

3 Physical Analysis

3.1 Environment and Landscape Analysis

3.1.1 Introduction

At the time of writing Yanga National Park, Nature Reserve and State Conservation Area (the Yanga Reserves) together occupy an area of 72,336 hectares on the western edge of the Riverina in south-western New South Wales. The Park is a recent addition to the National Parks estate. It was reserved to protect River Red Gum forests, extensive waterbird breeding grounds and the habitat of a range of threatened species.

Yanga is a cultural landscape, meaning that it has been shaped by thousands of years of human occupation. It has a rich Aboriginal history. It has also been a significant rural property in the western Riverina and a popular local venue for recreation.

The Yanga Reserves are located close to the township of Balranald, extending from the Woolshed area south-west of the town, east to the Homestead area and generally north along the left (south-eastern) bank of the Murrumbidgee River.

Yanga lies within the Wakool and Balranald local government areas. The Yanga Reserves are within the Riverina and Murray Darling Depression bioregions and the Far South Western Plains and South Western Plains botanical subdivisions.

3.1.2 Geomorphology and Landform

Yanga spreads from the banks of the Murrumbidgee River across flats, channels and depressions of the Riverine Plain. The Riverine Plain is derived from a system of prior streams which eroded the Lachlan and Murrumbidgee river valleys in the late Pliocene and Pleistocene (up to about 5 million years before present). Remnants of more recent prior streams may be observed as slight sandy rises across the present day plain (Pels 1969).

There are a series of lakes and depressions across the Yanga Reserves and nearby lands. These include Yanga and Tala Lakes. These Lakes have associated sandy lunettes along their eastern side, the lunettes being formed at the peak of the last glacial period from 40,000 to 15,000 years ago (Bowler 1976).

Yanga Lake is an ancient landform which has been a freshwater lake for much of the past 250 years. Flooding in 1974 and 1993 filled the Lake. Drought since the early 2000's saw the lake dry up until it was refilled in late 2010.

The Murrumbidgee River bounds much of the park, with a total river frontage of approximately 160km. The north-eastern corner of the Yanga Reserves lies close to the River's junction with the Lachlan River. A series of distributory channels cross the Yanga landscape, including Kieeta, Uara, Tala and Talpee Creeks.

3.1.3 Climate

Balranald has semi-arid climate with a hot summer and cool to mild winter. The mean maximum daily temperature is 33 degrees C in summer and 15.7 degrees C in winter. Average annual rainfall is 320mm with a slight peak in winter months (Bureau of Meteorology 2009). Evaporation rates are high from November to March, limiting plant growth in the absence of water.

3.1.4 Geology and Soils

The Balranald area lies in the Murray Geological Basin, which was formed during the Tertiary period approximately 60 million years ago. There was extensive sedimentation during the Tertiary period.

A range of soil types occur across the Yanga reserves. Grey cracking clay soils are extensive and associated with the riverine plain and floodplains of the Murrumbidgee River and distributory channels. Remnants of prior streams exhibit shallow, calcareous, sandy soils. In the east of Yanga there are hard red-brown duplex soils and lunette areas include sands and yellow duplex soils.

3.1.5 Vegetation

Recent vegetation mapping indicates that there are ten vegetation map units across the Yanga reserves:

River Red Gum Forest
Belah-Rosewood/ Callitris Mixed Woodland
Black Box Woodland/ Old Man Saltbush
Black Bluebush/ Old Man Saltbush
Bladder Saltbush/ Canegrass
Cottonbush/ Dillon Bush
Dillon Bush/ Black Bluebush
Lignum
Bare Areas/ Degraded
Water bodies

Descriptions of these types and their ecological relationships, based on Scott (1992), are provided below:

River Red Gum Forest

Open-forest dominated by River Red Gum (*E. camaldulensis*) occurs along banks of rivers and channels and low-lying flats subject to periodic inundation.

The understorey includes a mix of native and exotic plants.

The tall shrub River Cooba (*Acacia stenophylla*) is present. In areas less affected by grazing Old Man Saltbush (*Atriplex nummalaria*) is also prominent.

Common ground layer plants include Spreading Sneezeweed (*Centipeda minima*), *Carex appressa*, Poison Pratia (*Pratia concolor*), Nitre Goosefoot (*Chenopodium nitrariaceum*), and the exotics London Rocket (*Sisymbrium irio*), Spear Thistle (*Cirsium vulgare*) and Common Sow Thistle (*Sonchus oleraceus*).

River Red Gum Forest occupies about 17,000 hectares or approximately 40% of the Yanga Reserves.

Belah-Rosewood/Callitris Mixed Woodland

Woodland dominated by Belah (*Casuarina pauper*) and Rosewood (*Alectryon oleifolius* ssp. *canescens*) occurs in the east of the Yanga Reserves associated with brown calcareous soils. Sandy soils in the area have White Cypress Pine (*Callitris glaucophylla*) in a mosaic with the Belah-Rosewood stands. Wilga (*Geijera parviflora*) is an associated tree species.

Shrub species include Leafless Cherry (*Exocarpos aphyllus*), Sugarwood (*Myoporum platycarpum*) and Mueller's Daisy Bush (*Olearia muelleri*).

Chenopod sub-shrubs include Ruby Saltbush (*Enchylaena tomentosa*), *Einadia nutans*, Copperburrs (*Sclerolaena* spp.) and Bluebushes (*Maireana* spp.).

Black Box Woodland/Old man Saltbush

On higher area of the Murrumbidgee floodplain and on the side of depressions, channels and old stream beds woodland dominated by Black Box (*E. largiflorens*) occurs.

Shrub species present may include Old Man Saltbush (*Atriplex nummalaria*), Nitre Goosefoot (*Chenopodium nitrariaceum*), Lignum (*Muehlenbeckia florulenta*) and Black Bluebush (*Maireana pyramidata*). Chenopod subshrubs include Ruby Saltbush (*Enchylaena tomentosa*), *Einadia nutans* and Streaked Poverty Bush (*Sclerolaena tricuspis*).

Black Bluebush/Old Man Saltbush

Shrubland or low open-shrubland dominated by Black Bluebush (*Maireana pyramidata*) is present generally in the north and east of the Yanga Reserves on red-brown sandy and loamy duplex soils (Scott 1992).

Associated species include Old Man Saltbush (*Atriplex nummalaria*), Thorny Saltbush (*Rhagodia spinescens*), Ruby Saltbush (*Enchylaena tomentosa*), Bladder Saltbush (*Atriplex vesicaria*), Baldoo (*Atriplex lindleyi*), Fan Saltbush (*Atriplex angulata*), *Atriplex conduplicata*, Short-winged Copperburr (*Sclerolaena brachyptera*) and Grey Copperburr (*Sclerolaena diacantha*).

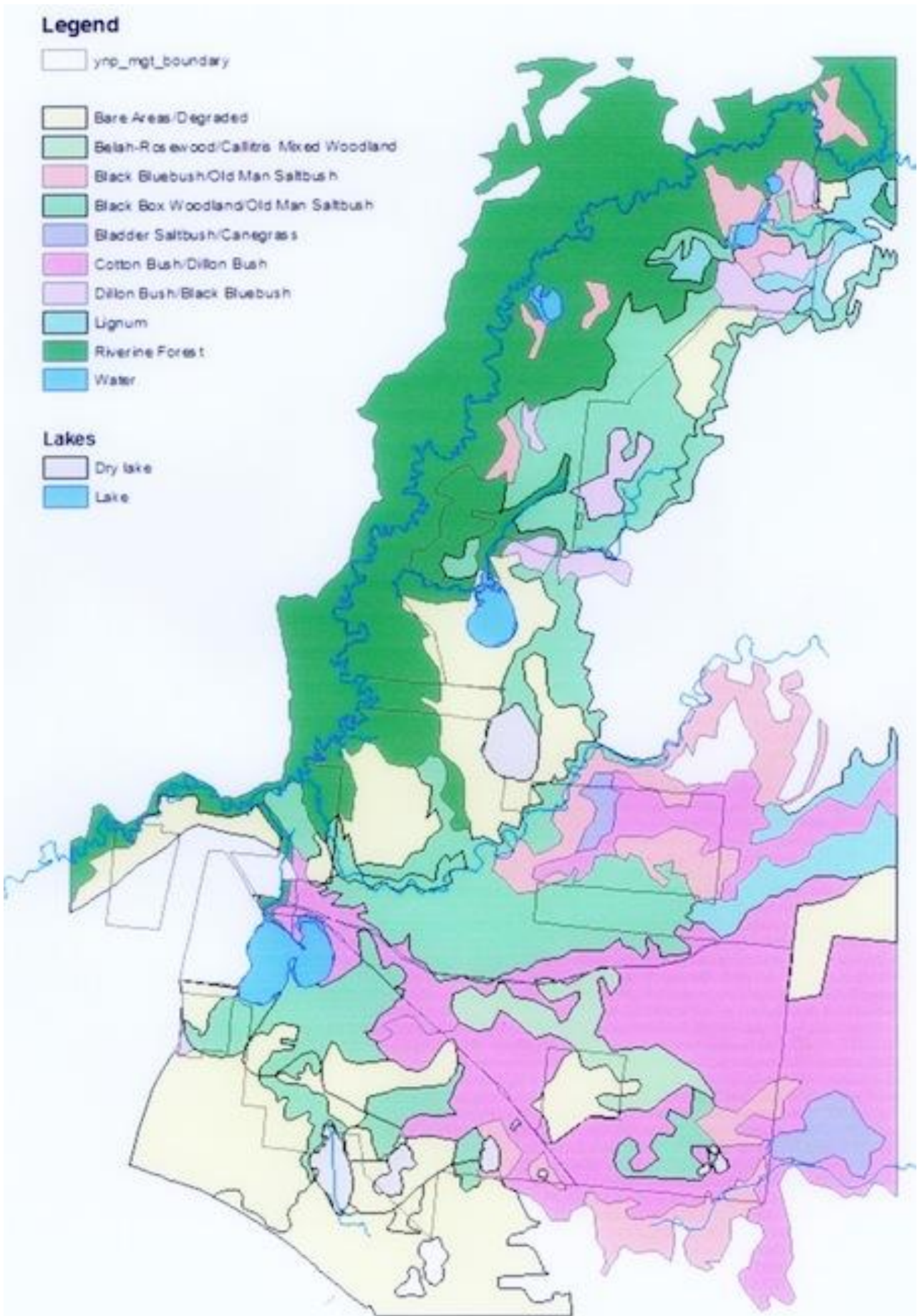


Figure 3.2.1 Vegetation map indicating the vegetation types on Yanga in 2005. Source: NPWS with colours adjusted for clarity by Jeannette Hope.

Bladder Saltbush/Canegrass

Low shrubland or low open shrubland dominated by Bladder Saltbush (*Atriplex vesicaria*) is restricted within Yanga, with the main occurrence being in Yanga Nature Reserve. This vegetation type is associated with red and brown clay or clay-loam soils (Scott 1992).

Associated species include Slender Glasswort (*Pachycornia tenuis*), Twin-horned Copperburr (*Dissocarpus biflorus* var. *biflorus*), Round-leaf Pigface (*Disphyma clavellatum*) and Smooth Daisy (*Brachyscome trachycarpa*).

Cottonbush/Dillon Bush

Low shrubland or low open shrubland dominated by Cottonbush (*Maireana aphylla*) occurs on higher areas, generally in the east of the Yanga Reserves, associated with grey clay soils on flat plains.

Associated species include Bladder Saltbush (*Atriplex vesicaria*), Slender-fruited Saltbush (*Atriplex leptocarpa*), Dillon Bush (*Nitraria billardieri*), Copperburrs (*Sclerolaena* spp.) and Clay Sunray (*Rhodanthe stuartiana*).

Dillon Bush/Black Bluebush

Shrubland dominated by Dillon Bush (*Nitraria billardieri*) is a derived community indicating areas which have been subject to high grazing pressure since European occupation. These areas would previously have supported shrublands dominated by Bluebush, Saltbushes or Cottonbush.

A range of associated species are present including weeds, annual grasses and daisies.

Associated species include *Einadia nutans*, Copperburrs (*Sclerolaena* spp.), Saltbushes (*Atriplex* spp.), Common Sow Thistle (*Sonchus oleraceus*), Spear Thistle (*Cirsium vulgare*), Annual Cat's Tail (*Rostraria cristata*), Red Brome (*Bromus rubens*), Cut-leaf Medic (*Medicago laciniata*) and Burr Medic (*Medicago polymorpha* var. *vulgaris*).

Lignum

Depressions featuring grey cracking clay soils support shrubland dominated by Lignum (*Muehlenbeckia florulenta*). Occurrences within the Yanga Reserves occur to the north of Lake Tala.

Associated species include River Cooba (*Acacia stenophylla*), Bushy Groundsel (*Senecio cunninghamii*), Medics (*Medicago* spp.), Black Roly Poly (*Sclerolaena muricata*), Bathurst Burr (*Xanthium spinosum*) and Spreading Heliotrope (*Heliotropium supinum*).

Bare Areas/Degraded

This vegetation map unit indicates areas which have been subject to cultivation. They now support a mix of exotic species and sub-shrubs such as Copperburrs (*Sclerolaena* spp.).

Water bodies

This vegetation unit is used to delineate lakes and smaller water bodies including creeks and "swamps".

3.1.6 Fauna and Fauna Habitats

Fauna habitat types in Yanga include forests, wetlands including rivers, creeks, lakes and floodplain depressions, woodlands, shrublands and open country. These diverse group of habitats support a diverse range of fauna. The wetlands are particularly rich on those occasions when water is present.

The Lowbidgee Wetlands, of which Yanga forms a part, has supported some of the largest breeding colonies of waterbirds in Australia. The Australian Wetlands Database (1998) indicates that the Yanga area supports threatened waterbirds including Australasian Bittern (*Botaurus poiciloptilus*), Freckled Duck (*Stictonetta naevosa*), Blue-billed Duck (*Oxyura australis*), Painted Snipe (*Rostratula benghalensis*); important breeding colonies of Australian White Ibis (*Threskiornis aethiopicus*), Glossy Ibis (*Plegadis falcinellus*), Straw Necked Ibis (*Threskiornis spinicollis*), Royal Spoonbill (*Platalea regia*), Great Egret (*Egretta alba*), and Intermediate Egret (*Egretta intermedia*).

Species which are listed under the Japan-Australia Migratory Bird Agreement (JAMBA) and / or the China-Australia Migratory Bird Agreement (CAMBA) that have been recorded within the Lowbidgee Floodplain include the Great Egret (*Ardea alba*), Cattle Egret (*Ardea ibis*), Red-necked Stint (*Calidris ruficollis*), Curlew Sandpiper (*Calidris ferruginea*), White-bellied Sea-Eagle (*Haliaeetus leucogaster*), Sharp-tailed Sandpiper (*Calidris acuminata*), Latham's Snipe (*Gallinago hardwickii*), Common Greenshank (*Tringa nebularia*), Marsh Sandpiper (*Tringa stagnatilis*), Black-tailed Godwit (*Limosa limosa*), Bar-tailed Godwit (*Limosa lapponica*), Eastern Curlew (*Numenius madagascariensis*), Caspian Tern (*Sterna caspia*), and the Glossy Ibis (*Plegadis falcinellus*).

Yanga supports a rich diversity of fauna including at least 12 species of frogs, 2 turtles, 10 reptiles, 188 native birds and 18 native mammals, including 12 bats (Australasian Bat Society Survey, March 2009).

At least 16 threatened fauna species are known from the Yanga area. These include 1 frog, the Southern Bell Frog; 1 mammal, the Spotted-tailed Quoll; 1 bat, *Myotis macropus* (first record of species on the Lower Murrumbidgee River) and 13 birds, Blue-billed Duck, Freckled Duck, Australian Bittern, Australian Bustard, Black-tailed Godwit, Major Mitchell Cockatoo, Regent Parrot, Redthroat, Painted Honeyeater, Regent Honeyeater, Purple-gaped Honeyeater, Grey-crowned Babbler and Chestnut Quail-thrush.

3.1.7 Condition of Natural Habitats

The vegetation at Yanga has been responding to climatic change over the last 50,000 years. On top of this human influence has led to changes in the composition and structure of the vegetation.

Aboriginal use of the area would have contributed to vegetation dynamics through selective use of fire, collection of plants for food and utilitarian needs and indirect impacts of hunting on grazing patterns and alterations to fauna populations.

The impact of modern European occupation was more dramatic with vegetation change occurring at a more rapid rate. River Red Gum trees were logged to fuel river boats, for fencing and other uses. This changed the structure of the forests along the Murrumbidgee River with old mature trees being removed. Clearing in the Murrumbidgee catchment and regulation of water and irrigation changed flooding patterns affecting the distribution of vegetation on the floodplain and the patterns of regeneration of the flood dependent River Red Gum seedlings.

Introduction of domestic stock and the spread of feral animals caused reduction in the abundance of palatable species and aided the expansion of species more resistant to grazing pressure. Heavy grazing pressure and severe drought caused soil loss which further changed vegetation patterns. Exotic species were able to invade and spread across the landscape with the change in conditions.

Exotic species are now ubiquitous across the Yanga Reserves. At times exotics dominate the ground layer across significant parts of the floodplain. The structure and composition of shrublands has been changed significantly with a reduction of long lived saltbushes such as Bladder Saltbush and Old Man Saltbush and an increase in grazing resistant species such as Dillon Bush.

This vegetation change and the introduction of a range of feral animals including grazers and predators has led to a shift in faunal populations. Nevertheless the availability in good seasons of extensive areas of fresh water has meant that Yanga has been able to provide habitat for a rich diversity of water birds, as well as the threatened Southern Bell Frog. The forests, woodlands and shrublands similarly continue to provide habitat for a high level of bird diversity.

3.1.8 Cultural Plantings

Yanga Homestead has had a developed garden since its construction. Photos of the garden show that composition of the plantings have changed over the years apparently on the basis of fashion and the needs of management. The garden supplied fresh food for station workers and management, as well as pleasure for residents of the homestead.

The current garden has areas of formal lawn, a variety of plantings and an orchard. Beyond the formal garden beds is an area formerly used for vegetables.

The orchard includes citrus with grapefruit, mandarin, Seville orange and lemon; stone fruit with peach and possibly others; nuts with almond and walnut as well as pomegranate, mulberry, fig, apple and pear trees.

Other plantings in the Homestead precinct include Athel Pines. These were heavily lopped under the oversight of a property manager, but are now regrowing. Athel Pines are a common planting in the southern Riverina to provide shade around farm buildings but are declared a Weed of National Significance. Dog kennels are often placed below Athel Pine trees. Peppertrees (*Schinus ariera*) are also a common planting around stock yards. A large specimen is at the site of the former Kietu head station and is one of the only tangible remains at this site. They do not appear to be spreading to any significant degree.

There are also areas of plantings of dry country eucalypts, including species native to South Australia and Western Australia such as Gimlet (*Eucalyptus salubris*). These are present near the ranger's office and on the sand ridge near the gravesite. (These plantings do not have heritage value)

There is a prominent palm tree next to one of the residences closer to the Sturt Highway and the park entrance.

Buildings in the woolshed precinct have some associated plantings including Peppertrees (*Schinus ariera*), Banksia Rose (*Rosa banksiae*) and Maybush (*Spiraea* sp.). None of these have any particular heritage significance.

Outbuildings across the Yanga Reserves generally do not have any associated plantings. At Waugorah there are plantings associated with continued use of the house. These include food plants and plantings for aesthetic appeal. None are considered to be of particular heritage significance, although they do have an association with use of the area and the people who have lived at Waugorah.

3.2 Aboriginal Heritage

3.2.1 Introduction

This section deals with ethnographic accounts of Aboriginal people at Yanga and the lower Murrumbidgee at the time of European arrival, and the knowledge of past Aboriginal life there from archaeological studies.

3.2.2 An Aboriginal Landscape

In May 1836, Major Thomas Mitchell described a distinctive cultural landscape on the lower Murrumbidgee floodplain created by long and intensive Aboriginal occupation and associated with the cooking of bull-rush (*Typha* sp) root, one of the staples of the traditional residents of the area:

One artificial feature, not observed by me in other places, distinguishes the localities principally frequented by the natives, and consists in the lofty mounds of burnt clay, or ashes used by them in cooking. The common process of natives in dressing their provisions, is to lay the food between layers of heated stones; but here, where there are no stones, the calcined clay seems to answer the same purpose, and becomes better or harder, the more it is used. Hence the accumulation of heaps resembling small hills. Some of them were so very ancient, as to be surrounded by circles of lofty trees; others, long abandoned, were half worn away by the river, which, in the course of ages, had so far changed its bed, that the burnt ashes reached out to mid-channel; others, now very remote from the river, had large trees growing out of them. I saw the first of these heaps, when near the end of the last day's journey along the Lachlan, where the river partook of the reedy character of the Murrumbidgee. I understood that the "Balyan" or bulrush-root, which is the chief food of the natives there, is prepared in those kilns, when a family or tribe are together (15th May 1836).¹

Earlier Mitchell had been shown how bulrush root was prepared:

I found about the fires of the natives a number of small balls of dry fibre resembling hemp, and I at first supposed it to be a preparation for making nets, having seen such on the Darling. Barney the native however soon set me right by taking up the root of a large reed or bulrush which grew in a dry lagoon hard by, and by showing me how the natives extracted from the rhizoma a quantity of gluten; and this was what they eat, obtaining it by chewing the fibre. They take up the root of the bulrush in lengths of about eight or ten inches, peel off the outer rind and lay it a little before the fire; then they twist and loosen the fibres, when a quantity of gluten, exactly resembling wheaten flour, may be shaken out, affording at all times a ready and wholesome food. It struck me that this gluten, which they call Balyan, must be the staff of life to the tribes inhabiting these morasses, where tumuli and other traces of human beings were more abundant than at any part of the Lachlan that I had visited (26th April 1836).

