

DRAFT

MORAYFIELDS

ARCHAEOLOGICAL MANAGEMENT PLAN

For Northeast Business Park Pty Ltd



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Executive Summary

The Morayfield Archaeological Management Plan considers the development proposal being made by Northeast Business Park Pty. Ltd over Lot 10 RP902079, Lot 2 RP902075, Lot 24 SP158298 and Lot 7 RP845326 , Caboolture, Southeast Queensland (Attachments A and B).

The proposed activities are an extensive mixed use development that includes business park premises, commercial premises, residential housing blocks and low-rise residential towers, a hotel, a golf course with club house, a school with oval, sports fields with facilities, a boatyard and a marina with access to the Caboolture River. The development works include bridges, roads and footpaths as well as service provision to the various areas of the site. The development proposal is shown on Attachment D.

The Morayfield Sugar Plantation was established on the southern bank of the Caboolture River in 1866. The plantation was owned by George Raff, a former member of the Queensland Legislative Assembly, prominent businessman and supporter of the use of indentured South Sea Islander labour in the sugar industry. Cane was grown at Morayfield for the production of sugar, rum and molasses between 1866 and 1889. Raff employed many South Sea Islander labourers in the cane fields during this period. Cane cultivation (and all related production) ceased around 1885-6. Raff died in 1889, with the plantation eventually sold for conversion to dairying in 1901.

Following an initial archaeological assessment of the site an area of high archaeological potential (Core Heritage Zone) has been identified which contains surface remains and (likely) subsurface evidence of the use of the site as a sugar plantation during the second half of the 19th Century. (Attachment H)

This is an extremely significant site because it has remained relatively undisturbed and in private ownership, with limited public access, since the start of the 20th Century. It has preserved the remains of an early sugar plantation, which belonged to prominent Queensland personality George Raff. Raff made use of indentured South Sea Islander workers or 'Kanakas' in his operation. The remains of the sugar plantation are additionally significant because it took the form of both a settlement and a place of work - Raff and his family, European and South Sea Islander workers all lived and worked on the site.

It is recommended that a full archaeological survey be carried out on the Core Heritage Zone, after necessary vegetation removal, in order to understand the layout and survival of archaeological remains. Further archaeological works may be required pending the results of this survey work.

Introduction

This Morayfield Archaeological Management Plan (MAMP) has been prepared in order to detail strategies for the management of archaeological issues within the context of the development proposed at the North East Business Park site.

Furthermore, the MAMP details the archaeological investigations required prior to and during the development and presents these investigations within a management framework, thereby providing greater certainty in relation to the handling of archaeological issues in compliance with legislative requirements.

Although there is currently no legislative protection at the State level over the site, the client is aware that parts of the site have the potential for non-indigenous cultural heritage significance and is minded to preserve and interpret this significance alongside the mixed use development proposed. In pursuit of this

objective the client has been encouraging the scheduling of the historic core of the site as a State Heritage registered place and has also developed outline proposals for a heritage park concept which would celebrate and interpret different aspects of the site's history (Attachments G and I).

The Archaeological Management Plan considers the development proposal being made by the client and site owner, Northeast Business Park Pty. Ltd, over Lot 10 RP902079, Lot 2 RP902075, Lot 24 SP158298 and Lot 7 RP845326 , Caboolture, Southeast Queensland, referred to hereafter as the Site (Attachments B and D). The proposal involves landscape changes to create the opportunity for mixed use development on low ridges surrounding the low-lying Caboolture River floodplain. Much of the floodplain is to be retained as open space, and it is within this area that the significant archaeological remains are located (Attachments C and H).

Steve Chaddock, Director of Timeline Heritage Consultants is the MAMP author and is a qualified archaeologist with experience of archaeological management and interpretation on large, complex archaeological sites that contain both land-based and maritime remains (e.g. Waltham Abbey Royal Gunpowder Mills, Essex, UK 1994-1998 for Ministry of Defence, Ickworth House Conservation Management Plan 1999-2000 for the National Trust and Kelly Siege Site Excavation, Glenrowan, Victoria 2008 for Dig International).

Study Area

a) Extent

The site is located in South East Queensland in the vicinity of Morayfield and lies entirely to the East of the main Bruce highway, the which runs North/South between Brisbane and Gympie. The Northern boundary of the site runs along the South bank of the Caboolture River and it covers approximately 769 hectares(Attachment A).

The Site is generally low lying and gently undulating. Much of the Northern and Eastern parts of the site, especially those immediately adjacent to the Caboolture River, are very low lying and are within the river's floodplain. The Caboolture River is actively eroding and depositing alluvial material as it winds its way to the sea and aerial photographs of the site show previous river alignments and oxbow lakes within the broad area of the floodplain. The contour survey (Attachment E) shows that two gentle ridges extend diagonally North-Eastwards towards the river floodplain from the south west and southern boundaries. These ridges have gently sloping sides down to the flat floodplain that constitutes the majority of the site. The ridges reach no more than RL. 14 to 17 in height and they are broad and flat in form, rather than being visually pronounced landforms. The only intact standing buildings left on the site are located at (MGA94 Zone 56) 498550E, 7001730N which are the remnants of the last main residence which dates from c.1950.

b) History

George Raff was very active in public affairs. He strongly believed in separation from New South Wales and was one of the 26 members of Sir Robert Herbert's first Queensland Parliament. In 1860 Raff was appointed as a member of the Board of Education (Davies 2003:24). He handed in his resignation as Member of the Legislative Assembly to the speaker of parliament in April 1864 (Brisbane Courier 1864).

In 1861 the Cabulture Cotton Company was formed by a group of settlers including George Raff, William Hobbs, Shepherd Smith, Robert Douglas and John Bramston. In June 1861, the company's shareholders sailed in the *Breadalbane* to explore the shores and rivers of Moreton Bay with the intention of selecting land for the purpose of growing cotton (Davies 2003:26). The land selected became Portions 10 and 26, Parish of Caboolture, County of Stanley. A letter from the Managing Committee of the Company, dated 26th July 1861 states "it being a pocket of some extent without timber upon it." (Tutt 1973: 69) The Cabulture Cotton Company had some trouble with local aboriginal populations, "the blacks assembled in large numbers at the company's plantation on the Cabulture River have exhibited a hostile demeanour towards the company's servants, and have actually by force opposed the return of a cutter sent down last week with labourers and stores" (extract from a letter to the Colonial Secretary dated 10th October 1861 in Tutt, 1979: 70). Business development such as this were visited by prestigious personages, and Governor Bowen records his findings in a letter to the Secretary of State for the Colonies, dated 4th August 1864 " This company...has imported a steam engine, and a quantity of gins and other machinery. About one hundred and twenty acres were under crop this season but the cotton plants have suffered severely from the disastrous floods of last March" (Tutt 1979: 72) These and other issues made business difficult and, after three unsuccessful seasons growing cotton, the Cabulture Cotton Company put the property up for sale (Brisbane Courier 1865).

