

Hugo Hannah
Assistant Development Manager
Altis Property
hugo.hannah@altisproperty.com.au

Dear Hugo,

**RE: ABORIGINAL CULTURAL HERITAGE LETTER OF ADVICE FOR 10, 20 &
30 BERWICK PARK ROAD AND 25, 45, 55, 75, 85 & 95
WILTON PARK ROAD, WILTON, NSW**

Austral Archaeology Pty Ltd (Austral) has been engaged by Altis Property to provide an Aboriginal Cultural Heritage Letter of Advice (LoA) as part of a planning proposal for rezoning of the land at 10, 20 & 30 Berwick Park Road and 25, 45, 55, 75 & 85 Wilton Park Road, Wilton, New South Wales (NSW) [the study area]. The study area is depicted in Figure 35 and Figure 36.

The development will involve the removal of existing vegetation, bulk earthworks to level the ground, trenching for the installation of underground infrastructure and construction of warehouses and roadways. All these activities have the potential to harm any subsurface heritage should they be present within the study area.

Section 87 of the NPW Act makes it an offence to knowingly or unknowingly harm (strict liability) Aboriginal objects or declared Aboriginal places without formal permission from the NSW Government – usually through an Aboriginal Heritage Impact Permit (AHIP). Harm is defined under the NPW Act as “*any act or omission that destroys, defaces or damages the object or place or in relation to an object, moves the object from the land on which it had been situated*”. The NPW Act allows for a person or organisation to exercise due diligence in determining whether their actions will or are likely to impact Aboriginal objects or places. Any person or organisation able to demonstrate due diligence has a defence against prosecution under the strict liability provisions of the NPW Act. Where an activity is likely to harm Aboriginal objects or places, consent in the form of an Aboriginal Heritage Impact Permit (AHIP) is required.

The *National Parks and Wildlife Regulation 2009* (NPW Regulation) adopted the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010a) (the Code). The Code sets out the reasonable and practicable steps that individuals and organisations need to take in order to:

- Identify whether Aboriginal objects are, or are likely to be, present within the study area.
- If Aboriginal objects are, or are likely to be present, determine whether their activities are likely to cause harm.
- Determine whether further assessment or an AHIP application is required for the activity to proceed.

This advice has been formulated to provide a robust assessment that will identify whether Aboriginal objects or places are present or are likely to be present within the study area. This has been achieved through the completion of a desktop review and visual inspection of the study area.



RESULTS OF DATABASE SEARCHES APPLIED TO THE SURROUNDS OF THE STUDY AREA

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) database was conducted on 4 July 2022 (Client service ID: 697398). The search identified 111 Aboriginal archaeological sites within a 3.5-kilometre search area centred on the proposed study area the Wilton and Berwick Park Roads' study area Table 1. No sites appear within the study area.

Table 1 AHIMS Sites Identified within 3.5 kilometres of the study area

Site type	Occurrence	Frequency
Artefact	36	32.4%
Art (Pigment or Engraved)	20	18.0%
Potential Archaeological Deposit (PAD)	15	13.5%
Artefact, Potential Archaeological Deposit (PAD)	12	10.8%
Modified Tree (Carved or Scarred)	9	8.2%
Habitation Structure	4	3.6%
Art (Pigment or Engraved), Artefact	3	2.7%
Art (Pigment or Engraved), Artefact, Potential Archaeological Deposit (PAD)	3	2.7%
Art (Pigment or Engraved), Shell, Artefact	2	1.8%
Grinding Groove	2	1.8%
Habitation Structure, Art (Pigment or Engraved), Potential Archaeological Deposit (PAD)	2	1.8%
Habitation Structure, Art (Pigment or Engraved), Artefact, Potential Archaeological Deposit (PAD)	1	0.9%
Habitation Structure, Potential Archaeological Deposit (PAD)	1	0.9%
Potential Archaeological Deposit (PAD), Habitation Structure, Grinding Groove, Artefact	1	0.9%
Grand Total	111	100.00%

The most commonly occurring site feature is artefacts, independently occupying 32.4% of sites and 20.7% as composite with other sites. Following this are pigment and engraved art sites occurring across 27.9% of all sites. This is likely due to the terrain that occurs in proximity the Nepean River being ideal for sandstone exposures to occur on which art could be created. Figure 37 indicates that there is generally a higher concentration of all site types within proximity the Nepean, particularly where smaller 1st and 2nd order tributaries have branched off and formed gorges within the landscape.



A review of the reports held on the AHIMS database identified several archaeological studies which have been undertaken in the locality of the study area. These are summarised in Table 3. Austral has also undertaken a review of information to identify whether the activity is located within landscape features likely to contain Aboriginal objects. This includes an assessment of ethnographic information, soils, geology, landform, disturbance, and resource information pertinent to the study area. The outcome of this review is outlined in Table 4.

Table 2 Archaeological studies undertaken in the vicinity of the study area.

Author	Relationship to study area	Details
Navin Officer (2003)	Assessment area covers 400 Ha at Wilton, located approximately 1 kilometre east of the study area. Data obtained is indicative of the archaeological nature of this region	Archaeological assessment of an area occupying 400 Ha. Approximately 120 Ha of the site was undisturbed and contained natural vegetation along creek lines. The archaeological assessment aimed to identify and record Aboriginal sites and determine their significance. The assessment involved field inspections which focused upon gently undulating cleared paddocks and two gorges associated with Stringy Bark Creek and Allens Creek. A total of 23 sites were recorded within the study area including 17 shelter sites, 5 open artefact scatters and 1 isolated find. 3 of the shelter sites were considered to be of high potential and were therefore identified to be associated with PADs (Navin Officer 2003, p.19).
Kayandel Archaeological Services (2013)	Assessment area is 1541.7 Ha at Wilton, approximately 2 kilometres north-east of the study area. Data obtained is indicative of the archaeological nature of this region	Aboriginal cultural heritage assessment undertaken for the proposed rezoning of the Wilton Junction area, approximately covering 1541.7 Ha of land within Wilton. Within the study area itself, 49 Aboriginal sites had been previously identified and throughout the assessment, Kayandel identified an additional 30 sites. Amongst their findings were artefacts scatters (n=7), isolated finds (n=10), rock shelters with PAD, art or artefacts (n=8), and scarred trees (n=5) (Kayandel Archaeological Services 2013, p.68). Kayandel concluded that, overall, the potential of their assessment area is high, particularly around undisturbed or minimally disturbed surfaces. Open artefact scatters were indicated as likely to occur commonly in the assessment area due to their commonality throughout the Cumberland plain (Kayandel Archaeological Services 2013, p.99). Rock shelters were also noted to be common site types, and these are often associated with PADs (Kayandel Archaeological Services 2013, p.101).



Author	Relationship to study area	Details
Kayandel Archaeological Services (2015a)	Assessment area is located 2 kilometres north east of the study area	Aboriginal cultural heritage assessment covering four development application areas (Fairways West, Rural, Golf Town, and Bushland) within Wilton. The assessment area was divided into 16 survey units. Kayandel noted that particular focus was paid to the terrace flats, exposed slopes and high terraces due to their tendency to yield higher densities of artefacts. The survey identified an additional 8 sites (PAD n=6 and Isolated find n=2) ranging from low to moderate significance (Kayandel Archaeological Services 2015a, p.18). The assessment demonstrated the predictive modelling for the Cumberland Plain that Aboriginal sites are more likely to occur in proximity of watercourses and below ridge tops. The desktop assessment indicated that sandstone escarpments with access to creek lines also have a tendency to yield higher density Aboriginal sites (Kayandel Archaeological Services 2015a, p.33).
Kayandel Archaeological Services (2015b)	Assessment area is 1541.7 Ha at Wilton, approximately 2 kilometres north east of the study area. Data obtained is indicative of the archaeological nature of this region	Aboriginal cultural heritage assessment of 'Wilton Junction' within Wilton and Bingara Gorge at the Hume Highway-Picton Road interchange. The assessment area covers 1,541.7 Ha. 52 Aboriginal sites were previously identified within the assessment area. 47 sites were previously registered in the AHIMS database and 5 sites had been recently identified by Kayandel before the writing of the report. Kayandel identified an additional 30 sites in the survey portion of the assessment. The sites included artefact scatters (n=7), isolated finds (n=10), rock shelters with either PAD, art or artefacts (n=8) and scarred trees (n=5) that have been assessed to be the result of Aboriginal cultural practices (Kayandel Archaeological Services 2013, p.68). The sites were predominantly identified on lower and mid slopes, though 8 were located within gullies (all of which were rock shelters) and 2 were on a ridge. Kayandel concluded the potential for locating Aboriginal sites across the assessment area to be high with rock shelters and open artefact sites being the most prevalent.



