



Chullora Materials Recycling Facility

Environmental Impact Statement (SSD-10401)

Appendix Q Aboriginal Due Diligence Assessment





artefact

6 February 2020

Claire Hodgson
Senior Environmental Consultant
Arcadis
Level 16, 580 George, Sydney | NSW 2000 | Australia

Dear Claire,

Re: DRAFT 21 Muir Road, Chullora: Aboriginal Heritage Due Diligence Assessment

SUEZ Recycling & Recovery Pty Ltd (SUEZ) are seeking to establish a state-of-the art Resource Recovery Park (RRP) located at 21 Muir Road (Lot 2 DP1227526), Chullora in Sydney. SUEZ are proposing to design, build and operate the first phase of the Chullora RRP as a Materials Recovery Facility (MRF) (the Proposal). The MRF will process co-mingled recyclable municipal solid waste and dry commercial and industrial waste; with a material processing capacity of up to 172,000 tonnes per annum (tpa). The Proposal will be subject to assessment by the Department of Planning, Industry and Environment (DPIE) as State Significant Development (SSD 10401).

Artefact Heritage (Artefact) have been engaged by Arcadis Australia Pacific Pty Limited to prepare an Aboriginal Heritage due diligence assessment in accordance with the 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales' (the due diligence guidelines) (Department of Environment, Climate Change and Water [DECCW] 2010). The purpose of the Due Diligence Assessment has been to determine the likelihood of Aboriginal objects being present within the Proposal site.

Flood mitigation works will be undertaken within the Chullora RRP site prior to commencement of the Proposal (subject to DA-366/2020). Flood mitigation works will include construction of a flood detention basin, stormwater infrastructure and earthworks to establish a levelled foundation pad raised above the one in 100-year flood event. The flood mitigation works will have been completed prior to commencement of the Proposal; establishing new baseline conditions across the site.

To provide a conservative assessment this due diligence assessment has included consideration of the Chullora RRP site context and features prior to the completion of the flood mitigation works, which are a separate stage of works that will be conducted prior to commencement of the Proposal. The flood mitigation works would require disturbance, vegetation clearing and earthworks across the entirety of the Proposal site which would substantially alter the context of the site, providing a further level of disturbance than has been identified within this assessment.

Proposed works

The Proposal would comprise the construction and operation of a MRF with a material handling capacity of up to 172,000 tonnes per annum (tpa), comprising:

- Up to 115,000 tpa of co-mingled recyclables collected from municipal and C&I sources
- Up to 50,000 tpa of source separated paper and cardboard for baling
- Up to 7,000 tpa of external mixed plastics for secondary processing.

Once operational the Proposal would receive waste from locally generated sources as well as the greater Sydney area. The total input in any year would not exceed 172,000 tpa, with the exact throughput from each source varying subject to the market conditions in that year and different Councils' recycling collection regimes.

The Proposal would represent a critical piece of waste management infrastructure which would mitigate significant capacity constraints currently impacting the Sydney region. The Proposal would provide advanced recycling processes to build resilience within the current network of recycling facilities as well as promote the principles of a circular economy through implementation of a pull-through model that conceives of the sorting, reprocessing and specified end uses of processed materials as an integrated, closed loop solution.