He went on to describe how the roots were gathered, and even what the cakes made using the ground flour tasted like.

The natives gather the roots and carry them on their heads in great bundles within a piece of net. The old man came thus loaded to the fire where the blind child was seated; and indeed this was obviously their chief food among the marshes.

The ...balyan, the rhizoma, ...of the bulrush growing amongst the reeds.. contains so much gluten that one of our party, Charles Webb, made in a short time some excellent cakes of it; and they seemed to me lighter and sweeter than those prepared from common flour.

Peter Beveridge, at 'Tyntyndyer', Swan Hill, recorded information about traditional Aboriginal life on the mid-Murray, lower Murrumbidgee, and also the lower Lachlan and lower Darling rivers, from 1845 to 1868. He gave the following description of landscape, described above by Mitchell, during flooding:

On these wide-spreading reed-beds the blackfellows' ovens are of a larger size, and more numerous, than they are in any other portion of Australia, thus plainly denoting the at one time denseness of the population in that locality, as well as the abundance of food pertaining thereto ...

All over the submerged country, cooking mounds stand up out of the flood, perfect little islands, looking bright and green, and refreshing to the eye, by reason of the great growth of succulent saltbush, dillines [prickly bushes about a metre tall with edible red and yellow berries], and giant mallow with which they are prettily dressed. These oven islands the natives utilise in the flood season for their village sites, conveying their firewood and other requirements over miles of water from the main land in their canoes. A village, or native encampment, will often times remain on one of these tiny islands for a whole month, feasting upon the oleaginous codfish and his congeners, taking ample

¹ Mitchell, 1839, pp. 80-81.

toll from the great Murray lobster ... Aquatic birds, too, of many species, together with their eggs, have to contribute pretty heavily to the aboriginal cuisine, and by way of salad they have the watery ionty, and the bitter sow thistle² ...

These early descriptions show the central place of the floodplain wetlands in the economy and society of Aboriginal people on the lower Murrumbidgee. Floods were times of abundance, and great mobility due to the ease of travel by bark canoe. The lives of the lower Murrumbidgee groups centred on the floodplain wetlands.

Beveridge provides wonderful descriptions of Aboriginal life:

Their food consists of fish principally, and of which for about eight months in the year they have abundance ...

To supplement the fish, they have kangaroo, emu, opossum, and wallaby, and besides these nearly every kind of aquatic bird is found in the greatest profusion on the lakes and lagoons. The latter they capture in immense numbers by the aid of nets, manufactured for that purpose only, and during the breeding season they get eggs by the thousand. The canoes arriving at the camps at that time are literally laden down to the water's edge with eggs only; they are heaped up at both ends until there is barely room for the native to stand and paddle ...

A species of flag, having a farinaceous [floury] root, called by the natives kumpung, grows in abundance by the margin of all the great rivers and lakes; it makes a very palatable and nutritious food, of which the natives are justly fond. It can be procured in abundance, but requires considerable labour to dig ... The flower stem of this flag is also eaten when young; a foot or eighteen inches long is the best size ... the natives are extremely partial to it, and therefore consume it in vast quantities. In its green stage it is termed by the aborigines ionty. The common small flowered yellow water-lily, which so plentifully fringes most of the colonial lakes and lagoons, is another source from whence they derive a desirable addition to their diet. The roots of this plant are formed of many tubers of about an inch and a half long by half an inch in diameter ... They are baked before being eaten, and are of a sweet mawkish taste; very gluey in appearance ... They are called lahoor by the natives.

The sow thistle, dandelion yam, and a trefoil which grows on country which at times is inundated during their respective are consumed in vast quantity ... They eat these herbs in a raw state by way of salad; the ionty is also eaten uncooked.³

In the Swan Hill area Aboriginal people took advantage of the way floodwaters recede off the floodplains through the natural cuttings in the levees to catch fish in large numbers. This was probably common throughout the lower Murrumbidgee.

In the Swan Hill district the Murray runs through an immense area of reedy plains. On the immediate banks of the river, as far as these reedy plains extend, there is an artificial looking dike [natural levee], having an elevation of three or more feet above the plains which shelve away behind it, consequently when the whole of these plains are inundated (which they are five months every year, from August to January inclusive) the dikes referred to act the part of dams, and so prevent the water from receding too rapidly ...

Whilst the waters cover the reedy plains for miles on every side, the various kinds of fish find delectable grounds ... upon which they feed.

In the artificial-looking banks at irregular intervals there are drains three or four feet wide, through which, when the river commences to fall, the waters of the plain find their way back to their parent stream. As a matter of course the fish instinctively return to the river with the receding water. At those seasons the aborigines are in their glory, and no small wonder either, as these times are actual harvests to them. They make stake weirs across the drains, the stakes being driven firmly into the soil within an inch of each other, so that anything having a greater bulk than that space must perforce remain on the landward side of the weir ...

When fish are required a native takes his canoe into the midst of one of these shoals, and harpoons as many as he wishes, or until he becomes tired of the fun.

The water continues to run through these drains for five or six weeks, and during all that time the natives slay and eat to their hearts' content.⁴

² Beveridge, 1889, pp.32-34.

³ Beveridge, 1889, pp.19-20.

⁴ Beveridge, 1889, pp 80-82.

The wetlands provided an array of useful materials for personal adornment, tools, weapons, and transport:

Necklaces were made out of reed segments and 'lobster antennae' (probably from a yabby as lobsters are marine):

*Round the neck both sexes wear strings of reeds cut into sections of an inch long, which when carefully dried, are of a clear pale straw colour, admirably calculated to form an agreeable contrast to their glossy, ebon-hued necks and shoulders. They also make necklets from the antennae of the lobster, which when the fishes have been cooked, are a bright red.*⁵

Reed spears were effective weapons:

*The reed spear is the missile most generally used in their daily foragings ... it is propelled by means of the throwing stick. They kill all the smaller game, such as wallaby, duck, geese, swans, pigeons, &c., with this weapon, and as the spear is remarkably fragile, and easily broken, they commonly carry a bundle of them on their diurnal excursions. This spear is seven feet long, five feet of its length being reed, and the other two feet wood, hardened by fire.*⁶

Twine and cord from three different plants was used to make belts, bands and bags, and nets to catch duck and emu:

Of fibre plants there are three, which are utilised by the aborigines in the manufacture of twine and cord. The Kumpung (Typha Muellera) root [in addition to being a major food source], furnishes the fibre most commonly employed in making the thread from which waist-belts, bow-bands, and bags of all sorts and sizes are netted ...

The Fibre Rush is the next plant from which they procure flax ... From this fibre fishing lines and nets are made, as also nets for taking ducks. It makes a most serviceable netting twine, having the power to resist the rotting influence of water to a great extent; in fact, it is superior in that particular to the common netting twine of commerce ...

Duck nets are usually one hundred yards long by two yards broad, the mesh being four inches wide ... It is stretched across the lagoon, and close enough to the water to prevent the ducks from escaping underneath. In the meantime the young active men of the tribe range themselves at regular intervals along both sides of the lagoon, and high up amongst the branches of the trees with which the margin is fringed, those in the trees having each a light disc of bark about seven or eight inches in diameter. When they are all properly settled, one who has been sent off for the purpose startles the ducks. As is natural with these birds, the moment they put to flight, they fly off along the lagoon ... Should it happen ... that they wish to leave the course of the lagoon ... one of the natives in the trees nearest the flying birds whistles like a hawk, and hurls the disc of bark into the air ... a simultaneous stoop is made down close to the surface of the water to escape their fancied enemy ... Scores and scores of ducks are captured in this manner every season ...

*The next and last of their cord-making plants is the giant mallow. The fibre from this plant is of much coarser nature than those already described; therefore it is only employed for making very thick cord, which afterwards is worked up into nets for capturing emus.*⁷

Transport on the river, creeks and flooded country was by bark canoe:

Their canoes are made from the bark of the redgum tree ... In making these vessels, trees with natural bends are chosen, as curves so obtained precludes the necessity of having to use fire to give the required rise, stem and stern ...

According to the size of the canoe required, so is the tree selected from which to take the bark. Heads of families generally have vessels large enough to convey all their families and requirements at once. Bachelors ... usually content themselves with vessels of much less capacity, finding such more suited for pursuing aquatic birds during the moulting season, thousands of which they capture in their then helpless condition. In harpooning fish too, the small canoe is found most manageable.

*The natives inhabiting districts where large rivers or lakes abound, hold their canoes in higher estimation than they do any other of their possessions.*⁸

5 *ibid*, p 29.

6 *ibid*, p.61.

7 *ibid*, pp70-79.

8 Beveridge, 1889, pp 64-65.

3.2.3 Aboriginal People on Yanga, 1846

For Yanga itself, the only early account of Aboriginal life is that of George Augustus Robinson in 1846. Robinson had been Protector of Aborigines in Tasmania in the 1830s, and was Chief Protector of Aborigines in Victoria from 1839-1849. In 1846 he made a trip through NSW and SA, crossing the Murray at Swan Hill and proceeding past Yanga Lake to Lake Tala.⁹ Here he stayed with Mr Walker and Mr Goodfellow, '*the gentlemen of Mr Wentworth's establishment*'.

Robinson's journal entry for 2nd May 1846 describes visits to native graves and camps at Tala. His description is included in section 2.2.3 of this CMP and, as noted there, explorers Oxley¹⁰ and Mitchell recorded similar graves along the Lachlan and Murrumbidgee Rivers. Robinson is the first to record the names of the tribes in this area including the tribes in what is now the Yanga Reserves (1st May 1846) (see section 2.2.3).

3.2.4 Language

Robinson was nearly correct when he wrote '*Watty Watty and Mutte Muttee same language, difference in name*'. They are closely related and part of the Kulin Language Group.

Linguist Luise Hercus' work on the languages of Western Victoria and western New South Wales, the most detailed account we have, shows that the western part of the Murrumbidgee was home to two language groups:

The Kulin Language Group

The Wathi Wathi, Mathi Mathi, Nari Nari and Wemba Wemba belong to this group. (The name Kulin was introduced by linguists, derived from the word kulin, for man). This language group is mainly western Victoria, and only a small number of the languages occur north of the Murray. Mathi Mathi and Wathi Wathi are very similar to each other, and differ from other languages in the group (Hercus 1989).

The Murray River Language Group

The languages in this group are quite unlike any other language group in western NSW or Victoria. The languages Yita, Yita, Yota Yota, and Pangerang lie in the western Riverina area, but other languages along the Murray such as Tati Tati also belong to this family.

The earliest records, notably Robinson, suggest that Mathi Mathi was a relatively small group focussed at the junction of the Murrumbidgee and Murray, and the Wathi Wathi were immediately north along the Murrumbidgee taking in Yanga. These two groups probably met near the present day town of Balranald. The Wathi Wathi's neighbours to the north, around the Lachlan-Murrumbidgee Junction, were the Yita Yita whose country also extended out towards the Willandra Lakes. Further north and east were Wiradjuri speakers, whose country extended to the edge of the Blue Mountains. The most westerly of this group are the Ngiyampaa or Wangaaaybuwan, who speak a dialect of Wiradjuri.

The differences between Murray River Languages and other language families in the region is striking. In 1836, when Mitchell reached the Murrumbidgee close to its junction with the Lachlan, it became clear that they had reached a major language change, when his Wiradjuri speaking guide, Piper, from the Bathurst area could not understand the locals:

Immediately after him followed a grey-haired chief (of whom I had heard on the Lachlan) and two others. It appeared however that Piper did not at first understand their language, saying it was "Irish"; but it happened that there was with this tribe a native of Cudjallagong (Regent's lake) and it was rather curious to see him act as interpreter between Piper and the others.

The Murray River Languages are distinctive in their sound system, having clusters of consonants, with words often ending in consonants, unlike most other languages in the area. There are also many monosyllabic words. This makes it relatively easy to identify placenames that derive from Murray River languages such as Yita Yita. On and near Yanga for instance, names such as Monkem, Nap Nap, and Towpruck, the original name of Oxley, are probably Yita Yita.

Other early Europeans recorded information about the Aboriginal inhabitants of the lower Murrumbidgee. In 1854 Thomas Goodwin, a missionary based at Yelta, near Wentworth, also placed the Mathi Mathi near the junction of the Murrumbidgee and Murray:

⁹ Clark, 2000.

¹⁰ Oxley, 1820.

I find the natives most numerous between the junction of the Murrumbidgee with the Murray, and the South Australian boundary. ... At the junction of the Murrumbidgee...is the Muttee Muttee tribe, numbering from 100 to 150 individuals. Next the Taatee Taatee tribe 200 to 250, the Kulkyne tribe about 150, and a tribe on or near the boundary about 100. The first four tribes occupy both sides of the river, but at and below the junction of the Darling the north bank is occupied by the Junction blacks, the Ana Branch blacks, the Lake Victoria and Rufus blacks, each tribe numbering from 100-200 individuals. (Goodwin in Massola 1970).

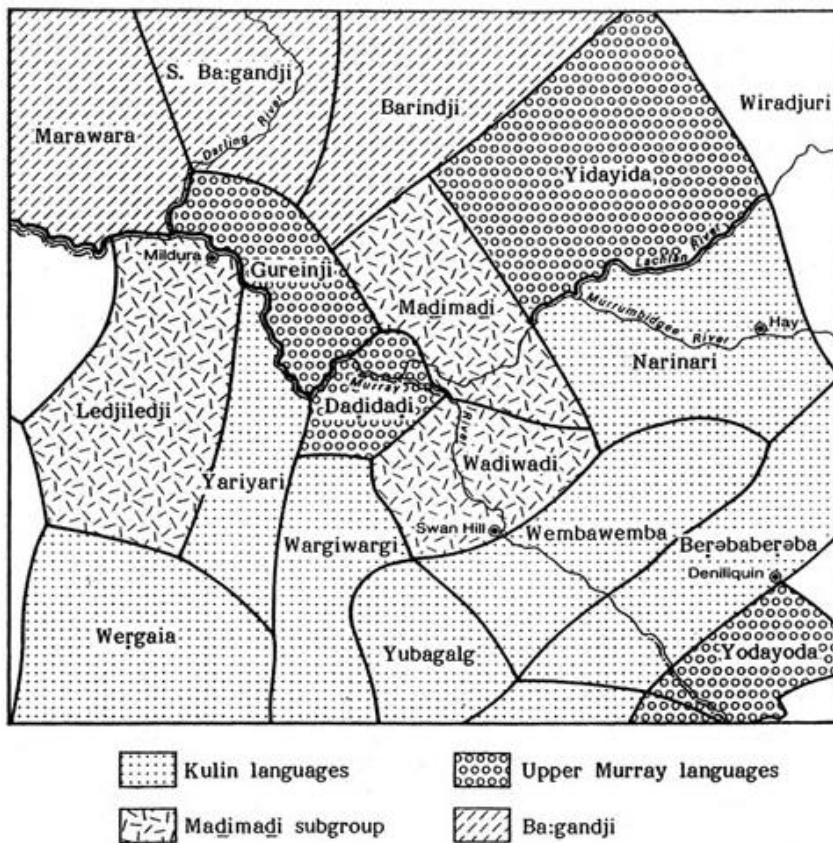
Alf Cameron was station manager at Mulurulu, Moolbong and Murrumbong stations on the upper Willandra Creek from before 1880 until 1901. He recorded and published much information about Aboriginal tribes and marriage customs in the area. He seems to have mainly talked to Aboriginal people from further east – Ngiyampaa, Yitha Yitha, and Wathi Wathi. His main informant was a 'Watu Watu' (Wathi Wathi) man named Makogo. On 4th October 1881, Cameron wrote a detailed comment on the tribes of the Lachlan-Murray area, based on information given by Makogo:

The territory of tribes puzzles me a good deal, and it seems to me that there is in this part of Australia no arbitrary bounds for a tribe or else as I have suggested in my notes on the 'Wonghi' many divisions of a tribe of minute territory have different names. I have made a very rough attempt to sketch the boundaries of different tribes or clans of tribes about here.

My informant is a man of 50 years of age and very intelligent. He gives me the following tribes as being on friendly terms with each other Wonghi, Berryit, Kalkugal (occupying country north-west of Balranald) ie. Kalkugal occupies it.) 'Warradjerry' a Lachlan tribe 'Barkunji' on the Darling, Watu Watu, 'Muthi Muthi' a Murrumbidgee tribe below Balranald and 'Tahtaathi or Tahtaatee' the tribe living about Euston. My informant is Watu Watu though now living in Berryit territory. He told me that he was 'Narrinyarri' as well as Watu Watu and he has promised to try and get me invited to a Bora which they talk of holding in a few months and allow me to see the initiation. I should not mind being initiated myself even at the risk of losing a tooth. My opinion is that each is a separate tribe with some bond of union between them all and that according to the distance separating them is the amount of intercourse between them. He told me that the Swan Hill tribes occasionally came among the Watu Watu.



Figure 3.2.2 Cameron's 1905 map of the Aboriginal tribes of western NSW.



Map 3: Language map of N.W. Victoria and adjoining parts of N.S.W.

Figure 3.2.3 Luise Hercus' map of language distribution in western NSW.

3.2.5 Aboriginal Heritage at Yanga - Archaeology

There has been very little investigation and recording of Aboriginal heritage places and sites in the area of the former Yanga Station. The aims of this review of Aboriginal heritage places of Yanga Reserves are:

1. To look at what is already know about the heritage places, by analysing the existing site records.
2. To identify gaps in the data.
3. To assess the significance of the Aboriginal heritage of Yanga as far as is possible.
4. To recommend future investigation and strategies to improve and extend the knowledge of Aboriginal heritage.
5. To recommend management practises and conservation priorities for Aboriginal heritage.

The existing record of Aboriginal sites at Yanga is here analysed in detail. Such an analysis has not previously been done, although there have been two surveys carried out since Yanga was acquired as a National Park. The purpose is to provide a reliable database of previous work, before considering strategies for future investigation and management.

The analysis below covers a geographic area wider than Yanga NP, Yanga NR and Yanga SCA. It includes the full area of the 19th century Yanga Station, which extended all the way to the bank of the Murrumbidgee from the northern to the southern extent of the property and south to the Edward River. It also includes some sites along the Murrumbidgee which are relevant to Yanga.

The records fall in to two groups.

1. Studies carried out between 1975 and 2001, before the property was acquired and gazetted as a National Park. This includes an important study on the Riverine Plain carried out in 2001 by Martin and Pardoe¹¹, the site records from which have not yet been included in DECCW's Aboriginal Heritage Inventory Management System (AHIMS).
2. A number of studies carried out by DECCW staff, members of the local Aboriginal community, and consultants since 2006.

¹¹ Martin and Pardoe 2001.

Both sets of data have problems, ranging from duplication of site records, records based on oral information without field location of sites, inaccurate coding of site data in AHIMS, inconsistency in site terminology between studies, lack of registration of sites in AHIMS, incomplete records, lack of hard copy records, and unfinished reports. The following analysis has been based, where possible, on hard copy site records and cross-checking of reports.

The discussion below aims at identifying the information that seems to be reliable. For each survey, the problematical sites are noted. In the tables below, *Feature* is the coding for the site in AHIMS, while *Site Type* is the term used by the person who did the recording. There are a number of discrepancies between the two, and in subsequent site type groupings used for producing the maps (eg mound, midden), the site type given by the recorder is used, where that is available, rather than the feature coded in AHIMS. The grid coordinates for the sites are not included in the tables below.

The AHIMS Feature codes are:

ACD	– Aboriginal ceremony and dreaming
BOM	– Bone and organic material
BUR	– Burial
CMR	– Ceremonial ring
ETM	– Earth mound
FSH	– Fish trap
HTH	– Hearth
PAD	– Potential Archaeological Deposit
SHL	– Shell
STA	– Stone arrangement
TRE	– Modified tree

3.2.6 Pre-National Park Records

3.2.6.1 Sites of Significance Survey, 1970s

In the mid-1970s, Sharon Sullivan, head of the Aboriginal Heritage unit in NPWS, initiated the Sites of Significance Program in NSW. For the first time in Australia, Aboriginal people were employed to record their heritage, and they started by visiting rural communities and talking to Aboriginal Elders about places of significance to them.

In 1975-76, Aboriginal Sites Officers Ray Kelly and Glenn Morris, with NPWS Anthropologist Howard Creamer, visited Balranald. The sites listed below lie mainly along the Murrumbidgee River, outside Yanga NP, but they are included because of their importance to the heritage of the park. These early site records are the most detailed and thorough for the area. Some information is given below for each site.

Table 3.2.1 Sites of Significance Program Records 1970s

AHIMS No.	Site name	Date	Feature	Recorders	Site types
47-6-1	Balranald Fish Traps	1976	FSH	Kelly, Morris	Fish Trap
47-6-2	Balranald Mission Cemetery and Island	1974	ACD, BUR	Creamer, Kelly, NPWS, Kelly	Burial/s, Contact, Mission
47-6-3	Balranald Dippo Ceremonial Ground		CMR	ASRSYS	Bora/Ceremonial
47-6-5	Balranald Island Burial		BUR	Morris, NPWS, Kelly	Burial/s
47-6-6	Balranald Burial Grounds		BUR, TRE	ASRSYS	Burial/s, Scarred Tree
47-6-4	Yanga Lake Burial Site		BUR :	Morris, Kelly	Burial/s

Balranald Fish Traps

The Fish traps are approx. 3¼ km SW of Balranald, just south of the Mutti Daddi Reserve, and on a bend at the SW corner of Portion 17. At the time of recording, lines of rocks were visible (and were photographed) in the Murrumbidgee, but the semi-circles described by informants Mr and Mrs Alf Kelly could not be identified because of high water level. In 1977 the traps were visited by NPWS archaeologist Kate Sullivan. Again water was high, but she recommended sampling the rocks, and regular observation and photographs by NPWS staff. There is no record with the site card as to whether this was done.