Table 3 Assessment of landscape features

Information	Details
Ethnographic	The study area is located at the intersection of the traditional lands of the Dharawal and Gundungurra Aboriginal linguistic groups. The range of the Dharawal speakers is described as the country from Botany Bay in the north and Campbelltown in the west, south through the Nepean, Wollondilly, Georges River and Cataract River water catchments down to the Shoalhaven River and Jervis Bay. Alternatively, Dharawal land has also been described as spreading from Sydney in the north, the Blue Mountains and Goulburn in the west, and as far south as Bega (Organ & Speechley 1997, p.1, Department of Environment and Conservation 2005a). Dharawal people are often sub-divided into several smaller categories referred to as freshwater, bitter water or saltwater people depending on whether they occupied the coastal regions, the swamps or the plateaus and inland river valleys (Department of Environment and Conservation 2005a). Aboriginal people formed part of a dynamic culture which encouraged movement throughout the landscape to assist in the ceremonial and functional practicalities of daily life. As such, defined borders for tribal groups need to be recognised as an artificial constraint designed by anthropologists. Neighbouring Aboriginal groups included the Gundungurra, Darug, Dhurga, Awabakal and Wiradjuri people, and movement in adjacent territories was permissible under certain circumstances. Favoured north to south travel routes included the current Princes Highway Route, Meryla Pass, and the Kangaroo River Route, while Bulli Pass, the Bong Bong Route and the Cordeaux River were used for travel east to west (Department of Environment and Conservation 2005b) According to Norman Tindale, the Gundungurra lands encompassed Goulburn and Berrima, running down the Nepean River (Wollondilly) until the vicinity of Camden. In 1802, the explorer Francis Barrallier met the Gundungurra people as his party moved south-west of Sydney. Barrallier noted in his journal that the Gundungurra "themselves build huts for the strangers they wish to receive as friends" (Barrallier 1897). By 1814, many of the Gundungurra people were displaced due to European settlement, and further violence and disease reduced the numbers of Aboriginal peoples in the area dramatically. The social structure of pre-European groups was stratified with elders of clans holding decision-making capabilities. Subsistence activities were sexually dimorphic, and the spirituality of groups is detailed and explained through an oral tradition of Dreamtime. Material culture was sourced from a variety of materials such as bark, resin and bone. The hard stone material that was made into stone tools is the main element of this tool kit to remain in the archaeological record as the organic element has mainly decomposed. The pre-European environment of the Wollondilly region provided an extensive resource base associated with a multitude of water sources. These water sources include freshwater creeks and rivers. Habitats associated with these water systems supported a wide range of fish, birds, reptiles, and mammals. The pre-European Wollondilly landscape would have been the setting for a variety of human activities. This human activity would have included camping, hunting, gathering, cooking, ceremonies, and other cultural activities associated with semi-permanent settlement sites in the region.
Geology	The study area largely within the Hawkesbury Sandstone geological unit, with a small portion of the north containing Ashfield Shales (Figure 38). Hawkesbury Sandstone is a Triassic sheet sandstone with unidirectional paleoflow, freshwater biota and mudrock intraclasts that suggest fluvial deposition (Rust & Jones 1987). The Hawkesbury Sandstone is durable, making it a suitable material for construction and carving. Ashfield Shale is Wianamatta Group sedimentary rock geology which generally overlies Hawkesbury Sandstone or the Mittagong formation. Ashfield shale comprises mudstone and grey shales with frequent sideritic clay ironstone bands. Based on the geology of the area, rock shelters, gridding grooves, and engraved art have the potential to occur in the study area.



Hydrology	The study area is located immediately north of the Nepean River and contains a 1st order tributary spanning from the south-west of the study area to the northern border, 2nd order stream in the southeast, and small portions of 1st and 2nd order tributaries in the northwest of the study area (Figure 38). Given the proximity of the study area to the major branch of Nepean River the potential for campsites and shelters to be present is moderate to high, particularly within the gorges formed by the Nepean river tributaries.
Soils	The study area sits within the Blacktown (bt), Lucas Heights (lh), and Hawkesbury (ha) soil landscape (Figure 39). The Blacktown landscape is characterised by gently undulating rises on Wianamatta Group shales with local relief of 30 metres. The Blacktown (bt) soil profile is made up of: • bt1 – friable greyish brown loam • bt2 – hard setting brown clay loam • bt3 – strongly pedal, mottled brown, light clay • bt4 – light grey plastic mottled clay It is noted that Blacktown (bt) soils are moderately erodible, with topsoils (bt1 and bt2) being generally hard setting with significant fine sand and silt contents, offset by moderate amounts of organic matter Areas within the Blacktown (bt) soil landscape have the potential for subsurface artefacts to be identified, as the soil profile is suitable for the retention of deposited objects. The Lucas Heights landscapes generally contain undulating crests, ridges and plateau surfaces with local relief of 10-50 metres. It contains the following soil types • lh1 – loose, greyish brown fine sandy loam • lh2 – bleached stony, hard setting sandy clay loam • lh3 – earthy, yellowish brown sandy clay loam • lh4 – pedal, yellowish brown clay • The Lucas Heights soils are moderate to highly erodible, consisting of loose, fine sands and moderate amounts of organic matter (NSW Department of Environment and Climate Change. 2008). The Hawkesbury landscape is represented by rugged, rolling to very steep hills upon the Hawkesbury Sandstone. Landforms include narrow crests and ridges, narrow incised valleys, steep sideslopes with narrow rocky benches, broken scarps and boulders. The following soil types are located throughout landscape • ha1 – loose, coarse quartz sand • ha2 – Earthy, yellowish brown sandy clay loam • ha3 – pale, strongly pedal light clay Due to the high likelihood of erosion associated with the Hawkesbury landscape, it is unlikely that artefacts will be located with it unless in association with sandstone shelters. (NSW Department of Environment and Climate Change. 2008).
Landform	The study area is largely characterised by undulating plains with moderately graded slopes. Depressions occur within the landscape where natural drainage occurs and are associated with more waterlogged soils. A gorge is associated with the 1st and 2nd order branched of the Nepean River which range between 5-7 metres in depth.



Disturbance	Moderate ground disturbance exists within the study area in the form of modern residential dwellings, build-up of debris and detritus, fences and retaining walls, vehicle track marks and vegetation clearing. This is visible in aerial imagery of the study area (Figure 36). Images indicate development related to the present disturbances began in 1969 with the damming of natural drainage channels within the study area (Figure 40). Evidence of dwellings on the property begin to appear in 1975, in Lot 41 DP749823. Development of residential structures have continued into the present day across all lots and are typically spaced for agricultural land (Figure 41).
-------------	--

Based upon the results of this background research Austral has been able to develop a series of predictive statements relating to the type and character of Aboriginal cultural heritage sites that are likely to exist in the study area and where they are more likely to be located. These predictive statements indicate that:

- Artefacts are likely to be located in areas of exposure throughout the study area due to the commonality of their occurrence throughout the archaeological record in the Wilton region
- Where sandstone shelters occur, there is a high likelihood of locating cultural evidence to be present, particularly in the form of engraved or pigmented art
- Cultural material associated with farmland will not be in situ due to the upheaval of soils that occurs in processes such as ploughing or grazing
- Modified trees may occur in the study area where mature remnant vegetation occurs
- Area in proximity to waterways have an increased likelihood to be associated with cultural material, particularly the confluences of major waters and higher order streams.

