Aboriginal Cultural Heritage Due Diligence Assessment

for

Proposed Carrathool Boat Ramp

Carrathool, NSW 2711

Prepared for

Carrathool Shire Council

Version 3,

18/11/24

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Executive Summary

Red-Gum Environmental Consulting Pty Ltd has been commissioned by Carrathool Shire Council to undertake an Aboriginal Cultural Heritage Due Diligence Assessment (ACHDDA) for a proposed boat ramp on the Murrumbidgee River at Carrathool, NSW. Works will involve the construction of a formalised boat ramp within the footprint of an existing informal boat launch area.

The broader geographical region served as a valuable resource zone for past Aboriginal occupation. The Riverina region is known to contain scarred trees, burials and stone artefacts which are usually located within close proximity to waterways and waterbodies.

An inspection of the study area was undertaken on July 25th, 2022, by Olivia Hynam and Maggie Cronin of Red-Gum Environmental Consulting Pty Ltd. During the site survey, areas of previous disturbance were noted and recorded. Areas of ground surface exposure were targeted in order to identify any Aboriginal objects within the study area. No previously unrecorded sites or objects were located during the survey.

The assessment considered the perceived impacts associated with the proposal and did not identify any areas of *high archaeological potential* that are likely to be harmed within the area assessed. The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010) (due diligence code) provides a flowchart with the steps of the due diligence process outlined. This flowchart is provided in **Appendix B** in order to demonstrate that each step of the process has been addressed.

The majority of the study area typically exhibited good visibility and exposure without revealing any apparent Aboriginal objects. No (zero) trees with cultural modifications were identified within the study area. No (zero) Aboriginal cultural heritage objects were identified within the study area. The survey did not identify any undisturbed areas of potential (PADs) within the study area.

While the nearest previously recorded AHIMS sites could not be relocated on site, it is recommended that the locations of Site ID 48-3-0127 (Euroley Rd Yanco 1) & Site ID 49-5-0125 (Carrathool Bridge 1), are known to all staff and any sub-contractors. No works or storage of materials are permitted within 10m of these places which are to be clearly marked out on site (and on any construction plans) before works commence.

The purpose of the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010) (the due diligence code) is to provide a defence against prosecution if the process is followed. The due diligence code sets out penalties for impacting on Aboriginal objects, defining two types of offences as follows:

- An offence of harming or desecrating an object which a person knows is an Aboriginal object (a 'knowing offence'); and
- An offence of harming an object whether or not a person knows it is an Aboriginal object (a 'strict liability offence').

The maximum penalty for the knowing offence is $550,000 or $275,000 (depending on whether there are aggravating circumstances) and 1 or 2 years' jail for an individual. For a corporation the maximum penalty for the knowing offence is $1.1 million. The maximum penalty for the strict liability offence is $110,000 or $55,000 (depending whether there are aggravating circumstances) for an individual or $220,000 for a corporation.

As this assessment has not identified any areas of high archaeological sensitivity or Aboriginal objects within the assessed zone, it will provide a defence against prosecution if Aboriginal sites are impacted by the development assuming its recommendations are followed. The following contingencies are to be adhered to during the project implementation stage:

Contingency 1: Discovery of unanticipated Aboriginal objects within areas of low potential.

All Aboriginal objects and places are protected under the National Parks and Wildlife Act 1974 (NPW Act). It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the NSW Environment & Heritage. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying NSW Environment & Heritage and Aboriginal stakeholders.

Contingency 2: Discovery of Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

1. Immediately cease all work at that location and not further move or disturb the remains;
2. Notify the NSW Police and Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location.
3. Not recommence work at that location unless authorised in writing by NSW Environment & Heritage.

Regards

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Managing Director

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1 Introduction

Carrathool Shire Council (CSC) is proposing the construction of a boat ramp into the Murrumbidgee River located on the outskirts of Carrathool, NSW (Error! Reference source not found.**)**

This due diligence assessment has been prepared in support of the proposed design and concept. The advice and reporting provided here follows the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010a). In following these requirements, it has been issued to CSC and should be retained for 5 years as it may provide for a defence against prosecution in the event of unanticipated harm.

The study area is within the Griffith Local Aboriginal Land Council (Griffith LALC) area and this work has been prepared by Damian Wall and Maggie Cronin of Red-Gum Environmental Consulting Pty Ltd. Damian holds the relevant qualifications for undertaking formal archaeological assessment in New South Wales (as set out in the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010b) and is a full member of the Australian Association of Consulting Archaeologists Inc (ACCAI). Maggie holds a Bachelor of Arts with Honors (1ST Class) in Archaeology and has 6 years' experience working across a variety of industries and projects including local, state and federal governments, renewables, mining and resources, and transport.

2 Background

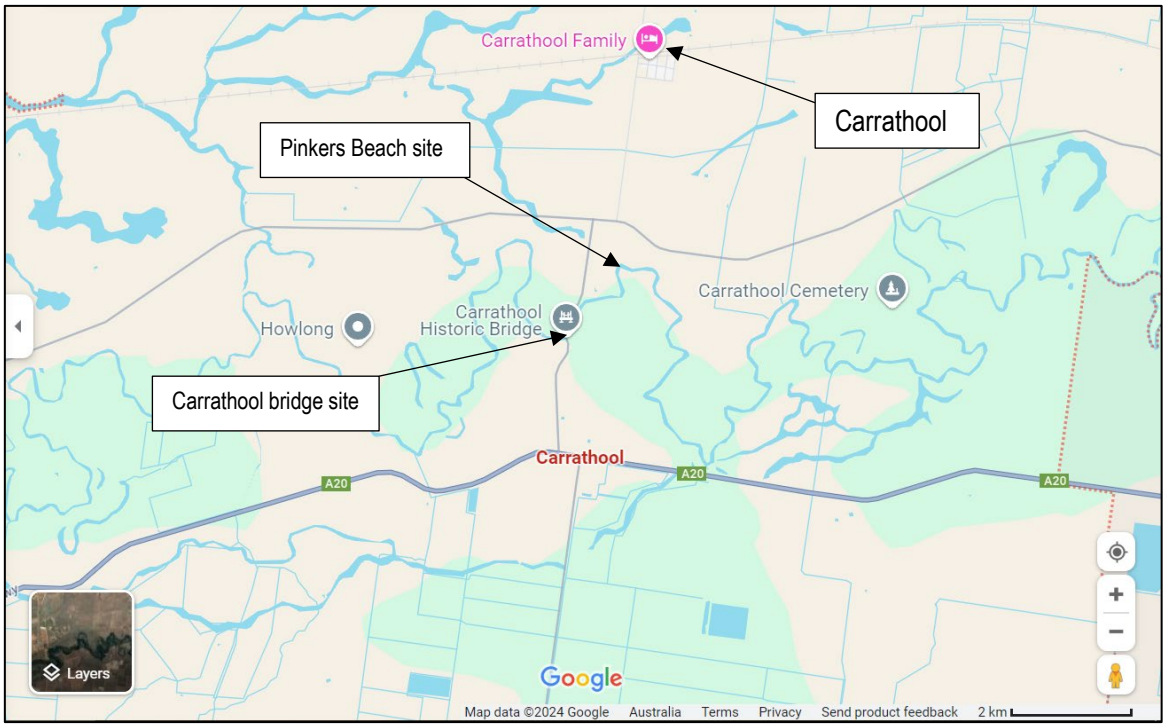
Two (2) sites were originally suggested as potential boat ramp locations, the Carrathool Bridge and Pinkers Beach. Both sites were given preliminary assessments with the Carrathool Bridge site ultimately chosen as the assessment site subject of this DDA. The Pinkers beach site was considered an unsuitable site for the following reasons;

1. Access issues from the sealed road.
2. The riverbank and bed profile is unsuitable, i.e. extensive construction across the lower terrace required, further this ramp would be unusable when river levels were high which is sometimes for an extended period.
3. Aboriginal Cultural heritage risk was *higher* at this site and more detailed assessment would be required in order to progress. With extensive construction there is a high likelihood ACH implications could impact this proposal.