Balranald Mission Cemetery and Island

The name of this site in AHIMS is confusing. In fact it is the historic Aboriginal Cemetery east of Balranald, but on the west side of the Murrumbidgee. It is not 'The Island', land reserved for Aborigines in 1892, and now in ownership of BALC. In 1974 the site was fenced and contained about 70 graves. The site card states that the cemetery is on the road 'that leads to the old Aboriginal Mission'. The Mission (The Island) is in fact on the other side of the river, and it appears that the recorders, Creamer and Kelly, did not actually visit it.

Dippo Ceremonial Ground

This site was recorded in 1976 by Glen Morris and Ray Kelly, with the aid of Mr Alf Kelly. It is a flat on a river bend about 900m SE of Balranald Hospital. There were 'no actual markings of the ceremonial circles to indicate that an initiation had taken place', but some evidence (unstated) that it had been used as a campsite. Mr Alf Kelly indicated that his family would like NPWS to acquire the place and that the site be cleared for use as a picnic area. Morris and Kelly recommended declaration as an Aboriginal Place under the NPW Act, that a sign be erected and an area set aside as a picnic ground. In discussion with Bes Murray, in 2010 it was suggested that this site was actually a depot associated with river trade and the word had been incorrectly transliterated.

Balranald Island Burial

In 1976 Glen Morris visited the Island, reaching it from Balranald via River Street, then crossing the Murrumbidgee by boat. He recorded a burial, but did not give any details on the site card, as it was a secret burial of a nguloogurra (clever man). Further details were included in the Sites of Significance report (not seen during this study). He did not include the name of informants on the site card, but there is a photo of a lady who is probably Mrs Alice Kelly.

Balranald Burial Ground

This site is on the west bank of the Murrumbidgee, but is included here because it is close to the Fish Traps. In 1975, a human metatarsal (foot bone) was found in scree in the mined area of a sandhill close to the riverbank. Informants Mrs Alice Kelly and Mr Ron Murray advised NPWS that they had always been told the sand dune was a burial site, and that bones were known to have washed out in floods and had also been found during sand mining. Balranald Shire Council had in fact stopped sand mining some years earlier. The paperwork generated by the issue is attached to the site record.

Yanga Lake Burial Site

This was recorded by Glen Morris in 1976, with information from Mrs Alice Kelly. The site card says the burial is at Pelican Point, the southern point between the two basins of Lake Yanga, but the sketch map places the site not at the point, but along the southern shore of the western lake basin. Morris did not actually visit the site. He gives instructions of how to drive to the disused boat shed on the western side of Lake Yanga; from there it was necessary to go 'by boat for 2 kilometres heading south east to Pelican's Point'. But he writes: 'it wasn't possible to visit the burial sites on Pelican's Point as at the time a boat was not available'. Morris also wrote:

Pelican Point burial site is significant to the Aboriginal people of Balranald, as their ancestors were buried there. During the 1880's in the far south west of NSW, the rabbit became a serious pest and the only means of extermination was by poisoning. The early white settlers in the area used to poison the fruit and vegetables and put them in the field for the rabbits. Apparently the Aborigines used to pick up the fruits and eat them. One only wonders how many unwarned Aborigines died an untimely and horrible death. According to our main informant, Mrs Kelly of Balranald, her grandmother died of a poison apple and is buried at Pelicans Point.

The information on the poisoning comes from the article written by Luise Hercus and Isabel M. White, 'The Last Madi Madi Man'. In 1965, Luise Hercus recorded 'the last Madi Madi man', Jack Long (also known as Jack Edwards):

I lost my mother when I was a little fellow baby; she got poisoned in them early days. They used to poison the potatoes, fruit and all that, and put them out for the rabbits; it killed a lot of rabbits too, rabbits were so bad; and she happened to eat one somehow or other and she passed away.¹²

Luise put Jack's date of birth c1872 near Balranald; in his childhood his family lived on stations on both sides of the river: Kulkyne (Vic) and Canally, Yanga and Moulamein (NSW). Where his mother (Bindul) died is not recorded.

¹² Hercus and White, 1971.

Only one of the above sites, Yanga Lake Burial, is actually on Yanga, but because Morris did not visit this site, and so the site card location is uncertain, it is not included in later maps and analysis of site distribution.

3.2.6.2 Women’s Sites Survey, 1994

In 1994 Vanessa Edmonds did a small project funded by a National Estate Grant Project on Aboriginal Women’s Sites. She recorded five sites on Yanga or along the lower Murrumbidgee, based on field trips with Mrs Alice Kelly and her daughter Mary Pappin, and an interview with Mrs Joan Sampson (Mrs Kelly’s sister). The project was aimed at using up some money from the NEG grant, and there was no report.¹³

In AHIMS there are seven site numbers attributed to this project, but this is because two sites are double entered. Edmonds recorded sites on forms specially prepared for the project, and the mix-up appears to have happened because the same project site card was attached to both the old and new AHIMS site cards, and each site was registered as two different sites.

Table 3.2.2 Women’s Site Survey Records 1994

AHIMS No	Site_Name	Feature	Recorders
47-6-0035	Yanga Homestead Midden & Burials/Pelican Point	AFT, BUR, ETM, SHL	Edmonds
47-6-0036	Nutya	ACD	Edmonds
47-6-0037	Condouple	BUR	Edmonds
47-6-0038	Yanga Poison Trees	TRE	Edmonds
47-6-0041	Condoulpe Creek	BUR	Le Maistre
47-6-0042	Yanga Homestead Midden Burial	BUR	Edmonds
47-6-0043	Ghnuther Hole	CFT, WTR	Edmonds

Yanga Homestead Midden and Burials/Pelican Point (47-6-35) and Yanga Homestead midden burial (47-6-42) are based on the same project site card. From the sketch in Edmonds’ project site card it appears that the material at Yanga Homestead (on the top of the cliff behind the sheds) was just shell midden. To add to the confusion, the site is coded as ETM, earth mound, in the AHIMS digital database, but Edmonds makes no mention of this, and based on personal observations, there are no mound sites in the Yanga Homestead area.

Edmonds does not seem to have visited Pelican Point, but on the Yanga Homestead site card, mentioned burials at Pelican Point based on Mrs Kelly’s advice. The ‘Pelican Point’ area, not a specific site, is marked on the map attached to the Yanga Homestead project site card. As noted previously, Morris recorded burials at (or near) Pelican Point in 1976, again based on Mrs Kelly’s advice, but did not visit the site.

Condoulpe (47-6-37) and Condoulpe Creek (47-6-41) are also based on the same site card. It is not clear whether Edmonds visited this site, since there is no sketch or description; she was told of it by Mrs Kelly, who in turn had been told of it by Bes Murray’s brother.

Edmonds did visit site 47-6-0038 with Mrs Kelly. On the project site form the site is named Yanga Poison Trees (Massacre site), and the site card says: ‘Tree marks spot where Aboriginal people killed by Europeans.’ In 2009, Jeannette Hope visited this site with Bes Murray. It is beside the old Sturt Highway on the west side of Yanga Creek. Sections of bark have been removed from several trees, and cuts on the trees show a steel axe was used. According to Bes Murray, the removed bark was placed on the ground, the inner side painted with poison, and the rabbits died after chewing on the bark.

Aboriginal people certainly died due to poison intended for rabbits, but because of the method of poisoning using the bark of these trees, this is probably not a site where Aboriginal people were poisoned on Yanga. Because of the problems with these site records, only the Yanga Homestead Midden is used in any of the later maps and analyses of site distribution on Yanga. All locations warrant re-investigation.

3.2.6.3 RTA Surveys: Edmonds 1993, Johnston 1993, 1996

In 1993, Edmonds surveyed the roads approaches, bridge site and gravel storage pit sites for the new bridge on the Sturt Highway over Yanga Creek for the Roads and Traffic Authority (RTA).¹⁴ She recorded six Aboriginal sites: four scarred trees and two shell middens. All four trees were black box, three were living. Two scars were small and oval, 44 and 67cm respectively, the other two were longer, 150 and 250 cm.

¹³ Edmonds, pers.comm.,2010.

¹⁴ Edmonds, 1993.

The shell middens were in poor condition. YC Midden 1 was 27x27 cm, exposed in a dirt track; YC Midden 2 was a low density scatter of shell 24m long and 12m wide. No artefacts were found associated with either midden. This detail is necessary, because the AHIMS digital record incorrectly codes both these sites as AFT – artefact, and ETM - Earth Mound, as well as SHL – Shell. In 1994 NPWS issued Consents to Destroy for the two middens and Yanga Creek Scarred Tree #4.

Table 3.2.3 RTA Survey Edmonds 1993

AHIMS No.	Site_Name	Feature	Recorders	Site Type
47-6-0021	Yanga Creek Scarred Tree #3;	TRE	Edmonds	Scarred Tree
47-6-0022	Yanga Creek Scarred Tree #2;	TRE	Edmonds	Scarred Tree
47-6-0023	Yanga Creek Scarred Tree #1;	TRE	Edmonds	Scarred Tree
47-6-0024	Yanga Creek 1;YC-1;	AFT, ETM, SHL	Edmonds	Midden
47-6-0025	Yanga Creek Midden 2;YCM-2;	AFT, ETM, SHL	Edmonds	Midden
47-6-0026	Yanga Creek Scarred Tree-4;YCST-4;	TRE-	Edmonds	Scarred Tree

In 1996 DECC archaeologist Harvey Johnston recorded three more scarred trees along the Sturt Highway. This was done as an assessment of the RTA's pruning of trees along the road. Note that in spite of the similar names, these are different scarred trees from the ones recorded by Edmonds. Included in this set is a scarred tree recorded in 1993 on the track from the highway to Yanga NR. Two of the four trees are specified as black box; the others probably are as well, since this is black box woodland.

Table 3.2.4 Johnston's 1993 and 1996 records

AHIMS No	Site_Name	Date	Recorders	Site Type
47-6-0027	YC1; Yanga Creek;	1996	Johnston	Scarred Tree
47-6-0028	YC2; Yanga Creek;	1996	Johnston	Scarred Tree
47-6-0029	Yanga Station Scar Marked Trees; Yanga Station;	1993	Johnston	Scarred Tree
47-6-0030	YC3; Yanga Creek;	1996	Johnston	Scarred Tree

3.2.6.4 Martin and Pardoe 2001

In 2001, Martin and Pardoe undertook a cultural heritage study of the Murrumbidgee Province for NSW NPWS.¹⁵ The study covered the entire Riverine Plain, including Yanga Station on the western side. It was prompted by a report for NPWS which noted that:

Many sites on both public and private land are unrecorded. The obvious lack of data, remaining bias in the data set and the inability to further document areas of interest or to rank sites of significance means that the sites within the [NP&WS] Register are not sufficiently comprehensive to include in an analysis which requires the setting of conservation targets.¹⁶

Martin and Pardoe provide an excellent coverage of the environment, the historic coverage of the life of the people of the Riverina, and the nature and reasons for the limited amount of site records and their biases.

They developed a systematic survey strategy with survey quadrants sampling areas on the following criteria:

- *Survey quadrats should be on all of the micro-environments in the study area: plain, swamp, flowing and still water edges.*
- *They should be on all the main geomorphic units in the study area: alluvial floodplains of both Shepparton (older) and Coonambigal (younger) formation, levees, lunettes and source-bordering dunes.*
- *They should cover different modern land use areas.*
- *They should be randomised within areas defined by the preceding criteria.*
- *The survey must incorporate areas of significance or interest to Aboriginal people (encompassing prehistoric, historic and contemporary).*
- *The survey quadrats must be on a scale commensurate with the size of the archaeological features. In practice this meant that survey quadrats had to be large enough to include a reasonable number of the largest features in order to estimate density, distribution and spatial*

¹⁵ Martin and Pardoe, 2001.

¹⁶ Eardly, 1999.

relationships (if any) between these features and the surrounding landscape. The features of main concern were mounds, other occupation localities and burials/cemeteries.

A total of 61 sample areas (quadrats) were surveyed in April-May 2001. At the start of the study, the Sites Register contained 307 sites, and an additional 347 were recorded. The short time frame and the large area meant there were limitations to the survey in spite of the strong strategy, and priority was given to mounds, scarred trees and burials. Few small sites were recorded (only two artefact scatters), and few shell middens, because very few of the quadrats were near flowing water, larger billabongs or lakes.

In spite of these limitations, Martin and Pardoe recorded sites on and near Yanga Station. Survey quadrats were on Goolparle Station (Lake Tala), and Yanga Nature Reserve. Sites were also recorded at Aboriginal-owned Auly Station, north of Balranald and west of the Murrumbidgee, and at Yanga Lake. Some previously recorded sites were revisited and re-recorded including the Balranald Fish-trap and the Dipppo tree near Balranald.

None of the site records from Martin and Pardoe's survey are in AHIMS (including the re-recordings of the Balranald Fish-trap and Dipppo Ceremonial Ground). This means that details of individual sites are not available, beyond the data given in Tables 5 and 6 following. This data is not included in the public version of the 2001 report, and was provided by DECC archaeologist Harvey Johnston for this report.

Table 3.2.5 Martin & Pardoe's Records, Goolparle 2001

Site Nos	Site Type	Date	Landscape
84- 85	shell midden	28/04/2001	Plain with depressions
86	scarred tree	28/04/2001	Plain with depressions
87	shell midden	28/04/2001	Plain with depressions
88	dinner camp	28/04/2001	Plain with depressions
89	mound	28/04/2001	Plain with depressions
90-93	dinner camp	28/04/2001	Plain with depressions
205	burial	28/04/2001	Plain with depressions
206	shell midden	28/04/2001	Plain with depressions
207	shell midden	28/04/2001	Lake
208	midden	28/04/2001	Lake
209	Scarred tree	28/04/2001	Lake
210	Scarred tree	28/04/2001	Lake
211	Mound	28/04/2001	Lake
212	Scarred tree	28/04/2001	Lake
213	midden	28/04/2001	Lake
214	midden	28/04/2001	Lake
215	oven	28/04/2001	Lunettes >650m

Table 3.2.6 Martin & Pardoe's Records, Yanga NR and Sturt Highway, 2001

Site No.	Location	Site Type	Date
71	Yanga NR	Open site/artefact	26/04/2001
72	Yanga NR	Open site/artefact	26/04/2001
73	Yanga NR	Isolated artefact	26/04/2001
223	Yanga NR 1.1	Mound	26/04/2001
224	Yanga NR 1.2	Mound	26/04/2001
225	Yanga NR 1.2	Hearth	26/04/2001
226	Yanga NR 1.2	Hearth	26/04/2001
227	Yanga NR 1.2	Oven	26/04/2001
228	Yanga NR 1.2	Oven	26/04/2001
229	Yanga NR 1.3	open site/artefact	26/04/2001
230	Yanga NR 2.1	Mound	26/04/2001
231	Yanga NR Fenced site	Mound	26/04/2001
232	Yanga NR Fenced site	Burial	26/04/2001
233	Yanga NR Fenced site	Open site/artefact	26/04/2001
234	Yanga NR Fenced site	Mound	26/04/2001
235	Yanga NR	Mound	26/04/2001

236	Yanga NR	Mound	26/04/2001
237	Yanga NR	Open site/artefact	26/04/2001
125	Sturt Highway	mound	7/05/2001

(Yanga NR – channeled plain; Sturt Highway – plain with depressions)

Martin and Pardoe are quite specific about the terminology they use.

Middens are extensive scatters of mussel shell. At Tala Lake they were part of a continuous band of occupation around the margin of the lake. *Dinner camps* were small collections of between 5-20 mussel shells or valves, stacked or in a small area in or near the remains of a fire.

Hearths were surface features, not dug into the ground and normally without heat retainers. *Ovens* were generally larger than hearths, with heat retainers, either scattered on erosion surfaces or clumped in situ, with ashy deposit. Ovens were deeper than hearths, dug into the ground for cooking food in the ground.

Mounds develop from ovens, the result of many ovens being dug and cooked in, so that over time the clay heat retainers, ash, charcoal and food remains build up.

For Goolparle, around the shores of Lake Tala, of the 21 sites recorded, there were 8 middens (38%), 5 dinner camps (24%), 4 scarred trees (19%), 2 mounds (10%), 1 oven (5%) and 1 burial (5%). For comparison with other data, the middens and dinner camps should be considered as middens, and the oven as a hearth.

For Yanga NR, of the 18 sites, 7 were mounds (39%), 6 were open sites (artefact scatters, an isolated artefact) (33%), 4 were oven/hearth (22%), and there was one burial (5%). The Sturt Highway site was a mound.

3.2.7 Post-National Park Records

3.2.7.1 Brettschneider 2006

Mark Brettschneider, Aboriginal Heritage Conservation Officer (AHCO) in the DECCW Hay Office, recorded a number of sites in 2006, before the 2007 DECCW Survey in which he also participated. Five sites were recorded in the Waugorah area, two scarred trees, one ring tree, one mound and one hearth. Three sites were recorded on Yanga Creek, two mounds and a scarred tree. Note that the coordinates given for Yanga Creek Mound 2 place it in Balranald, not on Yanga Creek.

Table 3.2.7 Brettschneider's Records 2006, Yanga NP

AHIMS Site No	Site Name	Feature
47-3-0015	Waugorah ring tree	TRE
47-3-0016	Waugorah Scarred tree 1	TRE
47-3-0017	Waugorah Scarred tree 2	TRE
47-3-0018	Waugorah Mound	ETM
47-3-0053	Waugorah Tower	HTH
47-6-0058	Yanga creek mound 1	ETM
47-6-0059	Yanga Creek mound 2	ETM
47-6-0060	Yanga creek scarred tree	TRE

Of the eight sites recorded, 4 were scarred trees (50%), 3 were earth mounds (40%) and 1 was a hearth (10%).

3.2.7.2 Kelly and Ridge 2007

In 2007 an Aboriginal site survey undertaken in Yanga NP by a team of DECCW staff from the Culture and Heritage Division, led by Mick Kelly, and members of the local Aboriginal community. Mal Ridges wrote a short internal report on the survey in 2008.¹⁷

The stated purpose of the survey was to:

- Increase knowledge about Aboriginal sites on the park*
- Mitigate potential areas of development for recreational use (day-use + camping)*
- As a training exercise in the use of PDA's for site recording*
- Ground-truthing and refinement of archaeological predictive models*

The lack of knowledge about the Aboriginal heritage of the area was recognised. According to Ridge, only 21 sites had previously been recorded, most around Yanga Homestead. He appears to have been unaware of the survey done by Martin and Pardoe in 2001. In particular there was an immediate need to investigate areas where camping and picnicking areas were being planned for the new park.

Five areas were surveyed as ground foot traverses. The site names used in each survey were based on the paddock in which they occurred. The survey areas were:

1. Murrumbidgee riverbank at Waugorah, at the northern end of the park, for a possible camping area. (Hill Paddock)
2. Murrumbidgee riverbank at Yanga Woolshed, for a possible camping area. (Lower Boundary Paddock)
3. Northern shore of Yanga Lake, an area of potential high impact area adjacent to homestead. (Horse Paddock and Yanga Lake)
4. Area south of Yanga Lake, under consideration for sale at that time. (Condoulpe)
5. Area at south of park, as a sample of previously unsurveyed country. (Lintot Lake)

The recording was done using PDA's – Personal Digital Assistants. These were connected to GPS, so recorded map coordinates directly. The data fields on the PDA were those on the AHIMS site cards. The following plan shows the location of the five sites.

¹⁷ Ridge 2008

Figure removed

This figure includes sensitive information about Aboriginal cultural heritage which is not available to the public without prior permission from the Aboriginal community.

Figure 3.2.4 Aboriginal site survey. The map shows the five areas surveyed by Kelly and Ridge in 2007. Sites mapped by Jeannette Hope.

A total of 337 sites attributed to this survey appear on the digital list produced by an AHIMS search (after excluding records listed in the digital data as 'not a site'), but only a small number of these are actually represented by hard copy site cards. Inspection of these shows that the data available is extremely limited, mainly site type and grid coordinates. Many hard copy site cards have data fields reading 'no data recorded' or 'no photo'. There is limited information about the landscape type, although this can be deduced from the position of the sites on the aerial imagery.

What the Kelly–Ridge survey does give us is a better statistical sample than the earlier records, one which can be analysed with respect to broad landscape types. Table 3.2.8 gives the breakdown of site numbers and types by paddock. This grouping is used because the sites were named by paddock (eg Hill 1, Hill 2), with the exception of some around Yanga Lake. The paddocks then are grouped by landscape. As well as the main survey areas listed earlier, there were a small number of sites recorded from other paddocks in the southeast of the property. Note that not all the areas surveyed are within the Yanga Reserves.

The sites were recorded as open sites and defined by the AHIMS features: TRE: Modified tree; HTH: Hearth; SHL: shell; ETM: earth mound; BUR: burial; AFT: artefact; STA: stone arrangement; BOM: bone and organic material; PAD: potential archaeological deposit. The site type numbers and percentages add up to more than the totals because a site may be coded by more than one feature. Note that there is no distinction here between large shell concentrations – middens, and small ones – dinner camps, or between hearths and ovens.