DESKTOP ASSESSMENT AND VISUAL INSPECTION

To ground truth the desktop assessment, a visual inspection of the study area was undertaken on 14 July 2022 by Stephanie Moore (Senior Archaeologist). The visual inspection consisted of a systematic survey of the study area to identify and record any Aboriginal archaeological sites visible on the surface or areas of Aboriginal archaeological potential and cultural sensitivity. The archaeological survey was conducted on foot. The methods used during the visual inspection conformed to requirements 5 to 8 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b).

25 Wilton Park Road

Inspection commenced at the southern end of the study area, closest to the Nepean River. The property is adjacent to the river gorge. The gorge consists of a descent to the riverbed, with outcropping sandstone along the exposed edges (). Immediately north of the gorge, outcropping sandstone was noted. The sandstone outcrops did not show evidence of grinding or engraved art.

From the gorge, the landforms slopes to the north on a moderate gradient before levelling and creating a small crest. The area between this crest and Wilton Park Road is generally flat, with a further shallow slope at the northern end of the property.

Ground surface visibility was low throughout the study area, with dense grass and vegetation coverage over much of the ground (Figure 1 and Figure 2). Visibility was generally <10% across the study area, providing minimal opportunity for surface artefacts to be identified. Exposures were limited to the gravel driveway running along the centre of the property, and some small bare patches beneath large trees at the southern end of the study area (Figure 3 and Figure 4). Here, naturally occurring stones/gravels were noted, although no artefacts were identified.

Ground disturbance on the property is generally restricted to the main house and surrounding outbuildings, and the installation of fences and telegraph poles. West of the main house, an area has been cut and levelled to construct a shed (Figure 5). Soils in this area were observed to be generally clayey and poorly draining.



Based on the results of this site inspection, it is determined that the property has archaeological sensitivity and may contain artefacts and Potential Archaeological Deposits (PADs). No areas of PAD have been identified at this stage, based on the limited scope of the investigation.



Figure 1 View north-west of dense ground coverage across the study area



Figure 2 View north east along eastern paddock, showing ground coverage



Figure 3 Areas of exposure at southern end of the study area



Figure 4 Gravel driveway, view north



Figure 5 Area of ground disturbance, west of the main house, view west

45 Wilton Park Road

The study area was largely dominated by undulating plains with minimal surface visibility. Areas of higher visibility tended to occur within tracks formed by vehicular movement (Figure 6). Where exposures did occur, shallow skeletal soils were generally present alongside outcroppings of the Hawkesbury Sandstone bedrock (Figure 6). Vehicular tracks were noted to contain imported fill of blue metal and other non-native materials. Older eucalypts at the northern boundary and the centre of the property were examined though no evidence of cultural scarring was observed.

The entire western extent of the study area was noted to be occupied by a modified slope, likely to have been utilized for agricultural purposes (Figure 7). Decontextualized cultural materials may occur within this area due to uplift of the soil profile occurring when the land was ploughed. Waterlogged soils were observed at the center of this area indicating the presence of historic drainage line. Similar waterlogging was present leading from the dam to the gorge and an observable depression in the landscape was noted (Figure 8). A crest present to the south of the study area, adjacent to the gorge was noted to be of moderate potential due to the association with historical streams within the study area.

A transition occurs in the south-west portion of the study area into gorge terrain populated by a number of sandstone shelters ranging from 1-2 metres to 10 metres in length. Two shelters of high potential occurred towards the southern end of the gorge approximately 8 metres and 10 metres in length. While no artefacts were observed within the shelters, each contained sandy deposits with the potential to contain in-situ artefacts (Figure 9 and Figure 10).

Based on the results of this site inspection, it is determined that the property has moderate to high Aboriginal archaeological sensitivity, with the high potential occurring within the two aforementioned rock shelters located within the gorge.



Figure 6 Areas of higher visibility within vehicular track



Figure 7 Examples of exposed skeletal soils and sandstone bedrock outcroppings



Figure 8 North facing photo of modified slope spanning the western extent of the study area



Figure 9 Sloping landform with drainage depression leading from dam to gorge



Figure 10
deposit

Rock shelter located within the gorge spanning 8 metres in length with



Figure 11

Rock shelter located within the gorge spanning 10 metres in length

55 Wilton Park Road

A desktop inspection of the lot was conducted starting at the northern end of the property and moving east along the northern boundary. Thick grass covered most of the area, hindering



identification of surface artefacts (if present). From Wilton Park Road at the north, the property gently slopes to a small crest where the residence and outbuildings are situated. The house is surrounded by some landscaping and is accessed via a gravel driveway. Beyond the house lies a steeper slope that extends south to the Nepean River. The property appears to have undergone minimal landscape modification with exception of building construction, landscaping, and potential agricultural plowing and pond construction in the northern half of the property. Soils across the property were similar to those encountered in the surrounding properties.

Given the density of vegetative cover in the upland areas of the property, as well as dense vegetation and steep slope nearer the river, the property provided very limited potential for identification of cultural materials, if present.

75 Wilton Park Road

Overall, the site had minimal surface visibility and minimal evidence relating to Aboriginal cultural activities. Where older eucalypts were present on the property, no evidence of cultural scarring was present. The property was extensively disturbed with various man-made structures interspersed throughout it and piles of debris present, all contributing to various levels of disturbance (Figure 12). The property exists on a flat surrounded by undulating landscapes. A man-made dam is located to the south-west of the property and connects to a similar size dam approximately 50 metres to the west of the property via what appears to be a naturally occurring, intermittent creek. No outcroppings of the underlying unit throughout the entirety of the study area, and therefore no shelters, grinding grooves, or engraved art have the potential to be located.

Inspection commenced at the south-western end of the study area, at the location of the dam (Figure 13). The height of the water level at the dam was too high to observe any notable characteristics in soil stratigraphy. The ground surface surrounding the dam was largely covered with vegetation such as pasture grass (Figure 14). Where patches of visibility occurred, it was noted that no evidence of Aboriginal cultural activity was present.

Moving to the northern-most point of the study area, similar landscape characteristics were observed. A slight incline was noted, but no distinct features were present. Minor patches of earth were visible with no evidence of cultural remains present throughout this portion of the study area. A debris pile was present in this section of the property that obscured a portion of the landscape.

The centre of the property contained a range of manmade structures, debris piles, and a vehicle trail constructed of imported material (Figure 15, Figure 16, Figure 17). This obscured much of the ground surface and as such, observations on cultural remains could not be made. The disturbance inflicted by these features is likely to have destroyed any cultural material on the surface and in the substrata and their associated contexts. Any significant landforms that may have been present have since been levelled to create the current topography and building layout. Where such objects were not present ground, surface visibility was very minimal. Where visible, there was no evidence of cultural material.

At the northern portion of the property, a clearing was present with no artificial ground disturbance noted. Once again, the ground visibility in this area was minimal and did not contain any evidence of Aboriginal material culture. A small collection of eucalypts was present just north of the clearing. As previously stated, trees that were observed to be in the appropriate age range did not contain any evidence of cultural scarring (Figure 18).

Based on the results of this site inspection, it is determined that the property has no Aboriginal archaeological sensitivity and is unlikely to contain either artefacts or Potential Archaeological Deposits (PADs).

No areas of PAD have been identified at this stage, based on the limited scope of the investigation.