Additionally, this is a beach and the river bed is relatively flat off the bank, hence will require extensive excavation work. A ramp profile at preferred 12.5% provides good grade to use a car to launch and retrieve, and suitable depth of water for the motor and propeller and persons to retrieve the boat walking in the water.

For the reasons discussed above this report will progress with the Carrathool bridge site as the preferred location.

The proposed works (while still at concept/design stage) will likely consist of the construction of a boat ramp consistent with Australian standards. This will involve the grading of the site to 12.5% to meet standards and the installation of 4800mm wide stabilised concrete matting with transitional edges of erosion control matting for soil and planting. The site of the proposed boat ramp is located directly within the footprint of an informal boat ramp used frequently by locals and visitors.



Map 1: Boat Ramp Location, Murrumbidgee River, Carrathool, NSW

3 Planning approvals

The proposed development will be assessed against Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) (NSW). Other relevant legislation and planning instruments that will inform the assessment include:

- *National Parks and Wildlife Act (NPW Act) 1974 (NSW)*
- National Parks and Wildlife Amendment Act 2010 (NSW)
- National Parks and Wildlife Amendment Bill 2021 (NSW)
- *Native Title Act 1993*
- *Heritage Act 1977*
- *Environment Protection and Biodiversity Act 1999*

4 Scope of the assessment

The following is a summary of the major objectives of the assessment:

1. Conduct background research in order to recognise any identifiable trends in site distribution and location, including a search of the Aboriginal Heritage Information Management System (AHIMS).
2. Undertake archaeological survey as per requirement 5 of the code, with particular focus on landforms with high potential for heritage places within the study area, as identified through background research.
3. Record and assess sites identified during the survey in compliance with the guidelines endorsed by NSW Environment & Heritage.
4. Determine levels of archaeological and cultural significance of the study area.
5. Make recommendations to mitigate and manage any cultural heritage values identified within the study area.

Map 2: Project location showing impact area (work extent) and study area (50m buffer), Carrathool, NSW

5 Description of Proposed Work

Proposed Boat ramp into the Murrumbidgee River to provide year-round access to the river for boat launch and retrieval as well as general recreational usage. The boat ramp will be made of concrete matting surface that is geo-fabric backed to prevent erosion.

The informal boat ramp/riverbank is currently at 20% Grade, the new ramp will be constructed to the standard 12.5% grade. This will require some excavation/cut & fill activities. Any soil removed will be spread on the access track surrounding the boat ramp, leveling out any low spots improving the approach to the ramp. The proposal will provide a safe, permanent, accessible river access/boat ramp.

The impact area for the works 10m x 40m + access was determined by the proposed boat ramp dimensions, allowing for a works/construction buffer either side, all provided in consultation with Carrathool Shire Council.

The works will greatly improve the usability/access to the river for locals and tourists alike now and into the future. A permanent ramp will also prevent damage/erosion to the riverbank and surrounding environment acquired during informal boat ramp usage.

6 The Due Diligence System

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* provides a step-wise process to help determine whether an activity is likely to cause 'harm' to 'Aboriginal objects' (both as defined in the *National Parks and Wildlife Act 1974*) (**Figure 1**). If it is determined that the work may 'proceed with caution' and harm later occurs, the documentation of due diligence may provide a defence against prosecution.

The following report sections address the questions set out in the generic due diligence system as shown in **Section 4.** Following this schematic version of the due diligence system provides guidance on whether an Aboriginal Heritage Impact Permit (AHIP) is required before work can go ahead.

- Step 1 – will the activity disturb the ground surface or any culturally modified trees;
- Step 2 – are there any relevant indicators of Aboriginal cultural heritage potential;
- Step 3 – can potential harm be avoided;
- Step 4 – have desktop assessment and archaeological survey determined the likelihood of Aboriginal objects being present.

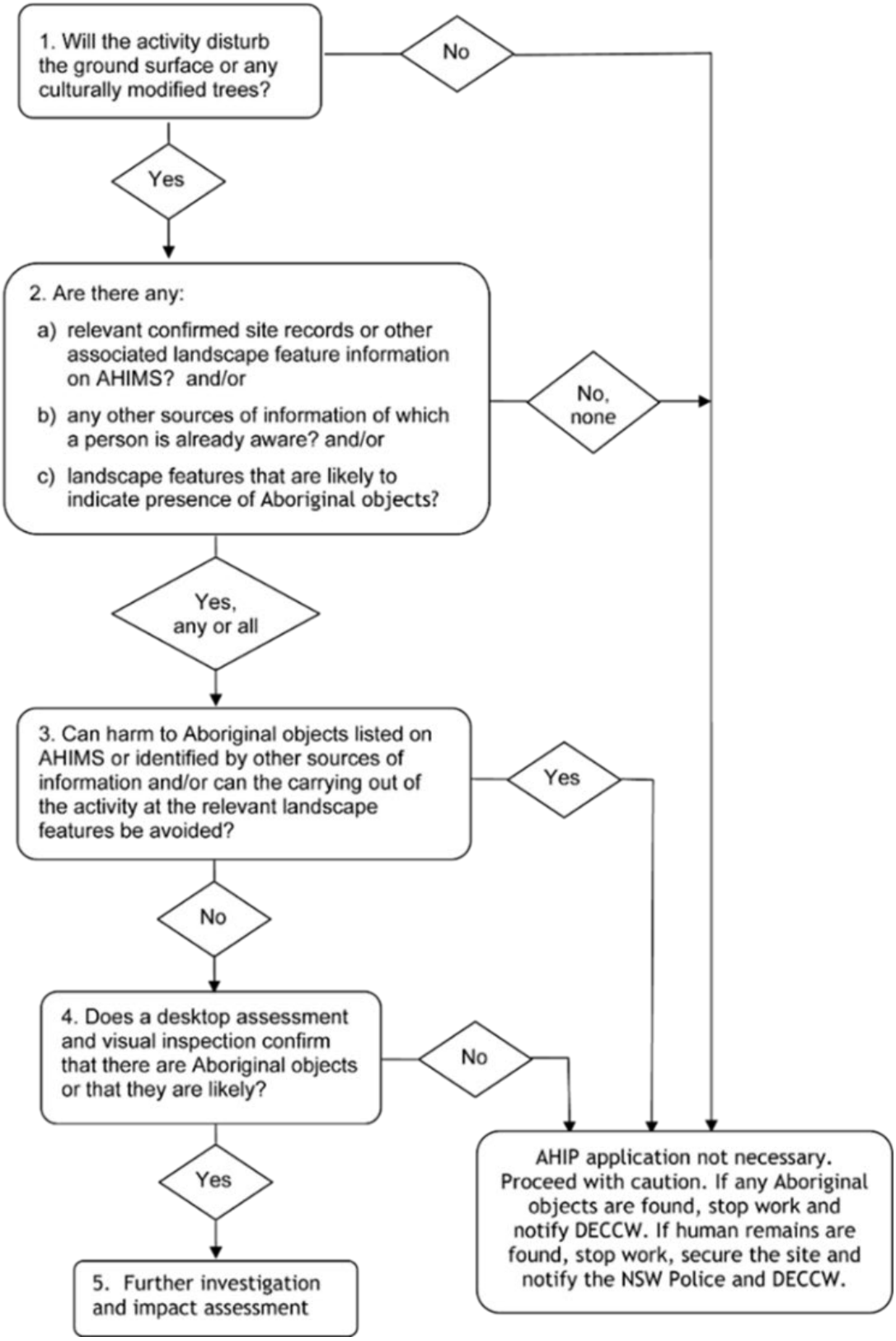


Figure 1: Generic Due Diligence process in NSW

7 Desktop Assessment

A desktop assessment has been undertaken to review existing archaeological studies for the study area and surrounding region. This information has been synthesised to develop some Aboriginal site predictive statements for the study area and identify known Aboriginal sites and/or places recorded in the study area. This desktop assessment has been prepared in accordance with requirements 1 to 4 of the code.

