC.

The Karuah LALC declined to participate however the other RAPs indicated a preference to be involved in either the field survey and/or review of the draft ACHA for the proposed modification.

Input from the RAPs was sought regarding the methodology of the field survey (prior to its commencement), participation in the field survey and during review of the draft report. A record of consultation and correspondence with the RAPs is provided in Appendix D.

The draft report was issued to all RAPs (other than the Karuah LALC who had declined to participate) and comment was sought, including on the proposed mitigation and management measures. The Awabakal Descendants TOAC and Awabakal TOAC provided written responses, which are provided in Appendix D, along with responses to matters raised. The other RAPs did not provide comment on the draft report.

#### 7.1.5 Predictive model and survey strategy

This predictive model for Aboriginal site location, provided in Appendix D, was made considering environmental context, historic observations of Aboriginal people in the region, AHIMS data and past archaeological studies including the AECOM (2009b) ACHA and the predictive model developed as part of that study. In summary, stone artefact sites (scatters and isolated finds) are considered to be the most likely site types to occur in the vicinity of the modified pipeline corridor alignment, typically within 100 m of watercourses in areas that have not been previously disturbed by development or other ground impact activities. While unlikely, it is possible that scarred trees may be present in areas within the Seaham, Brandy Hill and Tomago sections which contain trees of a sufficiently mature age. There is low potential for other site types known to occur in the Hunter region (Section 7.1.2) to occur within the Seaham, Brandy Hill, Millers Forest or Tomago sections.

Surveys of the Seaham, Brandy Hill and Tomago sections were undertaken on 26 September 2013 by EMM archaeologists, an AGL representative and the following RAP representatives:

- Peter Leven (Awabakal Descendants TOAC) for the Tomago section only;
- Ricky-Jo Griffiths (Mindaribba LALC) for the Tomago section only;
- William Baker (Awabakal LALC); and
- Richard Kime (Worimi LALC).

The survey involved traversing all areas of the modified pipeline corridor, other than the Tomago section east of the Hunter River, part of which is proposed to be underbored (with no surface disturbance), with the remainder within an existing cleared and disturbed utility easement between the Pacific Highway and NGSF. It was not considered necessary to survey the Millers Forest section for the reasons given in Appendix D. This includes that it is within an area highly disturbed by clearing, agricultural activities and infrastructure construction and is considered to have a low archaeological potential. Further, it has already been subject to detailed ACHA's by AECOM (2009b) and Scarp Archaeology (2010) including field surveys, which did not identify any Aboriginal sites, objects or PADs.

### 7.1.6 Survey results

#### i Seaham section

The transect for the Seaham section was approximately 650 m long and covered the whole length of the proposed alignment. No transects were completed in this area in the original ACHA as it was considered unlikely to contain Aboriginal objects based on the predictive model (AECOM 2009b).

Landforms include hill crest, low mid and upper slopes and depressions. Vegetation mostly consisted of native and introduced grasses and weeds, with scattered Eucalypts, including early regrowth. Disturbance was evident including gravel tracks, electricity transmission lines, a wooden bridge constructed over a drainage line and disturbance from past grazing practices. Small exposures were scattered along the transect such as within eroded areas and at access tracks. However, ground surface visibility was low due to high grass cover.

No Aboriginal objects or sites were identified in this transect. Archaeological potential is considered to be low and no PAD sites were identified. Few trees were observed to be of a sufficient age to be carved or scarred by past Aboriginal people. All trees of a mature age were inspected for scarring and carving but none showed evidence of this type of modification.

#### ii Brandy Hill section

The transect for the Brandy Hill section was approximately 5.2 km long and covered the whole length of the proposed alignment. Two transects were completed near the Brandy Hill section by AECOM (2009b), to the east and south-east respectively, though did not identify any Aboriginal sites, objects or PADs.

Landforms in this transect include floodplain, swamp and modified creek and low mid and upper simple slopes. Vegetation consisted of pasture grasses interspersed with some native grasses and isolated clumps of predominantly Swamp Oak and Eucalypt trees. The area is subject to frequent inundation and currently used for livestock grazing. Disturbance was evident in the form of tracks, fences, artificially modified creek banks and disturbance from grazing practices. Ground surface visibility was low due to high grass cover.

No Aboriginal objects or sites were identified in this transect. Archaeological potential is considered to be low and no PAD sites were identified. Few trees were observed to be of a sufficient age to be carved or scarred by past Aboriginal people. All trees of a mature age were inspected for scarring and carving but none showed evidence of this type of modification.