Figure 12 **Examples of disturbance found throughout the study area**



Figure 13 **Dam located at the southwestern corner of the study area**



Figure 14 **Example of vegetation found in proximity to the dam**



Figure 15 **Debris piles at the centre of the property**



Figure 16 Vehicle trail made of imported materials



Figure 17 Constructed shelter positioned at the centre of the property

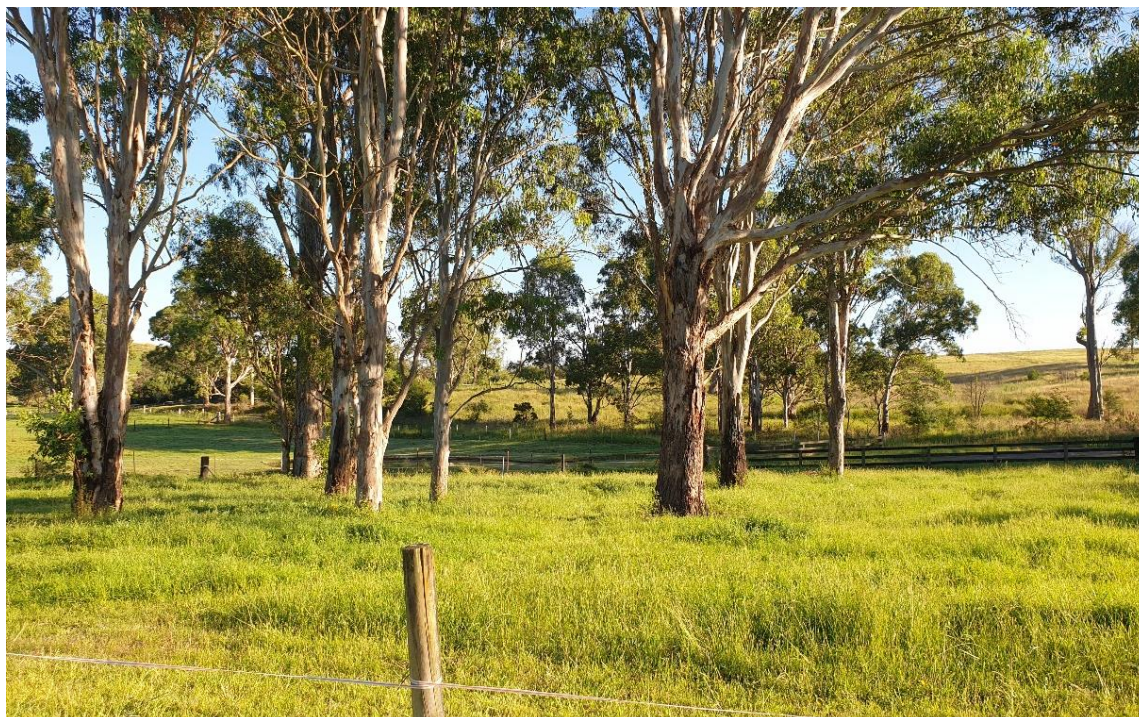


Figure 18 Eucalypts at the northern end of the property

85 & 95 Wilton Park Road

A desktop inspection of the lot was conducted starting at the northern end of the property and moving east along the northern boundary. Thick grass covered most of the area, hindering identification of surface artefacts (if present). From Wilton Park Road at the north, the property slopes south toward two water dammed reservoirs situated between the residence and Wilton Park Road. The residence is surrounded by some landscaping and is accessed via a gravel driveway. There is minimal evidence of landscape modification across the remainder of the property. The property extends south with a steep descent to the Nepean River. Soils across the property were similar to those encountered in the surrounding properties.

Limited potential for identifying surface artefacts was noted based on dense vegetative ground cover across the property, especially in undeveloped, treed areas nearer the river.

10 Berwick Park Road

The inspection concentrated on identifying landforms with the potential for Aboriginal sites to be present. The survey started in the south of 10 Berwick Road. Here the landform slopes north to a ridgeline (Figure 19). There was limited ground surface visibility during the survey. Exposure was only provided by the presence of a dirt track on the eastern site of the property running north (Figure 20). Within the center of the property a house is currently located on a crest. The development of the house and associated infrastructure is thought to have caused significant disturbance to the ground surface in these areas. The landforms retain moderate potential to contain surface and subsurface artefacts.

Continuing to the north of the study area, there are minimal signs of ground disturbance. Disturbances present are associated with dirt tracks intersecting the property and fencing throughout. The ground surface comprises a brown silty sand and exposure is again largely confined to dirt tracks. Leaf litter and vegetation cover much of the ground surface (Figure 21). Mature vegetation is present throughout the study area, largely comprising of Ironbark. A small amount of mature vegetation suitable for cultural scarring is present. These are considered to comprise of the grey gums, which account for only 1-2% of mature vegetation in the area. It is



believed there is the low potential to identify modified trees within the study area due to the limited number of suitable (i.e tree type) mature vegetation present.

There is a sandstone gorge which traverses the northern and western extents of the study area. Large sandstone outcrops border the gorge and are present up to 50 meters south and east. A number of sandstone overhangs of varying sizes were identified during the inspection (Figure 22). It is believed that there is the potential to identify rock shelters within this gorge that may contain art, artefacts and potential archaeological deposits (PAD). While they do not fall within the development area, there is potential for them to be passively impacted by development activities.



Figure 19 **View south across the study area**



Figure 20 Exposure along farm track



Figure 21 Leaf litter and vegetation obscuring ground surface



Figure 22 Sandstone overhang noted within the study area



20 Berwick Park Road

The visual inspection commenced at the northern end of the property and moved south. Thick grass covered most of the inspection area, hindering identification of surface artefacts (if present). From Berwick Park Road at the north, the property slopes to a small crest where the house is situated (Figure 23). The house is surrounded by some landscaping and is accessed via a gravel driveway. There is minimal evidence of landscape modification across the remainder of the property.

The property extends to the gorge to the south, densely vegetated with eucalypts and ground coverage (Figure 24). Access to the gorge was restricted by this vegetation at the time of the visit. Soils across the property were similar to those encountered in the surrounding properties.

Given the density of ground coverage, identification of areas of potential was limited. It is considered that 20 Berwick Park Road contains some potential for Aboriginal cultural material, although further assessment will be required.



Figure 23 View southwest towards house, showing sloping landform



Figure 24 View south from rear of house

30 Berwick Park Road

The visual inspection was hindered by vegetation cover across the study area. Grass cover obscured ground surfaces in the north and centre while dense bushland prevented access to the south of the study area. Where older eucalypts were present on the property, no evidence of cultural scarring was noted.

Prior disturbances from the construction of a residential building and associated agricultural, a dam, and large-scale landscaping works (Figure 25) have occurred in the north of the study area. Soils exposures in this landform confirmed its disturbed nature (Figure 26). Along the eastern edge of the property, the ground surface has been disturbed by the construction of the Hume Motorway, through cut and fill activities.

South of these disturbances the landform descends towards the escarpment, becoming an open, gentle slope (Figure 27). The ground surfaces were obscured by dense grass cover but no clear disturbances to the landform were observed (Figure 28). Towards the bottom of the slope exposed sandstone was visible (Figure 29), no evidence of grinding grooves or rock engravings were observed, and the inspection noted several sandstone exposures that had been incised by past land use (Figure 30).

In the south of the study area, the landform narrows, forming a moderately steep gully with dense vegetation and no evidence of clearing (Figure 31). To the west of the study area, an artificial embankment has been constructed as part of the construction of the Hume Motorway (Figure 32). A concrete gutter runs through the southern portion of the study area (Figure 33) and was likely constructed as part of the Hume Motorway's works.

300 metres from the southern extent of the study area, the visual inspection encountered a large area of inundated, swampy ground (Figure 34). The swamp and dense vegetation in this area prevented the inspection from accessing the southern extent of the study area.

Based on the results of this site inspection, it is determined that the property has Aboriginal archaeological sensitivity and could contain either surface or subsurface archaeological material.



No areas of Potential Archaeological Deposits (PADs) have been identified at this stage, due to the limited scope of the investigation, and further investigation will be required to determine the nature and extent of any archaeological potential.

No historic heritage features were noted during the site inspection.



