



12. Indigenous heritage

This chapter provides a summary of the results of the heritage assessment undertaken by Navin Officer Heritage Consultants. A copy of the full report is included in Appendix F.

12.1 Study method

The cultural heritage assessment was prepared in accordance with the requirements of the relevant statutory authorities and included:

- ▶ Consultation with the local Aboriginal community in accordance with the NSW DECC's Interim Guidelines for Aboriginal Community Consultation requirements. Interest was received from three Aboriginal Nations (the Barapa Barapa Nation, Yorta Yorta Nation and Wamba Wamba Nation), and two Local Aboriginal Land Councils (LALCs) (the Moama and Deniliquin LALC's);
- ▶ A desktop review of archaeological literature and data for the study area to determine if Aboriginal sites have been previously identified within the area. This included a review of a number of statutory and non-statutory heritage registers and schedules; and
- ▶ Fieldwork undertaken in June and November 2009.

The study area included the project as described in Section 6.2.

12.1.1 Consultation

NSW Office of Public Works commenced the consultation process required by the DECCW Interim Guidelines for Aboriginal Community Consultation for the project. Invitations were issued to relevant government organisations and advertisements were placed in various newspapers in early May 2009. Registration closed on 14/5/09 and one formal registration was received. The following organisations were included in the initial consultation:

- ▶ DECCW: response received;
- ▶ Native Title Services NSW: no response received;
- ▶ Moama LALC: submitted registration of interest;
- ▶ Registrar of Aboriginal Owners (NSW): advised they do not have any record of registered Aboriginal owners for the study area;
- ▶ Wakool Shire Council: response received; and
- ▶ Murray Shire Council: response received.

Representatives from Murray CMA, DSE Victoria and Moama LALC were then contacted to obtain details for other stakeholders to be included in the indigenous consultation process. As a result, invitation letters and registration forms were issued to the following groups and a response was requested by close of business 29th May 2009:

- ▶ Murray Lower Darling Rivers Indigenous Nations;
- ▶ Barapa Barapa Nation;



- ▶ Yorta Yorta Nation;
- ▶ Wamba Wamba Nation;
- ▶ Jeanette Crew (Regional Coordinator and YARKWA Chair; and
- ▶ Deniliquin LALC.

In summary, interest had been received from three Aboriginal Nations and two Local Aboriginal Land Councils, Barapa Barapa Nation, Yorta Yorta Nation and Wamba Wamba Nation, Moama LALC and Deniliquin LALC. More information on consultations that were undertaken during the assessment is outlined in Section 12.1.3.

12.1.2 Literature and database review

A range of archaeological and historical data was reviewed for the study area and the wider locality. This was used to determine whether known Aboriginal sites were located within the study area, to facilitate site prediction on the basis of known regional and local site patterns, and to place the area within an archaeological and heritage management context. The review of documentary sources included heritage registers and schedules, local histories, and archaeological reports.

Aboriginal literature sources included the Aboriginal Heritage Information Management System (AHIMS) maintained by DECCW and associated files and catalogue of archaeological reports and Forests NSW heritage database. Searches were undertaken of the following statutory and non-statutory heritage registers and schedules:

- ▶ Statutory listings:
 - Aboriginal Heritage Information Management System (AHIMS) (NSW DECC);
 - World Heritage List;
 - The National Heritage List (Australian Heritage Council);
 - The Commonwealth Heritage List (Australian Heritage Council);
 - The Register of the National Estate (Australian Heritage Council);
 - The State Heritage Register (NSW Heritage Office);
 - Section 170 Heritage and Conservation Register compiled by Forests NSW;
 - Heritage Schedule(s) from the Murray Local Environmental Plan 1989; and
 - Heritage Schedule(s) from the Wakool Local Environmental Plan 1992.
- ▶ Non-Statutory listings:
 - The State Heritage Inventory (NSW Heritage Office); and
 - Register of the National Trust of Australia (NSW).

Prediction of indigenous site locations

Based on the results and conclusions of previous archaeological investigations in similar landscape contexts, it is possible to predict the types of sites, and at a broad scale, the topographic contexts of sites in the study area. From this existing body of work, the following set of broad site location criteria has been developed. The occurrence and survival of

archaeological sites is, however, dependent on many factors including micro-topography and the degree of land surface disturbance.