7.1 Soil & Geological Landscapes

7.1.1 Soils

Soil landscapes have distinct morphological and topological characteristics that result in specific archaeological potential and are essentially terrain units that provide a useful way to summarise archaeological potential and exposure.

The study area is located within the Riverina IBRA bioregion (Mitchell, 2002). The NSW Riverina bioregion (RIV) covers a total area of 9,576,964 ha, with 7,090,008 ha or 74.03% of it lying in NSW (NSW Department of Planning, Industry and Environment). The Riverina covers the alluvial fans of the Lachlan, Murrumbidgee and Murray Rivers west of the Great Dividing Range and extends down the Murray. The upper catchment landscape is a series of overlapping, low gradient alluvial fans. The lower tract of the river is a floodplain with overflow lakes. Discharge from past and present streams control patterns of sediment deposition, soils, landscapes and vegetation. (NSW Department of Planning, Industry and Environment).

This bioregion is dominated by river channels, floodplains, backplains, swamps, lakes and lunettes that are all of Quaternary age. Modern river channels consist mostly of sandy soils and more saline heavy grey and brown clays towards the outer perimeter of the floodplains on the higher rarely flooded terraces (Eardley 1999). Sandy soils also form levees, old channels, dunes and lunettes.

As soil and water salinity increase downstream on the Murrumbidgee, saline clays become evident on lake floors. The red-brown and grey clays in the bioregion support grassland communities that are nationally significant. Calcareous, sandy soils, that tend to be feature of adjacent bioregions are also present in the Riverina and support mallee communities (Semple 1990, Porteners 1993, cited in Eardley 1999). Modern river channels consist mostly of sandy soils, with more saline heavy grey and brown clays towards the edges of floodplains on higher, rarely flooded terraces. Levees are formed from sandy soils, old channels, dunes and lunettes.

The primary mode of geomorphic activity across the floodplain landform at the Study Area is aggradation. Flooding events across these landforms result in the movement and settlement of alluvial sediments. However, erosion does occur along the banks of the Murrumbidgee River.

7.1.2 Geology

Geologically, the Murray Darling Basin is considered to be a ‘shallow crustal depression’ and has a layer of marine and terrestrial sediments, which have been deposited over the last 50-60 million years. There is evidence to suggest that the coast reached as far inland as Balranald, approximately 130 km to the west of the study area (NPWS 2003a).

The NSW 1500k simplified surface geology (available via the seed online portal) indicated that the activity area was one type of surface geology being *Cenozoic Shepparton Formation (Czss) - Shepparton formation deposits are mainly derived from rivers and streams but also include aeolian (i.e. windblown) deposits, consisting of poorly consolidated clay, silt, sand and gravel.*

7.2 Flora & Fauna

The wider Hay region and area surrounding the Murrumbidgee River would have generally provided a number of resources used by Aboriginal inhabitants. In a semi-arid environment, the Murrumbidgee River and heavily wooded Black Box creek lines provided shelter, abundant food and a focal point for social interaction. Indigenous communities procured Murray Cod, fruit, mussels, wood, Murray Crayfish, yabbies, reeds and medicines from the river system. Evidence for the processing of food stuff and the working of wood can be found throughout the landscape in the form of lithic artefact scatters, mounds, hearths and midden material. Burial grounds are present within this environment and several studies have located these sacred places within the Hay district. In addition, the local communities have used the bark from the surrounding trees to make canoes, coolamons and shields which can be seen throughout the landscape (Attenbrow, 2002).

Animals including kangaroo, emu, and wallaby would also have provided abundant sources of food, with brush-tailed possums being highly prized for their fur, which were worn as cloaks over one shoulder. Kangaroo teeth were incorporated into decorative items, such as head bands (Attenbrow, 2002). As well as being important food sources, animal products were also used for tool making and fashioning a myriad of utilitarian and ceremonial items. For example, tail sinews are known to have been used to make fastening cord, while 'bone points', which would have functioned as awls or piercers, are often an abundant part of the archaeological record (Attenbrow, 2002).

7.3 European Land Use

John Oxley explored the Riverina followed by Thomas Mitchell in 1836 and Charles Sturt in the years between 1828 and 1831 (Sahukar, Gallery, Smart, & Mitchell, 2003). The squatters following the explorers introduced cattle and sheep to the country and were followed by further settlers after the introduction of the Free Selection Act in 1861 (McInnes, 1990).

Carrathool, or "Currathool" as it was often written, was founded on a proclaimed reserve of 12 km^2 in October 1852 on the north bank of the Murrumbidgee River. The location of the proclaimed township was on an unnamed "cattle run occupied by Mr. Rudd". The location of the township was at a river crossing on the Murrumbidgee River at a place called Boree Point. During the 1850s, Carrathool was known to be one of the earliest river towns that was established to serve the paddle steamer traffic along the Murrumbidgee.

With the arrival of the railway in 1882, a new village was established two miles north of the river. The new Carrathool town was proclaimed on 20 March 1885 and became the railhead for an extensive area where enormous quantities of wool, wheat, timber and livestock were shipped by rail.

The study area intersects the span of the historic Carrathool Bridge, which is heritage listed. The bridge spanning the Murrumbidgee River between Carrathool and the Sturt Highway was completed in 1924. It is an Allan-type timber truss bridge and has a bascule-type lift span supported on cylindrical iron piers, designed to allow river craft to pass underneath. The bridge was constructed in response to public pressure for a bridge to replace the punt that existed to transport goods, vehicles, and livestock across the river. A modern replacement bridge, The Merrylees (Carrathool) Bridge was opened in 2019, built directly adjacent to the old bridge.

The major land-use that has affected the exposure and potential survival of Aboriginal cultural heritage material has been pastoralism more broadly, and within the discreet study area itself, disturbance related to the long-term movement of goods, vehicles and livestock across the river – particularly in relation to the construction of both bridges across the Murrumbidgee.

7.4 Site Records

An AHIMS search was conducted on 22nd August 2024 and returned zero (0) records within the site assessment boundary, and twenty-one (21) records within 5 km of the site, consisting of Modified Trees (Carved or Scarred) (n=11), Potential Archaeological Deposits or 'PADs' (3), Artefact sites (4) and Shell Middens (3) (**Table 1**, **Map 3 & 4**). The mapping coordinates recorded for these sites were checked for consistency with their descriptions and location on maps from Aboriginal heritage reports where available. *The descriptions and maps were relied on where notable discrepancies occurred.*

The closest sites (Site ID 48-3-0127 Euroley Rd Yanco 1 & Site ID 49-5-0125, Carrathool Bridge 1) were recorded 50m east of the proposed boat ramp on the northern side of the Murrumbidgee River.

Other sites recoded within 150m of the proposed boat ramp included scarred trees on the northern bank, and shell midden on the southern bank of the Murrumbidgee River, directly opposite the proposed boat ramp site.

It should be noted that the AHIMS database reflects Aboriginal sites that have been officially recorded and included on the list. Large areas of NSW have not been subject to systematic, archaeological survey; hence AHIMS listings may reflect previous survey patterns and should not be considered a complete list of Aboriginal sites within a given area.

Based on previous archaeological investigation in the region and knowledge of Aboriginal cultural practices and traditional activities, the proposal area has the potential to contain archaeological sites, especially given that Aboriginal people have lived in the region for tens of thousands of years. This would most likely be in the form of earth features such as hearths, burials, middens and scarred trees in remnant old growth vegetation.

Previous surveys in the local region demonstrate that there is a strong, complex and varied pattern of human use and movement throughout the landscape. This is apparent from the range of site types distributed and concentrated in specific landforms across the region. There appears to be a strong association between the presence of potential resources for Aboriginal use and the presence of archaeological sites. Areas directly associated with water and elevated ground appear to have the greatest potential for identification for Aboriginal cultural material.