Figure 25: Evidence of landscaping in north of study area



Figure 26 Exposed soil profiles in disturbed context in north of study area



Figure 27 Grass cover and landforms through centre of study area, view southwest



Figure 28 Grass cover and landforms through centre of study area, view north east



Figure 29: Exposed sandstone in centre of study area



Figure 30 Exposed sandstone incised by agricultural infrastructure and past land use



Figure 31 Ground surfaces and vegetation in south of study area



Figure 32 **Embankment constructed for Hume Motorway**



Figure 33 **Artificially sealed waterway in south of study area**



Figure 34 **Ground surfaces, vegetation and bodies of water in south of study area**



FURTHER INVESTIGATIONS AND IMPACT ASSESSMENT

The following recommendations are derived from the findings described in this letter. The recommendations have been developed after considering the archaeological context and environmental information.

Desktop research and visual inspection of landforms indicates the study area is located within an environmental context consistent with low to moderate potential. While the limit of the development will not encroach upon the noted areas of high potential, noise and vibrational effects resulting from the associated activities are likely to impact their structural integrity. Austral therefore recommends preparing an AHCA in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Due Diligence Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (OEH 2011, DECCW 2010b) to understand the cultural values of the study area. Dependant on the proposed ground surface impacts and the cultural values determined via the ACHA process, an AHIP may be required.

Identification and consultation must be undertaken with Aboriginal stakeholders in accordance with the Consultation Requirements, which include statutory timeframes to demonstrate adequate time has been provided to allow stakeholders to review and comment on the information provided.

The proponent is reminded that all Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by Heritage NSW.

Dominique Bezzina
Graduate Archaeologist
Austral Archaeology
M: 0499 186 337
E: dominiqueb@australarch.com.au



1. REFERENCES

Barrallier, F 1897, Journal of the expedition, undertaken by order of His Excellency Governor King, into the interior of New South Wales. Accessed on project Gutenberg.

DECCW 2010a, 'Due diligence code of practice for the protection of Aboriginal objects in New South Wales'.

DECCW 2010b, 'Code of practice for archaeological investigation of aboriginal objects in New South Wales'.

Department of Environment and Conservation 2005a, A History of Aboriginal People of the Illawarra 1770 to 1970, Department of Environment and Conservation, Sydney.

Department of Environment and Conservation 2005b, Murni Dhungang Jirrar - Living in the Illawarra.

Kayandel Archaeological Services 2013, 'Proposed Rezoning "Wilton Junction" Wilton, Wollondilly Shire LGA, NSW Aboriginal Cultural Heritage Assessment and Historic Heritage Assessment'.

Kayandel Archaeological Services 2015a, Development Application 'Balance of Site' Bingara Gorge, Wilton, Wollondilly Shire LGA, NSW.

Kayandel Archaeological Services 2015b, Proposed Construction of Fire Trails, Bingara Gorge, Wilton Wollondilly Shire LGA, NSW Cultural Heritage Assessment Report. Report to Lendlease Communities (Wilton) Pty Ltd.

Navin Officer 2003, Proposed 'Wilton Park' Residential Development, Wilton NSW Archaeological Assessment.

NSW Department of Environment and Climate Change. 2008, Soil and land resources of the Hawkesbury-Nepean Catchment / Department of Environment and Climate Change NSW., NSW Dept. of Environment and Climate Change, Parramatta, NSW.

OEH 2011, 'Aboriginal Places Policy', <<https://www.heritage.nsw.gov.au/assets/Uploads/publications/519/aboriginal-places-policy-110608.pdf>>.

Organ, M & Speechley, C 1997, Illawarra Aborigines - An Introductory History, University of Wollongong, Wollongong, NSW.

Rust, BR & Jones, BG 1987, 'The Hawkesbury Sandstone south of Sydney, Australia; Triassic analogue for the deposit of a large, braided river', Journal of Sedimentary Research, vol. 57, no. 2, pp. 222-223.