George Raff purchased Portion 10 in 1866 for £1000 (Brisbane Courier 1868, DERM 1866). Raff also purchased land immediately adjacent Portion 10. Portions 24 and 25 to the east were purchased in April 1867 (DERM 1867a, 1867b), and Portion 26 to the west in May 1868 (DERM 1868). Raff named his new property "Morayfields" (renamed to Morayfield in the early 1870s) and switched primary production to sugar. Between 1865 and 1868, Raff continued producing some cotton and in 1868 was reported to have shipped 5 bales of "New Orleans" variety cotton to London (Tutt 1979:11).

By 1867, Raff's sugar cultivating, processing and distilling operations were well established. On 19 October of that year, the Brisbane Courier reported in detail the size and scope of his . The Morayfield Sugar Plantation then consisted of 2,500 acres of land, the soil being described as "pretty deep" black alluvial, with cultivation on "one great plateau". The whole cultivation of sugar took up 150 acres (60 acres more than on the adjacent Oaklands operation of Claudius Whish), and was chiefly of the "Bourbon" variety of cane. Living quarters were described as ...consisting of a large mansion, manager's house, house for married workmen and their families, laborers' [sic] huts, stockyards, stables, sheds, carpenters' shops, blacksmiths' shop, stores, saw mill, and an innumerable number of other buildings (Brisbane Courier 1867). Additional housing for workers was also provided a little distance from the homestead complex.

A substantial sugar processing works is also described at this time (Brisbane Courier 1867). The works was situated about 200 yards from the river and close to a large reservoir. The main building measured "120 feet square, 20 feet to the eaves, with a pyramidal roof rather than steep". The works were centered around a 30-horse beam engine worked from a large "multitubular boiler, fitted with a patented injector". A distillery was also operating by 1867. It was described as being situated on one side of the main sugar processing works building, and being of "Shears' patent, 600 gallons, with three rectifying or condensing boxes above the still head, producing a strong spirit by one operation" (Brisbane Courier 1867).

In 1866, Raff constructed a 3ft gauge private tramway to transport cane harvested from nearby fields to the mill, and sugar to the wharf (McKillop and Browning 2000). Cane was loaded by hand onto railway trucks, which held, on average 1 ton each. Two trucks formed a train. In October 1867, all hauling was performed by

horse, though a small Aveling and Porter locomotive was present in use in the saw mill but not on the line. At that time, the railway was measured at 1/2 mile in length from the fields to the sugar works, and described as “very well formed, on cross heavy logs, with longitudinal sleepers under the plates”, and the gauge was three feet (Brisbane Courier 1867).

Another visit was made to the plantation one year later by John Dunmore Lang. He described the total land under cultivation as being 160 acres, though this could have been increased to 300 acres if desired. The majority of cane was still of the “Bourbon” variety though 60 acres of “Rattoon” cane (stems or shoots from the second years’ growth of a sugar cane plant) and an unknown quantity of “Ribbon” cane (a subtropical type of cane) was noted. Lang described the tramway as being “an eccentric ellipse [sic], traversing the whole plantation.” The railway measured 2 miles in length and had cost £2,000 to build. Motive power was still “animal power” (Brisbane Courier 1868). By 1870, the line was described as 2-3 miles in length and Raff had run his 8-ton locomotive engine over it (Brisbane Courier 1878). Raff’s is believed to be the first to use a locomotive driven tramway on a Queensland sugar plantation (McKillop and Browning 2000).

Unlike the 1867 description in the Brisbane Courier, Lang notes the presence of South Sea Islander ‘Kanaka’ labourers at Morayfield (Brisbane Courier 1868). George Raff was a prominent supporter of the use of Islander labour, as was his immediate neighbour at Oaklands, Claudius Buchanan Whish. Raff was considered one of the “masters” of the trade and a very large employer of Islander labour. He became prominent as one of the abettors of the system in his testimony before a Parliamentary Committee (Morrison 1888:183-184). It is unclear how many Islanders were present at Morayfield or when Raff first employed them. Lang noted during his 1868 visit the presence of 65 Islanders speaking 5 different languages, working and living on the plantation. Other sources claim about 70 people in total employed on Morayfield Sugar Plantation in 1868, of which 15 to 20 were Islanders (Caboolture Historical Society in Davies 2003:31; Tutt 1979:76). Lang provides descriptions of the contrasting European workers’ accommodation and that of the South Sea Islander labourers (Brisbane Courier 1868). The European workmen and their families were provided with “a row of comfortable brick cottages”, while the Islander labourers were supplied with a large single timber structure with corrugated iron roof measuring “upwards of eighty feet by forty” and painted on the outside. Sleeping accommodation was described as consisting of ... a raised platform stretching along each side of the building, like the berths in the steerage of a ship, each of the inmates sleeping on his blanket on the boards, the fire for cooking their provisions being on the floor in the centre of the building, around which they congregate in the evening, after the labors[sic] of the day, as in their native isles (Brisbane Courier 1868).

Interaction between the South Sea Islanders and the local aboriginal populations is interesting: “the local blacks got much amusement in watching the Kanakas at work and used to mimic their actions, which much enraged the Islanders. The two races abused each other in their own tongues with the river between them” (McConnel n.d. in Tutt 1979: 72)

Lang also notes the presence of an additional brick building across the plantation, a “commodious wharf” on the river for landing or embarking goods and people, and a schoolhouse which doubled as a church (Brisbane Courier 1868). Lang described the conduct of a Presbyterian service at the schoolhouse, at which a number of the South Sea Islander labourers also attended, were literate, and read a portion of scripture in their own language (Brisbane Courier 1868, Saunders 1982:116). These Islanders were described as being from the Island of Maré, the southern most island of the Loyalty Island Group (New Caledonia).