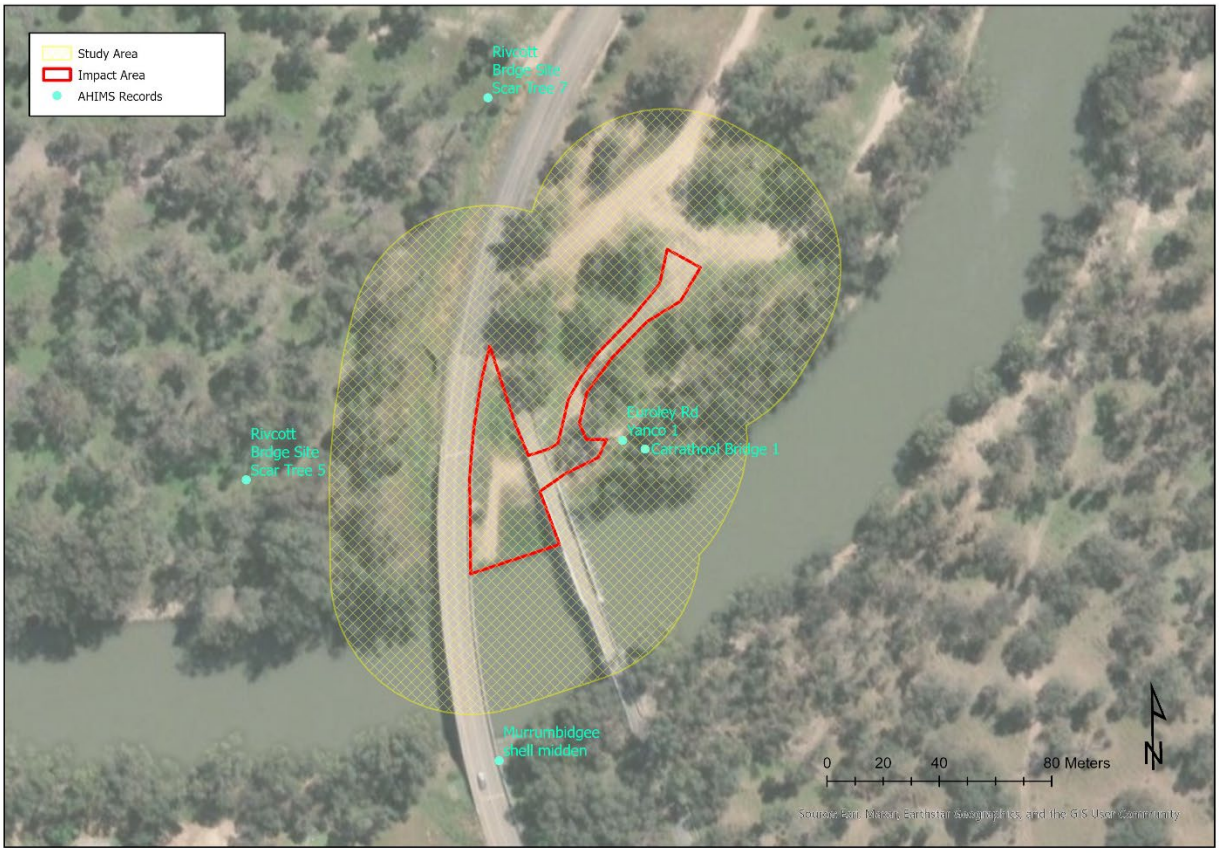
Background research undertaken for this report however, has indicated that there has been a lack of coordinated research into Aboriginal archaeology in the study area. As such, these results do not necessarily represent the full range of archaeological sites which may be identified within the study area.

Table 1: AHIMS Sites within 5 km of study area

Site ID	Name	Site Type
48-3-0002	Carrathool Canoe;Darlinton Pt;	Modified Tree (Carved or Scarred)
48-3-0114	Rivcott Brdge Site Scatter Tree 3 3&4	Modified Tree (Carved or Scarred)
48-3-0238	DP-IF-004	Artefact
48-3-0115	Rivcott Brdge Site Scar Tree 6	Modified Tree (Carved or Scarred)
48-3-0116	Rivcott Brdge Site Scar Tree 7	Modified Tree (Carved or Scarred)
48-3-0121	RivCott2	Potential Archaeological Deposit (PAD)
48-3-0122	RivCott3	Potential Archaeological Deposit (PAD)
48-3-0127	Euroley Rd Yanco 1	Modified Tree (Carved or Scarred)
48-3-0131	Carrathool Road-ST1	Modified Tree (Carved or Scarred)
48-3-0134	Carrathool Road-IF1	Artefact
48-3-0111	Rivcott Brdge Site Scar Tree 2	Modified Tree (Carved or Scarred)
48-3-0113	Rivcott Brdge Site Scar Tree 5	Modified Tree (Carved or Scarred)

Site ID	Name	Site Type
48-3-0128	Murrumbidgee shell midden	Shell
48-3-0112	Rivcott Brdge Site Scar Tree 1	Modified Tree (Carved or Scarred)
48-3-0130	Murrumbidgee River-ST1	Modified Tree (Carved or Scarred)
48-3-0110	Gin Site Artefact Scatter	Artefact
48-3-0120	RivCott1	Potential Archaeological Deposit (PAD)
48-3-0133	Murrumbidgee River-M1	Shell
48-3-0109	Water Basin Artefact Scatter	Artefact
49-5-0125	Carrathool Bridge 1	Modified Tree (Carved or Scarred)
48-3-0132	Murrumbidgee River-M2	Shell

Map 3: AHIMS recorded sites within 5 km of the study area. Source: AHIMS 2024



Map 4: Nearest recorded AHIMS sites to the study area. Source: AHIMS 2024

7.5 Landscape Features

The Due Diligence Code (DECCW, 2010a) specifies a number of landscape features which are most associated with the likely presence of Aboriginal objects, and which therefore require further assessment if present.

The areas include land within 200m of waters; located within a sand dune system; located on a ridge top, ridge line or headland; located within 200m below or above a cliff face; within 20m of or in a cave, rock shelter, or a cave mouth.

Of these, proximity to waterways is the most relevant factor to the proposed boat ramp at Carrathool, as the development site is located directly on the bank of the Murrumbidgee River. In addition to waterways, all other specified land features were considered during the archaeological survey.

7.6 Aboriginal People in the Region

The land associated with the Murrumbidgee River has been occupied for more than 40,000 years (Sahukar, Gallery, Smart, & Mitchell, 2003) with some of the earliest evidence of people in Australia being found at Lake Mungo and the Willandra Lakes area (Bowler, et al., 2003). The Wiradjuri inhabited a vast region in the central-western inland of NSW, with one edge of their range located north and east of the Nari Nari and Yitha Yitha people, stretching approximately to the township of Hay. Language/tribal borders were not fixed. These boundaries ebbed and flowed through contact with neighbours, the seasons and periods of drought and abundance. The close proximity to each other also meant that people likely spoke multiple languages and dialects.

First Nations people in the Hay area were adept at identifying and utilising local resources. During the natural flooding of the rivers, swamps and river flats were inundated and billabongs filled. Large groups of people then netted and trapped fish. With shellfish and waterfowl, fish provided a significant part of the diet and relatively small areas of land were able to support large groups of people. Canoes were made from a single sheet of Red Gum or Black Box bark. As flood waters began to subside, people began to fish in the broader reaches of the rivers using short, stout spears. Women made weirs from wooden stakes to trap larger fish in pools as the waters receded.

Aboriginal life on the Hay Plains had to adapt to past changes of climate and aridity. After millions of years of drought, a wet climate and abundant landscape emerged on the Hay Plains about 60,000 years ago. Ephemeral lakes on the plain were filled by the ancestral Murrumbidgee River, fed by rainfall originating in the Great Dividing Range. Full lakes, a stable climate and plentiful natural resources lasted for 20,000 years. Aboriginal sites on the Hay Plain appear in the archaeological record for the first time during this wet period, characterised by extensive woodlands and abundant resources.