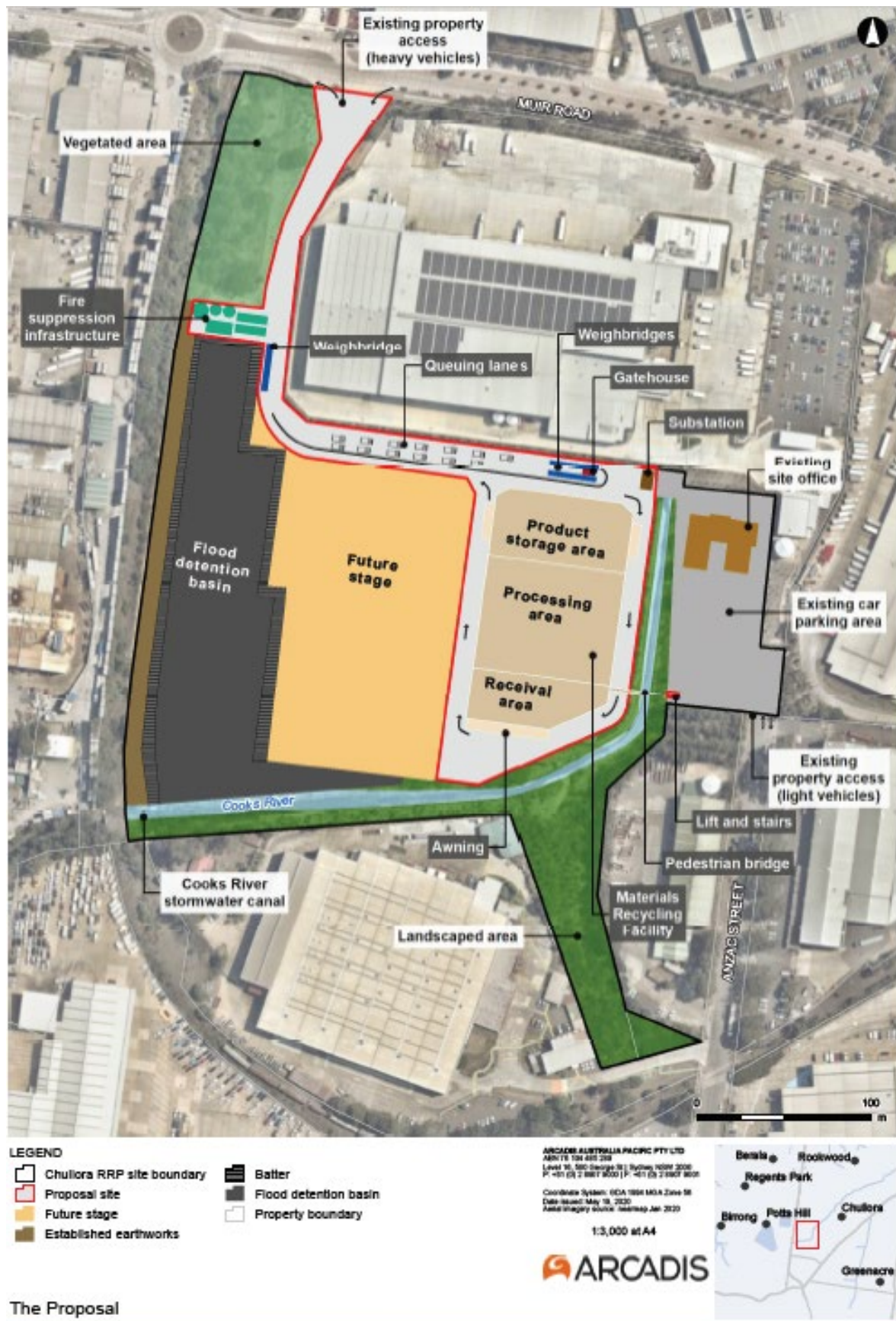
The key construction components of the Proposal would include:

- Establishment of a hardstand area and internal road network
- Construction of the enclosed MRF shed
- Installation and commissioning of fixed plant and equipment
- Installation of ancillary infrastructure, including weighbridges, pedestrian overbridge, and fire systems
- Installation and connection of site service infrastructure (electrical, water, sewer, gas and telecommunication services)
- Installation of signage.

The key operational components of the Proposal would include:

- Operation of a MRF 24 hours per day, seven days per week (including processing and waste delivery and collection)
- Product storage.

Figure 1. The Proposal



Investigation area

The investigation area is located at 21 Muir Road, Chullora (Lot 2, DP1227526), approximately 18 kilometres west of Sydney CBD and 10 kilometres east of Parramatta. The investigation area for this assessment is shown in Figure 2. The investigation area extends outside the Proposal site ensuring its' broader context was considered within the assessment.