Figure 35 Location of the study area

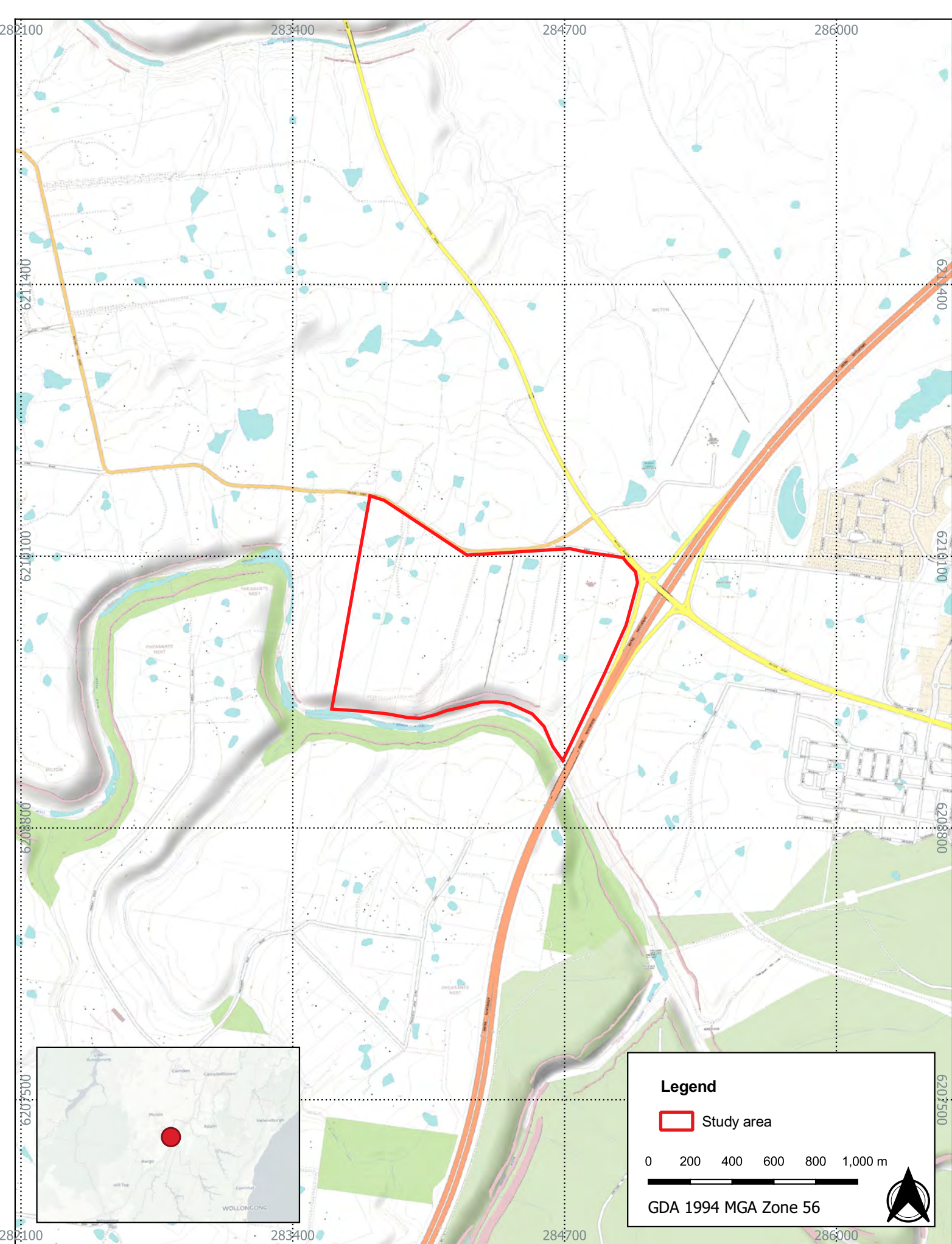


Figure 35 - Location of the study area

22062 -Berwick Park Road and Wilton Park Road, Wilton





Figure 36 **Detailed aerial of the study area**

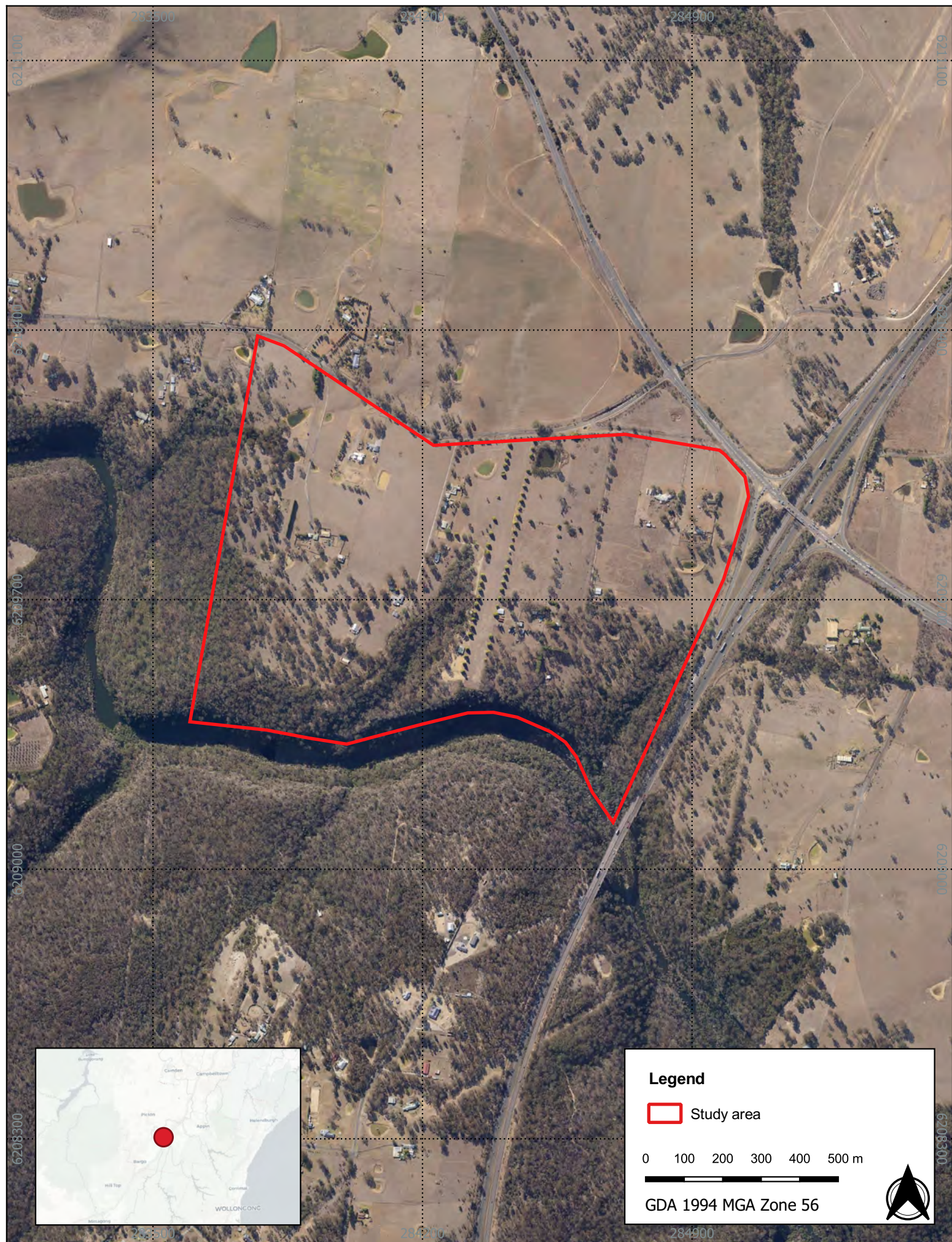


Figure 36 - Detailed aerial of the study area

22062 - Berwick Park Road and Wilton Park Road, Wilton

Source: NSW LPI Aerial, CartoDB Positron

Drawn by: ARH Date: 2022-07-29



AUSTRAL
ARCHAEOLOGY