It was not uncommon for Islander labourers to abscond from their employers when conditions were poor. Labourers were commonly provided with insufficient and poor quality food and inadequate clothing (Saunders 1982:132). This was particularly the case on those properties located in the more temperate areas of southern Queensland where the cooler temperatures in winter were completely foreign to many of the Islander labourers. In early 1869, eighteen men originally from the New Hebrides and employed at Morayfield fled. Raff sought a court order in an attempt to force them back to work, which they ignored (Saunders 1982:132). Lang, however, reports that Raff treated his Islander labourers “well”, paying them at the rate of 10 shillings a month with rations, and under engagements of 3 years. Each man received a pound of beef per day and worked until 6pm in the evening (Brisbane Courier 1868). Raff purchased much of this beef from the local area, particularly from the McConnells of Durundur station, near Woodford (McConnel n.d.).

At the end of 1868, the Chief Inspector of Distilleries reported that Morayfield had 190 acres of land under cultivation with cane, of which 60 acres had been crushed. The total amount of rum distilled since the commencement of operation in October 1867 was 18,431 gallons. The amount of sugar manufactured in 1868 was 100 tons, and molasses 12,000 gallons (Tutt 1973:11). Sugar cane cultivation and processing continued on Morayfield throughout the 1870s (Brisbane Courier 1872, 1877, 1885). In 1877, it was reported that 60 acres of cane was present, about 40 acres under prairie grass, and the remainder of the estate (3,000 – 4,000 acres), in pasture for cattle and horses (Brisbane Courier 1877).

The valuation register of 1880 noted a number of improvements to the Morayfield Sugar Plantation, though there is no indication as to where on the property these improvements were made. The improvements listed include a dwelling, mill house, two bonded stores, bone house, carpenters’ shop, cotton shed, stable, octagon building, Kanakas’ outhouse (Kanakas is the word used for indentured South Sea Islander workers), bakery, managers’ dwellings, store, Kanakas’ house, 8 cottages, hayshed, schoolhouse, kitchen and stables (Tutt 1979:201).

Morayfield continued cultivating cane and producing rum until the mid-1880s (Brisbane Courier 1885; Tutt 1979:76). No further production is known after this date (Tutt 1979:76). In August 1889 it was noted that the Morayfield distillery had closed (Brisbane Courier 1889).

The property has been owned by 5 different owners since Raff died in 1889. A Mr William Henry Jackson purchased the land in 1901. A 1903 description of the former plantation area states:

...traces of the old sugar mill, Kanakas’ huts, rum bonds and the miles of furrows and drains still show here and there and the great sheet of water known as “the Dam” still exists; but since the “sixties” the old place has seen so many changes that what may be termed relics of those way-back times only remain (Davies 2003:32).

Subsequent owners of the property used the land mainly for dairying purposes including grazing and milking. By 1903, the property was divided into 19 paddocks, 6 of which were cultivated, with the rest used for grazing cattle. A dip had been built and 400 head of cattle (250 for dairying) were grazed. Infrastructure for the dairying process was also erected, including a turbine steam engine and “de Laval” 150 gallon separator (Davies 2003:32).

The property was sold again in 1909, 1912, 1947 and 1951. In the 1950s the property was sold to the Australian Paper Mills (APM) and a pine plantation established on Lot 10. APM later sold the land and most of the pine was sold to a local mill or chipped on site. The land has since been sold to Northeast Business Park Pty. Ltd for redevelopment as a commercial centre with a view of preserving many historical heritage elements within a designed “Heritage Park” (Attachments G and C).

Phases of Site History		
Date	Ownership	Activity
Pre 1861	non-indigenous settlement unknown	natural area - reportedly an open plateau, ‘a pocket of some extent without timber upon it’
1861 - 1866	Cabulture Cotton Company	Cotton growing and processing
1866 - 1889	George Raff	Cotton growing and processing 1866 - 1868 Sugar plantation and processing 1866/7 - 1885/6 1877 - 60 acres of cane, 40 prairie grass and 3-4000 acres cattle and horses
1901 - 1950	William Henry Jackson and others in 1909, 1912, 1947	Cattle and dairy grazing
1951 - 1990s	Australian Paper Mills	American slash pine plantation
1990s - Current	various different owners of individual lots, culminating in single ownership by NEBP	predominant current activity is cattle grazing

c) Physical environment

Because it is situated on the Caboolture River floodplain, the site is predominantly composed of alluvial-deposited black soil. Some imported stone, typically granite and bluestone, has been used to form the main routes for vehicle transport around the site (Attachment Q - MI25). Some drainage improvement works have been carried out in the form of long linear drainage cuts. Much of the site is covered in regular ridges and furrows which are probably evidence of the extensive american pine plantation which covered most of the site from 1951 to the 1990s (see Attachment O).

Proposed Activities

The proposed activities are an extensive mixed use development that includes business park premises, commercial premises, residential housing blocks and low-rise residential towers, an hotel, a golf course with club house, a school with oval, sports fields with facilities, a boatyard and a marina with access to the Caboolture River. The development works include bridges, roads and footpaths as well as service provision to the various different areas of the site. The whole development scheme can be seen on Attachment D.

Attachment F shows the areas of the site which will be cut and filled, a total volume of 4,304,939m³ is to be cut and a total volume of 3,744,951m³ is to be filled. The development requires a large amount of ground disturbance to remodel the ground profile to suit new uses - in particular the excavation of the marina area (861,748m³) is a dramatic change in the current ground profile. The areas marked 'A' on Attachment F require an average 0.591m reduction in levels required in advance of other site works as it is to provide flood mitigation. Other areas will be raised by filling by between 1.4 and 2.4m and several earthen bunds will be constructed in order to direct flood waters.

There seems to be little evidence of non-indigenous archaeological potential in the proposed areas of dense development and undisturbed remains of historical significance are located in the Open Space areas.

Detail of proposed activities in the Open Space and Core Heritage Areas

A large area of the site is designated as Open Space (Attachment C), which includes the Heritage Park element. In these Open Space areas service provision will be required and access routes will be developed but the same density of development is not planned (see extract below).

As the Open Space areas are located to the north and east of the densely developed areas, there will be no requirement to bring the main site services through the Open Space area, as these come into the site from the west.

The following extract from Heritage Park Precinct Masterplan 2007 document (and see Attachment G) describes the proposed activities in the Core Heritage Zone area:

Intent:

Provision of a significant public access recreation site on the Caboolture River.

Desirable Aims and Outcomes:

- Provide public access to the river and the cultural heritage of the Morayfields homestead site;
- Protect and preserve the cultural heritage features located at this site;
- Interpret and display cultural heritage elements and histories;
- Provide public recreational facilities;
- Provide pedestrian and cycle linkages to surrounding areas;
- Promote the establishment of a sculpture park component;
- Provide opportunities for community cultural events e.g.. biennial ephemeral sculpture competition
- Provide a open space gathering point for community or family functions;
- Retain and display some of the horticultural heritage through retention of appropriate exotic tree plantings.