The site is bounded by Muir Road to the north, and Anzac Street to the east. South of the investigation area is existing industrial development, and west of the investigation area is a disused freight railway line.

The investigation area is located within the Local Government Area (LGA) of Canterbury/Bankstown Council and parish of Bankstown. It is within the boundary of the Metropolitan Local Aboriginal Land Council (Metropolitan LALC).

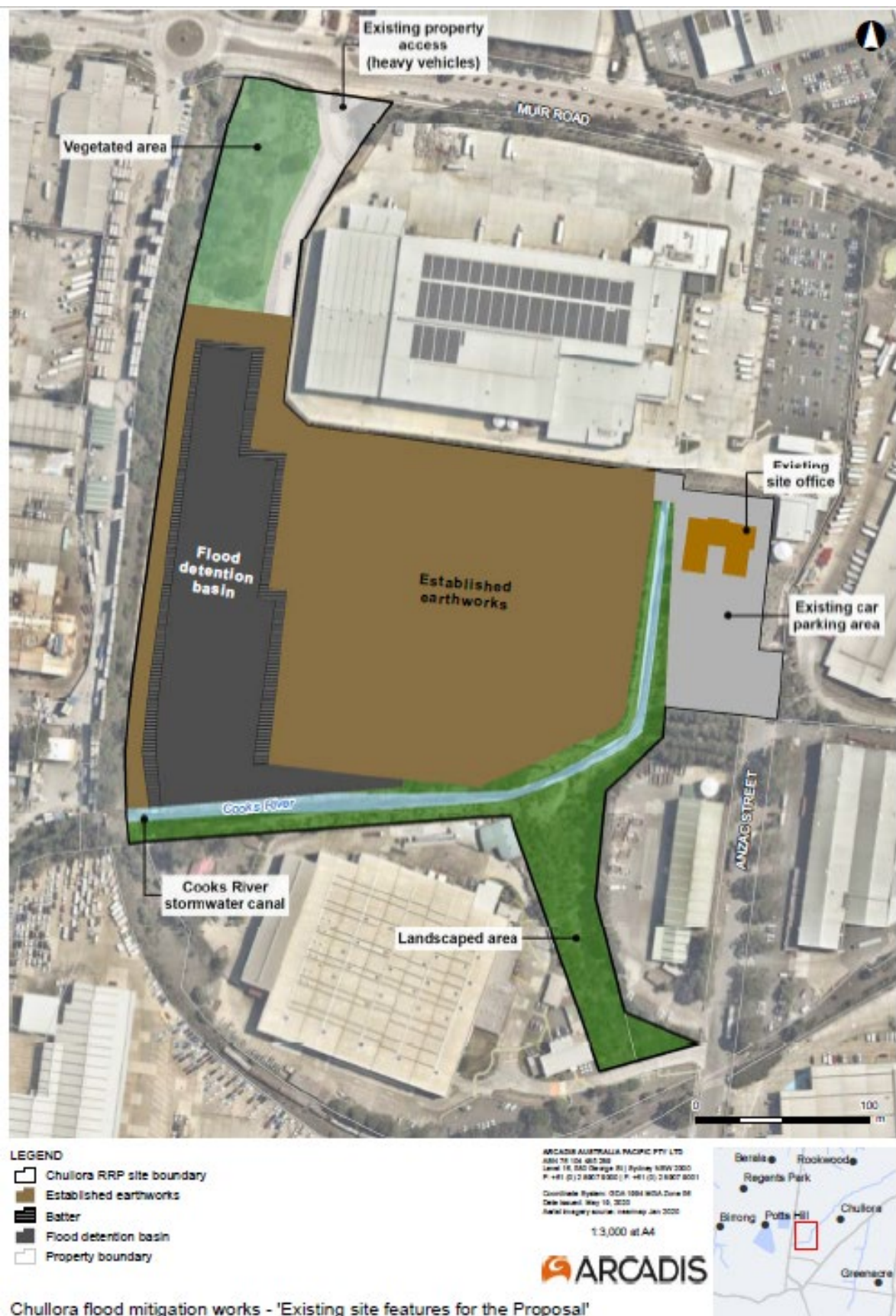
The investigation area was formerly the site of the Chullora Resource Recovery Centre, which included a Transfer Station, Materials Recycling Facility, Garden Organics platform and building site used for glass processing. This site was subject to a fire in 2017 and subsequently demolished. The investigation area has since been used for the storage of garbage bins, maintenance and parking of garbage trucks, a heavy vehicle workshop, 5000L diesel tank and wash bay to support truck maintenance activities.