There is only one major difference between the site types found in areas close to permanent or semi-permanent water sources, and those found further away. Scarred trees are dominant along the Murrumbidgee River, Yanga and Condoulpe Creeks, and around Lake Yanga, and, not surprisingly, relatively rare away from water. This is a direct reflection of the association of the trees, red gum and black box, whose bark was utilised, with river bank and lake shore. However the survey did not sample the broad floodplain areas away from the Murrumbidgee, north of Yanga Creek and between Breer Creek and the Murrumbidgee.

When scarred trees are removed from the analysis, the difference is not so great. The proportions of hearths and burials are much the same in both areas, though shell middens are more common on the rivers and lakes.

One location stands out – Lintot Lake. Most of the sites recorded here were around the eastern shore of the dry lake, but some were at a smaller dry basin to the east. This location has the absolute largest number of sites other than scarred trees and the largest number of hearths, shell middens, earth mounds and artefact scatters. Seven sites were recorded as PAD – Potential Archaeological Deposits, meaning that they had some stratigraphic depth. It is not possible to determine the nature of the sites recorded as ETM – Earth mounds. These were mainly clustered at the southern end of the eastern shore of Lake Lintot, on what appears to be a lunette; not the typical location of classic riverine earth mounds.

Lintot Lake is at the very end of Condoulpe Creek which runs south from the eastern basin of Yanga Lake. It would have carried overflow water from Yanga Lake at times of floods, but would have filled the larger basins of Condoulpe and Dusty Lake before reaching Lintot. The Condoulpe records are mainly of scarred trees along Condoulpe Creek; those from South Dusty are also scarred trees to the east of South Dusty Lake. The fact that there are so few scarred trees recorded at Lintot seems to reflect the lack of trees, as shown on the aerial imagery, and that may mean it is a long time since Lake Lintot held water regularly. So the sites here may be quite old.

Table 3.2.8 Site Record Summary for Kelly & Ridge 2007 Survey

Paddock	Total	TRE	HTH	SHL	ETM	BUR	AFT	STA	BOM	PAD
River Bank										
Hill	34	26	3	1	1	1	1	3	1	
Lower Boundary	76	65	8	2	2		6		1	
Creek-Lake Edge										
Horse	77	69	3			3	3			
Yanga Lake	61	55	2	4						
Condoulpe	16	15	1							
Total	264	230	17	7	3	4	10	3	1	
%	100	87	6.5	2.5	1	1.5	3	1	0.5	
Sand Plain-Dry Lake										
Lintot Lake	35	2	22	13	12	1	7			7
South Dusty	7	7								
Nouth Dusty	3	3								
North Impimi	9		7			1	1			2
Allens	3		1			2				
South Breeding	4		3			1				
East Breeding	5		2			3				
Lower Fingerboard	1					1				
Upper Fingerboard	4		4							
10 Mile	4		2			2				
Total	73	12	40	13	12	10	8			9
%	100	16	55	18	16	14	11			12
Overall Total	337	242	57	20	15	14	18	3	2	9
%	100	72	17	6	4	4	5	1	1	2.5

Table 3.2.9 Site Record Summary for Kelly & Ridge 2007 Survey, excluding scarred trees

Paddock	Total		HTH	SHL	ETM	BUR	AFT	STA	BOM	PAD
River Bank										
Hill	8		3	1	1	1	1	3	1	
Lower Boundary	12		8	2	2		6		1	
Creek-Lake Edge										
Horse	9		3			3	3			
Yanga Lake	6		2	4						
Condoulpe	1		1							
Total	36		17	7	3	4	10	3	1	
%	100		47	19	8	11	27	8	3	
Sand Plain-Dry Lake										
Lintot Lake	34		22	13	12	1	7			7
South Dusty	0									
Nouth Dusty	0									
North Impimi	9		7			1	1			2
Allens	3		1			2				
South Breeding	4		3			1				
East Breeding	5		2			3				
Lower Fingerboard	1					1				
Upper Fingerboard	4		4							
10 Mile	4		2			2				
Total	75		42	13	12	12	8			9
%	100		56	17	16	16	11			12

3.2.7.3 Westaway and Kamminga 2008

Following the Kelly and Ridge survey in 2007, Michael Westaway, then employed by DECCW, undertook additional work aimed at addressing some of the outstanding cultural heritage issues, particularly the absence of an assessment of Aboriginal archaeological sites and places.

In his 2009 report, Westaway identified the following aims:

- *To sample different resource areas in order to develop a general model for Aboriginal land use patterns prior to European contact.*
- *To provide information that can be incorporated into interpretation of the park*
- *To make suggestions as to how the prehistory of certain areas can potentially be used for interpretive purposes.*
- *To make management recommendations will also be made to conserve sites that are presently at risk.*

Westaway was particularly interested in the archaeological, palaeoenvironmental and cultural potential of the wetlands, because of their potential to preserve a range of materials that are not commonly conserved in dry land sites.

Westaway's sites have not yet been entered in AHIMS. The following account is based on his report¹⁸ and field notes. His report describes three of the areas he sampled:

Yanga Lake

Westaway commented that archaeological survey of the eastern margin of Yanga Lake revealed a very limited archaeological record. The main site type present was an extended thin lens of shell, probably quite recent in date, although an OSL date immediately below the shell layer was 18K¹⁹. Westaway noted that shell midden along the Murrumbidgee near the Yanga Woolshed was also shallow. In contrast, he described an enormous midden at Pelican Point, the southern peninsula of Yanga Lake. He did not record this site, assuming that it had already been recorded because of the AHIMS records with this name.²⁰

Murrumbidgee flood plain: source bordering dunes at Piggery Lake and Kieeta Creek.

Two source bordering dunes were surveyed in some detail. At Piggery Lake there were a number of hearths but no evidence of any grinding stones. At Kieeta Creek there were two grinding stones and a number of hearth stones. The location where surveyor MacCabe in 1848 marked a "*Blacks Burial Ground*" is raised on a source bordering dune or levee on the outer side of a bend of the river. The raised area has a possible midden lying beneath the site. On the eastern boundary of the raised area there is a small mound site.

Hay Plain: Lintot Lake and the area around the Willows Campground.

Westaway revisited the unusual sites at Lake Lintot, and observed the mound sites dense with clay heat retainers, recorded by the Kelly-Ridge survey. They were located east of the outflow at the south of the lake, close to a high lunette that would have also have provided refuge in floods.

Table 3.2.10 gives Westaway's site records in his field notes (omitted numbers are historic sites). AHIMS site cards have yet to be completed for these sites. This survey adds useful information to the state of knowledge at Yanga, since it provides data from the floodplain area of the Murrumbidgee, where no-one else has surveyed.

Johan Kamminga accompanied Westaway to Lake Lintot and Waugorah, and wrote a separate report on his analysis of artefacts at these sites.²¹

¹⁸ Westaway, 2009.

¹⁹ Cupper, 2008.

²⁰ Westaway, pers.comm. 2010.

²¹ Kamminga, 2010.

Table 3.2.10 Westaway's site records, 2008, based on field notes

No	Location	Site Type
1	Uara Ck	Mound
2	Uara Ck	Hearth
3	YNR	Mound
4	Yanga Lake lunette	Midden
5	Yanga Lake lunette	Midden
6	Waugorah	Hearth
7	Devils Creek	Scar tree
8	Kieeta Creek	Artefact
9	Kieeta Creek	Artefact
10	Kieeta Creek	Hearth
11	Kieeta Creek	Artefact
15	Woolshed Area	Midden
16	Woolshed Area	Burial
17	Woolshed Area	Hearth
22	Piggery Lake site	Hearth
24	Willows	Hearth
26	Willows	Mound
27	Kieeta SBD	Hearth
28	Tala Creek	Mound
29	Tala Creek	Mound
30	Lintot Lake	Mound
31	Waugorah site	Artefact

3.2.7.4 Hope 2010

After completing this analysis, Jeannette Hope visited the key location Pelican Point in May 2010 with Bes Murray and recorded the shell midden and two burials there.

3.2.8 Summary of Surveys

The surveys of Aboriginal heritage sites at Yanga are extremely limited geographically, as a result of the specific purposes of each of the previous recording programs or studies. The lack of coverage and the absence of any overall research strategy focusing on Yanga means that the existing data has limited value in assessing the overall Aboriginal heritage of Yanga, establishing meaningful Aboriginal heritage precincts (apart from those based on landform) and coming up with management recommendations beyond 'more research needed'.

It appears that no development project on Yanga over the last three decades attracted environmental assessment with a component Aboriginal heritage study. The exception is Edmond's study of the Sturt Highway realignment and new bridge but technically that was not on Yanga Station. At the same time, the long-term employment of Bes Murray at Yanga and his recognised knowledge of the local Aboriginal heritage meant that the property owners were sensitive to heritage issues.

3.2.9 Distribution of Aboriginal Site Types on Yanga

This section analyses and maps the pattern of distribution of Aboriginal site types on Yanga.

3.2.9.1 Sites of Significance

The Sites of Significance, that is, places remembered in the Aboriginal oral tradition, are few in number, and mostly along the Murrumbidgee. The information in the Women's Sites Survey records for places on Yanga is extremely limited. The site records mention stories, but no details are given, and there are no detailed maps of the locations. Because of this, Sites of Significance (CMR and ACD in the AHIMS coding) have not been mapped separately.

3.2.9.2 Burials

On 2 May 1846, G A Robinson sketched Aboriginal graves at Lake Tala in his notebook. The sketches are very rough, but they do show huts over the graves and earth ridges on each side. His description is included in section 2.2.3 of this CMP and the sketches are below:

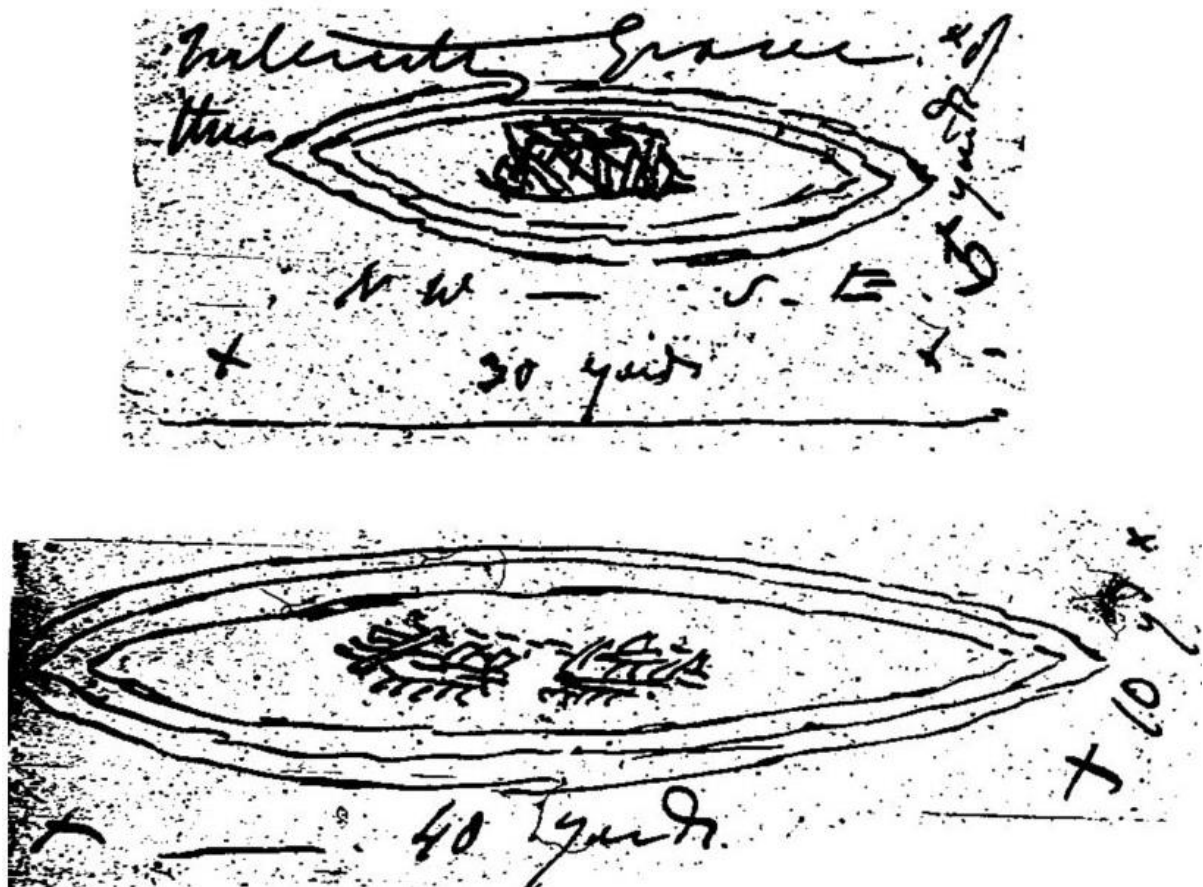


Figure 3.2.5 Graves drawn by G A Robinson at Lake Tala, 1846. Note the sketches give dimensions for the grave sites: 30 yards (28m) x 5 yards (4.6m) x 40 yards (36.6m) and 10 yards (9.1m). The upper sketch shows the grave is aligned NW to SE.²²

²² Clark 2000.

Exactly ten years earlier, on 10th May 1836, Thomas Mitchell had also described and sketched a burial tomb nearby, on the lower Lachlan River, close to its junction with the Murrumbidgee.

On a corner of the plain, just as we approached the land of reedy hollows, I perceived at some distance a large, lonely hut of peculiar construction, and I accordingly rode to examine it. On approaching it I observed that it was closed on every side, the materials consisting of poles and large sheets of bark, and that it stood in the centre of a plot of bare earth of considerable extent, but enclosed by three small ridges, the surface within the area having been made very level and smooth.

I had little doubt that this was a tomb but, on looking through a crevice, I perceived that the floor was covered with a bed of rushes which had been recently occupied. On removing a piece of bark and lifting the rushes, I ascertained, on thrusting my sabre into the hollow loose earth under them, that this bed covered a grave.

*Tommy Came-first, who was with me, pronounced this to be the work of a white man; but by the time I had finished a sketch of it The Widow had hailed him from the woods and told him that it was a grave, after which I could not prevail on him to approach the spot. I carefully replaced the bark, anxious that no disturbance of the repose of the dead should accompany the prints of the white man's feet. I afterwards learnt from The Widow that the rushes within that solitary tomb were actually the nightly bed of some near relative or friend of the deceased (probably a brother) and that the body was thus watched and attended in the grave through the process of corruption or, as Piper interpreted her account, until no flesh remains on the bones; "and then he yan (i.e. goes) away!" No fire, the constant concomitant of places of shelter, had ever been made within this abode alike of the living and the dead, although remains of several recent fires appeared on the heath outside.*²³

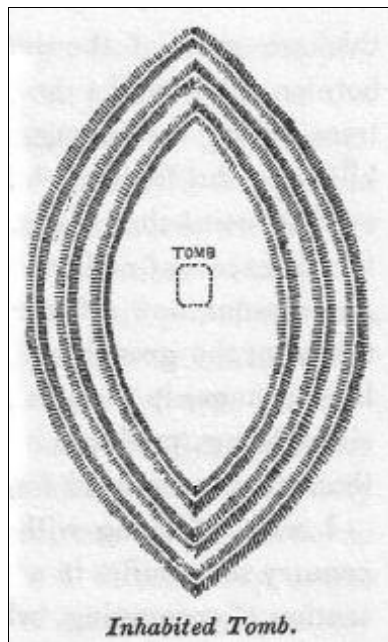


Figure 3.2.6 'Inhabited Tomb' drawn by Thomas Mitchell, near Lachlan-Murrumbidgee Junction, 1836

This practice of interring the body in the ground and building a hut over it, often containing the possessions of the dead person, was widespread in central western NSW. Unfortunately, these grave structures would have broken down quickly, no doubt hastened by the introduction of stock and the disturbance of the ground after the 1840s.

There are in fact only a few burials recorded from Yanga, and none of the site cards are detailed enough to tell how intact the burials were at the time of recording, that is, whether there were partly intact remains or scattered bone fragments. Just to the east of Yanga, at Toogimbie, Nap Nap and other locations, large numbers of remains have been recorded partly eroding out of distinct burial areas, and there has been much conservation work, fencing and covering burial sites.

²³ Mitchell, 1839.

Table 3.2.11 lists the 15 burials recorded by the Kelly-Ridge and the Martin Pardoe surveys. As noted earlier, the problematic AHIMS burial records from Yanga Lake and Condoulpe have been excluded, but the new record for Pelican Point by Hope has been included.

The only useful comparative data is from Martin and Pardoe’s survey of the Riverine Plain. They recorded 27 burial sites, which with the sites already in AHIMS, gave a total of 114. The overall total of sites, both previous and from the 2001 study, was 917 (note that this will include some of the sites discussed earlier which were double-entered). The majority of the burial sites were located on plains country of various types, with only 4.4% on floodplain, and 8.8% on lunettes. None were on lakes, and only 1.8% on intermittent lakes.

This is also partly true of Yanga. As can be seen from the map (Figure 3.3.4), most of the burial sites are on plains country. There is one record from close to the Murrumbidgee, at Waugorah, four from Yanga Creek, one from Goolparle, near Lake Tala and one from Yanga Lake. Note that Martin & Pardoe give the landform for this site as ‘plain with depressions’; it is not right on the lake.

In predictive terms, burials are more likely to be encountered on eroded or scalded areas away from the Murrumbidgee. This should be taken into account in planning for any works in such areas, which would include rabbit-ripping, and for example, ripping scalds for regeneration purposes. It is feasible that burial grounds similar to Toogimbie and Nap Nap, with many burials, could be encountered in such areas.

Table 3.2.11 Burials recorded at Yanga

AHIMS	Site Name	Feature	Survey
47-3-0036	Hill 18	BUR, HTH, BOM	Kelly-Ridge
47-6-0115	Horse 11	BUR	Kelly & Ridge
47-6-0119	Horse 14	BUR, SHL	Kelly & Ridge
47-6-0159	Lintot Lake 14	BUR	Kelly & Ridge
47-6-0312	Horse 88	BUR	Kelly & Ridge
47-6-0315	10 Mile	BUR	Kelly & Ridge
47-6-0320	South Breeding 1	BUR	Kelly & Ridge
47-6-0321	East Breeding 4	BUR	Kelly & Ridge
47-6-0322	East Breeding 3	BUR	Kelly & Ridge
47-6-0323	East Breeding2	BUR	Kelly & Ridge
47-6-0324	Ten Mile 1	BUR	Kelly & Ridge
47-6-0380	Allens 1	BUR	Kelly & Ridge
47-6-0382	Allens 3	BUR	Kelly & Ridge
47-6-0384	North Impima 2	BUR	Kelly & Ridge
47-6-0392	Lower Finger Board 1	BUR	Kelly & Ridge
232	Fenced site 1 Yanga NR	Burial	Martin& Pardoe
205	1.1 Goolparle 1.1	Burial	Martin & Pardoe
	Pelican Point	Burial	Hope

BURIALS

Figure removed

This figure includes sensitive information about Aboriginal cultural heritage which is not available to the public without prior permission from the Aboriginal community.

Figure 3.2.7 Aboriginal Burials recorded at Yanga by Kelly-Ridge, Martin Pardoe and others. The Pelican Point site mapped by Hope (see 3.2.11) is not shown on this map. The "Blacks Burial Ground" mapped in c1850 near the then Kietu Head Station is also not shown on this map (see 2.3.5). Sites mapped by Jeannette Hope.

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This figure includes sensitive information about Aboriginal cultural heritage which is not available to the public without prior permission from the Aboriginal community.

HEARTHS

Figure 3.2.8 Aboriginal sites recorded at Yanga., Hearths and ovens. These were recorded by Kelly-Ridge and Martin Pardoe. Note that the locations reflect the limited areas surveyed. Sites mapped by Jeannette Hope.

3.9.9.3 Hearths and Ovens

Martin and Pardoe described the difference between hearths, ovens and mounds in the landscape of the Riverina Plain.²⁴

They describe hearths as surface features, which although they may become buried, are not originally dug into the ground. They do not normally have heat retainers. They may have burnt clay associated but this is caused by the fire baking the ground, not the use of heat retainers.

They describe ovens as a holes dug into the ground in which a fire is lit, clay heat retainers added, and food cooked. Heat retainers may have been raked out and reused. Ovens are generally larger than hearths, with evidence of heat retainers, either scatted on erosion surfaces or clumped in situ, with ashy deposit. Ovens are deeper than hearths, and when eroded are larger in area.

Mounds develop from ovens, and will be discussed in the next section. Martin and Pardoe's distinction between hearths and ovens is sensible, but hardly any other site recorders make the distinction – the commonly used term for all fireplaces, with or without heat retainers, is hearth. So it is not possible to determine which of the fireplaces recorded by others at Yanga are technically 'ovens' or 'hearths'. For the purpose of this analysis, all Martin and Pardoe's sites, ovens and hearths, are grouped as hearths.

Brettschneider and the Kelly - Ridge survey recorded 61 hearth sites. Five of these are also coded as earth mounds, and several others, particularly at Lintot Lake, as shell, artefact, or PAD. Although there are no details available about these sites, the combination of features suggests that they are open areas with a range of items – what other recorders might call 'open campsites'. As Figure 3.2.8 shows, they were recorded in all areas of the Kelly-Ridge survey. Martin and Pardoe recorded 2 hearths and 2 ovens, all at Yanga Nature Reserve.

On this basis it is a reasonable assumption that hearths, in the broad sense, are likely to be encountered anywhere on Yanga.

3.2.9.4 Mounds

Mounds have attracted the most attention on the Riverine Plain, because, 'they are the most common and visible of archaeological features' there.²⁵ There have been a number of descriptions and studies of mounds, and most recently, Sarah Martin completed a PhD thesis on the subject, arising out of her earlier survey with Pardoe.²⁶

With continued use of a particular area, mounds develop from ovens. That is, mounds are the result of many ovens being dug and cooked in. Over time clay heat retainers, ash, charcoal and food remnants build up to produce the mound.