Figure 37 **AHIMS Sites within 3.5 kilometres of the study area**

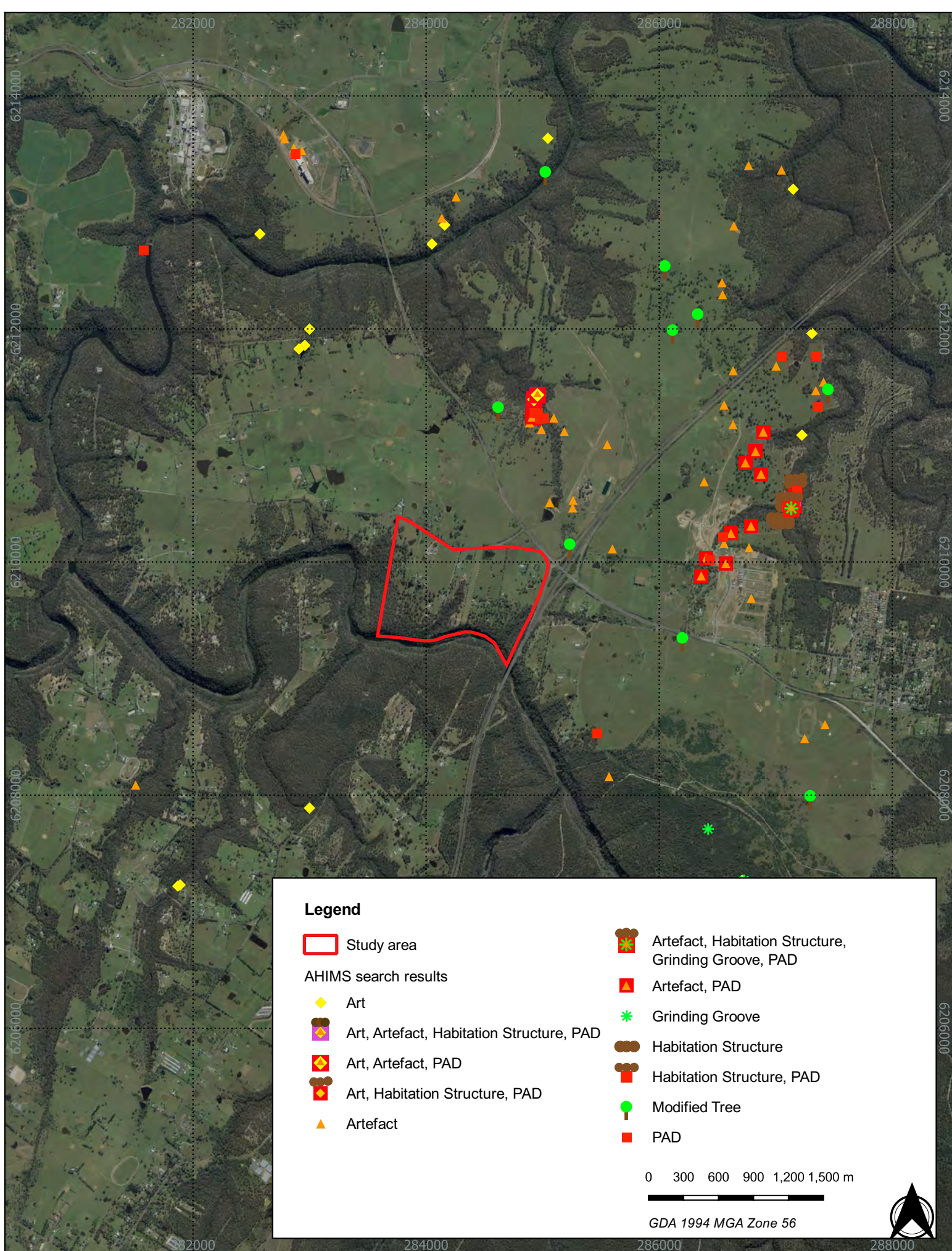


Figure 37 - AHIMS search within 3.5 kilometres of the study area

22062 - Berwick Park Road and Wilton Park Road, Wilton





Figure 38 Geology and Hydrology of the study area

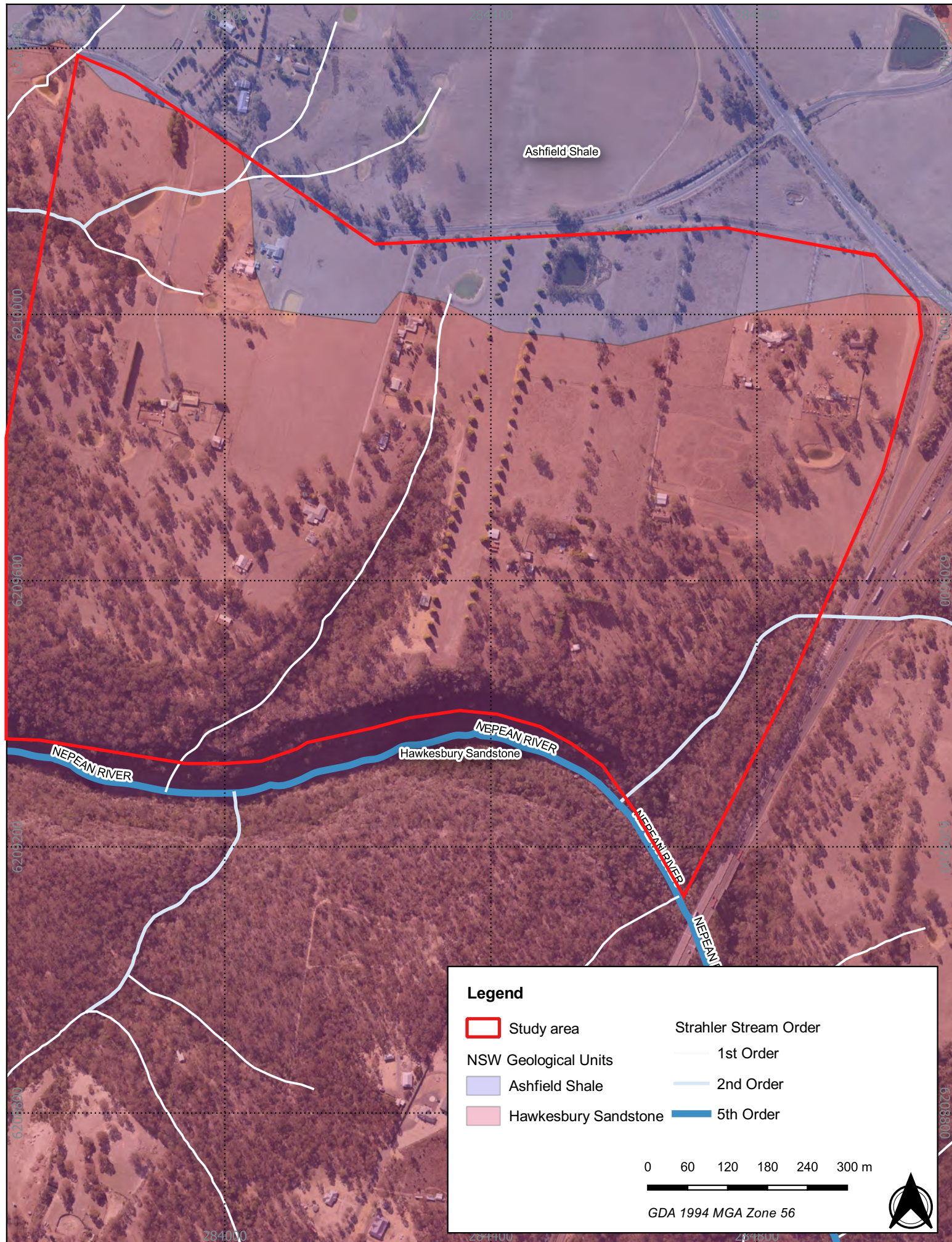


Figure 38 - Geology and hydrology of the study area

22062 - Berwick Park Road and Wilton Park Road, Wilton





Figure 39 Soil landscapes of the study area

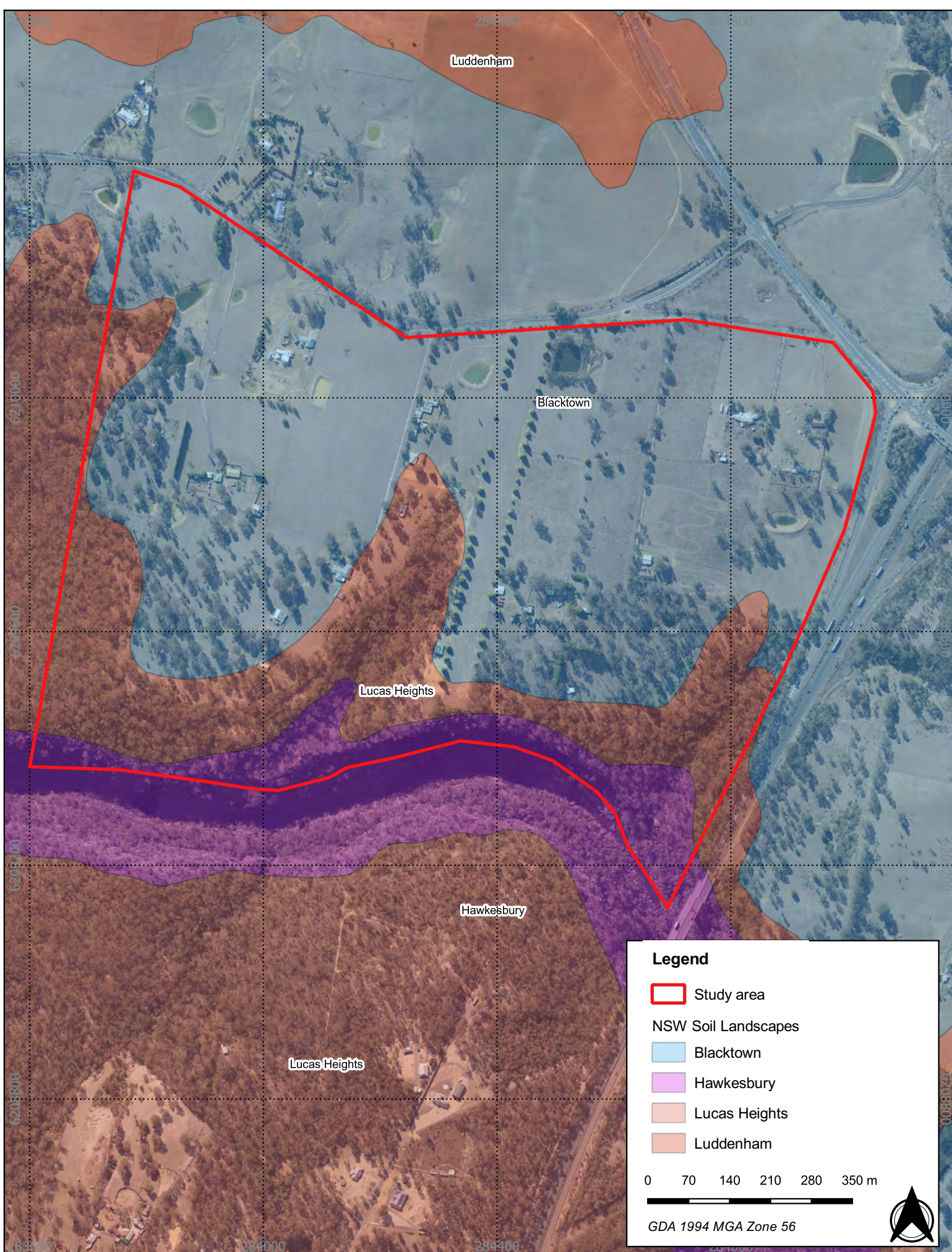