In 12th May 2020 SUEZ lodged a development application (DA) (DA366/2020) with Council for the development of flood mitigation works across the Chullora RRP site (the flood mitigation works). The DA is seeking approval for early works and site establishment across the Chullora RRP site to provide flood immunity and stormwater infrastructure. Figure 3 shows the Chullora RPP site following completion of the flood mitigation works (i.e. the existing site conditions for the Proposal). This due diligence assessment does not include assessment of the flood mitigation works across the Chullora RRP site.

Figure 2. Aboriginal due diligence assessment – investigation area



Figure 3. Chullora RRP following completion of the flood mitigation works (provided by Arcadis)



Legislative context

National Parks and Wildlife Act 1974

The National Parks & Wildlife Act 1974 (the NPW Act) provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community). A Section 90 Aboriginal Heritage Impact Permit (AHIP) is the only permit available to impact identified Aboriginal objects and/or an identified Aboriginal place. An AHIP can only be issued by DPIE.

The aim of the due diligence guidelines is to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for consent in the form of an AHIP.

A due diligence assessment should take reasonable and practicable steps to ascertain whether there is a likelihood that Aboriginal sites will be disturbed or impacted during the proposed activity. If it is assessed that sites exist or have a likelihood of existing within the activity area and may be impacted by the proposed activity, further archaeological investigations may be required along with an AHIP. If it is found to be unlikely that Aboriginal sites exist within the investigation area and the due diligence assessment has been conducted according to the due diligence guidelines, work may proceed with caution and without an AHIP.

As the Proposal is being assessed as State Significant Development under Part 4 Division 4.7 of the Environmental Planning & Assessment Act 1979 permits issued under the NPW Act are not required for works undertaken in accordance with the SSD Conditions of Approval issued by DPIE.

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessments Act 1979* (EP&A Act) establishes a framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits. The EP&A Act also requires that Local Governments prepare planning instruments (such as Local Environmental Plans [LEPs] and Development Control Plans [DCPs]) in accordance with the Act to provide guidance on the level of environmental assessment required. The investigation area falls within the boundaries of the Canterbury/ Bankstown LGA and is subject to the Bankstown LEP 2015.

Bankstown LEP 2015

There are no Aboriginal heritage items located within the investigation area listed on the Bankstown LEP 2015.

Background Context

Historical Context

The parish in which the study area is located was originally known as Liberty Plains. The earliest use of this name is found in the description of land grants made to Thomas Rose, Frederick Meredith, Thomas Webb and Edward Powell on 28 May 1793 (Perrin & Kass 2008). The name appears to have derived from their status as the first free settlers to take up farming in the colony (Karskens 2010: 112).

The railway industry experienced rapid growth following the establishment of the Eveleigh Workshops in 1885. During the 1890s speculative subdivision spread across Sydney as entrepreneurs attempted to capitalise on Sydney's expanding railway lines. Frederick Stewart was one of these entrepreneurs buying up land around the study area and naming it the Chullora Estates. The Chullora Railway Workshop complex opened in 1923. By the 1930's 2700 houses had been built in the estates as the workshops attracted workers to the area.

The 1924 plan of the workshops shows the study was adjacent to the electric repair shop, part of the Electric Car (ELCAR) workshops. The workshops covered an area of 200 hectares at its peak and comprised three major branches made up of 10 individual specialist workshops.