Around 20,000 years ago the Hay landscape changed with average temperatures several degrees lower than today. Plant and animal life was significantly diminished as a result. Grasslands and shrublands expanded as the woodland ecosystems contracted. Many ephemeral lakes and creeks dried out as the Hay Plains became more barren.

Aboriginal mounds of the Hay Plains show that people returned to the same places years after the climate became arid, first to cook and later to bury their dead. The majority of mounds appear to derive from the operation of earth ovens, as they are made up of burnt materials such as ash, charcoal and baked clay heat. Mounds were continually dug over as each day's oven was used. Mounds are fairly recent in the long-term history of Australia, generally dating to the last few thousand years.

Mounds of the Hay Plains to the west are among the largest in the continent. Developing from one ground oven, after repeated use, generation after generation, some mounds on the Hay Plain were small, while others grew as large as a hundred metres long and two metres high.

Mounds may contain by-products of habitation such as food debris, tools both worn out and lost, and most commonly baked clay heat retainers. Burials are occasionally found in mounds. Thousands of years after cooking at these mounds, later generations of people returned to them to bury their dead in the soft ground. Large burial mounds on the Hay Plains include Jeraly and Toogimbie with approximately one thousand burials.

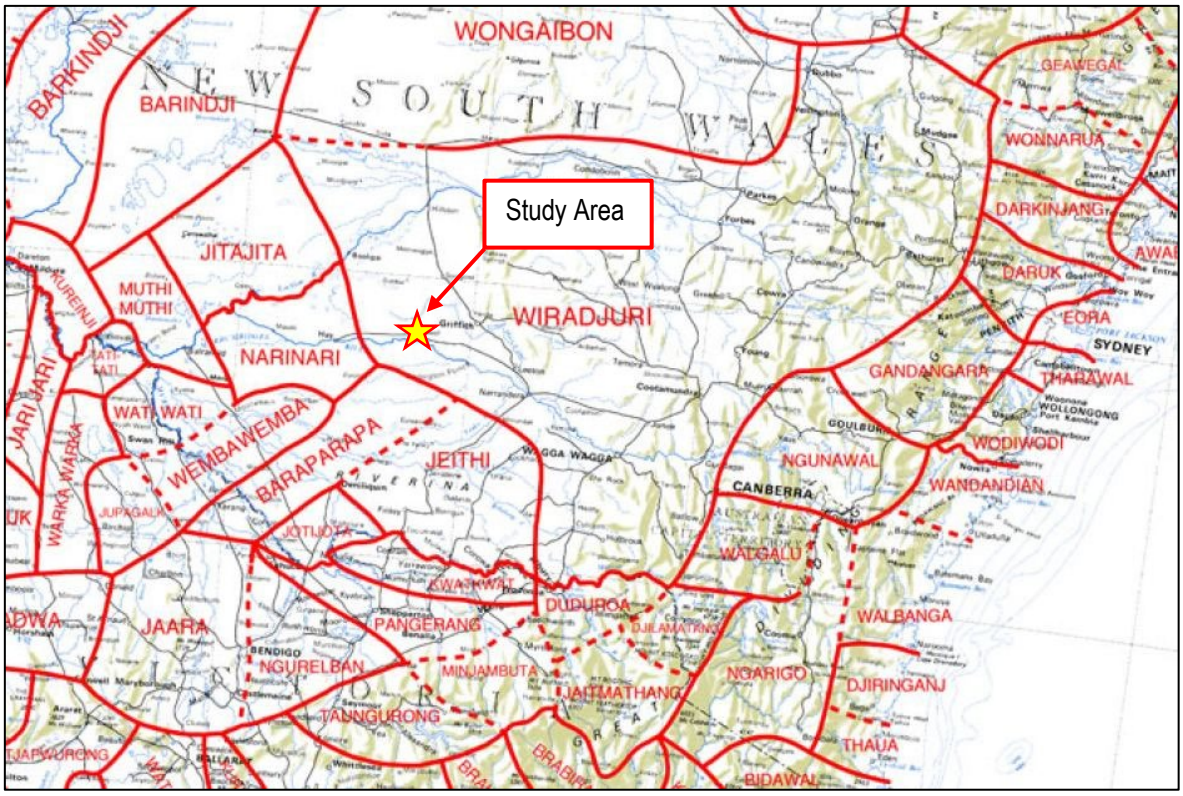


Figure 2: Aboriginal Groups (Tindale, 1974).

7.7 Previous Archaeological Studies

The majority of archaeological investigations in the wider Albury region have been undertaken as a result of infrastructure developments. Very few of these investigations have been undertaken within a close proximity to the study area.

Witter (1980)[1] carried out a number of archaeological surveys in the Riverina. The first of these studies occurred in the south-eastern section of the historic Wiradjuri Nation, along the route of a proposed 134 km pipeline between Wagga Wagga and Young, approximately 250km south-east of the current study area. Witter located 15 Aboriginal sites, including 13 open campsites, 1 possible rock well, and 1 scarred tree. The largest site, an open campsite measuring 500 metres x 30 metres, was recorded along the alluvial flats of Muttama Creek, east of Cootamundra. Witter found that sites occurred with the greatest frequency on adjacent slopes and spurs away from major water courses, but always in association with water sources including springs and soaks. The dominant stone material at all sites recorded by Witter was quartz (90%).

Hiscock (1983)[4] conducted a survey for a proposed electricity transmission line between Wagga Wagga and Darlington Point, approximately 150 km southwest of the current study area. Hiscock located 18 scarred trees and 13 isolated artefact locations. Isolated artefact finds included 11 unmodified flakes, 2 cores, 2 flaked pieces, 1 retouched flake, a hammerstone, and a piece of broken millstone. Hiscock found the dominant stone material to be quartz. Hiscock was apparently unable to identify a correlation between artefact location and environment, with the majority of artefacts located

[1] Summary drawn from Kelton, J., 2000, *An Archaeological Study of the Proposed Optic Fibre Route Between Hillston and Willanthry Station, in the Western Plains of NSW, A report to Telstra – Environmental Evaluation Team*

within an environmental context contrary to that which would be expected (i.e. a considerable distance from reliable water sources) (Brayshaw and Dallas 1985.9).

Paton and Hughes (1984)[2] carried out a survey for a proposed weir on the Lachlan River near Hillston. This study occurred entirely over the riverine floodplain and therefore has relevance to the current development. Paton and Hughes located 5 scarred tree sites, 1 midden / surface shell scatter site and 2 open campsite - stone artefact scatter sites all on the alluvial floodplain and within extremely close proximity to the Lachlan River and associated ephemeral water courses.

Edmonds (1996)[5] carried out an archaeological survey for a proposed replacement of a bridge over the Lachlan River at Wallanthery, approximately 30 km north of the current study site. Edmonds recorded a scarred tree site and an isolated artefact on the river bank and the location of a possible fish trap in the river bed. Historic relics were also identified during the survey comprising the soon to be replaced bridge structure over the Lachlan River, and the old settlement area of Wallanthery.

Kelton (1998a)[5] carried out an archaeological survey for a proposed underground telecommunications transmission line between Hillston township and the Bunda locality, approximately 12 km south-east of Hillston over landforms similar to the current study area. During the field survey Kelton recorded three scarred tree sites and an open campsite all around an ephemeral soak area on a bimble box - mallee plain approximately 12km south-east of Hillston at Weerie Tank. The open campsite was found to be a low artefact density stone artefact scatter site located on an eroded (compacted) gently sloping sandy area on the northern edge of the ephemeral soak area. The site has dimensions of 25m long (east to west) and approximately 15m wide. Artefact scatter was observed to be less than 1 artefact per square metre. It was estimated that at least 50 stone artefacts occur on the site surface. The site's artefact assemblage was found to be dominated by unmodified debitage stone material, i.e. silcrete flakes, block fractured (flaked) pieces, and chert flaked stone material. Kelton interpreted the site, based upon the site's limited extent, limited range of stone artefact types and low artefact density, to represent limited, short-term levels of past Aboriginal occupation.