Mounds have been found along the major rivers of the Murray-Darling Basin. They are sometimes referred to as black earth mounds, which indicates that the deposit has a dark grey to black colour due to the addition of ash, charcoal, baked clay heat retainers, burnt animal bone, mussel shell and other domestic material. The deposit may be bleached to grey or grey-brown and lower parts of a mound may be calcreted. The finer deposit may be deflated, leaving only the baked clay and minor burnt animal bone or stone material as a lag.²⁷

Mounds also grade into other types of sites:

Oven complexes: several coalesced ovens, distinguished from mounds by lack of mounded material.

Middens: usually lens shaped and not normally deliberately mounded or shaped. Some mounds incorporate enough mussel shell to be called a midden.

Burials: often incorporated into mounds, notably in the western section of the Riverine Plain. Burials may be recorded as separate sites or features within the mound site.

²⁴ Martin and Pardoe, 2001.

²⁵ Martin and Pardoe, 2001.

²⁶ Martin, 2006.

²⁷ Martin and Pardoe, 2001:51.

Martin and Pardoe recorded 97 mounds in their survey, 24% of the total recorded (347). (Table 5.2 in their report gives the number as 84). There were at the time 226 mounds recorded for the Riverine Plain in AHIMS, 24.6% of the total sites (917). They varied considerably in size, from ‘as big as the Melbourne Cricket Ground, to little more than a car length’²⁸ For this data, mounds appear to occur on all landform types.

On Yanga, a total of 27 mounds have been recorded, by Martin and Pardoe in 2001, Brettschneider 2006, the Kelly Ridge survey in 2007. There is also an early AHIMS record of a large mound in Yanga Nature Reserve (1989). (Table 14).

Figure 3.2.9 shows that the recorded mounds cluster in two specific areas: Yanga Nature Reserve and Lintot Lake, but there are also mounds recorded from the woolshed area on the Murrumbidgee (Lower Boundary), Waugorah and Yanga Creek (Yanga Ck 1 clearly has incorrect coordinates, it should be east of the river). The 1989 record for Yanga NR gives the size of the mound as 65x50m. No measurements are available for the others.

The two Lower Boundary sites and several of the Lintot lake ones are clearly complex sites with a variety of features. It would be useful to re-evaluate these, especially the ones on the Murrumbidgee, to determine whether they fell within Martin’s criteria for mounds.

Table 3.2.12 Mound sites recorded for Yanga

AHIMS No.	Site Name	Feature	Recorders
47-3-0018	Waugorah Mound	ETM	Brettschneider 2006
47-3-0025	Hill-7	ETM	Kelly Ridge 2007
47-6-0019	Yanga Oven Mound	ETM; HTH-	Deveson 1989
47-6-0058	Yanga creek mound 1	ETM	Brettschneider 2006
47-6-0059	Yanga Creek mound 2	ETM	Brettschneider 2006
47-6-0094	Lintot Lake 1	ETM	Kelly Ridge 2007
47-6-0095	Lintot Lake 2	ETM; SHL	Kelly Ridge 2007
47-6-0096	Lintot Lake 3	ETM	Kelly Ridge 2007
47-6-0097	Lintot Lake 4	ETM	Kelly Ridge 2007
47-6-0098	Lintot Lake 5	ETM	Kelly Ridge 2007
47-6-0099	Lintot Lake 6	AFT; ETM; HTH	Kelly Ridge 2007
47-6-0100	Lintot Lake 7	ETM	Kelly Ridge 2007
47-6-0101	Lintot Lake 8	ETM	Kelly Ridge 2007
47-6-0102	Lintot Lake 9	AFT; ETM; SHL	Kelly Ridge 2007
47-6-0160	Lintot Lake 15	ETM; HTH-	Kelly Ridge 2007
47-6-0161	Lintot Lake 16	ETM; HTH	Kelly Ridge 2007
47-6-0163	Lintot Lake 18	ETM; SHL	Kelly Ridge 2007
47-6-0191	L. Boundary 40	ETM; BOM; SHL; TRE	Kelly Ridge 2007
47-6-0222	L. Boundary 45	AFT; ETM; HTH;	Kelly Ridge 2007
223	Yanga NR 1.1	mound	Martin Pardoe
224	Yang NR 1.2	mound	Martin Pardoe
230	Yanga NR 1.1	mound	Martin Pardoe
231	Yanga NR Fenced site 1	mound	Martin Pardoe
234	Yanga NR Fenced site 2	mound	Martin Pardoe
235	Yanga NR 3.1	mound	Martin Pardoe
236	Yanga NR 3.2	mound	Martin Pardoe
125	Sturt Highway	mound	Martin Pardoe

²⁸ Martin and Pardoe 2001

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This figure includes sensitive information about Aboriginal cultural heritage which is not available to the public without prior permission from the Aboriginal community.

Figure 3.2.9 Aboriginal sites recorded at Yanga. Mounds. These were recorded by Kelly-Ridge, Martin Pardoe and others. Note that the locations reflect the limited areas surveyed. Sites mapped by Jeannette Hope.

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This figure includes sensitive information about Aboriginal cultural heritage which is not available to the public without prior permission from the Aboriginal community.

SHELL

Figure 3.2.10 Aboriginal sites recorded at Yanga. Shell midden and dinner camps. . Note that the locations reflect the limited areas surveyed. Sites mapped by Jeannette Hope.

3.2.9.5 Shell Midden

The shell middens show quite a different pattern to the other features (Figure 3.2.10). They cluster in three lake locations: Goolparle (Lake Tala), Lake Yanga and Lake Lintot, with one location on the Murrumbidgee River. In total, 37 middens (including Martin and Pardoe’s dinner camps) have been recorded on Yanga (Table 3.2.12).

Westaway considered that the thin lenses of shell he saw at Yanga Lake and the Woolshed precinct suggested that shellfish were perhaps not such a central component of the diet at Yanga²⁹. But he also noted that at Pelican Point has an enormous midden, large in its breadth, though not depth. However he seems to have been unaware of Martin and Pardoe’s Goolparle records for Lake Tala. Here, Robinson in 1846 wrote:

*descended to a large camp on beach, went through the camp about 300 natives altogether, men women and children, very civil. Walgerre, Tala, Yanga, and other blacks present. Said women fishing for shells.*³⁰

Relative to the rest of the Riverine Plain, Yanga seems to be rich in shell middens. Martin and Pardoe say in their text (p.69) that they recorded only 12 middens in just three of their 33 study areas³¹: Goolparle, at Tala Lake, Toogimbie and Murrumbidgee. Toogimbie is not far east of Yanga, but it is not clear from their report exactly where the survey area ‘Murrumbidgee’ was, apart from being on the edge of the Murrumbidgee River. There were only 5 dinner camps, all at Goolparle/Lake Tala.

Whatever the actual numbers, the total is small: either 17 combined middens and dinner camps out of a total of 347 sites recorded during the study. Martin and Pardoe also give counts for site types for the Riverine Plain, based on the AHIMS records and their own work. The 39 middens and dinner camps make up just 6 % of the comparable Riverine Plain sites, whereas the 37 sites on Yanga make up 22% of the site types recorded.

Table 3.2.13 Shell midden and Dinner camps Yanga

AHIMS No.	Site Name	Feature	Recorders
47-6-0024	Yanga Creek 1;YC-1;	AFT; ETM; SHL	Edmonds
47-6-0025	Yanga Creek Midden 2;YCM-2;	AFT; ETM; SHL	Edmonds
47-6-0035	Yanga Homestead Midden	AFT, BUR, ETM, SHL	Edmonds
47-6-0095	Lintot Lake 2	ETM, SHL	Kelly-Ridge
47-6-0102	Lintot Lake 9	AFT, ETM, SHL	Kelly-Ridge
47-6-0119	Horse 14	BUR, SHL	Kelly-Ridge
47-6-0156	Lintot Lake 11	HTH, SHL	Kelly-Ridge
47-6-0157	Lintot Lake 12	HTH, SHL	Kelly-Ridge
47-6-0163	Lintot Lake 18	ETM, SHL	Kelly-Ridge
47-6-0164	Lintot Lake 19	HTH, SHL	Kelly-Ridge
47-6-0165	Lintot Lake 20	HTH, SHL	Kelly-Ridge
47-6-0191	L. Boundary 40	ETM, BOM, SHL, TRE	Kelly-Ridge
47-6-0228	L. Boundary 51	AFT, HTH, SHL	Kelly-Ridge
47-6-0263	Lintot Lake 26	AFT, HTH, PAD, SHL	Kelly-Ridge
47-6-0264	Lintot Lake 27	AFT, HTH, SHL	Kelly-Ridge
47-6-0265	Lintot Lake 28	HTH, PAD, SHL	Kelly-Ridge
47-6-0267	Lintot Lake 30	HTH, PAD, SHL	Kelly-Ridge
47-6-0268	Lintot Lake 31	AFT, HTH, PAD, SHL	Kelly-Ridge
47-6-0269	Lintot Lake 32	AFT, HTH, PAD, SHL	Kelly-Ridge
47-6-0310	Horse 86	HTH, SHL-	Kelly-Ridge
47-6-0328	Yanga lake 1	SHL : -	Kelly-Ridge
47-6-0351	Yanga L. Midden 1	SHL : -	Kelly-Ridge

²⁹ Westaway 2009

³⁰ Clarke 2000

³¹ Martin and Pardoe 2001:69. There are discrepancies in their report probably due to the difference between ‘sites’ and ‘features’; sites may have more than one feature: Goolparle [5 in table, 9 in text], Murrumbidgee [1 in table, 9 in text] and Pevensee West/Toogimbie [3 in Table, 1 in text].

YANGA CONSERVATION MANAGEMENT PLAN

47-6-0357	Yanga L. Midden 8	SHL : -	Kelly-Ridge
47-6-0368	Yanga L.Midden 9	SHL : -	Kelly-Ridge
84	Goolparle Sample 3	shell midden	Martin Pardoe
85	Goolparle Sample 3	shell midden	Martin Pardoe
87	Goolparle Sample 3	shell midden	Martin Pardoe
88	Goolparle	dinner camp	Martin Pardoe
90	Goolparle	dinner camp	Martin Pardoe
91	Goolparle	dinner camp	Martin Pardoe
92	Goolparle	dinner camp	Martin Pardoe
93	Goolparle	dinner camp	Martin Pardoe
206	Goolparle 2.1	midden	Martin Pardoe
207	Goolparle 2.2	midden	Martin Pardoe
208	Goolparle 2.3	midden	Martin Pardoe
213	Goolparle 2.7	midden	Martin Pardoe
214	Goolparle 2.8	midden	Martin Pardoe
	Yanga L. Pelican Point	Midden	Hope
	Yanga L. Homestead	Midden	Hope

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Figure 3.2.11 Aboriginal sites recorded at Yanga. Artefacts and open sites. Note that the locations reflect the limited areas surveyed. Sites mapped by Jeannette Hope.

3.2.9.6 Artefacts

Surprisingly few ‘artefact’ sites have been recorded on Yanga: 12% compared with 31% the entire Riverine Plain. This is probably at least partly due to the biases in the site recording, and terminology. Westaway’s 2008 work suggests that there are more artefact sites than have been recorded. However, the lower Murrumbidgee area is a long way from raw material sources, and more detailed comparisons of Yanga with regions to the east and west might show whether there is in fact a lower amount of stone material here than elsewhere.

The artefact sites are fairly evenly distributed across all surveyed with the surprising exception of Goolparle/Tala Lake (Table 3.2.14, Figure 3.2.11).

Table 3.2.14 Artefact sites recorded for Yanga.

AHIMS No.	Site Name	Feature	Recorders
47-3-0041	Hill 23	AFT	Kelly Ridge
47-6-0061	Lower boundary 1	AFT	Kelly Ridge
47-6-0093	North Dusty Lake-8	AFT	Kelly Ridge
47-6-0099	Lintot Lake 6	AFT, ETM, HTH	Kelly Ridge
47-6-0102	Lintot Lake 9	AFT, ETM, SHL	Kelly Ridge
47-6-0189	Lower Boundary 38	AFT, HTH	Kelly Ridge
47-6-0219	Lower Boundary 42	AFT	Kelly Ridge
47-6-0220	Lower Boundary 43	AFT	Kelly Ridge
47-6-0222	Lower Boundary 45	AFT, ETM, HTH	Kelly Ridge
47-6-0228	Lower Boundary 51	AFT, HTH, SHL	Kelly Ridge
47-6-0263	Lintot Lake 26	AFT, HTH, PAD, SHL	Kelly Ridge
47-6-0264	Lintot Lake 27	AFT, HTH, SHL	Kelly Ridge
47-6-0268	Lintot Lake 31	AFT, HTH, PAD, SHL-	Kelly Ridge
47-6-0269	Lintot Lake 32	AFT, HTH, PAD, SHL-	Kelly Ridge
47-6-0271	Lintot Lake 34	AFT, PAD	Kelly Ridge
47-6-0305	Horse 81	AFT	Kelly Ridge
47-6-0307	Horse 83	AFT	Kelly Ridge
47-6-0308	Horse 84	AFT	Kelly Ridge
47-6-0381	Allens 2	AFT, HTH	Kelly Ridge
47-6-0389	North Impima 7	AFT	Kelly Ridge

3.2.9.7 Scarred Trees

Modified, predominantly scarred, trees dominate the site records for Yanga making up 65% of the site types recorded. Because of the large number, the sites are not tabulated here, but their distribution is shown in Figure 3.2.12. They have been recorded mainly along the Murrumbidgee River and around Yanga Lake, with another smaller cluster on Condoulpe Creek.

It is surprising to have so many scarred tree records, given the amount of timber cutting on Yanga over the last 50 years. The reason is partly the nature of the Kelly-Ridge survey, which focused on areas on the bank of the Murrumbidgee. Martin and Pardoe’s overview maps of site records for the Riverine Plain shows that there has been little site recording along the river itself, apart from a couple of areas near Hay.

Details of the Kelly-Ridge survey data is not available (or is incomplete, in the case of the hard copies seen) so it is not possible to tell the proportions of tree species involved. Most of the scarred trees along the river are likely to be red gum, but those recorded by Edmonds and Johnston, away from the river, were black box. For the same reason, no information is available about the types of scars, ie canoe or coolamon etc. It would be useful for future survey to compare areas that have been logged with those that have not. The records do not mention “ring” trees shown to the CMP project team by Bes Murray.

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Figure 3.2.12 Aboriginal scarred trees recorded at Yanga. Note that the locations reflect the limited areas surveyed. Sites mapped by Jeannette Hope.

3.2.10 Summary

The Nature of the Data

1. The information we have about Aboriginal heritage sites at Yanga is very limited, because of the overall lack of surveying for such a large area, and the geographic bias in the surveys that have been done. This has been recognised by previous site recorders.
2. There are limitations in the usefulness of the existing site records for a number of reasons:
 - Confusion and errors in the AHIMS database
 - Lack of consistency in terminology between recorders
 - Incomplete records and reports
3. The problems within AHIMS are the easiest to sort out, where the original hard copy records are available for comparison with the digital database. This allows the digital database to be 'cleaned up'.
4. The lack of consistency is a perennial problem with site recording, as methods and understanding evolve over time. However, it is surprising how many coding errors have crept into AHIMS, resulting in information in the digital database being contradictory to the site cards on which it is supposed to be based.
5. The incomplete records are problematic. They range from a total absence of data from the system, as in the case of Martin and Pardoe's report, to the unfinished reports, and site cards from the DECC studies by Westaway and Kamminga.
6. The Kelly Ridge survey, using PDAs to directly record data straight to the digital AHIMS, bypassing the step of field notes and site cards, also poses a serious problem in terms of incomplete data. Basically there is no way of checking or validating the accuracy of the data entered, and the fields provided (the same as those on the site card) do not allow any information of how the site types or features recorded for a complex site relate to each other.

Usually, someone doing a site survey will make field notes which will include sketches and descriptions of the sites, features, landforms etc. and take photos, then write a report which may provide verbal descriptions and plans of site or site complexes. The site card will be a précis of this information, and that will then be fed into the digital AHIMS database. Going straight to the digital database loses the detail acquired through the recording process. Often, for site surveys, access to previous reports is more important than access to the AHIMS database.

In the case of Yanga, this means that the Kelly Ridge survey is much less useful than it might have been.

7. This review has attempted to sort some of the above problems, so as to establish a reliable starting point for future strategies for investigation and conservation. This is not usually left to the stage of a Conservation Management Plan. In the case of Yanga, however, it reflects the lack of previous work, and the need to do some fundamental management oriented survey in the new park, the reason for the Kelly Ridge survey. However, it has been essential, in order to provide a solid foundation for future work.

Aboriginal Heritage at Yanga

Table 11 shows the contrast between sites recorded at Yanga and the Riverine Plain based on data from Martin and Pardoe (the latter figure is up to 2001 and so does not include the large database from the Kelly Ridge survey at Yanga). The percentages are based on the same types of sites in both cases, excluding scarred trees. The Kelly-Ridge survey by focusing on areas on the Murrumbidgee River and Yanga Creek recorded more scarred trees on Yanga than had previously been recorded on the entire Riverine Plain. Including these numbers would have biased the analysis. However, the data still has inherent biases, notably the number of ‘open sites’ recorded on the Riverine Plain. This is due to the generic nature of this site type: while it includes artefact scatters, some of these sites probably also have hearths etc present that have not been coded separately.

Even allowing for this, there are some obvious differences: a higher frequency of mounds elsewhere, but more midden sites on Yanga.

Table 11 Comparison of sites between Yanga and Riverine Plain

Site Type	Yanga No.	%	Riverine Plain No.	%
Burials	17	10	114	18
Mounds	27	16	226	35.7
Hearths and ovens	65	39	59	9.3
Middens	37	22	39	6.1
Artefacts and open sites	20	12	194	30.7
TOTAL	166	100	632	100
Scarred Trees	289		268	

Future Investigations

The following summarises what is and is not known indicating areas for future investigation.

1. There are several important sites along the Murrumbidgee that were known to Aboriginal people in Balranald and shown to the 1976 Sites of Significance team, notably the Balranald Fish Traps, Diplo (Depot) Ceremonial Ground (see previous comments) and several burial sites, traditional and historic. One important site in this category is Pelican Point, the southern headland separating the two basins of Yanga Lake. It has been mentioned in several records, it is marked on maps, it is associated with the Eaglehawk and Crow story and was occupied by Aboriginal families until the early 20th Century. Westaway’s report notes that the largest midden at Lake Yanga occurs there (but it is not mentioned in his field notes). There is no AHIMS site record and two of the site recorders who mention it (with the results that it appears in AHIMS as a site name) do not seem to have ever visited the area.
2. Most of the sites recorded from Yanga occur in all surveyed areas, or, their presence or absence makes obvious sense eg the concentration of scarred trees in the woodlands along rivers, creeks, and around lakes. In general the limited area surveyed and the problems described earlier advise caution in interpretation. However there are hints of patterns that warrant further investigation.
3. There appears to be a higher proportion of shell middens at Yanga than elsewhere on the Riverine Plain. The middens may be thinner than those recorded elsewhere in western NSW, but the pattern within the riverine plain is of interest. There may be a variety of reasons for this (apart from inadequate records overall): an environmental explanation might be the lack of carbonate soils (which preserve shell) further east, or the presence of more lakes at this western end of the Plain.
4. At the same time, there seem to be fewer mounds on Yanga than further east on the Riverine Plain.
5. There also appear to be differences in the proportion of burials and artefact sites between Yanga and further east on the Plain, although the overall low numbers of sites may be affecting this.
6. Given Yanga’s position at or close to the boundary between the Riverine Plain and the western sand plain country, these kinds of patterns are exactly what might be expected – a diminution in numbers of what are regarded as the characteristic sites of the Riverine Plain (mounds) and an increase in sites, such as shell middens, typically associated with lakes further west.
7. Given this, the significance of the Aboriginal site record at Yanga may be that its geographical transitional nature is reflected in the types of sites, which themselves reflect the nature of Aboriginal land and resource use. What would be worth exploring is the degree to which this is also reflected in other cultural aspects, such as language and storylines.

3.2.11 Pelican Point

The following detailed account is included because of the importance of Pelican Point, the southern headland separating the two basins of Yanga Lake. The Point is significant because of the traditional Eaglehawk and Crow Stories, the presence of burials and a major shell midden, and as a historic home to Olga Mitchell's family.

Jack Long - Eaglehawk and Crow Story

In 1970, Jack Long told linguist Luise Hercus a Madi Madi version of the widespread Eaglehawk and Crow story. Part of the story explains the shape of Yanga Lake.³²

In many Aboriginal groups in south-eastern Australia, and especially in the Murray-Darling Basin, the moieties, the basic social division governing rituals and marriage, are named after Eaglehawk and Crow. Eaglehawk and Crow stories are built around the dichotomy of strength versus cunning, father v son, and rivalry over wives and mothers, and reinforce taboos over incest and other socially undesirable sexual unions. Fire plays a major part in these stories, representing sexuality or life itself: when Crow plays with fire, as punishment the more powerful Eaglehawk ensures that crow gets burnt. In some tribes clever men were believed to assume the form of an eagle in order to travel long distances at night. Cautionary tales of eagles capturing small children, a genuine possibility, were told to keep children safe and obedient.

Jack Long's story tells the classic tale of Crow, **Wangi**, sneaking after women, being speared and burnt by Eaglehawk, **Wilekilu**, so that his feathers turned black. In Jack Long's version, this fighting occurred at small lake just north of Kyalite on the Wakool River. The story continues:

But the Eaglehawk, he used to camp by Yanga Lake near Balranald in a huge tree that was there.