### iii Tomago section

The transect for the Tomago section was approximately 2.5 km long. The eastern 4 km of this section was not surveyed, either due to it being subject to HDD (and therefore no surface disturbance) or within an existing cleared and disturbed easement. One transect was completed immediately north of this area by AECOM (2009b), however did not identify any Aboriginal sites, objects or PADs.

Landforms include floodplain and a modified drainage line. Vegetation consisted of thick pasture grasses, weeds and native grasses as well as some isolated patches of Swamp Oak Floodplain Forest. The area is currently used for livestock grazing. Disturbance is evident in the form of gravel tracks, levee banks and other drainage works, fences, electricity transmission lines and disturbance from livestock grazing and cultivation. Exposures were very limited with some minor exposure along the creek banks and in cattle tracks. Ground surface visibility was low due to high grass cover.

This area was found to be highly disturbed and no Aboriginal objects or sites were identified in this transect. Archaeological potential is considered to be low and no PAD sites were identified. Few trees were observed to be of a sufficient age to be carved or scarred by past Aboriginal people. All trees of a mature age were inspected for scarring and carving but none showed evidence of this type of modification.

#### 7.1.7 Significance assessment

The Seaham, Brandy Hill, Millers Forest and Tomago sections have low archaeological potential and no specific Aboriginal social or cultural values were identified in association with these sections. No Aboriginal objects, sites or PAD sites were identified and so they are considered to have low scientific value.

Research and consultation with the Aboriginal community was conducted to determine whether any socio-cultural heritage value relates specifically to the proposed realigned sections regardless of archaeological evidence. While it is accepted that the broader landscape is of significance to Aboriginal people, this study sought to identify whether the proposed realigned sections held specific values either in themselves, or as part of a specific local area of particular significance.

Information was received from the Awabakal Descendants TOAC and Awabakal TOAC that indicates that the Newcastle area and Hunter River (in the vicinity of the Tomago section) have socio-cultural value to the Awabakal people, as an area where their ancestors walked and lived. However no specific Aboriginal social or cultural values were identified in association with Seaham, Brandy Hill, Millers Forest or Tomago sections.

## 7.2 Impact assessment

Consistent with the approved pipeline and HDS, proposed activities within the modified pipeline corridor alignment and at the TRS include vegetation clearing, trenching and other ground disturbing activities. However, the Seaham, Brandy Hill, Millers Forest and Tomago sections are all considered to have low archaeological potential. No Aboriginal sites, objects or PAD sites were identified within these sections during previous archaeological investigations in the area or during the surveys conducted for this EA. No carved or scarred trees occur in the vegetation subject to potential removal.

As such the proposed modification, which reduces vegetation clearing and ground disturbance from that approved, is not expected to result in additional impacts to Aboriginal sites or objects beyond those identified in the original ACHA (AECOM 2009b) and approved.

### 7.3 Management and monitoring

This ACHA has not identified any specific Aboriginal cultural heritage values, including heritage sites, objects or PADs, with potential to be impacted by the proposed modification. The areas surveyed were not considered to be archaeologically sensitive. Accordingly, no further Aboriginal heritage investigations are considered necessary within these areas.

In accordance with commitments in the AECOM (2009a) EA, an Aboriginal Heritage Management Plan will be developed, in consultation with the RAPs, with procedures to manage any Aboriginal objects or sites which may be encountered during construction. As per Conditions 3.35 and 7.2(g)iv of the Project approval, this will include response measures for if previously unidentified Aboriginal object(s) are encountered, Aboriginal cultural heritage induction processes for construction personnel and procedures for ongoing Aboriginal consultation and involvement. These existing approved measures are considered suitable for the proposed modification and no additional management or monitoring measures are required.

### 7.4 Conclusions

No specific Aboriginal cultural heritage values, including heritage sites, objects or PADs, have been identified in association with the Seaham, Brandy Hill, Millers Forest or Tomago sections. These areas are all considered to have low archaeological potential and no further Aboriginal heritage investigations are considered necessary in these areas. The measures in the original AECOM (2009a) EA and existing Project approval conditions are suitable for the management of any Aboriginal objects or sites which may be encountered during construction. Provided these are implemented, the proposed modification will not result in any additional impacts to Aboriginal cultural heritage beyond those identified in the original ACHA (AECOM 2009b) for the approved project. No additional management or monitoring measures are required in respect of the proposed modification.