Kelton (1998b) conducted an archaeological survey along the proposed 30 km long optic fibre cable between Hillston and Willanthry Station, through the central section of the current study area. Three (3) scarred trees were found as a result of the survey. Two scarred trees, H-St-01 & 02 were found within 100 m of the current study area. The survey also identified numerous scarred trees in the area surrounding H-St-03, approximately 20 km from the current study site.

Griffith Local Aboriginal Land Council (2000) conducted a Cultural Assessment of Aboriginal Sites for a proposed water storage at Merrowie Station, approximately 40 km north-west of the current study area. Fifty-one (51) scarred trees were identified during the survey on the initial visit, however, due to adverse weather conditions and limited access, only thirty-eight (38) were officially recorded.

[2] Summary drawn from Kelton, J., 2000, *An Archaeological Study of the Proposed Optic Fibre Route Between Hillston and Willanthry Station, in the Western Plains of NSW, A report to Telstra – Environmental Evaluation Team*

7.8 Site Types in the Geographic Region

The NSW Murrumbidgee region, like all regions of NSW, has an Aboriginal archaeological record derived from Aboriginal occupation and land use that was concentrated on drainage lines but includes dispersed evidence throughout the landscape (Brown & Wall 2018). Regionally occurring sites such as human burials and faunal deposits are essentially confined to areas above the active floodplain on larger rivers and/or their source bordering sandy deposits.

Cultural material is dominated by flaked stone tools (lithics) and lithic sites in NSW are listed by the features of either 'Artefact' or 'PAD' (potential archaeological deposit) in the AHIMS register. While not as significant as human burials, stone artefacts have variable distribution that can largely be correlated with different landform types.

Many authors have stressed the importance of proximity to water as well as relatively common-sense amenity factors such as level, well-drained areas with useful views of resource use areas or a watercourse (Brown O., 2008). Stone artefacts may be found as occasional pieces (background scatter) or in concentrations typically described as 'Open Camp Sites' (even if not interpreted as having been a site where people camped). At these sites, the presence of large numbers of stone tools and the debitage from making and maintaining them provide evidence about the nature of the human use of the location.

Scarred trees are also found relatively commonly along the Murrumbidgee River and its major tributaries. Mature trees may bear evidence of the removal of bark for the making of implements such as coolamons (bowls), shields and sometimes pieces large enough to have potentially provided for a canoe (Brown 2008). Consistent with Brown (2008), scarred trees dominate open Aboriginal sites in the Carrathool region, as they make up 52% of recorded sites within a 5 km radius of the study area.

Elsewhere, midden deposits and hearth sites can occasionally be found that contain valuable evidence about the types of resources used by Aboriginal people based on the identification of the bones and shells found within them. Hearth sites, other than vaguely fired patches of clay subsoil, are unlikely to still occur due to the history of relatively intensive land use; and significant disturbance across the site.

There are no Aboriginal Places (locations nominated and listed as having special significance to the Aboriginal community) in the subject area.

7.9 Predictive statements

A series of statements been formulated to broadly predict the type and character of Aboriginal cultural heritage sites likely to exist throughout the study area and where they are more likely to be located. This model is based on:

- Local and regional site distribution in relation to landform features identified within the study area;
- Previous investigations within the region, which have demonstrated that scarred trees are likely to occur along waterways and their surrounding plains, generally above the floodplain and waterlogged land (Witter 1982; Hiscock 1983; Paton and Hughes 1984; Edmonds 1996; Kelton 1998a; Kelton 1998b; Griffith Local Aboriginal Land Council 2000).
- Consideration of site type, raw material types and site densities likely to be present within the study area;
- Findings of the ethnohistorical research on the potential for sites to present within the study area;
- Potential Aboriginal use of natural resources present or once present within the study area; and
- Consideration of the temporal and spatial relationships of sites within the study area and surrounding region.

Previous survey results within the region allow some predictions to be made about local site distribution:

- Scarred trees in the region are concentrated not only along present waterways, but also along the paths of prior streams and historical lakes and soaks. These are the areas with the highest focus of Aboriginal land use and where a number of suitable tree species are found (Aboriginal Victoria, 2008);
- There is a tendency for concentrations of stone artefacts to be found within 200-250 m of permanent and ephemeral water sources, particularly on raised areas such as sand hills by the river and elevations (commonly aeolian sand or red soil) adjacent to ephemerally flooded areas or billabongs. These sites may also contain burnt clay balls that were used as heat retainers for cooking;
- Lithic sites are however rarely recorded along the lower alluvial floodplains of the major river margins – in part because of the favoured use of raised areas by Aboriginal people, but also because these are dynamic depositional environments where potential sites are rarely preserved or exposed;
- Shell midden deposits dominated by freshwater mussel (*Velesunio* sp.) occur along river margins, typically also associated with flaked stone artefacts; these are rarely evident as surface deposits and are usually found as exposed sections in eroded river banks;
- Burial sites are most typically associated with prominent raised sand hills ('source bordering dunes') near the river but may also be found in or nearby culturally scarred trees;
- Clay heat retainers, artefacts and faunal material are also found in association with raised earth mound sites where ephemeral water may have led to seasonal availability of cumbungi (*Typha* sp.); these earth mound sites are a distinctive archaeological feature of the Hay Plains and other parts of the Riverina, although many have been destroyed over the last century.

7.10 Survey Aims

A site survey was undertaken by Olivia Hynam and Maggie Cronin, of Red-Gum Environmental Consulting on the 25th of July 2024. The principle aims of the survey were to:

1. Undertake a systematic survey of the study area to identify landforms or features that may contain Aboriginal cultural heritage;
2. Identify and record Aboriginal places sites visible on the ground surface; and
3. Identify and record areas of Aboriginal archaeological and cultural sensitivity.

7.11 Survey methods

The survey was conducted on foot. Recording during the survey followed the archaeological survey requirements of the code and industry best practice methodology. Information that recorded during the survey included:

- Aboriginal objects or sites present in the study area during the survey;
- Survey coverage;
- Any resources that may have potentially been exploited by Aboriginal people;
- Landform elements, distinguishable areas of land approximately 40m across or with a 20m radius;
- Photographs of the site indicating landform;
- Ground surface visibility (GSV) and areas of exposure;

- Observable past or present disturbances to the landscape from human or animal activities; and
- Aboriginal artefacts, culturally modified trees, or any other Aboriginal sites.

Where possible, the identification of natural soil deposits within the study area was undertaken and photographs of survey units, landform, vegetation coverage, GSV etc, were incorporated into the survey. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements were recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

In addition, a predictive assessment of the likelihood of the occurrence of undetected and/or subsurface Aboriginal cultural heritage material was conducted.

This is an intuitive assessment using generalised contextual information rather than a geostatistical assessment using digitised (raster) map data of landforms and known locations of other sites. Brown O., 2008 notes that although intuitive assessments are rarely afforded much written favour by archaeologists, they are in fact used by almost all.

The term 'modelling' may be frequently inserted to infer statistical rigour that is usually not present nor, for that matter, appropriate. A *modelled predictive assessment* typically combines rule-based definitions of known site distribution factors with available mapped data that lacks the full range of detail that would affect human choices and behaviour - or the map data may quite simply be wrong (Brown, 2008).

7.11.1 Ground Surface Visibility

Archaeological visibility refers to the amount of ground surface that is clearly visible for inspection. The greater the ground surface visibility, the more effective the surface survey. Examples of high surface visibility are vehicular and pedestrian tracks, dune blow outs (100% per m²); and examples of poor visibility are areas of heavy vegetation cover (0-10% per m²) (Murphy & Thomson 2016).