*The Eaglehawk stalked a tribe living in the area, and then that Eaglehawk stole a small child (from the tribe); a tall tree was growing there, and he took the child and put it high up there, and he abandoned the child there. People searched and enquired, weeping continually night and day: Who is the one who will climb up on this tree? And how? By and by the Brown Tree-creeper (**Bin Bin**) climbed up, and he took the child. The Eaglehawk was away hunting for his meat and his food. The Brown Tree-creeper climbed down and took the child to where his mother and father were. Then he went away altogether. They enquired: 'Who was it that got the child down from the tree? It was sleeping here (when we got back to our camp).' They laughed and sang (and were happy).*

(The Brown Tree-creeper did not tell anybody that he had saved the baby, and they only found out about it after a long time.) they went on asking him, so he told them.

(You know that trees have a pipe, a hollow inside them that goes right down to the bottom, well the Brown Tree-creeper must have dropped his fire-stick into this pipe when he was up on top of that big tree there.) The fire came down and burnt the hollow pipe. (He didn't see it burning, the Brown Tree-creeper, because the fire was inside that pipe.) The tree burnt and fell into the lake. Anyone will be able cross the water and go and be ready standing on the other side.

(This accounts for the present shape of Yanga Lake, which is almost divided into two by a ridge, the 'Great Tree' of the legend. One can walk on this ridge when the water is low.)

This is the only story known for this area featuring Brown Tree-creeper. However on the east coast of NSW, the tree-creeper was associated with women, it was the women's sister or friend, and taught women how to climb trees.³³

Today there is a huge sea eagle nest in a very tall red gum on the west side of Pelican Point. When Henry Davies pointed the nest out in 2007, there was an eagle on it.

there's the Eagle's nest up there...There's an eagle on it now too. Shit, I was wondering what had happened with the water, whether it was gone or not.... right back from 50, I remember that Eagle's nest being there.³⁴

³² Hercus, 1971, Eaglehawk and Crow: a Madimadi version. *Mankind* 8:137-140.

³³ Howitt, Alfred William, 1904, *The Native Tribes of South-East Australia*, Macmillan & Co..

³⁴ Stephen Gapps, Interview Henry Davies, 19/4/2007.

Given the size of the nest, and the fact that Sea eagles can live for 30 years, it is possible that the nest has been used for generations of birds and may have been in existence before European arrival. If so, it may have contributed to the story about Yanga Lake.³⁵ It is assumed that Olga Mitchell's reference to "from 50" means "from 1950".

Aboriginal Sites at Pelican Point

The presence of shell middens on Pelican Point, and human remains at or near the point has been known for a long time.

Alistair Cox, Manager of Yanga related:

Immediately towards the left of Pelican Point and much closer to this land we're on here, that's the point that Bessie was talking about where there's a lot of old Aboriginal relics as of bones, human bones. Every time there was a big lake it tended to expose the sand a bit, wash some of the sand and expose these bones. I have seen skull and leg bones there. ³⁶

At the time of writing this CMP, there were two Aboriginal site records in AHIMS labelled 'Pelican Point' but neither site recorder visited the locality.

In 1976 during the NPWS Sites of Significance Survey, Glenn Morris recorded Yanga Lake Burial Site 47-6-4, based on information from Mrs Alice Kelly. Morris's records are detailed in the previous CMP section 3.2.6.2. He did not visit the site but sketched the location of a burial. The burial according to Jack Long (who also recounted the Eaglehawk and Crow story above) was his mother who had died of an accidental poisoning, probably in the late 19th century (refer to section 3.2.6.2 for details).

In 1994, as noted in detail in the previous CMP section 3.2.6.2, Edmonds recorded two sites based on information from Mrs Kelly. Edmonds records are not consistent, but Mrs Kelly mentioned burials at Pelican Point.

In 2008 Michael Westaway visited Pelican Point, but did not record any sites, because of his assumption that this area was already well-recorded in AHIMS. He wrote:

Pelican Point provides a different picture. This peninsula that projects out into the centre of the lake preserves an enormous midden, i.e. enormous in its breadth. The depth of the lens itself is not considerable. Of all the middens investigated across Yanga National Park this would appear to be the one with most research potential and an excavation would likely reveal the age of the deposit and if a number of lenses were present.

In May 2010 Jeannette Hope and Bes Murray visited Pelican Point and recorded fragmented shell midden on the northeast side of the point, mostly exposed in the track. There were also a small number of very fragmentary human remains exposed in the track, and a scarred tree at the southern end (Figure 3.2.13).

Historic Sites at Pelican Point

Olga Mitchell was born at Pelican Point in 1913.³⁷ Her father Harry Oswald Ronald Devereux worked on Yanga Station, and the family had a house at Pelican Point. It is not known when this house was built. They moved to Stony Crossing near Kyalite where Harry drowned in 1926. Later Olga and her fisherman husband Mitchell lived on the shore of the lake about halfway between the Yacht Club and Pelican Point.

'We had a lovely place there we had a three roomed tent and wooden floor and we had gardens and lawns it was a beautiful spot'. Olga remembered visiting the site of the house on Pelican Point at the time, when 'the blocks and everything were there', and 'there was still the rails of the horse yard because Mum had told me stories about it ...she drove in, had a horse and a gig or buggy whatever they had then, drive into Balranald for groceries', but 'now they're all gone'. The house was 'right up towards the Point...we could look straight across into the homestead there'.

In May 2010, some historical items were noted: a large wire gate (fallen), sawn timber and metal fragments. This is probably not the location of Olga's house; it is too far south to see the homestead and there are no domestic items such as glass or ceramics (Figure 3.2.13).

³⁵ *Haliaeetus leucogaster* White-bellied Sea-Eagle.

³⁶ Stephen Gapps interview, with Alistair Cox 17.4.07, at Homestead buildings, looking across to Pelican Point.

³⁷ Stephen Gapps interview Olga Mitchell 24/4/07.

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Figure 3.2.13 Aboriginal sites at Yanga. Pelican Point. Source: Hope 2010.

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3.3 Historic Heritage - Physical Analysis of Precincts and Individual Site Elements

As part of the preparation of this CMP, a GIS ArcView Map has been produced that shows all known structures and archaeological features. The following section describes each precinct in general and the key individual elements in a table. Information about each item is in the table in the same form and order as in the Historical Analysis (Section 2) of this report. After the table more detailed descriptions and plans are included for the Homestead and Woolshed precincts. Further photographs and descriptive information for the items on the site are documented for each item in the HHIMS form prepared as part of this CMP.

3.3.1 Yanga Precinct

Yanga Precinct is centred around Yanga Lake which was empty when surveyed in 2009/2010 but has been full for much of the occupied history. The precinct includes the Yanga Creek mouth and weir north of the lake and an area of occasionally flooded country south of the lake. The area north of the Lake is elevated and generally did not flood and is largely cleared. There is a lunette on the east side of the lake. The area immediately east of the lake remains in private ownership.

In the east of the precinct is an area of red country. This area was called the south breeding paddock and used for stock in winter. In later years an irrigation system from the lake fed a cropping area southeast of the lake and water was also extracted for irrigation to the west and southwest.

The early access to Moulamien and Swan Hill to the south was a road west of the lake. Later the railway ran diagonally through this precinct with a siding at the lake in a stock reserve which continues to the northeast. The Sturt Highway along the north of the precinct is now the main transport and access route.

The lake was a residential and recreational centre in the pastoral era with first a hut, then outstations, then the old homestead at the creek mouth and the homestead on a peninsular into the north of the lake. This was the centre of the pastoral operation with owners and managers residences and associated facilities, ornamental and kitchen gardens, staff quarters, the station store an office, stables, machinery sheds, the blacksmith as well as yards and fenced paddocks. There are staff residences on the north shoe of the lake near the homestead entry road from the highway and Alfred Parker's grave on a hill adjacent the entry road.

The lake is also a recreational precinct with fishing, yachting and boating as well as commercial fishing when the lake was full.





The following map shows the extent of the precinct and is followed by a larger scale map of the Yanga Lake area where the sites are concentrated. The maps show the location of the items in the table. Detailed plans of the Homestead and Woolshed Groups are included in the following section on detailed descriptions of the principal buildings.











Figure 3.3.1 Yanga Homestead Precinct showing historic sites. Source: Hope / CMP authors.











Figure 3.3.2 Enlargement of Yanga Homestead and Lake showing historic sites. Note that “Fishermen’s Campsite” is also referred to in this CMP as ‘Henry’s Camp’ and “Old Fishing Campsite” is also referred to as “Old Fishing Camp”. Source: Hope / CMP authors.





NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Yanga Homestead Group, homestead & residences</p> <p>This group of buildings is south of the Sturt Highway on a peninsular that projects into Yanga Lake accessed by a road from Yanga Creek and the site of the earlier Homestead. The original structure was an outstation and was a cottage looking south to the lake. It is believed it was added to or rebuilt into a larger structure to become the present kitchen wing. The main house wing was added facing east to the lake and forming an L shape with the main gardens to the east and a smaller garden in the L to the west of the main wing with a wind break of pepper trees along the west side.</p> <p>The main house is surrounded by a series of sheds, outbuildings and landscape features.</p> <p>(See detailed description later)</p>		 <p>Source: Google, 2010.</p>
<p>Main building</p>	<p>The Main House is a rectangular building oriented north south. It has an M shaped roof with a central valley running north south. The building has wide verandahs all around with enclosures on the north and south.</p> <p>(See detailed description later)</p>	 <p>Source: NSW NPWS, 2007.</p>
<p>Kitchen wing</p>	<p>The kitchen wing is a rectangular building oriented east west. It has an M shaped roof with a central valley running east west but discharging to the south at the centre of the wing where there is a break in the south-most ridge. The building has wide verandahs on the north and south sides and a later addition to the west.</p> <p>(See detailed description later)</p>	 <p>Source: CMP authors, 2009.</p>
<p>Ablution block</p>	<p>Gable-roofed corrugated iron clad building with two central doorways and a leanto addition to the rear.</p>	 <p>Source: CMP authors, 2009.</p>



NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Cook's cottage	<p>A separate residential building with a timber frame and gabled, hipped roof clad in corrugated iron. The walls of this building are clad in a combination of ripple iron, corrugated iron, fibro and weatherboard.</p> <p>It was built in stages including the widening of the verandah and addition of a toilet and shower at the end of the verandah. The stages of construction reflect the change in use of the building believed to be originally the Jackaroo Quarters, then altered to the Cooks Accommodation and now exhibition space. See the later detailed description.</p>	 <p>Source: CMP authors, 2009.</p>
Front garden	<p>Homestead gardens, including a formal lawn and earth paths, flower beds and a central path leading to a pergola with seats, now collapsing. A log structure supporting vines and wire netting runs along the south of the garden. There are no visible remains of the 'bush house'.</p>	 <p>Source: CMP authors, 2009.</p>
Orchard	<p>The mulberry tree in the background of this photo is in the orchard which also has oranges, lemon, grapefruit and other trees, the remains of a once more extensive orchard to the north of the flower garden.</p>	 <p>Source: CMP authors, 2009.</p>
Back garden	<p>The rear garden is a grassed courtyard enclosed by the two main wings and the Cook's House. The original flower garden was removed with the tennis court construction and no traces are visible. There may be some archaeological evidence of the central path. The peppercorn trees forming the west side have been removed.</p>	 <p>Source: CMP authors, 2009.</p>





NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Tennis court	The tennis court is a clay or earth court enclosed by a fence and wire netting. The Cooks Cottage was moved to accommodate it and the peppercorn tress along the left side removed more recently.	 <p>Source: NSW NPWS, 2007.</p>
Yanga Homestead Group, sheds and service buildings		
Laundry	Corrugated iron clad timber framed two roomed building on an earth platform. The retaining wall forming the front platform is collapsing. The cgi is fixed with corrugations running horizontally. (c1900?)	 <p>Source: CMP authors, 2009.</p>
Meat house	Weatherboard clad meat house with a pyramidal roof and wide overhanging eaves shading the wall. The large gauzed windows, gauzed panels at the top of the walls and fleche or vent on the roof provide ventilation (c1920s?). A modern cool room has been added to the right (west).	 <p>Source: CMP authors, 2009.</p>
Refrigeration shed	The refrigeration building is on the south side of the kitchen wing. The building appears to have been moved from elsewhere and to have been built in several stages. There is an addition of 600mm towards the kitchen wing of the house and there is a more substantial addition of 4 or 5m to the south. It is a tall single storey rectangular building. The roof form is a gable with the ridge running north south. It has a timber stud frame clad in weatherboards. Early cool rooms are within the building. (See detailed description later)	 <p>Source: CMP authors, 2009.</p>


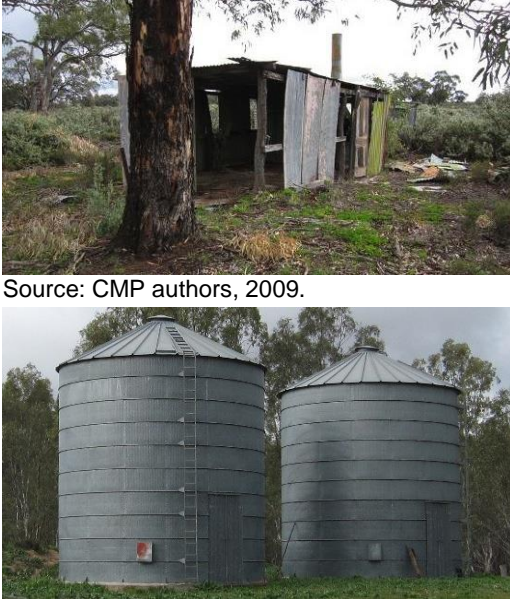


NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Workshop & machinery shed</p>	<p>The earliest and north section of the machinery shed is built up against the rear wall of the refrigeration shed (formerly an external wall). This part of the machinery shed has a concrete floor with a pit for servicing vehicles and is entered from the west through a sliding door. The structure is a pipe frame with timber studs between to fix the corrugated iron wall lining. The roof pitch is low, falling to the east. The new machinery shed added to the south has a concrete floor at a lower level. It is rectangular and the whole south wall is sliding doors. It is constructed with a steel frame and clad in corrugated iron and the roof has a low pitch falling to the east. (See detailed description later)</p>	 <p>Source: CMP authors, 2009.</p>
<p>Former stores building</p>	<p>The Store is located west of the Kitchen Wing and adjacent to the cliff line at the edge of the lake. There is a water tank on the ground adjoining the building on the southeast corner and the main Homestead elevated water tanks adjacent the building to the north. There is an Outhouse to the west of the Store. The store is a rectangular building with a gabled roof running north south. The walls are clad in corrugated iron, fixed with corrugations running vertically, over a timber stud frame with 90 x 50mm studs. (See detailed description later)</p>	 <p>Source: CMP authors, 2009.</p>
<p>Pump house</p>	<p>The pumphouse is a rectangular pole frame clad in cgi. It has a gabled roof, the ridge running EW. There is a window on the west end and double doors on the east. The floor is rough concrete. There is a lean to on the north side.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Stores outhouse</p>	<p>The outhouse is a small rectangular building with a hipped roof with its ridge running east to west. It has a sawn timber frame with corrugated iron cladding and ripple iron lining with the corrugation running vertically. It is set over a pit which is eroded. There is a timber seat the whole width of the room. The doorway faces the lake on the west.</p>	 <p>Source: CMP authors, 2009.</p>






NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Water tank towers	Elevated corrugated iron water tanks on timber trestle structure with steel pipe props.	 <p>Source: CMP authors, 2009.</p>
Long shed	Gable roofed corrugated iron shed subdivided into separate rooms. Access from each end and central doors on the side of the building. Joinery from the house is stored in the far end, a fire truck in the near end and saddles and horse tack in one central room and paint in another.	 <p>Source: CMP authors, 2009.</p>
Stables	The stable is a timber framed structure with a rectangular floor plan and a gabled roof. The ridge runs north south. The building comprises a row of stalls along the west side with a tack room at the northwest corner and an open area at the southwest corner. The floor is earth except for the store. The structure is asymmetric with the east side ground level and roofline lower. The roof and walls are generally clad in corrugated iron except the east wall which is open and the west wall which is vertically boarded. (See detailed description later)	 <p>Source: CMP authors, 2009.</p>
Carriage shed /smithy	This shed is a timber framed structure with a rectangular floor plan and a gabled roof, similar to and forming a pair with the stables which are adjacent. The building comprises an enclosed area at the south for carriages and storage, an open area at the centre and an enclosed area at the north with a blacksmith forge. There is a cgi water tank at the north end of the building on a timber platform on brick piers. (See detailed description later)	 <p>Source: CMP authors, 2009.</p>




NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Kill house and Stockyards</p>	<p>Corrugated iron clad shed with gable roof. Corrugations run horizontally. Timber pole frame. There is an animal pen in the northeast corner with a slatted timber floor. The remainder of the floor is concrete with a waste drain down to the south west. A smaller mesh sided structure is adjacent to the north and a separate steel portal frame for lifting.</p> <p>There are extensive stockyards to the north constructed of round timber posts and timber rails. There is a crush and loading ramp and a circular horse yard.</p>	 <p>Source: CMP authors, 2009.</p> <p>Source: NPWS Asset survey, 2007.</p>
<p>Staff barracks – four buildings (Singlemens Quarters)</p>	<p>The former singlemens quarters, or staff quarters, has been renovated as the office for National Parks. The main building is a rectangular and clad in corrugated iron laid vertically. It has a simple gable roof form, with the roof over-sailing the end of the gable, and the roof continues over the verandahs. There are metal louvres in the gables at each end of the building. The floor is raised and appears to be supported on metal posts. The secondary buildings include a toilet and messroom to the east and two wings to the north and a carport. (See detailed description later)</p>	 <p>Source: CMP authors, 2009.</p>
<p>Lakeside manager's cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>The lakeside manager's cottage is a timber-framed, fibro clad residence with a high pitched, corrugated iron clad roof. A single brick chimney serving three fireplaces is located on the northern side of the peak of the roof.</p> <p>The original building of five rooms was surrounded by a wide verandah, the roof of which was a continuation of the main roof. The western and southern sides of the verandah have been enclosed to create a kitchen, bathroom, laundry and two bedrooms.</p> <p>A carport has been constructed adjacent to the western end of the northern verandah. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Lakeside middle cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>A timber-framed, weatherboard clad residence believed to have been originally constructed elsewhere and relocated here to serve as a retirement cottage for Yanga Station Manager George Carter and his wife.</p> <p>The original cottage of four rooms featured an 'L' shaped corrugated iron roof with a prominent front gable facing the access road. The gable end has coverstrips over the sheet cladding. An office was located at the southern end of the front verandah with its entrance opposite the front door of the cottage and a bathroom was situated at the northern end of</p>	 <p>Source: High Ground Consulting, 2006</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
	<p>the back verandah. The footings are wooden stumps.</p> <p>Two skillion-roofed extensions have extended the cottage to the north and created a carport. The rear verandah has been enclosed to include a bathroom, toilet and storage room and enclosure of the side verandah has created a dressing room and store. Internal lining boards in the original sections of the cottage have been covered with compressed asbestos fibre sheeting. Original Caneite ceilings are insitu. The bedroom retains its original timbered dado.</p> <p>A separate corrugated iron clad laundry has been constructed behind the cottage. The laundry is of a design typical of Yanga outstation laundries.</p> <p>(High Ground Consulting, 2006)</p>	
<p>Palmtree cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Palmtree cottage is a timber-framed, weatherboard clad residence with a high pitched, hipped corrugated iron clad roof. A single brick chimney serving two fireplaces is located on the eastern side of the roof. The cottage takes its name from two large date palms planted near its southern side.</p> <p>The original building of four rooms was surrounded by a wide verandah, the roof of which is a continuation of the main roof. The western verandah has been enclosed to create a bathroom and toilet clad externally in corrugated iron. A bedroom has been added on the southwest corner of the building. This and the enclosed rear verandah are clad externally in compressed asbestos fibre sheeting. The original section of the cottage is lined with masonite and ripple iron. Western extensions are lined with 'fibro'.</p> <p>A carport and separate corrugated iron clad laundry have been constructed adjacent to the western end of the northern verandah. The laundry is of a design typical of Yanga outstation laundries.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Redgum cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Redgum Cottage is a timber-framed residence with a hipped roof. The cottage was originally a three-roomed residence with encircling verandah constructed at South Yanga and was relocated to its present site. Originally clad entirely in ripple iron it has been reclad in board and batten style.</p> <p>It was reported to have been clad in redgum slabs, hence its name (as told to Narelle Jones Bes Murray 13/12/10). The original verandahs of the cottage have been enclosed to create bedrooms, a bathroom and laundry and extend living areas. The original ripple iron cladding is still in place on the former external walls.</p> <p>A Hardiplank clad extension was constructed on the eastern side of the cottage in the 1980s. This is constructed on a concrete slab with floor level below that of the main cottage. A verandah extension has been built onto the western side of the cottage.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Grave of Alfred Parker</p>	<p>Marble headstone with formal carved lettering in a pipe rail enclosure on sandhill adjacent the Homestead entrance drive. The lettering reads: In Memory of Alfred Morris Parker Aged 18 years Who was drowned in Yangar Creek On 17th October 1860 He was a fine promising young man And he died universally loved and Respected by all who knew him May he rest in peace And awake to a joyful resurrection</p>	 <p>Source: NPWS staff. 2012.</p>
<p>Others</p>		
<p>Yanga House rubbish dump west 19th C</p>	<p>This is a scatter of mainly 19th C rubbish dump extending ca 30m along the lake shore at the base of the cliff on the west side of the Yanga HS complex. The material has been reworked by wave action and dumped along a strand line: includes: ceramics, including plain, blue transfer glazed and unglazed earthenware, glass fragments; concrete, bricks, wire, bone, timber, etc. There are also clusters of larger items – wire, timber, and concrete, in gullies on the cliff face.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Yanga House rubbish dump east 20th C</p>	<p>On the down-slope from the homestead buildings to the lake edge there is a scatter of white ceramic, stoneware; bottle glass, mainly clear; iron objects; fragments of fibro-cement; insulators; and dry-cell carbon electrodes. There is also the vestigial wreck of a truck, probably of 1920s–1930s date, and an abandoned (tractor-drawn) seed-drill.</p>	<p>No image available.</p>
<p>'Old Station' site</p>	<p>On early maps, the site of at least 4 buildings, some fences and a yard near the eastern end of a bridge across Yanga Creek. Now a thin scatter of 19th C ceramic fragments and fragmentary bottle glass, bricks, and clay pipes.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Yanga Lake regulator and bridge site</p>	<p>The Yanga Lake Regulator is a dam-like structure designed to allow water to enter Yanga Lake along Yanga Creek and retain water in the lake. It consists of a wide concrete footing and aprons extending across the creek from bank to bank. Concrete walls are constructed at each bank and buttressed on the creek side. The eight concrete buttresses are approximately 3 metres high. A framework of hardwood boards is bolted to the lake side of the buttresses and edge walls. These are fabricated to form vertical slots into which individual boards are fitted to form a weir. The original concrete elements of the regulator are concrete cast in situ using a quartz aggregate. The structure of the regulator has been reinforced with a different type of concrete.</p>	 <p>Regulator. Source: CMP authors, 2009.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
	<p>Remnants of the original bridge at the location are located in the creek bed below the regulator (on the north side or creek side).</p>	 <p>Remnants of bridge piers. Source: CMP authors, 2009.</p>
<p>Rabbiters Hut and silos</p>	<p>Small rectangular corrugated iron clad structure built of saplings and salvaged materials; with a single internal space with dirt floor. A fuel stove is still in position at the back wall, with an external iron chimney. Behind the building are the remains of an outdoor toilet and chook yards.</p> <p>The silos are two modern cgi cylindrical tanks with conical roofs.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Sheep dip</p>	<p>Concrete sheep dip with timber ramps at each end and associated yards.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Railway and Yanga Siding</p>	<p>An eroding earth embankment, with timber frame removed; the concrete base and some metal attachments for a signal post, and some other metal objects at one end of the siding. At the northern end an earth ramp allowed the loading of stock. To the north of the siding, several sleepers visible in a track crossing and there is a concrete culvert under the permanent way.</p>	