- Artefact scatter/camp sites are uncommon and are mainly found on red palaeochannels natural levee scalds and sometimes on lunettes or dune margins.
- Middens occur frequently on levees, sometimes on lake margins and can dominate the contents of earth mounds.
- Scarred trees are common and may sometimes occur in groves. They are found in travelling stock reserves, town commons, and along rivers. Scars are often found on River Red Gum and Black Box.
- Mounds occur on high ground along floodplains and around swamps and lakes. They vary in number from sporadic to large settlements of hundreds over large areas.
- Burials occur mainly on levees, dunes and in mounds. They may be individual burials, clustered or in cemeteries.
- Hearths are common, are often made of fired clay balls and sometimes reflect multiple use.
- The results of systematic archaeological surveys in the Riverina suggest that occupation was focused on the streams and lagoons back from the main river margins. This is also suggested by observations by Sturt in 1829-30 who noted that: *"It would appear that the tribes do not generally frequent the river. They must have a better country back from it and most probably linger amongst the lagoons and creeks where food is more abundant. The fact is evident from the want of huts upon the banks of the Murray and the narrowness of the paths along its margin"* (Sturt 1883 Vol 2:1).
- Ground stone, mostly fragments, is common.
- With the exception of some Hay Plain mounds, flaked stone is uncommon and very small in size, mainly comprised of silcrete and quartz debitage. Bondi points and backed blades are very rare.

12.1.3 Field work

Fieldwork was undertaken in two separate field programs conducted in June and November 2009.

The June field survey included the downstream levee (including an easement of approximately 40 m either side of the centreline of the levee), six downstream structures, two Swan Lagoon structures and upstream channel including road crossing and regulator/fishway. Larger areas around all structures were surveyed to take into account stockpiling and vehicle access areas.

Representatives from the Barapa Barapa Nation and Yorta Yorta Nation were invited to participate in the fieldwork (June 2009). The Yorta Yorta representatives agreed to confine their participation to the upstream component of the project.

Representatives Neville Whyman and Albury Smith (Barapa Barapa Nation) and Tyrone Miller and Warren Stephens (Yorta Yorta Nation) participated in the fieldwork. See Appendix 1 within Appendix F for a Record of Aboriginal Field Participation.



All field survey was undertaken (on foot). In areas of very poor ground surface visibility the general vicinity was viewed and an assessment of archaeological sensitivity was made for the area. More information on the personnel who undertook the surveys can be found in Appendix F.

In areas of very poor ground surface visibility the general vicinity was viewed and an assessment of archaeological sensitivity was made for the area. Surface visibility throughout the study area averaged 60%.

The November survey included areas where levee alignment changes had occurred since the previous surveys in June, including an easement of approximately 40 m either side of the centreline of the levee, turkeys nest dam locations; site facilities; regulators at Calf Creek and Thule Creek, and the spoil disposal area.

Representatives of the Barapa Barapa Nation and the Yorta Yorta Nation did not participate in the November 2009 fieldwork. The findings of this survey have been presented to both nations and they have also been provided with the opportunity to comment on the findings of the assessment and the management measures to be implemented. As detailed in the Statement of Commitments, ongoing consultation with these nations would occur throughout the construction phase and this would involve additional site surveys.

12.2 Existing environment

12.2.1 Ethnohistory

At the time of European settlement, the study area was inhabited by members of two tribal groups. Tribal boundaries within Australia are based largely on linguistic evidence and it is probable that boundaries, clan estates and band ranges were fluid and varied over time. Consequently 'tribal boundaries' as delineated today must be regarded as approximations only, and relative to the period of, or immediately before, European contact. Social interaction across these language boundaries appears to have been a common occurrence.