Unfortunately, it is often the case that highly visible Aboriginal cultural heritage places are also often highly disturbed. High ground surface visibility (GSV) is therefore often related to the amount of disturbance that has occurred. This disturbance may be manmade (such as drainage lines, vehicle tracks), by stock (overgrazing, tracks), or due to natural processes (erosion by wind or water). The level of GSV is typically assessed as follows:

Table 2: Ground Surface Visibility (GSV) ratings vs ranges

%	0%	0 – 10%	10 – 30%	30 – 50%	50 – 70%	70 – 90%	90 – 100%
Rating	No visible ground surface	Very poor	Poor	Fair	Good	Very good	Excellent

Photo 1: Example of Very Good (70-90%) GSV in the study area (due to a road). Eastern orientation. Photo: M. Cronin, 2024.

8 Results

8.1 Survey Coverage & Effectiveness

The purpose of compiling survey coverage data is to measure the limitations of site detectability at the time of the survey. For example, a survey transect across a heavily grassed paddock has little likelihood of finding lithic material on the surface regardless of the survey effort spent.

The quantification of survey coverage data also usually relies on an assessment of the soil surface visibility in relation to other variables, principally the different landforms included in the survey and the amount of survey effort spent on each.

For the current investigation the soil surface visibility ranged from Very Good (70-90%) in non-vegetated areas and on vehicle tracks (**Photo 1 and Photo 2**) to Very Poor (0-10%) in areas of ground covering vegetation (**Photo 3**).

Photo 2: Example of Very Good (70-80%) GSV in the study area along existing track. Southern orientation. Photo: M. Cronin, 2024.

Photo 3: Example of Very Poor (0-10%) GSV in the study area between existing bridges where dense regrowth ground cover is present Southern orientation. Photo: M. Cronin, 2024.

8.2 Exposure

Exposure refers to the geomorphic conditions of the local landform being surveyed and attempts to describe the relationship between those conditions and the likelihood the prevailing conditions provide for the exposure of (buried) archaeological materials. Whilst also usually expressed as a percentage estimate, exposure is different to visibility in that it is in part a summation of geomorphic processes, rather than a simple observation of the ground surface (Burke & Smith 2004, p.79, DECCW 2010b).

Overall, the study area displayed variable exposure between locations that lacked vegetation or had been used for vehicle access and areas where dense ground cover or regrowth vegetation was present (**Photo 4** & **Photo 5**).

Photo 4: Example of both high exposure site due to vehicle traffic at informal boat launch site, and low exposure in adjacent vegetated areas. Southern orientation. Photo: M. Cronin, 2024.

Photo 5: Example of both high exposure site due to vehicle track and erosion in foreground, and low exposure in vegetated area. Western orientation. Photo: M. Cronin, 2024.

8.3 Disturbances

The proposed boat ramp location is situated between two bridges – the Carrathool Historic Bridge, and its modern replacement (**Photo 4)**. The construction and maintenance of these bridges has caused significant ground disturbance throughout the entirety of the study area. Additional disturbance in the study area is associated with the existing and past land use. The study area has been extensively cleared and subject to vehicle traffic and general use of the area as an informal boat launch. This is evident in the wheel ruts (**Photo 6**), and evidence of informal boat launch use of the area (**Photo 7)**).

Photo 6: Disturbance from construction of track and vehicle traffic. Northern orientation. Photo: M. Cronin 2024.

Photo 7: Recent disturbance from use of site as informal boat launch area. Southern orientation. Photo: M. Cronin 2024.

8.4 Landform Features

For the current investigation, a single landform unit was identified (Murrumbidgee River banks). The study area is entirely located on the banks of the river minantly, low-lying plain, that slopes slightly as it approaches the Murrumbidgee River. There are no notable landform features within the immediate area.

Culturally scarred trees are typically > 60cm DBH, as those trees in the wider Geographic region are typically the oldest. During the inspection, no modified trees were identified within the impact area. However, the study area (50m buffer around the direct impact footprint of the proposed boat ramp) contains two previously recorded scarred trees.

9 Survey Outcomes

- The study area typically exhibited good visibility and exposure without revealing any apparent Aboriginal objects.
- The closest sites to the assessment site identified by the desk-top review consisted of Site ID 48-3-0127 (Euroley Rd Yanco 1) & Site ID 49-5-0125 (Carrathool Bridge 1), whose place coordinates put these sites within 50m of the proposed boat ramp on the northern side of the Murrumbidgee River. These sites could not be relocated by the survey team. It is Red-Gum's contention that both sites have been recorded in error on AHIMS (likely a coordinate conversion error) and that both places are spatially mis-represented. Nonetheless, the Aboriginal Places must be avoided by the works and are outside the construction zone as it has been assessed in this ACHDDA.
- No trees with cultural modifications were identified within the study area.
- No Aboriginal cultural heritage objects were identified within the study area.
- The survey did not identify any undisturbed areas of potential (PADs) within the study area.
- It is acknowledged that in the context of the ubiquitous 'background scatter' of artefacts that exists in almost any Australian landscape, undetected Aboriginal objects may be present in the fill and topsoil material that is to be returned to its original location post works. However, in the absence of any detectable surface representation upon which to base the targeting of subsurface testing (in an obviously disturbed landscape), there is no reasonable trigger by which to seek an Aboriginal Heritage Impact Permit (AHIP) for the work.

10 Recommendations & Contingencies

This report documents an assessment of the potential for the project to have an impact on Aboriginal objects or places. The assessment finds that there are no (zero) previously recorded Aboriginal objects within the study area and it is not predicted that significant potential exists for undiscovered Aboriginal sites to be impacted.

10.1 Recommendations:

1. On the basis of desktop assessment (AHIMS records, previous work in the region and general regional site distribution patterns) and the survey, it considered that harm to Aboriginal objects as a result of the proposed work is unlikely at the assessed site.

2. It is therefore considered that there is no reasonable trigger by which to seek an Aboriginal Heritage Impact Permit (AHIP) for the work.

3. Ensure that the locations of Site ID 48-3-0127 (Euroley Rd Yanco 1) & Site ID 49-5-0125 (Carrathool Bridge 1) are known to all staff and any sub-contractors. No works or storage of materials are permitted within 10m of these places which are to be clearly marked out on site (and on any construction plans) before works commence.

4. No further assessment is considered warranted if:

    - Works are contained entirely to the area assessed by this DDA;
    - Maximise the use of significantly disturbed areas in the first instance;
    - Ensure no topsoil (0-150mm) is removed from site and is used in rehabilitation.

5. Cultural awareness induction is considered appropriate at this site before any works commences. The induction is to be undertaken by employees who are supervising works during the activity in relation to earthmoving or ground disturbance works. All ground disturbance works must be supervised by a person who has undertaken the cultural awareness training. It is the responsibility of the client to:

    - Ensure that the training be undertaken prior to the commencement of works to familiarise employees and contractors with local Aboriginal traditions and culture;
    - Ensure that the locations of Site ID 48-3-0127 (Euroley Rd Yanco 1) & Site ID 49-5-0125 (Carrathool Bridge 1)[3], are known to all staff and any sub-contractors.
    - Familiarise employees and contractors with Aboriginal places and objects (particularly stone artefacts and features such as hearths and shell midden lenses) so that they may recognise Aboriginal cultural heritage that may be exposed during works. Information sheets to assist in the identification of Aboriginal cultural heritage should be provided during this training.
    - Promote a knowledge and understanding of and respect for Aboriginal tradition & culture; and
    - Assist with compliance with relevant Commonwealth and State cultural heritage legislation.

[3] Coordinates for Site ID 48-3-0127 are 354622 mE / 6186943 mN & Site ID 49-5-0125 are 354630 mE / 6186940 mN

6. The information presented above meets the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. It should be retained as 'shelf documentation' for five years as it may be used to support a defence against prosecution in the event of unanticipated harm to Aboriginal objects.