Construction of specialist workshops continued within the complex up until the 1940s. During WWII specialist workshops to facilitate the construction of aircraft and military tanks were completed and the workshops became the centre for the production of aircraft and tanks in Australia as part of the war effort. Air raid shelters were built as a precaution in c 1941 for the protection of the workers.

The development of the Chullora Railway Workshops was accompanied by the establishment of a temporary housing precinct on the corner of The Hume Highway and Brunner Street southwest of the investigation area. Originally intended as a temporary measure, the Chullora Railway Workers Camp was built in 1948 and covered 18 hectares of westerly slope.

The Chullora Rail Workshops reached its peak in the late 1950s with workshop closures and land sales for private ownership. This followed a general trend throughout the Bankstown area where vacant land was rezoned for industry and manufacturing plants relocating to less expensive areas outside of the CBD. ELCAR operations ceased in 1994.

The former Chullora Resource Recovery Park was opened in 1997 and was demolished following a fire in 2017.

Environmental Context

The majority of the investigation area is designated as disturbed terrain in soil landscape mapping (NSW eSpade). Disturbed terrain is defined as plain to hummocky terrain that has been extensively disturbed by human activity, including complete disturbance, removal, or burial of soil. Often, vegetation within this soil landscape has been completely cleared and previous wetlands filled. In the current investigation area cut and fill occurred for levelling to enable heavy industrial use (NSW eSpade).

A small section of the southern portion of the investigation area is mapped as within the Blacktown soil landscape. The Blacktown soil landscape is generally associated with gently undulating rises. The soils are primarily poorly drained with very little erosional activity with minor sheet and gully erosion in areas stripped of vegetation (Bannerman and Hazelton 1990).

Previous documentary and archaeological research indicates that archaeological evidence is likely to be found within certain landform contexts, largely as a result of the resources that were to be found within certain landform contexts, largely as a result of the resources that were associated with these landforms, or their suitability for long-term and/or repeated occupation. The due diligence guidelines list five such landforms:

- Within 200m of waters
- Within a sand dune system
- On a ridge top. Ridge line, or headland
- Within 200m below or above a cliff face

- Within 20m of or in a cave, rock shelter, or a cave mouth

The investigation area is located within 200m of waters. The Cooks River stormwater canal (which flows into the Upper Cooks River) starts at nearby Yagoona, with its course mapped along the southern boundary of the site. However, there has been much disturbance to the area through the construction of industrial buildings, railway lines, roads, and land modification for water management and levelling. The current alignment of the Cooks River around the investigation area has been canalised and modified to fit its current landscape and therefore is no longer representative of its original course or form.

Ethnohistorical Background

Prior to the appropriation of their land by Europeans, Aboriginal people lived in small family or clan groups that were associated with particular territories or places. It seems that territorial boundaries were fairly fluid, although details are not known. The language group spoken across Sydney was known as Darug (Dharruk – alternate spelling). The first written use of this term was in 1900, as before the late 1800s language groups or dialects were not discussed in the literature (Mathews and Everitt 1900). The Darug language group is thought to have extended from Appin in the south to the Hawkesbury River, west of the Georges River, Parramatta, the Lane Cove River and to Berowra Creek (Attenbrow 2010:34). This area was home to a number of different clan groups throughout the Cumberland Plain.

Early historical accounts of Aboriginal people are inevitably subject to the writer's bias; however, they do provide valuable observations of Aboriginal customs and life during the early period of European occupation. Language dialects varied across the Cumberland Plain, although early Europeans recorded observations of interaction and mutual intelligibility between Darug speakers from different regions. Captain Watkin Tench detailed an interaction between two Aboriginal men, one from the coast and one from inland, and noted the range of variability between dialects. Tench observed that though the men conversed on par and understood each other perfectly, many words for common things bore no similarities, yet other words were only slightly different (Tench 1793:122).