Design Parameters:

- Equitable Access;
- ESD design and Sustainable design of facilities;
- Localised WSUD treatment train;
- Establishment of 100m buffer to Caboolture R, with majority of built elements beyond this buffer;
- Protection, display and interpretation of heritage items;
- Local Authority Cultural Trail guidelines and CHMP.

Proposed and Permissible Constructed Site Elements:

- Access roadway – AC, flush kerbs, bollard barriers
- Car parking – permeable pavements, bollard barriers
- Overflow car parking for events – open grassed area, potentially on adjacent floodway
- Shared bikeway – concrete or AC, linked to Marina and Sports precincts
- Tracks – AC, deco, timber, chainwalks, roadbase – links to environmental trail network along river
- Boardwalks

- Canoe landing point – compliant with prescribed tidal works codes and relevant authority approvals
- Shelters
- Picnic settings
- Bbq's
- Interpretive displays and signage
- Cultural interpretive shelter / pavilion
- Playground
- Bins
- Amenities – solar lighting, water collection for reuse, on-site waste treatment system

Landscape Modification:

- Rehabilitation and revegetation with endemic plant species of the minimum 100m wide buffer by revegetation plantings, weed management of invasive exotic tree species, in particular camphor laurel;
- Understorey removal as necessary to expose cultural heritage elements;
- Installation of protective measures as necessary to protect heritage elements and ensure public safety;
- De-silting of the water body referred to in historical records as “the Dam “ that was overlooked by the old Morayfields homestead as a landscape setting and historical context element for the Heritage Park;
- Use of bio-swale stormwater collection from the intensive use areas of the proposed park , directed to wetlands and the restored “Dam” as part of a localised WSUD train to minimise impacts on the nearby river of the recreation site.

Investigations

a) Previous

Previous archaeological works on the site have been desk-based and no invasive work is known. For much of the 20th Century it has been inaccessible to the public in private ownership. The site has been recognised by local heritage experts and is mentioned in Caboolture Council's 1979 centenary publication by Stan Tutt.

Su Davies' 2003 Unpublished Cultural Heritage Assessment report for the Lensworth Group covered Lot 10 RP902079 and Lot 2 RP902075 (refer to Attachment B for Lot locations). Remains of Raff's house and plantation works were recognised.

b) Current

A desk based survey of the site was conducted and several site visits were made during October and November 2010 in order to locate on the ground any visible archaeological features. Remains were located in the landscape using GPS and were photographed.

i. Desktop research

A search of the Queensland Heritage Register and DERM's CHIMS database for information relating to the study area or place did not find any information directly relating to the site, however the neighboring property “Oaklands Sugar Mill Remnants” is recognised as Queensland Heritage Register ID.700007.

The unpublished 2003 Cultural Heritage Assessment of Lots 2 and 10 by Su Davies has been considered as well as field notes, photographs and research carried out by DERM's cultural heritage officer Cameron Harvey in preparation of a draft document for entry onto the Queensland State Heritage Register.



Historical Photograph dating from 1873 [HA13]

The view of outbuildings and cane fields taken from the piazza surmounting the Millhouse building on the Morayfield Sugar Plantation in 1873. Extract from 19 October 1867 Brisbane Courier article entitled 'Mr Raff's' describes the Millhouse "*situated 200 yards from the river, and close to a large reservoir...a large imposing structure, 120 feet square, 20 feet to the eaves, with a pyramidal roof rather steep, and surmounted on the top with a large and spacious piazza from which a commanding view of the whole plantation is easily obtained. The distillery is on one side of the building...A railway loads into the mill, to bring cane from the field or take...out of the mill. A branch line also leads to the wharf upon the banks of the river.*"

Of interest in this photograph are; the post and rail fence crossing the dam on LHS (dam appears as a depression but does not seem to contain water); the line of the tramway running from the bottom RH corner to the centre of the photograph (it is assumed the tramway lead to the site of the wharf on the Caboolture River south bank, but no wharf buildings are visible in this photograph); the two larger roofed structures in the background with open wall construction (stables? stores?); the smaller building adjacent to the tramway alignment; the long timber-slab constructed building in the foreground (sawmill?); the corner of the Mill building roof at the bottom of the photograph in the centre (in the immediate RHS foreground there are lots of piles of timber, presumably a stockpile to provide fuel for the machinery in the Mill and adjacent Distillery).

Aerial photography:

Reference: 1949 aerial photograph - site is being used for cattle grazing and dairy (1909 - 1951) - a large cloud obscures much of the Core Heritage Zone but an area close to the river is visible. Features noted include:

On the west side of the cloud: a large roofed structure in the paddock to the south of the great bamboos, the NE aligned roadway leading to the Raff house site; the large camphor laurels at the diversion point of the roadway; a glimpse of the Raff house and outbuildings; the land to the north and east of the great bamboos is cleared.

To the north of the cloud: a large roofed structure with two thinner roofed structures immediately adjacent to the south (this could be a development of the large stables/stores building seen in the 1873 photograph [HA13]), several smaller structures immediately to the east of the larger structure, another long, thin structure further to the north east, beyond the Fig clump. There is no obvious tramway to be seen.

Reference: 1959 aerial photograph - the site is being used as a timber plantation (1951 - 1990s) - photograph is clear of cloud cover. Features noted include:

None of the buildings noted in 1949 are clearly obvious however certain features are clear; the NE aligned roadway; the great bamboos; the large camphor laurels. Land has been subdivided into smaller parcels with access tracks evident. Trees are still small and not obvious. A new main house residence is seen to the west.

Reference: 1991 aerial photograph - the site is being used as a timber plantation (1951 - 1990s) - photograph is clear of cloud cover. Features noted include:

Timber plantation is well developed and trees are obvious. The timber plantation has not been extended over the area of the Raff house and the dam however the treed blocks extend close to the eastern edge of the dam. The great bamboos and large cedars are obvious. An area surrounding the new main residence has been left clear of trees.