The tribal groups, as delineated by Tindale (1974), which were resident in the study area include:

- ▶ The *Jotijota* on the Murray River whose territory extended from east of Cohuna to Echuca and a point 30 km by river west of Tocumwal in Victoria; along Tullah Creek to Yielima; at Tuppal, Conargo, and Deniliquin in New South Wales. This tribe were also reported to have visited the Murrumbidgee River in 1842. Much of *Jotijota* country is open eucalypt woodland.
- ▶ The *Baraparapa* whose territory was located chiefly on southern tributaries of the Murrumbidgee River from above Hay to Kerang in Victoria; at Cohuna, Gunbower, Brassi, Conargo, and across the river from Carrathool.

12.2.2 Indigenous and non-indigenous interaction

The first contact of the Riverina tribes with European explorers was in 1825 when Hume and Hovell neared Battery Mount, having reached Port Phillip and recrossed the Hume (Murray) River which they had discovered and named on their journey south. On January 6, 1825, they

came upon a body of natives, consisting of eight men; these appeared much alarmed, and on perceiving the bullocks, fled through a small creek, and concealed themselves among the reeds on its banks. In the evening, about a mile from the spot where they had been first seen, the natives again made their appearance, and approached with marks of friendship (in Bland 1965).

Estimates of the number of Aborigines along the Riverina watercourses varied greatly. It is believed that the Central Murray area may have been one of the most highly populated places in Australia prior to European arrival (Webb 1984). The range, diversity and reliability of the natural resources associated with the Murray River meant that people could gather together for long periods (Bonhomme 1993:14).

Curr (1965) estimated that the ‘Bangerang’ – the tribal groups of the Barmah-Millewa Forest (now referred to as the Yorta Yorta) - numbered about 1,200 in 1841, though he believed that the country could have supported twice this number. This population had already been dramatically reduced by major smallpox epidemics in 1788 and 1830. In 1838 Sturt noted the ‘numerous fresh graves between the Edwards and Goulburn Rivers which he said bore testament to the ravages of a ‘terrible mortality’.

By 1838 the effect of contact with European diseases had greatly reduced the population along the Murrumbidgee. Captain Charles Stuart recorded in his journal on 9 June 1838 that “*I observed many of them as if pitted by the small pox, so that it would appear the disease which was [illegible] with such fearful effect upon them when I was on the Banks of the Darling in 1828 and of the Hume in 1829, had been universal. It must have committed dreadful havoc amongst them, since on this journey I did not see hundred to the thousands I saw on my former expeditions (Sturt 1838)*”.

A more comprehensive account of the population was given by Henry Bingham, the Commissioner of Crown Lands for the Murrumbidgee Squatting District. Bingham records just 300 individuals along the Murrumbidgee River, although his figures appear conservative.

The Aborigines of the Riverina profoundly shaped the environment in which they lived, principally by their use of fire. Curr (1965:88) observed that the Bangerang set fire to the grass and trees as frequently as every five years, both accidentally and systematically, for hunting purposes.

Chesterfield (1986) states that burning would have undoubtedly impeded regeneration and assisted woodland formation (as River Red Gum is a fire sensitive species) and may have contributed to the maintenance of a forest-grassland boundary in some areas. In prehistoric times the River Red Gum stands were woodlands, not forests, and apparently there was only one or two big old River Red Gums growing per hectare (Lyons 1988:176).

Beveridge (1889) made an account of the lifestyle and practices of the Aborigines of Victoria and the Riverina. His account includes details of the burial practices, tools including their use and manufacture, the use of mounds as ovens, and the use of plant fibres. John Cotton (in Billis and Kenyon 1930) from Doogalook Station on the Goulburn River described the construction of shelters, and Andrew Crombie (1927) recalled how he employed Aborigines to supply bark for his station.

A review of ethno-historic references to the Aborigines of the Wiradjuri tribal area was conducted by White in 1986. Archaeological investigations and reporting within the Riverina

began as early as the late 1930's with works by Dow (1938a and 1938b, 1939) on carvings and mounds in the region. Cameron (1900) reports on rock paintings and Officer (1901) describes an Aboriginal grave in the Darling River District. Black in the 1940s self publishes articles on burial trees (1941) and bora grounds (1944) and produces a paper for Mankind on the Material Culture of the Aborigines of the Darling River Valley (1949).