10.2 Contingencies:

Contingency 1: Discovery of unanticipated Aboriginal objects.

All Aboriginal objects and places are protected under the National Parks and Wildlife Act 1974 (NPW Act). It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by NSW Environment & Heritage. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the NSW Environment & Heritage and Aboriginal stakeholders.

Contingency 2: Discovery of Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

1. Immediately cease all work at that location and not further move or disturb the remains;
2. Notify the NSW Police and NSW Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location.
3. Not recommence work at that location unless authorised in writing by NSW Environment & Heritage

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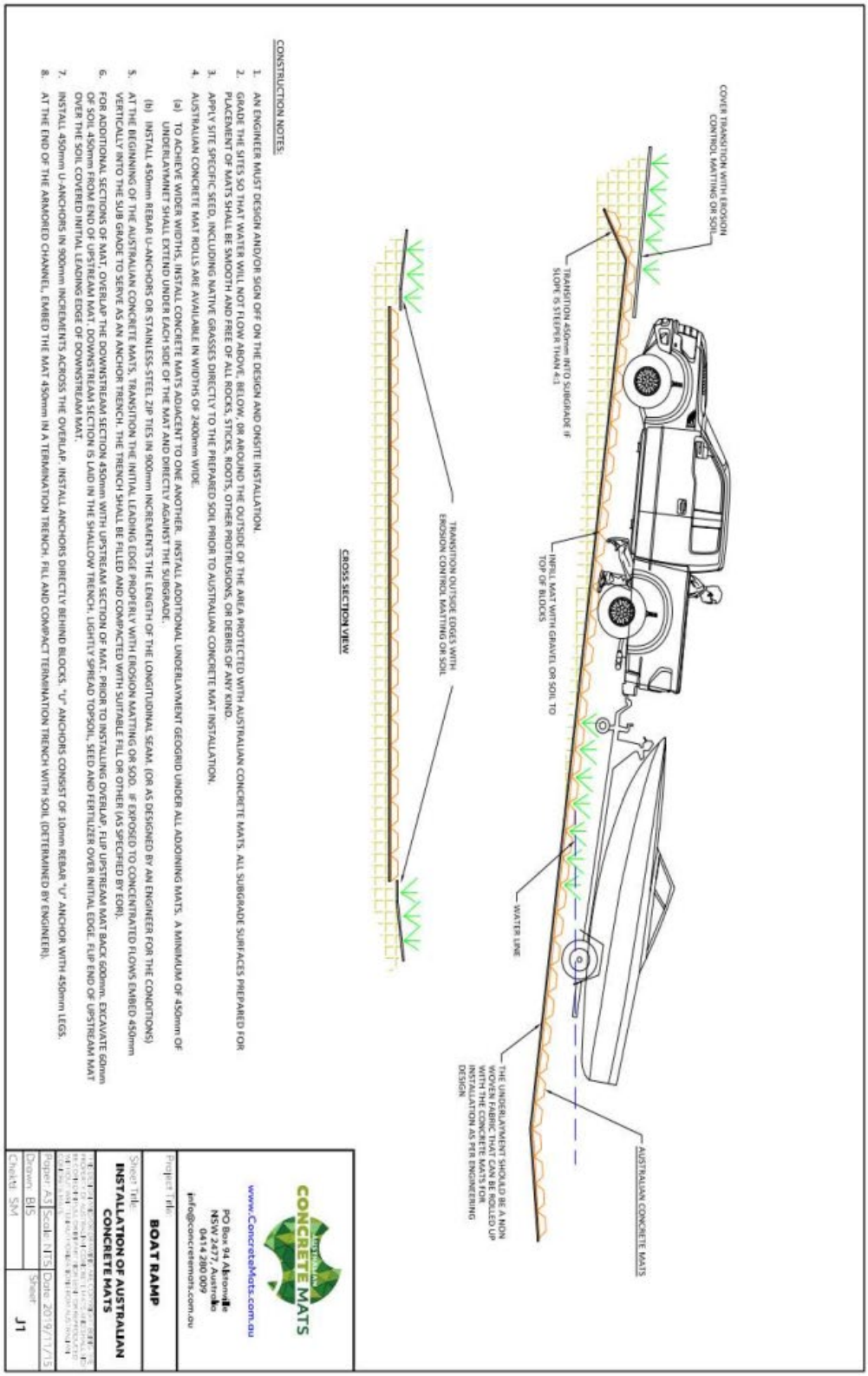
12 Appendix

Appendix A: Proposed Carrathool Boat Ramp Construction.



Appendix B: AHIMS Search Results

[This Appendix is not to be made public]

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : DDA
Client Service ID : 923491

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status: ##	SiteFeatures	SiteTypes	Reports
48-3-0002	Carrathool Canoe-Darlinton Pt;	AGD	55	356515	6184766	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	
	Contact	Recorders	R Reid					Permits		
48-3-0114	Rivrott Bridge Site Scatter Tree 3 384	GDA	55	354598	6186700	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0238	DP-IF-004	GDA	55	356902	6184636	Open site	Valid	Artefact : 1		
	Contact	Recorders	Kayandel Archaeological Services					Permits		
48-3-0115	Rivrott Bridge Site Scr Tree 6	GDA	55	354340	6187097	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0116	Rivrott Bridge Site Scar Tree 7	GDA	55	354574	6187065	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0121	RivCont2	GDA	55	354435	6183054	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Mr.Oliver Brown					Permits		
48-3-0122	RivCont3	GDA	55	354817	6184828	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Mr.Oliver Brown					Permits		
48-3-0127	Euroley Rd Yanco 1	GDA	55	354622	6186943	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Mark Saddler					Permits		
48-3-0131	Carrathool Road-ST1	GDA	55	354681	6186652	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol					Permits		
48-3-0134	Carrathool Road-IF1	GDA	55	354828	6187465	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol					Permits		
48-3-0111	Rivrott Bridge Site Scar Tree 2	GDA	55	354565	6186593	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		

Report generated by AHIMS Web Service on 25/08/2024 for Maggie Cronin for the following area at Datum :GDA, Zone : 55, Eastings : 349385.0 - 359438.0, Northings : 6182139.0 - 6191566.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 21

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 2

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : DDA
Client Service ID : 923491

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
48-3-0113	Rivcott Brdge Site Scar Tree 5	GDA	55	354488	6186929	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0128	Murrumbidgee shell midden	GDA	55	354578	6186829	Open site	Valid	Shell : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Doctor.Michelle Mills,Mis					Permits		
48-3-0112	Rivcott Brdge Site Sacr Tree 1	GDA	55	354516	6186491	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0130	Murrumbidgee River-ST1	GDA	55	354934	6187532	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol					Permits		
48-3-0110	Gin Site Artefact Scatter	GDA	55	354809	6184840	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
48-3-0120	RivCott1	GDA	55	353984	6182993	Open site	Valid	Potential Archaeological Deposit (PAD) : -		1332
	Contact	Recorders	Mr.Oliver Brown					Permits	3848	
48-3-0133	Murrumbidgee River-M1	GDA	55	354891	6187498	Open site	Valid	Shell : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol					Permits		
48-3-0109	Water Basin Artefact Scatter	GDA	55	353973	6183015	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Michael Dunn					Permits		
49-5-0125	Carrathool Bridge 1	GDA	55	354630	6186940	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Mr.Mark Saddler,Mr.Mark Saddler					Permits		
48-3-0132	Murrumbidgee River-M2	GDA	55	354786	6187246	Open site	Valid	Shell : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Philippa Sokol					Permits		

**** Site Status**
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 25/08/2024 for Maggie Cronin for the following area at Datum :GDA, Zone : 55, Eastings : 349385.0 - 359438.0, Northings : 6182139.0 - 6191566.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 21

Appendix C: Flow chart of the NSW due diligence process for the project