Description of the site:

The boundaries of Lot 10 have remained intact since it was originally surveyed as Portion 10 in the 1860s (DERM 1866, 1951). While use of the area has changed over time (cotton – sugar – dairying – pine plantation – proposed business park), the nature of these activities to date may have had limited impact on the integrity of the archaeological record. While the visible, above ground archaeological remains are found in a ruinous state, the former plantation area has potential to contain subsurface archaeological deposits with the possibility of some stratification. Archaeological remains which relate to Raff's occupation and use of the area are located in the northern portion of Lot 10, close to the Caboolture River and around the margin of a dam / reservoir - likely the focal point of the original homestead complex and referred to historically as "the Dam" (Davies 2003:32; Attachment J). While information on the full layout of the complex is incomplete, it is possible to identify several key elements from the results of previous field investigations and historical and aerial photograph interpretation, including the location of Raff's residence, exotic gardens and plantings, two wells, stores, stables, a fence line, the sawmill site, and part of the tramway formation (Attachment J).

A set of thirteen steps (rendered stone base with later brick additions) and the remains of a brick and sandstone wall with patches of render still visible are found at approximately (MGA94 Zone 56) 499685E, 7001805N (Attachment Q - MI4). These steps are associated with Morayfield Plantation house site, originally built and occupied by Raff, and later renovated by Jackson in the early 20th century (Attachment P - HAI1, HAI2). Unmarked and handmade bricks, sandstone pieces and blocks with render are scattered in the vicinity of these steps (Attachment Q - MI7, MI8). A brick-lined well is also found behind where the house would have been situated, connected to the house site by a brick-paved floor (Attachment Q - MI9, MI10). Exotic plantings, including two groves of bamboo and two palm trees, evenly spaced to either side of the set of stairs, as well as bunya trees are located in the immediate vicinity. (Attachment Q - MI6, MI11). The house site is approached from the south west by a roadway (Attachment Q - MI2, MI3, MGA94 Zone 56 499585E, 7001789N) whose furthest extent is marked by a large camphor laurel tree (Attachment Q - MI1, MGA94 Zone 56 499485E, 7001737N).

A second brick-lined well, filled with sediment, is located on the north-eastern side of cattle yards close to the Caboolture River and the northeast extent of the dam / reservoir (Attachment Q - MI15, MGA94 Zone 56 499891E, 7001990N). These cattle yards are believed to be related to William Henry Jackson's dairying activities and were erected after 1901. These yards are not considered of archaeological importance but may overlie earlier structures, as parts of the concrete floor surface have been lifted by invasive fig tree roots, closely packed brick surfaces can be seen underneath. (Attachment Q - MI12, MGA94 Zone 56 499896E, 7001975N). It is not known when the well was constructed, but size and construction pattern are similar to the well located near the former Morayfield Plantation house site. The well is also located in close proximity to the location of the former stores, stable, wharf and tramway which are known to have been constructed sometime before 1873. Although there are no visible remains of the stores and stable buildings, potential exists for important archaeological artefacts and features subsurface and brick fragments have been found in this area (Attachment Q - MI13, MGA94 Zone 56 499887E, 7001961N)).

The design of the "commodious wharf" noted by John Dunmore Lang in his *Brisbane Courier* article in 1868, and its ultimate fate, is not clear. Considering the need to dock the small river vessels that were employed to transport cargo to the plantation and cane and rum out, and the existence of a purpose-built tramway to the wharf itself (Brisbane Courier 1867), it is assumed that the wharf was of reasonable construction and size. Possible remains of the wharf above the waterline include a single large in situ timber post (Attachment Q - MI23, MGA94 Zone 56 499893E, 7002031N) and numerous metal artefacts (horseshoes, circular collars, heavy straps, bolts etc) which are eroding out of the river bank in this location (Attachment Q - MI100, MGA94 Zone 56 499886E, 7002022N). Based on the 1873 historical photograph of this area (Attachment P - HAI3) and recent aerial photography (DERM 2002, 2009b, 2009c), the wharf is thought to be located at (MGA94 Zone 56 499888E, 7002020N). Archaeological investigations at other historic wharf sites in Queensland and interstate have revealed rich archaeological deposits at such locations, even in the absence of structural remains above the waterline, and also significant archaeological deposits in maritime zones where dredging has occurred (Coroneos 2004; Cosmos Archaeology 2006, 2009; Illidge 2006). There is therefore good potential for archaeological artefacts that were lost overboard or discarded from ships, or the wharf deck itself, to be situated in the vicinity of the former wharf area and within the riverbed out to the mid-channel of the Caboolture River.

The remains of a post and rail fence line cross the dam / reservoir located immediately east of the main house ruins. This fence line is also visible in the 1873 photograph (MGA94 Zone 56 499909E, 7001888N Attachment P - HAI3) and therefore is considered to be physical evidence of Raff's operations on the site.

Adjacent a vehicle access track and near the southeast extent of the dam / reservoir, are more handmade bricks and a rusting boiler (unknown make) which is located in the vicinity of the former sawmill site and tramway (Attachment Q - MI20, MI24). Field inspection of the area did not result in clear evidence of the tramway formation, as the area was cleared and used as a pine plantation by APM after 1951. To the north of this location, in the vicinity of the cattle yards (MGA94 Zone 56 499892E, 7001981N) and also to the northeast, in a clump of Bunya Pines (MGA94 Zone 56 499955E, 7002058N), two sections of metal rail were located which may have formed part of the tramway. The Bunya Pine clump also contained a brick-built and rendered foundation and a rusted metal tank - similar to a ship or steam engine's water tank (MGA94 Zone 56 499954E, 7002056N), but also possibly an artefact related to the early sugar manufacturing process. Nearby, an feature of unknown purpose is set into the ground and is partially filled with concrete, so as to form a sort of bowl with a surrounding metal rim (MGA94 Zone 56 499949E, 7002048N). The area around the former sawmill site and the tramway formation is considered an area of high archaeological potential.