Figure 39 - Soil landscapes near the study area

22062 - Berwick Park Road and Wilton Park Road, Wilton





Figure 40 1969 aerial of the study area

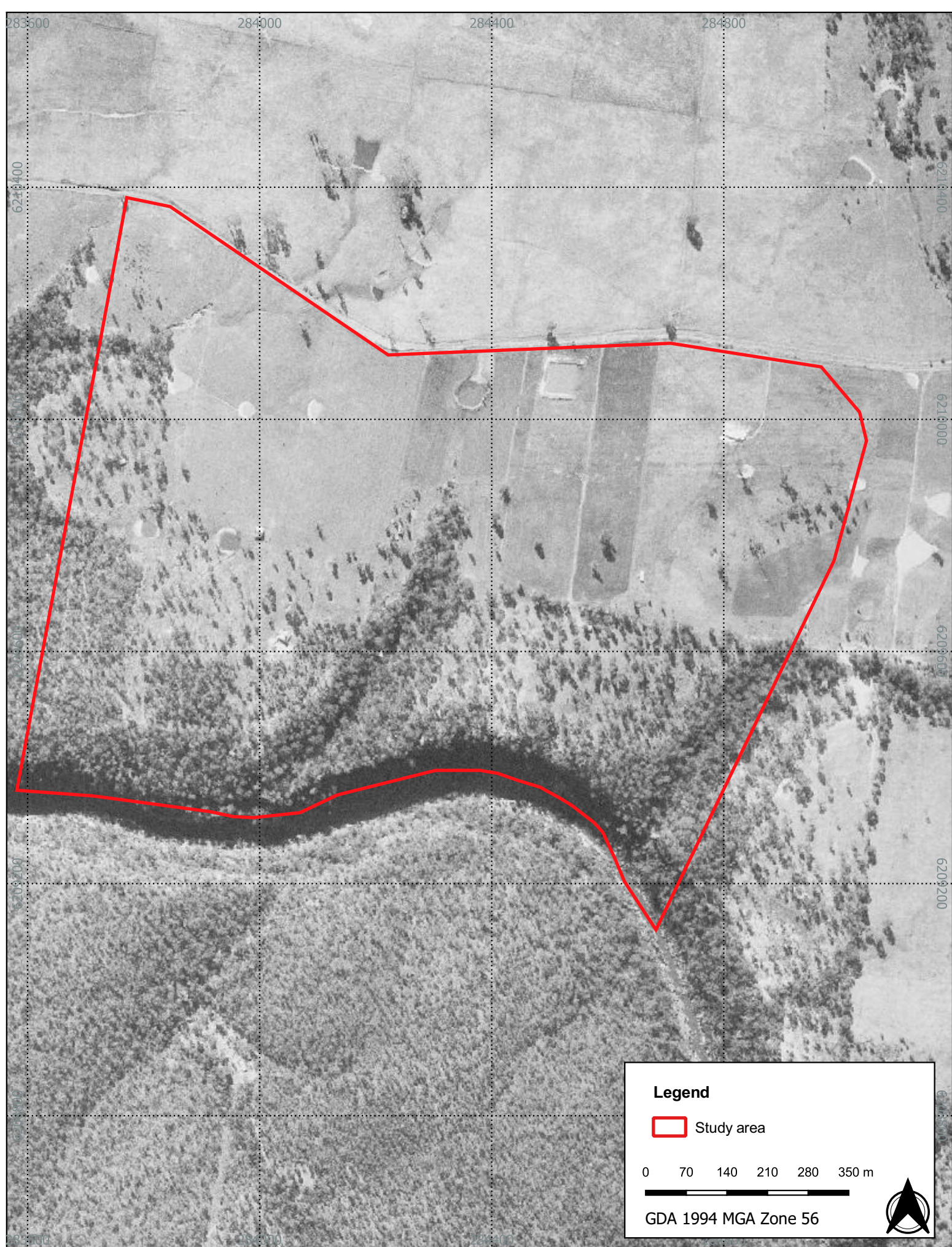


Figure 40 - 1969 aerial of the study area

22062 - Berwick Park Road and Wilton Park Road





Figure 41 **1975 aerial image of the study area**



Figure 42 1990 aerial of the study area

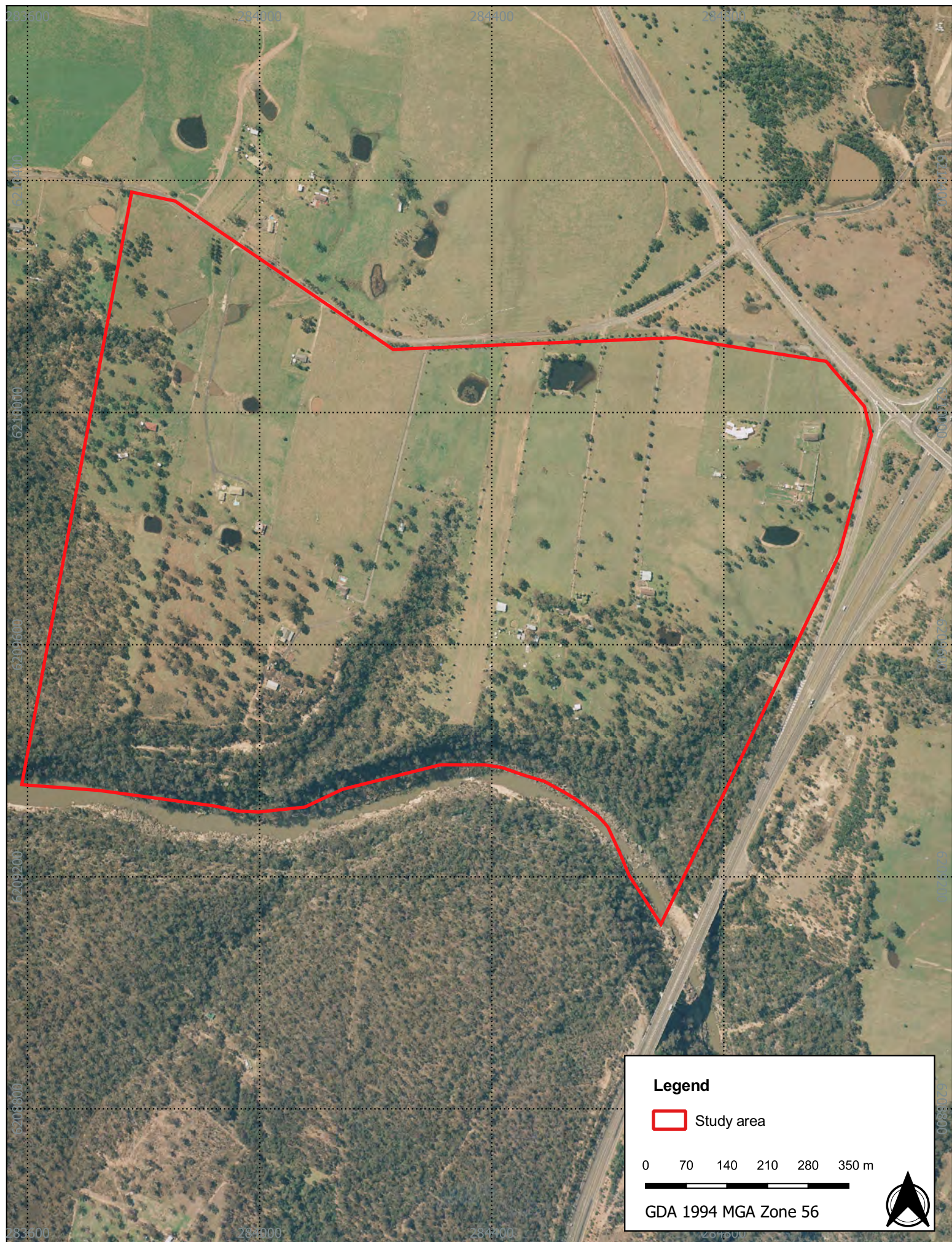


Figure 42 - 1990 aerial of the study area

22062 - Berwick Park Road and Wilton Park Road