Archaeological investigation began in earnest in the late 1960s and early 1970s with discoveries at Lake Mungo (Bickford 1966, Bowler, Jones, Allen and Thorne 1970, Thorne 1971, Barbeti and Allen 1972, Bowler, Thorne and Polach 1972, Thorne 1975) and Kow Swamp (Thorne 1971, 1975). Lake Victoria also became a focus of work (Barbeti 1973). Work also began on stone artefacts from the region (Casey 1973) and mounds (Coutts et al 1976).

Klaver (1987) conducted an investigation of Aboriginal mound sites between Wagga Wagga and Narrandera, focussing on a central section of the Old Man Creek, a substantial anabranch of the Murrumbidgee River. Of the 112 mound sites investigated in the Old Man Creek area, 10 were located in the creek and associated levee areas, 18 were located on the floodplain proper, 28 were situated on elevated areas of the floodplain and 56 were located on the sandhills and sand sheets which fringe the Old Man Creek floodplain. Klaver concluded that the mounds recorded in her survey could be interpreted primarily as earth ovens.

In her review of work carried out in the region to 1987, Klaver noted that

"Aboriginal sites generally appear to occur in association with some form of water source, again emphasising the importance of water as a determinant of site location. Settlement strategies are largely suggested as embodying short-term exploitation of seasonal resources. The suite of sites recorded is quite similar to many other areas of south-eastern Australia. Also it becomes apparent that the archaeological sites in this area may be hard to identify due to similarities to natural features. In many respects the archaeology of this region is an unknown quantity, there is no indication of any occupation chronology or any real understanding of the overall settlement pattern".

Lakes, lunettes and middens were further investigated by Kefous (1981), Lance and Webb (1985), Lance (1985), Clark and Hope (1985) and Clark (1987).

The prehistory of the Aboriginal population within the Murray and Darling River Corridors was also investigated in more depth (Kefous 1983 and 1988, Webb 1984 and Pardoe 1988). Pardoe (1988) concluded that people of the River Murray Corridor probably settled the region at least 38,000 years ago. 'By around 12,000 years ago, some expression of social behaviour indicates that organisation was firmly grounded in the principle of exclusion' (ibid:5).

Smaller development based surveys have also been taking place in the region since at least the 1980s and it is these studies that continue through to the present time and provide most of the site location data for the region.

Investigations have also been undertaken of specific forest areas. In 1993 Bonhomme conducted surveys in the Lake Victoria and Koondrook (River Red Gum) State forests in the Murray Valley. Fifty three Aboriginal sites were located in the Lake Victoria survey, comprising thirty eight scarred trees, three middens, (some with human bone) and twelve shell scatters (Bonhomme 1993:53).



12.2.3 Result of indigenous heritage database searches

A search was carried out on the DECCW AHIMS and the Forests NSW databases for sites within the study area. There were a number of sites recorded, including:

- ▶ 292 Aboriginal sites within the Koondrook State Forest;
- ▶ 15 Aboriginal sites within the Perricoota State Forest; and
- ▶ Koondrook-Perricoota forest is part of the 84,000 ha of NSW Central Murray State Forests listed as wetlands of international importance under the Ramsar Convention.

The Aboriginal sites were comprised of:

- ▶ Two stone artefact scatters;
- ▶ 16 modified trees;
- ▶ Three scarred trees;
- ▶ 134 mounds (ovens);
- ▶ 61 earth mounds;
- ▶ 36 middens;
- ▶ Two shell locations;
- ▶ 61 hearths;
- ▶ 17 burial locations; and
- ▶ 37 sites with no recorded site type.

Of these, three sites (59-4-0060 (burial), 57 (unknown) and 58 (unknown)), have the potential to be directly impacted by the project. A list of the recorded sites is provided in Appendix F.