The lone grave of Levi Walker, a plantation worker who died in 1869, is located on the southern bank of the Caboolture River (Attachment Q - MI26, MGA94 Zone 56 499211E, 7001832N). The headstone reads "Sacred to the memory of Levi Walker, son of James and Rachel Walker, who was drowned whilst bathing in the River Caboolture, October 10th 1869, in the 28th year of his age." Levi Walker's death certificate indicates that he was a labourer born in Heap, near Bury in Lancashire, England (QRG 1869). He arrived in Australia on 6 September 1869 aboard the Star Queen (QSA 2009). The State archives hold the particulars of Walker's death (Attachment P - HAI4), completed by Captain Claudius Whish J.P. who occupied the neighboring property, and statements by witnesses. The particulars suggest that the body was recovered from the river and so there is a possibility that his remains are buried in the vicinity of the grave marker. While it is not impossible that additional though unmarked graves exist on the property, no physical or historical evidence to support this claim was located during the assessment process. Any unmarked graves located within this place would be of archaeological potential and importance.

ii. Field Survey

- Persons carrying out site survey work were Steve Chaddock, Cameron Harvey, Cosmos Coroneos and Aleshia Buckler. Site visits made during October and November 2010.
- Investigation of the site was made on foot and locations were recorded using GPS hardware. Photographs were taken of features and surface finds and these are presented in Attachment Q and are identified by the prefix MI.
- The vegetation covering the site does not facilitate the identification subtle changes in the ground profile; the banks of the Caboolture River are steep and dangerous in places - to the point of denying good access.

c) Assessing Potential and Importance

Potential exists across the area for archaeological evidence associated with the Morayfield Sugar Plantation. It is reasonable to assume that archaeological potential also exists for evidence relating to domestic Islander and white labourer accommodation, the remains of the sugar industry including the millhouse, distillery associated buildings and the tramway infrastructure.

The Morayfield Sugar Plantation is representative of one of the earliest developments in Queensland's influential sugar industry, dating from the earliest phase in southern Queensland.

The Morayfield Sugar Plantation contains important archaeological artefacts associated with George Raff's ownership of the property, beginning in 1866 until his death in 1889. George Raff was a prominent early citizen in Queensland due to his presence on the first Queensland legislative assembly, his contribution to the development of the sugar industry and his use of indentured South Sea Islander labourers.

Several artefacts and ruins have been located above ground and are considered important in-situ elements – i.e. remnant stairs, wells, handmade bricks, brick-paved floors, metalwork and rail fragments, a riveted tank, exotic plantings, structural foundations and remnant wall features. There exists potential for subsurface deposits of archaeological artefacts, especially additional building foundations, footings and domestic refuse, to be located in the vicinity of these above ground elements. Any archaeological artefacts found at this place have potential to provide important information on two key aspects of Queensland history - the development of early sugar growing, cultivation, processing and distilling operations, and the exploitation of South Sea Islander peoples in the sugar industry. The identification of domestic refuse in particular has potential to provide important insights into historical aspects of the operations on Morayfield Sugar Plantation, including the lives of the people living and working on the plantation.

Archaeological investigations at the place could provide important comparative material culture evidence about the processes, practices and techniques of early sugar production. Archaeological evidence may reveal important insights into methods that are undocumented and no longer practiced. Evidence of this nature could provide insights into changes in practice over time when studied in comparison to other early sugar producing places, particularly the nearby and then contemporary Oaklands Sugar Mill Remnants (QHR700007).

Archaeological investigations around the plantation wharf area and within the adjacent riverbed may reveal structural elements and archaeological artefacts relating to plantation operations, the working life of the wharf, and the economic development of the region. Structural remains may consist of materials associated

with the construction, repair and maintenance of the wharf itself. As objects were often deliberately or accidentally dropped from wharves during loading and unloading operations, archaeological artefacts relating to the shipping of cargo to and from the plantation and the greater Caboolture area have potential to survive submerged in the vicinity. The study of such archaeological artefacts may reveal important information on primary production in the area, consumption choices and patterns in material culture, distribution networks for goods coming to and going from the plantation, and the nutrition and diet of the people living on the plantation and in the broader region at the time.

At the time of assessment, few places associated with early indentured South Sea Island labour had been confirmed in Southern Queensland (see particularly Oaklands Sugar Mill Remnants QHR700007 at Morayfield and Ormiston House Estate QHR600775 in Ormiston, Redland Shire). The potential for archaeological artefacts associated with these labourers makes the Morayfield Sugar Plantation an important source of information about the use of indentured labour in Queensland and an important comparative place for the analysis of South Sea Islander heritage places found in Southern Queensland and across the state. Potential for archaeological artefacts belonging to plantation owners, managers, and South Sea Islander labourers exists, enabling important research questions to be posited, particularly in relation to status and class, the use of power, control and resistance to that control, the exploitation and organisation of labour, and adaptation to new environments.

Themes in Queensland's History

Working along the model developed for the Australia Heritage Commission in the mid-1990s, nine principal themes in Queensland's history were identified by historian Dr Thom Blake in his 1996 report titled Queensland Cultural Heritage Context Study, prepared for the Queensland Heritage Council. The Morayfield site is relevant to the following themes identified:

- **Exploiting and/or utilising the land** - for cotton and sugar cane growing.
- **Developing secondary/tertiary industries** - processing sugar cane and distilling rum.
- **Movement of people, goods and information** - South Sea Islander, German and UK workers, river transport between the wharf and Brisbane.
- **Building settlements and dwellings** - construction of dwellings and establishment of a settlement.

Issue Identification

Initial archaeological investigations have been limited. We were not able to investigate inside wells or underwater and were only able to discover surface remains. Site survey work has not located any artefacts usually associated with domestic activity and whilst 19th Century brick styles have been found, no fragments of glass or ceramic have so far been discovered. This is unusual and it seems likely that we have not yet discovered the location of domestic refuse disposal.

The Caboolture River is actively eroding its Southern bank in the vicinity of the remains of the wharf. Continuing erosion in this area would result in the natural degradation of archaeological deposits associated

with the wharf and other elements of Raff's Sugar Plantation works, if they have not already been eroded by the river's action.

Management Recommendations

a) Research Strategy

- to ascertain the location and state of survival of the remains of the Morayfield Sugar Plantation, in terms of both its industrial and social makeup.
- to understand the processes practices and techniques of early Queensland sugar manufacture in relation to the remains on the ground; how the plantation operated; how raw materials entered or originated on the site, how they were moved from place to place and away from the site.
- to understand how the indentured South Sea Island plantation workers lived on the site and how archaeological remains are associated with their daily activities, particularly in relation to status and class, the use of power, control and resistance to that control, the exploitation and organisation of labour, and adaptation to new environments
- to study any artefacts found on the site in order to shed light on primary production in the area, consumption choices and patterns in material culture, distribution networks for goods coming to and going from the plantation, and the nutrition and diet of the people living on the plantation and in the broader region in the late 1800s

Methods, processes and procedures of proposed archaeological investigations

Vegetation Clearance - removal of the surface layer of vegetation to enable clear sight of any surface features. Needs to be carried out in a careful manner with qualified archaeological supervision and can include machine excavators as well as hand tools.

Tree removal supervision - archaeological advice provided during the planning of tree removal works aimed at minimising the potential damage to archaeological remains.