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Yacht Club, (former)	Cgi toilets and timber seats and tables. No remains of the club. The building was destroyed in the 1956 flood. The toilet block suggests that the area has been used as a picnic and camping ground since 1956.	<p>Source: Google, 2010.</p>  <p>Yacht Club toilets. Source: CMP authors, 2009.</p>
Pumping Station	Large complex concrete structure with pumps and tanks for lifting water from the tank to the concrete and earth irrigation channels to North and South Breeding paddocks. Machinery is also insitu.	 <p>Infrastructure at lake edge. Source: CMP authors, 2009.</p>  <p>Channel from pump house at lake runs across photo at the top of the fields. Source: Google, 2010.</p>
Pelican Point house site	<p>Known from oral history. Specific site not identified. Locality shown on map of archaeological sites.</p> <p>A sparse scatter of wood and metal with no obvious structural items in an area overgrown with old man salt bush (limiting visibility). The only identifiable item is an iron and mesh gate. No ceramic fragments and a single fragment of mid green bottle glass (bottle neck).</p>	 <p>Source: CMP authors, 2009.</p>
B & S Ball site	Timber structures on high ground above the eastern shore of Yanga Lake. One standing telephone pole with wires attached and two more lying on the ground were used to hold up a marquee. There are two sections of wooden 'bench' (the bar) and other timber uprights with slots at the top designed to hold horizontal planks (tables and seating).	 <p>Source: CMP authors, 2009.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Henry's Camp	Site of Henry Davies' fishing camp at the south end of Yanga Lake, with a number of caravans. There were nine caravans, many run down vehicles and several substantial buildings. There was a lawn going down to the lake and a large garden with fruit trees. The site was cleaned up before the sale to DECCW, a large pit was dug and everything bulldozed into it, except the toilet and a radio tower.	 <p>Source: CMP authors, 2009.</p>
Old Fishing Camp	A sparse scatter of material along track east of the Pumping Station on Yanga Lake: brick fragments, ceramic, weathered pale green glass, hand-made nail, cast iron fragments, old metal pin, wire, ash. Blue transfer ceramics were all Rhine pattern (19 th C), not yet seen on any other Yanga historic sites.	 <p>Source: CMP authors, 2009.</p>
Piggery	A set of wooden stalls and runs on the southern shore of Lake Yanga. The site is probably 20 th C as indicated by the use of star pickets in the structure.	 <p>Source: CMP authors, 2009.</p>
South Yanga homestead site	Not identified. A peppercorn tree is believed to remain at the site.	No image available.

3.3.2 Woolshed Precinct

The Woolshed precinct is a separate section of the park on the east bank of the Murrumbidgee south of Balranald northwest of the Windomal Road. It is river floodplain and includes low areas which hold water or river overflow. Along the river is river redgum forest with cleared and previously farmed areas along the road and areas of redgum regrowth along the edge of previous flood lines.






There is a tight bend in the river with a steep bank and deep water that formerly allowed loading and unloading of riverboats. The precinct contains the massive Woolshed and associated yards and the shearers quarters and mess buildings and managers houses. There are archaeological remains of another set of staff quarters on the north of the woolshed. The embankment that protected the buildings from floods remain. There may also be archaeological remains of the woolshed which burnt down in 1896, under the existing woolshed.






The area has high recreational values for water and land based activities and there is a day use picnic area south of the Woolshed, an interpretive display and parking area at the Woolshed and a camping area further south along the river.






The following map shows the extent of the precinct. The map shows the location of the Woolshed Group in the precinct. Detailed plans of the Homestead and Woolshed Groups are included in the following section on detailed descriptions of the principal buildings.



Figure 3.3.3 Woolshed Precinct showing historic sites Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Yanga woolshed	A timber-framed woolshed of linear design, rebuilt in 1896 replacing an earlier woolshed which burnt to the ground. Built in stages before 1911. In the foreground is the embankment to protect the site from floods and the site of the set of demolished quarters.	 <p data-bbox="919 517 1396 577">Source: NSW NPWS, 2010, (photo taken by Narelle Jones, May 2007).</p>
Woolshed stables	Timber framed corrugated iron shed with ventilated gables and eaves. The same design as Breer Hut. Skillion roofed addition to the right is a stable. The corrugations on the wall run horizontally.	 <p data-bbox="919 801 1396 835">Source: CMP authors, 2009.</p>
Yanga Shearers' Quarters	Long building comprising row of 12 individual rooms with doors on the west and windows on the east. Constructed of probably locally made concrete blocks prior to 1911. The roof is a gable form and clad in cgi. Designed by architects Tunbridge and Tunbridge for the E S & A Bank. Timber uprights added later in an attempt to stabilise the walls.	 <p data-bbox="919 1144 1396 1178">Source: CMP authors, 2009.</p>
Cookhouse	Cookhouse constructed as above. The original plans for the buildings are on display in the Cooks House exhibition at the Homestead. The building has a mess room at the east end. At the northwest corner is the kitchen and ovens in an attached skillion. At the southwest corner is the cook's bedroom.	 <p data-bbox="919 1536 1396 1574">Source: High Ground Consulting, 2006</p>
Meat house	Sawn timber frame structure with wire netting walls. No roof. The roof of the building is visible in the 1911 photo of the quarters and was a pyramid form with overhanging eaves.	 <p data-bbox="919 1973 1396 2009">Source: CMP authors, 2009.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Shearers' barracks	Modern shearers' quarters with central space and rooms on each side. Sawn timber framed, sheet lining and cgi cladding and roof.	 <p>Source: CMP authors, 2009.</p>
Old Wash House and New Shower Block	Washhouse constructed of concrete blocks similar to the shearers quarters. The adjacent later shower block to the right has provided a path for termites which have destroyed the roof structure.	 <p>Source: CMP authors, 2009.</p>
Contractor & experts quarters	Timber framed structure clad in mini orb and corrugated iron with a gabled roof running east west and verandah on the northern side. Has a central room with fireplace on the south side and four bedrooms opening off it. Possibly predates the 1911 quarters. A lean-to with two rooms adjoins the main building to the southwest.	 <p>Source: CMP authors, 2009.</p>
Yanga Irrigation pump house	Corrugated iron clad shed with working irrigation plant inside.	 <p>Source: CMP authors, 2009.</p>
Woolshed cottage	<p>Woolshed Cottage is a timber-framed, corrugated iron clad residence with a M shaped hipped roof. The cottage was originally smaller, and is believed to date from the late 19th century. The earlier bullnosed verandah on the west (front) has been replaced with a modern low slope verandah. A bathroom and kitchen have been added to the rear of the cottage under skillion roof and the main roof may have been altered. It is possible that the kitchen and bathroom may have been wings off the rear of the original cottage.</p> <p>The interior of the front five rooms of the cottage is lined with Fibrolite walls and Caneite ceilings. The rear sections are lined with masonite or similar sheeting.</p> <p>The house is set within a fenced yard with domestic garden plantings. There is a water tank on the north side. A separate corrugated iron clad laundry has been constructed on the southern side of the cottage. This is typical of laundries built at Yanga Station residences (c.1960s?). A modern carport and garden shed are near the laundry.</p>	 <p>Source: CMP authors, 2009.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Irrigation cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Irrigation Cottage is a timber-framed, double-fronted residence constructed some time in the late 1940s or early 1950s. Originally clad with weatherboards and is set on concrete stumps with ant caps the cottage has been partially reclad in hardiplank</p> <p>The cottage was relocated in two halves to its present position in the mid 1950s. It was constructed as a three bedroom house with an eat-in kitchen and separate lounge room. The interior of most of the house is lined with horsehair plaster. The Bathroom is lined with Versalux sheets. A verandah, attached to the bedroom wing on the southern and western side of the house has been partially enclosed and now acts as a store room.</p> <p>The front of the house has been extended to create a formal dining area. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
Others		
<p>Site of North Shedhand Quarters</p>	<p>Archaeological remains. The concrete floor slabs remain and rubble from the walls indicating the same construction as the shearer quarters. Remains include the quarters, ablution block and a cooks/mess building. Now overgrown with weeds.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Embankment</p>	<p>This extensive levee is an earth mound around the north of the woolshed precinct joining higher ground to the east. It functioned in the late 2010 floods to protect the woolshed. A stove in the photo is probably from the former north cook/mess building nearby.</p>	 <p>Source: CMP authors, 2009.</p>
<p>Sheepyards</p>	<p>Steel and wire yards replacing the earlier timber yards. There are yards on the north and south of the shed for shorn sheep. Yards extend east of the Woolshed for sheep waiting to be shorn.</p>	 <p>Source: NSW NPWS, 2010 (image is of last shearing at Yanga Woolshed Nov 2005).</p>
<p>Races and Shelters over</p>	<p>Lightweight shelters over the races. Steel frame with cgi roof. The yards join races under the shelters for sorting, checking and drenching sheep.</p>	 <p>Source: CMP authors, 2009.</p>

3.3.3 Willows Precinct

The Willows precinct is at the southeast corner of the Yanga Reserves and is immediately south of the Sturt Highway. The whole of the area is State Conservation Area and there is a large inholding in the centre of the precinct. It is flat and elevated above the flood plain and features woodlands with pine ridges and belah/rosewood associations and chenopod shrublands with cotton bush and bluebush. The area has been extensively grazed in the past and partly cleared.




The former railway ran diagonally across the southwest corner of the site. The former Impimi station site and the Impimi property in the centre of the site are not part of the park.. The area was developed in the early 20th century with windmills, above ground water tanks and slabbed wells, two of which are known to remain. The woolshed and residence are at the centre of the precinct and are associated with the use of the dry country for grazing in winter.


The area has recreational values for bird watching and nature observation and interpreting an aspect of the pastoral use. There is a day use picnic area at the Woolshed with an interpretive display and parking area and a camping area nearby.

The following map shows the extent of the precinct. An area in the centre is privately owned (see precinct map in Section 1.3.1) The map shows the location of the items included in the table following.



Figure 3.3.4 Woolshed Precinct showing historic sites Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>The Willows Homestead Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>The Willows Homestead is a 1920s Bungalow style residence with a low-pitched corrugated iron clad roof and external walls clad in ripple iron. The building is set on milled hardwood stumps.</p> <p>The homestead has been modified by the enclosure of the wide front verandah. This verandah appears to have originally covered approximately 1/3 of the floor space under the main roof. A skillion-roofed extension has been added along the northern side of the building and a timber-framed carport added to the north of this extension. A corrugated iron clad laundry and generator room, typical of laundries constructed at Yanga outstations and residences during the 1960s, is located near the eastern side of the building. This building contains a concrete base for a generator once used to provide electricity to the house.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>The Willows Woolshed</p>	<p>The building has a gable roof clad in cgi. The building has steel piers and steel internal posts and a timber wall frame clad in corrugated galvanised iron vertically laid. The timber shutters at the shearing stands have been recently replaced. Yards constructed of steel pipe with large section horizontal timbers are at the east of the shed and counting pens on the north.</p> <p>There is a cgi tank adjacent to the building at the north west corner and the entry is a lean-to structure between the tank and counting out yards. A separate amenities building is west of the woolshed and a large concrete water tank is on a rise to the east.</p> <p>(High Ground Consulting, 2006 and TZG)</p>	 <p>Willows Woolshed viewed from the north. Source: CMP authors, 2009.</p>
<p>Others</p>		
<p>Parkers Homestead Ruin</p>	<p>Site only known from NPWS HHIMS database.</p>	<p>No image available.</p>
<p>Parkers Sheep Yards</p>	<p>Site only known from NPWS HHIMS database.</p>	<p>No image available.</p>
<p>Railway and Impimi siding and town site</p>	<p>Site not inspected. The railway route continues outside within the reserves.</p>	<p>No image available.</p>
<p>The Willows Well</p>	<p>A slabbed well with the timbers in good condition with a Southern Cross windmill still in place, vanes of mill on ground. The well is basically the standard government design: two compartments, each 2ft 6in square, divided by a brattice or ladder extending from top to bottom of the shaft. The timber is Murray pine. There are two associated iron tanks and a water trough, with a scatter of timber and metal objects around the site.</p>	 <p>The slabbed well in the Willows paddock. There is also a windmill similar to that pictured below. Source: CMP authors, 2009.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Hults Well</p>	<p>A slabbed well with the timbers in good condition with a Southern Cross windmill still in place, and water visible in well. The well is basically the standard government design: two compartments, each 2ft 6in square, divided by a brattice or ladder extending from top to bottom of the shaft. The timber is Murray pine. There are two associated tanks, one of concrete and one of sheets of iron stencilled "Metters Patent Steel Squatters' Tank". There are a water trough and a scatter of timber and metal objects around the site.</p>	 <p>The Windmill in Hults paddock. In is near the slabbed well similar to that pictured above. Source: CMP authors, 2009.</p>

3.3.4 Oakhampton Precinct

The Oakhampton precinct is at the east of the Yanga Reserves immediately north of the Sturt Highway and bounded on the west by the Waugorah Road. It includes the Yanga Nature Reserve and the remainder is classified as State Conservation Area except some small areas of National Park at the west of the precinct. The east part of the precinct is largely flat and elevated and Uara Creek runs along the northwest of the precinct. The area has black box woodlands and chenopod shrublands with bladder saltbush and canegrass swamps. The area has not generally been cleared but has been grazed. In the centre of the area the Yanga Nature Reserve, an area reserved in the early 20th century, is dominated by river bank (riparian) communities of black box, old man salt bush and lignum..

A travelling stock route used to run through the area linking Yanga Lake to the south east and Kia Lake to the north. Remnants of yards and fencing may survive. In the early 20th century windmills, above ground water tanks and slabbed wells were built, one of which is known to remain. The Abercrombie Channel runs along the Sturt Highway from the east supplying water to the Oakhampton Homestead and Woolshed at the end of the channel. The woolshed and residence are at the centre of the precinct and are associated with the use of the dry country for grazing in winter.




The area has recreational values for bird watching and nature observation but is primarily valued for conservation of the red country natural environment.



The following map shows the extent of the precinct. The map shows the location of the items included in the table following.



Figure 3.3.5 Oakhampton Precinct showing historic sites Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
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NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Oakhampton</p> <p>Oakhampton Homestead Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Oakhampton Homestead is a mid 1920s house with a square footprint and pyramid-shaped, hipped, corrugated iron clad roof that covers an encircling verandah. This house was originally clad in the half-timbered style commonly found on timber-framed houses in the 1920s. This consists of weatherboards up to dado height and compressed asbestos fibre sheets above. The verandahs have been progressively enclosed. There is a large, gable-roofed living room with brick chimney constructed onto the southern side of the house possibly prior to World War II.</p> <p>Various outbuildings, including;</p> <ul style="list-style-type: none"> • A fibro clad laundry with skillion roof possibly constructed in the 1950s • A fibro clad toilet, • A small potting shed, • A greenhouse, • A garden shed converted from a silo manufactured some time after 1957, • A chook house. • A mature garden with paving. • A large corrugated iron clad vehicle and machinery shed located to the east of the homestead. • A large water tank on a high stand. • A corrugated iron clad woolshed located south of the homestead. • Remnant shearers' quarters for the woolshed. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Oakhampton Cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Oakhampton Cottage consists of the following:</p> <ul style="list-style-type: none"> • A hardiplank clad relocatable dwelling mounted on concrete stumps, • A two-roomed extension on the northern side of the original dwelling, • Steel and timber framed verandah and carport extensions, • Water tank, • Adjacent vehicle shed. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Oakhampton Woolshed Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>A corrugated iron clad woolshed located south of the homestead. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Others		
<p>Oakhampton Irrigation Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Ground tank evident in aerial photo, not inspected on site.</p>	 <p>Source: Google, 2010.</p>
<p>Abercrombie channels</p>	<p>The Abercrombie Channel runs along the north side of the Sturt Highway from the east and terminates at Oakhampton. It is a major irrigation system supplying water for agricultural and domestic use.</p>	<p>No image available.</p>
<p>Lower Fingerboard Well Note the well is located in Lower Fingerboard paddock close to the boundary of Top Fingerboard paddock.</p>	<p>A slabbed well with the timbers in good condition but windmill superstructure gone. The well is basically the standard government design: two compartments, each 2ft 6in square, divided by a brattice or ladder extending from top to bottom of the shaft. The timber is Murray pine. The timber stumps for a large water tank are preserved nearby but the tank has gone. There is a scatter of timber and metal objects around the site.</p>	 <p>Slabbed well. Source: CMP authors, 2009.</p>

3.3.5 Uara Precinct

The Uara Creek precinct is immediately north of Yanga Lake and includes the permanent Yanga, Uara and Kieeta Creeks and is bounded by the Murrumbidgee River in the west, Waugorah Road in the east and the Spinks lease in the north. Large areas of the precinct were flooded country except an elevated area in the centre that was cropped or otherwise cultivated. There are extensive river redgum communities, black box and old man saltbush flats. Kieeta Creek appears to be a relict channel or cutoff.





The area contains the site of the original Kietu homestead site, Wentworth's Head Station, and fences and archaeological remains are evident as well as a peppercorn tree. The precinct has extensive water regulation infrastructure including the large Yanga Creek Regulator and the extensive Devils Creek levee banks and regulator and many smaller regulators on the Uara and Yanga Creek system. In the north of the area is the Kieeta escape. The irrigation systems were installed in about 1920 and are culturally significant as well as being important for the maintenance of the flooded country.




In the west of the precinct are charcoal burning pits used by the Murray Family who lived at "The Island" just outside the park to the west. Along the river are Aboriginal sites including scar trees and ring trees as well as evidence of exploitation for forestry. There is also a 'Blacks Burial Ground' marked on early maps near the Kietu Head Station site.

The following map shows the extent of the precinct. The map shows the location of the items included in the table following.