Five Aboriginal heritage sites have been identified in the study area. These comprise:

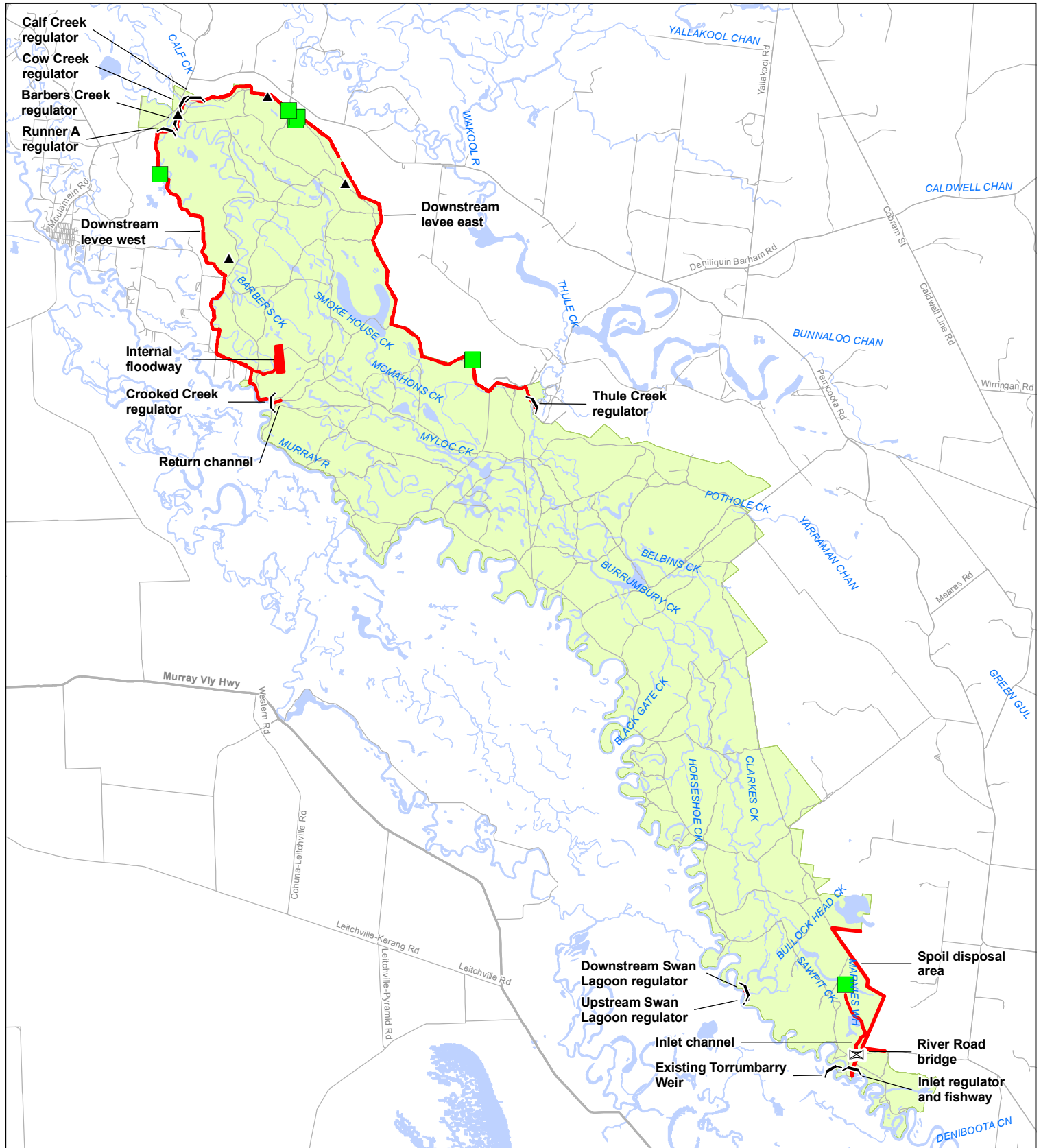
- ▶ A previously identified burial - Sandpit Road Quarry Burial (59-4-0060), and
- ▶ Four scarred trees - K-PA1, K-PA2, K-PA3 and KPA4.

12.2.4 Survey results and assessment of site significance

Three Aboriginal sites have been previously recorded in the study area. Two of these sites are listed as 'unknown' on Forests NSW sites database and are not included on the DECCW AHIMS. These three sites were not re-located in the 2009 field surveys and their type, status and location could not be verified during the current investigation.