Site Survey - Measured survey of changes in ground profile, archaeological features and remnant structures within the Core Heritage Zone tied into a local grid created for the purpose. Needs to be carried out by qualified archaeologists.

Monitoring - a formal programme of observation of construction activities by a suitably qualified person (i.e. an archaeologist) in order to identify, recover, protect, and/or document archaeological artefacts, features and deposits.

Maritime Archaeological Survey - parts of the site are underwater and will require investigation and recording by a dive team of 3 specialist maritime archaeologists who are AS 2299 qualified. The aim of the maritime survey is to identify structures and deposits, their extent, condition and archaeological potential, on the riverbank edge and underwater across the Core Heritage Area. The southern bank of the Caboolture River will be investigated from a boat at low tide for evidence of drainage exits and river edge constructions (jetties, wharfs). Initial soundings across the river will give an impression of depth, river bed composition and

profile. Based on initial findings, underwater transect surveys will enable below water evidence to be surveyed in more detail.

Excavation - includes test excavations designed as an exploratory investigation of a small portion of a site to examine the subsurface profile to obtain a better understanding of site formation process and/or the presence/absence of concealed archaeological deposits, through to large-scale trenching and open area excavations conducted for research or salvage purposes. Needs to be carried out by qualified archaeologists.

Collection of artefacts - a full strategy will be developed for the management of any artefacts discovered during works on site including primary site processing and secondary site management, appropriate labeling of artefacts based on best practice and conservation works as necessary. Artefact recording should assist with later post-excavation analysis of finds to enable spatial distribution of find types.

Personnel to be used on the research project

- Archaeologists,
- Maritime archaeologists,
- Historical researchers
- Conservators
- Interpretation specialists

Interpretation plan outline:

The proposed public access use of the Core Heritage Zone area means that certain features, such as the area of the Millhouse for example, represent a significant health & safety risk as they present trip hazards. It is therefore expected that, subsequent to full survey recording, areas such as the Millhouse will be landscaped to enable safe public access and that this will be done under archaeological supervision.

Other sites of archaeological potential identified during survey works will not require extensive landscaping and can be preserved 'in situ'. Such undisturbed sites offer an ongoing opportunity for long-term archaeological research. Potential exists to develop partnerships with educational institutions at all levels and enable access to the cultural heritage resource. These sites would be suitable for a university research project as well as providing an outdoor learning environment for undergraduate study (in Archaeology or Heritage Management for instance).

Ongoing interest could also be maintained by successive seasons of community-involved excavation generating refreshed information that would assist in providing a constantly evolving interpretation of the site's history and gradual discovery.

The site's interpretation would form a part of the overall communications strategy and would aim to communicate the stories and ideas belonging to the site to a range of different user groups, including:

- School groups
- University students and researchers
- Local residents

- Tourists

Themes for interpretation should be refined after further detailed analysis and understanding of the site has been carried out, however, based on our current understanding, themes could include:

- Early Queensland cotton growing and production and its links to reliable supplies of cotton to the UK during the US Civil War 1861-5
- Early Queensland sugar growing and sugar processing, rum distilling and molasses production
- River Traffic on the Caboolture River linking the wharf to Brisbane City and other locations
- Tramway infrastructure on a sugar plantation
- Steam as a motive power - for machines and tram engines
- People - George Raff and son, John Buhot, Levi Walker, Claudius Whish, South Sea Islanders
- Archaeology - remains of the site, domestic and industrial.
- Vegetation - great bamboos, camphor laurels, bunyas, exotic remnants

Various different media for interpreting these themes could be developed including:

- A Self-guided Tour - a brochure-based tour linked to sites located on the defined walkway (to be developed on site) and identified by small markers
- An interpretation AV - A short video using actors or avatars who tell the story of the site's history in an interpretation centre
- Interpretation Centre - a space located close to the historical remains and dedicated to providing interpretive content about the site's history and other attributes.
- Wifi tour - a tour whose content is delivered over a local wifi network enabling visitors to pick up content on their mobile phones which enables a layered approach to the content delivery
- Educational Pack - materials to support delivery of the national curriculum to schools and assist teachers. Site based investigation opportunities (Walker grave). Learn and practice recording skills (outdoor learning). Study original documentation (Walker Certificate of Particulars)

b) Specific Actions

Zoning of site based on archaeological sensitivity/potential (see Attachments H and I)

Zone	Potential	Management Action
<p>Core Heritage Zone containing the remains of the plantation works, wharf, Raff's house and Walker's gravestone</p>	<p>High</p>	<p>Detailed archaeological assessment, including full archaeological survey and detailed site planning, prior to project commencement. Archaeological site plan to identify and number all features.</p> <p>Grid based approach to ensure coverage of whole site and enable mapping of artefact collection. The grid's frequency will be appropriate to the level of archaeological significance.</p> <p>Supervision of tree removal works</p> <p>Further investigation of archaeological features identified in archaeological assessment (such as GPR survey, test trench or full excavation) in consultation with DERM.</p> <p>Monitoring of all ground disturbance activities.</p> <p>Minimise ground disturbance activities within 20m of: Levi Walker grave site and exotic plantings</p> <p>Development and installation of interpretative signage where appropriate, in consultation with DERM and local community interest groups</p>
<p>Heritage Zone East no surface remains have been located in this zone</p>	<p>Medium</p>	<p>Due to the unknown extent of the former Plantation infrastructure and the proximity of the cut zone to the core heritage zone, monitoring of all ground disturbance activities in this Zone is recommended.</p> <p>Depending on the outcomes of the initial archaeological assessment, additional management actions may be required, including additional archaeological investigations.</p>
<p>Heritage Cut Zone no surface remains have been located in this zone</p>	<p>Low/Medium</p>	<p>Due to the unknown extent of the former Plantation infrastructure and the proximity of the cut zone to the core heritage zone, monitoring of all ground disturbance activities in this Zone is recommended.</p>

Zone	Potential	Management Action
Rest of Site no surface remains have been located in this zone	Low	<p>Adopt a precautionary approach during ground disturbance works in all other areas.</p> <p>Make clear the procedures and practices to be followed if cultural heritage material is encountered during work on site. Ensure inadvertent discoveries of archaeological artefacts are handled as per Section 89 of the <i>Queensland Heritage Act 1992</i> and ensure they are reported to DERM for advice as soon as practicable following discovery.</p> <p>Heritage induction training material to be incorporated into other site induction procedures. Induction training for all project personnel (and subcontractors) on historical archaeology, the importance of the place, what discoveries are/might be made, and what to do when inadvertent discoveries are made. Provide labelled finds trays for the collection of artefacts if/when discovered.</p>

Core Heritage Zone Management Detail

Specific archaeological impacts expected in Core Heritage Zone based on the current landscape works proposal which describes access roads, car park and overflow car park, a bikeway, tracks, boardwalks, canoe landing points, shelters and picnic settings, barbecues, playgrounds and bins. Shelters and signage to enable interpretation will also be developed. All of these facilities will require servicing with electricity for light, water for consumption and sewage treatment. Further detailed design work is required to define the likely archaeological impact of these elements.