Figure 3.3.6 Uara Precinct showing historic sites. Note that the boundary is incorrect in this map. The precinct no longer extends so far to the right and extends further to the north (top). See maps in Section 1 for the new boundary. Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>The Island Charcoal Kiln</p>	<p>This consisted of three square brick lined pits now marked by collapsed hollows each approx. 2x4m. In the easternmost one, the brick work of one corner can be seen. Around the hollows are a scatter of bricks, mesh (for sieving) and other metal pieces.</p>	 <p>Source: CMP authors, 2009</p>
<p>Kietu Head Station site</p>	<p>The site consists of a thin scatter of artefacts, including fragments of sandstock bricks, bottle glass, ceramic (including blue-and-white transfer-printed ware), and clay smoking-pipe stems (one marked '[Gla]sgow'). There are also iron fragments, both cast and forged. The artefact scatter is in two parts, an area of thinner scatter probably marking the house site and another area probably indicating a garbage deposit. The location is marked by a large peppercorn tree. There are farm fences and yard remnants in the vicinity, probably a later period.</p>	 <p>Source: CMP authors, 2009</p>
<p>Kieeta Creek Outlet regulator (ruin) (Kieeta Escape) Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>This is a dam-like structure designed to regulate water flow in Kieeta Creek. The regulator appears to be of similar vintage to the Yanga Lake and Old Swamp Regulators. It consists of the following:</p> <ul style="list-style-type: none"> • Two concrete caissons originally erected against each bank of the creek. The western caisson has collapsed. • One concrete pier set between the two caissons. • A hardwood structure fixed to the concrete section of the regulator. This includes remnants of a bridge and walkway, and framework to allow placement of boards into the regulator to regulate water flow. • Remnants of a log-framed coffer dam and evidence of bracing between the coffer dam and regulator. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Yanga Creek regulator</p>	<p>This is a dam-like structure designed to allow water to enter Yanga Lake along Yanga Creek and retain flood water in Yanga Creek. It consists of the following:</p> <ul style="list-style-type: none"> • A wide concrete footing and aprons extending across the creek from bank to bank. • Concrete caissons constructed at each bank. • Eight concrete piers approximately 3 metres high. • A framework of hardwood boards bolted to the eastern (Yanga Lake) side of the piers. These are fabricated to form vertical slots into which individual boards are fitted to form a weir. • A timber bridge deck and railings allowing vehicle movement over the regulator. The railings on the eastern side of the regulator are integral with the timber weir structure. <p>The original concrete elements of the regulator appear to have been made with reinforced concrete formed up in situ. (High Ground Consulting, 2006)</p>	 <p>Source: CMP authors, 2009</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Other irrigation regulators	<p>There are several other regulators in the Yanga Creek and Devil's Creek irrigation systems. Some are in modern concrete from the late 20th century and some in an earlier concrete material from the early 20th century. They have not all been surveyed or located.</p>	 <p>Example of an unidentified regulator. Source: CMP authors, 2009</p>
Devil's Creek regulator	<p>This is a dam-like structure designed to regulate water flow in Devil's Creek. The regulator is set in large levee bank and carries the roadway that runs along the top of the levee. It consists of the following:</p> <ul style="list-style-type: none"> • A wide concrete footing extending the width of the levee bank. • Two concrete abutments with return walls at their upstream ends. • One concrete pier set halfway between the two abutments. • Milled hardwood wings on the upstream side of the bridge abutments. • A framework of hardwood boards bolted to the northern side of the abutments and pier. These form vertical slots into which individual boards are fitted to form a weir. • A timber bridge deck allowing vehicle movement over the regulator. A railing on the northern side of the regulator is integral with the timber weir structure. <p>The original concrete elements of the regulator appear to have been made with reinforced concrete formed up in situ. (High Ground Consulting, 2006)</p>	 <p>Source: CMP authors, 2009</p>
Jardine Irrigation banks etc	<p>Site not inspected.</p>	 <p>Source: Google, 2010.</p>
Railway line	<p>Site not inspected.</p>	<p>Shown in above photo.</p>

3.3.6 Tala Precinct

The Tala precinct, is the central area of the park with a long frontage to the Murrumbidgee River in the west and adjoining Tala Lake in the east. Pee Vee and Monkem Creeks run through the east of the precinct into Tala Lake and Tala Creek runs from east west across the precinct with an escape at the Murrumbidgee. Waugorah Road is east of the precinct and privately owned "Talpee" formerly part of Yanga, is between the park and the road.





The precinct is mostly flooded country except an elevated area in the north. There are extensive river redgum communities, black box woodland, lignum and floodplain wetlands which are important waterbird breeding sites.




Early pastoral development sites in the areas such as Talpee and around Tala lake are not in the park. Some fencing south of Tala Creek and a bridge over it are pastoral remains. North of Tala Lake are Peacocks Hut, a slab structure that is one of the few remaining vernacular huts or outstations and Smyths hut and crutching shed.




The precinct has some water regulation infrastructure but the major installations on Pee Vee Creek are outside the park. Along the river are Aboriginal sites as well as evidence of exploitation for forestry. The following map shows the extent of the precinct. The map shows the location of the items included in the table following.



Figure 3.3.7 Tala Precinct showing historic sites Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Breer Hut Complex</p>		
<p>Breer Hut Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>The accommodation building was relocated to its present location from South Tala. It is set on River Redgum stumps and consists of the following:</p> <ul style="list-style-type: none"> • Milled hardwood frame supporting a gabled roof clad in corrugated galvanised iron, • Ripple iron external wall cladding and ripple iron clad window shutters. • The building has a central room that appears to be a common or dining room. A kitchen with large fuel stove is located at the northern end of the building and two bedrooms are accessed from the southern end of the structure. The flue for the fuel stove is typical of the galvanised sheet flues installed in Yanga buildings during the 1950s. Two large wooden dining tables and beds are in the dining room. • The presence of Lysaught Galvanised Tinned corrugated iron suggests the structure was originally constructed between 1887 and the 1920s. • The 1956 flood level has been carved into one of the floor stumps, confirming a date of erection at River Breer prior to that event. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Breer Hut crutching shed Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>The crutching shed is a timber-framed structure built as follows:</p> <ul style="list-style-type: none"> • Unmilled River Redgum posts and stumps, • Milled Redgum floor bearers, joists and boards, • Milled Redgum fencing and entry ramp, • Gabled roof frame of saplings supported by Redgum posts. Chicken wire attached the roof frame collects leaf litter from surrounding eucalypts, providing a shaded shelter for the shed. • Internal gates are tubular steel. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Smyth's</p>		
<p>Smyth's Hut Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Smyth's Hut is a simple, timber-framed fishing hut built with an open end and a deck fronting Talpee Creek. It has one room with a low gable roof and corrugated iron clad walls. The building is set on stumps with ant caps. The timber deck at the front of the hut has no ant caps. Termites entering through this deck have severely damaged the structure. The floor of the hut is particle board sheeting.</p> <p>The hut appears to have been constructed or enclosed in two stages. Wall cladding at the rear is corrugated galvanised iron and that at towards the front is Zinalume. A dining bench and barbecue area are located to the south of the hut.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Smyth's Crutching Shed Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Smyth's Crutching Shed is a simple, skillion-roofed structure constructed with a milled timber frame and partially clad in corrugated galvanised iron. The structure is set on hardwood stumps. The shed is located at the western end of a set of yards in the corner of a large paddock.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Peacock's		
<p>Peacock's Hut</p>	<p>Peacock's Hut is a four-roomed drop slab dwelling possibly erected in the 1860s. All of the walls of the hut are constructed from adzed slabs set within pit-sawn battens fixed to adzed posts. The front two rooms are covered by a corrugated iron gable roof and the back two rooms are covered by a corrugated iron clad skillion roof. A new gabled roof of milled timber with corrugated cladding and weatherboard clad gable ends was fitted in the early 1920s. New windows were possibly fitted around the same time.</p> <p>The hut is in poor condition with many drop slabs missing from the external walls and substantial termite damage visible in the uprights on the northern end. Many slabs are laying on the ground.</p> <p>A separate skillion-roofed, corrugated iron clad laundry/outhouse appears to have been constructed in the mid 20th century.</p> <p>The floor and other components of a separate large structure relocated from South Yanga are located to the left but the structure has collapsed. It had a milled timber frame and elevated floor with T&G boards.</p> <p>(High Ground Consulting, 2006 & TZG)</p>	 <p>Northern end of hut. Source: CMP authors, 2009</p>
Others		
<p>Sawmill site on Smyth's (near Smyth's Crutching Shed)</p> <p>Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>An abandoned sawmill is located on a rise approximately 300 metres north of the crutching shed. Remnant features of the sawmill include the remains of a breaking down saw and log table, and a log dump. Various metal artefacts, once part of milling machinery, are scattered around the site.</p> <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Breer Yards</p> <p>Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Remains of former log / sapling fencing.</p>	 <p>Source: NPWS, 2006.</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Tala Escape R3, regulator	Site not inspected.	 <p data-bbox="992 548 1476 577">Source: Google, 2010.</p>
Breer Regulator	Site not inspected.	 <p data-bbox="992 891 1476 920">Source: Google, 2010.</p>
Tala boat	Exact location of site to be confirmed. Not inspected.	 <p data-bbox="992 1400 1476 1438">Source: Gott, 2009.</p>

3.3.7 Waugorah Precinct

The Waugorah precinct is at the far north of the park and is bounded by the Murrumbidgee River in the west and north and by the Waugorah Road and property boundaries in the east. Large areas of the precinct were flooded country except an elevated area at Waugorah and a hill running north south just south of Redbank weir. The weir is the major weir on the Murrumbidgee in the area providing water to the Redbank system on both sides of the river. There are two major regulators on the Murrumbidgee in the precinct, the Yanga (1AS) and Waugorah (1ES) regulators that are important historically and to manage water flows into the national park. The precinct is distant from population centres but has extensive river frontage and natural areas suitable for nature based recreation.

There are extensive river redgum communities, some black box and more open country in the southeast of the precinct. The west of the area includes further regulators (below the weir) and Piggery Lake as well as several large and significant swamps supporting extensive wetlands communities. Waugorah Creek runs across the precinct with a lake at the centre.

There was extensive early settlement in the area and this was the site of the conflict between selectors Hobler and Wentworth. The site of the Waugorah house, school house and sheds was developed and also has remains or earlier bridges and yards and possibly huts. Further north is the sheep bridge in Hill paddock that provided access to the Woolshed on the river further north during flood times. Earthworks and archaeological remains are at the Woolshed site, a surviving metal woolpress and a sunken barge in the river. This was also the site of Barkers sheep station. Remains may also exist of yards, huts and the piggery on the river bend at Redbank Hill. The extensive Tarwillie stockyards remain at the southeast of the precinct.

The following map shows the extent of the precinct. The map shows the location of the items included in the table following.

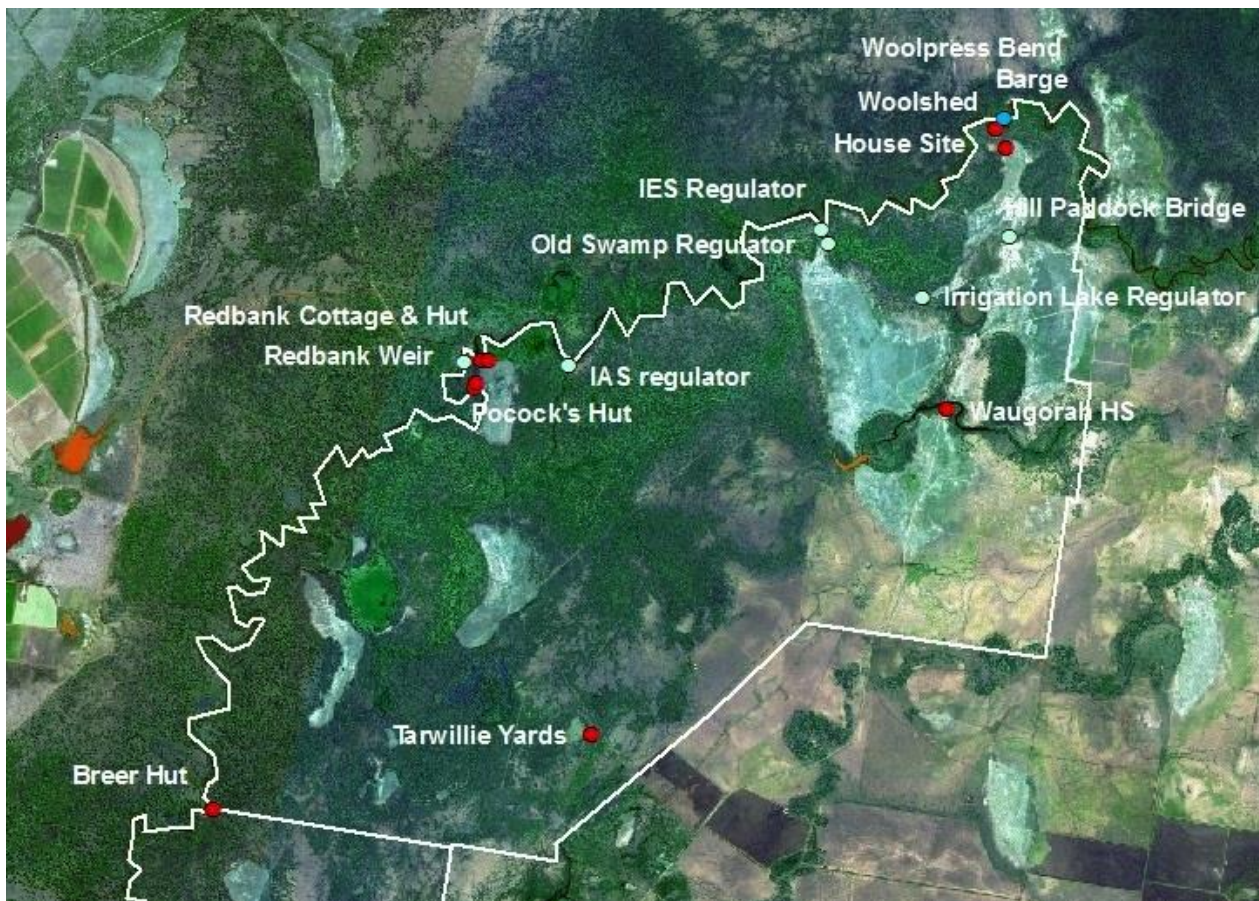





















Figure 3.3.8 Waugorah Precinct showing historic sites Source: Hope / CMP authors.

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Waugorah		

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Waugorah Homestead & kitchen</p>	<p>Waugorah Homestead was constructed in 1987 replacing an earlier structure and is a three-bedroom house clad in Hardiplank. Attached is a weatherboard and corrugated iron clad kitchen and bathroom constructed in 1934. This is a simple rectangular building with a gabled roof. It has two rooms, a kitchen and a bathroom. A small corrugated iron clad boiler room has been constructed on the western wall of this building. The buildings are within a fenced home paddock. There is a cluster of outbuildings around the homestead. Waugorah Creek is located immediately to the north of the dwelling. There are remains of a jetty and bridge. (High Ground Consulting, 2006 & TZG)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Waugorah School House</p>	<p>A school building constructed in 1934. This rectangular one room building is clad in Fibrolite (asbestos) sheets and has a roof of corrugated galvanised iron. It was a sheet metal clad external fireplace with an ornate chimney cowl shaped to resemble a crown. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Sheds at Waugorah</p>	<p>Corrugated iron sheds not inspected in detail.</p>	 <p>Source: CMP authors, 2009</p>
<p>Waugorah Old Yards and Woolshed</p>	<p>Site not inspected. The yards or yard remains are expected to be in about the centre of the image at right. The white dot in the photo is Waugorah homestead. Refer to historic maps with yard location shown.</p> <p>Waugorah Woolshed on the north side of the creek was not inspected by the CMP authors or High Ground Consulting. It is understood to have been used primarily for crutching and sometimes for shearing, for example when sheep had footrot. The woolshed is an intact structure.</p>	 <p>Source: Google, 2010.</p>  <p>Source: NPWS Assett survey, 2007.</p>
<p>Redbank</p>		

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>Redbank Cottage Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Redbank Cottage is a simple post-war rectangular dwelling constructed of a timber frame mounted on brick piers. The cottage is clad in moulded weatherboards and has a hipped roof clad in Super 6 corrugated fibro. Brick chimneys service a living room fireplace and kitchen stove. All rooms have double-hung timber-framed windows except the dining room, which has screened louvre windows. Concrete paths access wooden steps leading to the three cottage entrances. The cottage has three bedrooms, internal bathroom and separate toilet. An enclosed verandah at the western end is accessed from the two front bedrooms. The living room is on the southern side of the house and the kitchen and dining room are at the eastern end. All rooms appear to be lined with masonite sheets. A corrugated iron water tank sits on brick piers adjacent to the kitchen. An elevated brick septic tank extends diagonally from the northern side of the cottage. A corrugated iron clad garage is east of the cottage. Two large water tanks provide a head of pressure for the building and redundant boundary riders' huts are located in the paddock to the east of the cottage yard. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Redbank Hut Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Redbank Hut is a simple timber-framed, corrugated iron clad dwelling with a low gabled roof and corrugated iron clad chimney located on its southern wall. The hut has an earth floor. What is said to be a 19th century grave site is located east of Redbank Hut. This site is possibly unrelated to Redbank Hut. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Redbank Cook House and Meat House Not inspected by authors.</p>	<p>Two small adjacent buildings with gable roofs clad in corrugated iron. The meat house walls are clad in timber. The cookhouse walls are clad in fibro and features two sheet metal chimneys along one elevation. Both are elevated on piers. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Pocock's Hut Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Fred Pocock's Hut is a simple timber-framed, corrugated iron clad dwelling consisting of a gable-roofed section including a combined bed and living room and a skillion-roofed kitchen section. A skillion-roofed verandah faces west. This building was constructed from second-hand materials after the erection of Redbank Weir. It has an earth floor. The hut retained its furniture in 2006 but much is since understood to have been removed. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Pocock's artefact scatter Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>Former vegetable gardens, orchard and a vineyard are located to the north of the hut. The site is littered with rubbish, including numerous abandoned cars and a complete prefabricated miner's hut removed from an old gold mine near Cobar. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Others</p>		

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
Tarwillie yards	Extensive yards with round timber posts and rails and an earth loading ramp.	 <p>Source: CMP authors, 2009</p>
Bridges over Redbank Swamp	Site not inspected.	No image available.
Hill Paddock Bridge (ruin)	The Hill Paddock bridge is a basic beam bridge showing evidence of bush carpentry skills. The piles and girders of the bridge are made from unmilled logs. The bridge trestles are of very simple construction and are unbraced. The tops of the bridge piles were cut to form a tenon that locked into mortices towards each end of the trestle beams. Decking beams were spiked to the tops of the trestles, which appear to have been shaped to create a shallow cradle for each decking beam. (High Ground Consulting, 2006)	 <p>Source: CMP authors, 2009</p>
Barge wreck Woolpress Bend	The wreck of a barge sunken in the Murrumbidgee is sitting on clay and is exposed only at very low water levels. The steel barge or punt is ca 3.5m wide, and at least 5m long, with a squared bow. Visible are a steel keelson, steel floors and a stringer but no frames. At the probable bow, there are remains of hinges suggesting an adjustable ramp was attached.	 <p>Source: NPWS</p>
Woolshed site on Woolpress bend and embankment.	The area is marked by a dense growth of nettles limiting visibility. There is a thin scatter of ceramic and glass across the site, handmade nail, and half a blade shears (there is also a half shears blade embedded high in a nearby tree trunk). An hydraulic woolpress stands at the site, maker's mark: 'Robison Bros & Co Melbourne'. The archaeological remains of the Woolshed are indicated by the bright green weed growth at right. The embankment formerly surrounding the whole area is evident at the river but at other locations is obscured by regrowth.	 <p>Site of Woolshed. Source: CMP authors, 2009</p>
House site near woolshed site	Archaeological material is scattered on a small circular rise in the flood plain, to the south of the Woolpress Bend Woolshed site. The material is fragmented ceramic, glass and clay pipes, makers 'McDougall Glasgow' and 'Murray Glasgow'. Two areas of highly fragmented bone may be the remains of Aboriginal burials. On a track running towards the woolshed is a sawn wooden plank gutter crossing.	 <p>Source: CMP authors, 2009</p>

NAME	PHYSICAL ANALYSIS OF ITEM	IMAGE No.
<p>1AS regulator (R2) (Yanga) Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>1AS Regulator is a dam-like structure designed to allow water to enter wetlands north of Redbank Cottage and retain flood water. The regulator also carries a steel-decked footbridge It consists of the following:</p> <ul style="list-style-type: none"> • A wide concrete footing and aprons extending across the creek from bank to bank. • Concrete wings constructed at each bank. • Seven buttressed and slotted concrete piers approximately 1.8metres high. • A narrow steel walkway across the top of the piers. • Timber planks inserted into the slots in each pier to create a weir. <p>The concrete elements of the regulator appear to have been made with reinforced concrete formed up in situ. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>1ES regulator (R1) Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>1ES Regulator is a dam-like structure designed to allow water to enter wetlands of Shaws Paddock and retain flood water. The regulator also carries a steel-decked footbridge It consists of the following:</p> <ul style="list-style-type: none"> • A wide concrete footing and aprons extending across the creek from bank to bank. • Concrete wings constructed at each bank. • One buttressed and slotted concrete pier approximately 1.8metres high. • A narrow steel walkway across the top of the piers. • Timber planks inserted into the slots in each pier to create a weir. <p>The concrete elements of the regulator appear to have been made with reinforced concrete formed up in situ. (High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Old Swamp regulator (Shaws regulator) Not inspected in detail by authors. High Ground Consulting previous description included here.</p>	<p>The Old Swamp Regulator is a dam-like structure designed to allow water to enter wetlands of Shaws Paddock and retain flood water. It consists of:</p> <ul style="list-style-type: none"> • Earthen banks narrowing the creek passage. • Concrete uprights on each side of the narrow creek opening. Each pier is fitted with a pair of cleats creating slots for planks inserted into the regulator. • Wings of milled hardwood planks along bank. • Two hardwood slabs separating and stabilising the concrete uprights. • Timber planks inserted into the slots in each pier to create a weir. <p>(High Ground Consulting, 2006)</p>	 <p>Source: High Ground Consulting, 2006</p>
<p>Juanbung Regulator</p>	<p>Site not inspected. May be on west of river and not in Yanga Reserves.</p>	<p>No image available.</p>
<p>Glenn Dee regulator</p>	<p>Site not inspected. May be on west of river and not in Yanga Reserves.</p>	<p>No image available.</p>
<p>Redbank Weir</p>	<p>Site not inspected. Major active irrigation structure. Managed by others, not within Reserve but adjoins.</p>	 <p>Source: Google, 2010.</p>
<p>Munkugerie regulator</p>	<p>Site not inspected. May be on west of river and not in Yanga Reserves.</p>	<p>No image available.</p>