Five Aboriginal heritage sites were identified within the construction corridor for the project during the field survey. The Aboriginal sites comprise a previously identified burial - Sandpit Road Quarry Burial (59-4-0060), and four scarred trees - K-PA1 and to K-PA4.

Site locations are shown in Figure 12-1.

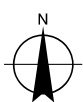


Legend

- | | | |
|--|--|---|
| ■ Aboriginal sites | ▲ Turkey's nest dam | — Roads |
| ⊠ River Road bridge | ■ Waterway | |
| ⌞ Regulator | ■ Koondrook Perricoota Forest Site | |
| — Construction features | | |

0 1 2 4
Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia (GDA)
Grid: Map Grid of Australia 1994, Zone 55



NSW Office of Water
Koondrook-Perricoota Flood
Enhancement Works
Figure 12.1 Location of Aboriginal sites
in the vicinity of the project infrastructure

Job Number	21-18573
Revision	A
Date	09 FEB 2010



Site 59-4-0060 is an Aboriginal burial located in an area of former sand mining. The burial has been dated to approximately 1,425 BP and has been reburied in its original location. The site has the potential to contain additional burials and to provide information which is of value in scientific analysis and the resolution of potential research questions. The site is assessed as having high archaeological significance.

K-PA1 to K-PA4 are Aboriginal scarred trees in very poor condition i.e. both trees are dead and unstable. The sites have some potential to provide information which is of value in scientific analysis and the resolution of potential research questions. Taking account of the poor state of the sites, they are, however, assessed as having low-moderate archaeological significance.

12.3 Impact assessment

12.3.1 Construction

The project would not impact on the burial site (59-4-0060). Although the four scarred trees (K-PA1 to K-PA4) are located in the vicinity of the construction corridor, they would not be directly impacted by construction of the project. As detailed in Section 6.3, the contractor would be required to implement all reasonable and feasible measures to preferentially avoid, or otherwise minimise, potential impacts on items of Aboriginal heritage significance. This would involve avoiding impacts on the scarred trees where possible.

No areas of archaeological subsurface potential were located during the archaeological survey of the study area.

Surface visibility throughout the study area averaged about 60% allowing good ground coverage. It is therefore concluded that there is a relatively low likelihood of additional unrecorded sites being located within the study area.

12.3.2 Operation

As the Forest underwent natural seasonal flooding prior to river regulation and this would have inundated Aboriginal sites. The project would not have a deleterious effect on any Aboriginal sites as it would seek to implement a more natural flood regime. Any sites that would now be subject to the enhanced flooding regime within the Forest would have also been subject to natural seasonal flooding.

12.4 Mitigation measures

The following mitigation measures should be implemented:

- ▶ The burial site 59-4-0060 (including all areas within the fenced site boundary) should be avoided by construction works;
- ▶ Where practicable, Aboriginal scarred tree sites K-PA1 to K-PA4 should be avoided by physical construction works.
 - Temporary fences should be erected around the trees, inclusive of the estimated root zone (roughly equivalent to a radius defined by the furthest extent of the tree canopy or drip line), for the period of construction.



- The aim of the fencing is to define a no-go and no-disturbance area, which is off limits to heavy machinery and materials storage;
 - Ground surface disturbance and excavation should be prevented within the root zone of the trees. Drainage ditches should be located down slope and outside of this zone;
 - Retention of native vegetation around the trees should be maximised; and
 - Collection of scarred trees should be a last resort. If impact is unavoidable, then the scars should be recovered and curated appropriately; professional advice should be sought on the conservation of the tree trunks;
- ▶ If any Aboriginal objects are discovered during construction activities then disturbance should cease in the area of the discovery. No further construction activities should occur in the area of the find until it has been assessed by an archaeologist and an appropriate management strategy has been implemented in consultation with DECCW and representatives of the local Aboriginal community;
 - ▶ In the event that a suspected burial is uncovered during the proposed flood enhancement works then the protocol outlined in Appendix 3 of Appendix F should be implemented; and
 - ▶ Provide a cultural heritage induction course to all personnel and other relevant parties involved in the construction works following the outline provided in Appendix 4 of Appendix F.