In proposals for landscape modification, both tree removals and plantings are proposed.

The standing remains of Raff's house are subject to tree incursion and, from a preservation standpoint, it would be advisable to carefully remove these trees with archaeological advice. Careful lopping in consultation with archaeologists and monitoring of this removal will be required. Taller trees will need to be brought down in sections to avoid damage to above ground remains. Trees should be cut hard back and the sapwood poisoned with a systemic weedkiller. Tree roots, even small ones, should not be pulled out as this will disturb intact remains, instead they should be cut back and poisoned.

Access to the Raff's house remains by the public is expected to be freely available and pedestrian. Therefore, the installation of protective measures will be necessary to protect both the remains and ensure public safety. The house steps which lead up to a sheer drop and the unprotected brick-lined

wells are of immediate concern. Assessment of the archaeological impacts of these works requires further detailed design work.

There is a 100m development buffer running along the south side of the Caboolture River and this will be rehabilitated and revegetated with endemic plant species. Archaeological impacts will depend on the method of tree planting being followed during revegetation works but will require excavation below the current ground surface - archaeological expert advice should be involved in defining revegetation method. Particularly in the Heritage Zone areas, this activity will need to progress with the discovery of archaeological remains in mind.

The revegetation scheme should be reviewed so that there is notice taken of the riverside location of the Walker grave site and its immediate environs as well as the wharf site, and the potential for other smaller jetties along the Core Heritage Zone stretch of the river should not be overlooked. The preservation of the setting of the historic site is also important to consider when planning new plantings.

In weed management proposals invasive exotic trees are to be removed, and camphor laurels are particularly mentioned. A case should be made for the retention of exotic tree species, particularly where they form part of the historic landscape and will enable later interpretation works. For instance the large camphor laurel beside a small pond which sits at the end of the old road that runs north east towards Raff's house.

De-silting of the water body referred to as "the Dam " is proposed - this should be carried out under archaeological supervision. After the development is completed, during operation of the site, the direction of storm water collected from the intensive use areas into the Dam is proposed. It is currently unclear how this proposal might affect the Dam or the remains of the plantation.

Following a site survey, targeted investigation using non-invasive techniques such as remote sensing is proposed. In particular, the area around Walker's grave stone might reveal the presence of his and other buried remains and other areas of potential exist in the vicinity of the tramway alignment. With extensive earth moving taking place in other areas of the site, it would be a good opportunity to conduct a 'control' remote sensing exercise prior to ground works in order to use as a comparison for other parts of the site and to enable the ground-truthing of data collected.

d) Contingency Plans

Whilst all reasonable efforts have been made to understand the likelihood of archaeological remains being discovered on the site, there is always a potential for archaeological discovery even if it is judged to be a LOW probability. The various Zones of archaeological sensitivity have been developed based on the material available for this MAMP. However, if during the course of preliminary groundworks significant archaeological discoveries are made, work may need to be halted to enable adequate time for recording and consultation with DERM in order to agree appropriate archaeological management of these unforeseen discoveries.

Reporting of discoveries should follow DERM's guidance paper for people reporting the discovery of archaeological artefacts and places under Section 89 of the *Queensland Heritage Act 1992*. DERM require discoveries to be left undisturbed for up to twenty days to enable proper consideration to be undertaken. Failure to report a discovery would attract a penalty point fine.

e) Communications

The community will be involved in the archaeological aspects of the site's development in a variety of different ways:

- Oral history will be recorded in order to understand the latter stages of the site's history as a cattle property and timber plantation and provide content for the interpretation of the site;
- Volunteers will be invited to take part in appropriate activities such as vegetation clearance and finds processing.
- Site tours will be advertised and conducted during excavations;
- Exhibitions and open days and on-site lectures will be planned in order to communicate the story of the site and the latest discoveries that have been made;
- Interpretation works are planned to communicate the history of the site to visitors as part of the open space area of the development. Information will be provided on signage panels or in another medium. Publications that explore sugar manufacture, South Sea Islander heritage and personalities may also be published and offered for sale. Modern artistic expressions based on an understanding of the site's rich heritage, such as sculpture, may be commissioned to provide another means of interpretation.

Definitions

Archaeological investigations provide an opportunity to identify, assess record, excavate, or collect archaeological artefacts, and to otherwise conserve and manage archaeological heritage within Queensland Heritage Places. They primarily include the following types of works:

1. Monitoring - a formal programme of observation of construction activities by a suitably qualified person (i.e. an archaeologist) in order to identify, recover, protect, and/or document archaeological artefacts, features and deposits.
2. Initial archaeological assessments - a programme combining desktop research and non-invasive field assessment to determine the presence or absence of archaeological artefacts, features, structures and deposits with a specified area. If such archaeological evidence is present, initial archaeological assessment defines the character, extent, quality and preservation of the evidence, enables assessment of archaeological importance and potential as per the archaeological criteria in the Queensland Heritage Act 1992, and informs subsequent work on the place.
3. Archaeological management plan - is a document which outlines the archaeological management regime for a specific place or area within the context of a proposed development project. A plan is informed by previous archaeological assessment, including initial archaeological assessment.
4. Surface artefact recovery - a controlled programme of salvage and collection of surface archaeological artefacts in response to the threat of development impacts or as part of a programme of research generated work.

5. Archaeological excavation - includes test excavations designed as an exploratory investigation of a small portion of a site to examine the subsurface profile to obtain a better understanding of site formation process and/or the presence/absence of concealed archaeological deposits, through to large-scale trenching and open area excavations conducted for research or salvage purposes.
6. In-situ conservation and interpretation - is the retention of important archaeological artefacts, features, or deposits in place, and all the processes of looking after those archaeological artefacts, features, or deposits to retain their importance and/or potential.
7. Interpretation is an education activity which aims to reveal meaning and relationships via original objects, by first-hand experience, and by illustrative media rather than simply to communicate factual information.
8. Conservation - the proper care of archaeological artefacts in order to stabilise them for long term preservation.

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