There are two possible groups or clans associated with the local area. Bediagal or Bidjigal were observed in association with Arrowanelly 'Island at the Flats' an island originally on the western side of Botany Bay near the mouth of the Bay (Attenbrow 2010: 24). Alternatively, Wangal, Wann-gal or Won-gal were observed from the southern shore of the Parramatter River from near Darling Harbour to Rose Hill (Attenbrow 2010: 26).

The existing archaeological record is limited to certain materials and objects that are able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts, followed by bone and shell. The investigation area is located within an area rich with resources. Wetlands associated with the Cooks River may have provided important fresh water and food sources.

Observations of Aboriginal people living on the Cooks River made early after the British arrival in Australia indicate the importance of these riverine and estuarine environments for Aboriginal people. Watkin Tench noted a camp consisting of twelve huts near the Cooks River in 1788, whilst another account by James Backhouse details the construction of canoes using heat from fires in the 1830s. Other accounts observed Aboriginal people in canoes and shell middens indicate the procurement of fish and shellfish for food. The discovery of butchered dugong bones during the excavation of Alexandria Canal in the late 19th century highlights the ways in which Aboriginal people utilised their environments, particularly during periods of climate change around 6,000 years ago.

Archaeological Context

Artefact Heritage conducted a preliminary Aboriginal and non-Aboriginal Archaeological Assessment of the investigation area in 2016 (Artefact 2016). It was determined at that time to have low potential to contain intact archaeological deposits and no further Aboriginal heritage investigation was recommended.

Aboriginal Heritage Information Management System

DPIE maintains the Aboriginal Heritage Information Management System (AHIMS) database, a register of Aboriginal sites that have been recorded in New South Wales. A basic search of the AHIMS database was undertaken on the 28 January 2020 for sites registered within the following coordinates:

GDA 1994 MGA 56	318190 – 31630E 6240930 – 6241350N
Buffer	200 metres
Number of sites	0
AHIMS Search ID	479896

No recorded AHIMS sites are located within 200m of the investigation area.

Site inspection results

A site inspection was undertaken on foot by Alyce Haast (Senior Heritage Consultant, Artefact Heritage) and Isabel Wheeler (Graduate Heritage Consultant, Artefact Heritage) on Wednesday 19 January 2020. The site inspection was undertaken for the Proposal site prior to the commencement of flood mitigation works. This inspection provides a critical assessment in accordance with the due diligence guidelines of the likelihood of Aboriginal objects being located within the Proposal site.

Photographs captured during the site inspection are presented in Table 1.

The majority of the ground surface was obscured by existing development including large areas of concrete hardstand. The site inspection focused on developing an understanding of landform modification and inspecting any areas of surface exposure.

The investigation area is located within a highly modified flat landform context. The site was visibly lower than surrounding area and has been levelled as part of former warehouse development. Substantial modification to the investigation area includes modification of the Cooks River into a canal along the southern and eastern margins of the investigation area, as well as site remediation following the demolition of burnt structures on the site. The majority of the site was used for industrial activities including vehicle maintenance activities, parking for heavy trucks, and fuel tanks. The surface visibility for the majority of the site was less than 10%, with areas of cracked clay visible in areas of surface erosion. Disused train tracks were visible in the western portion of the investigation area.

Higher amounts of surface visibility were observed across the southern portion of the investigation area. A mix of concrete, crushed limestone, and debris from past industrial activities (particularly glass) were visible across the ground surface. The southern border had a raised retaining wall with an alignment of small to medium trees. Exposed soil profiles in this area showed a heavily disturbed silty soil with substantial glass and metal inclusions. Vegetation was largely limited to this area as well as the western boundary of the site. Species included medium sized Eucalypts as well as non-native species. No old growth trees were observed.

A canalised part of the Cooks River is located along the southern and eastern margins of the site. The canal is formed with concrete.

No Aboriginal artefacts were observed during the site inspection. No areas of archaeological sensitivity were identified within the investigation area.

Table 1. Photographs captured during site investigation of the Chullora RRP site conducted prior to Stage 0 - Early establishment works



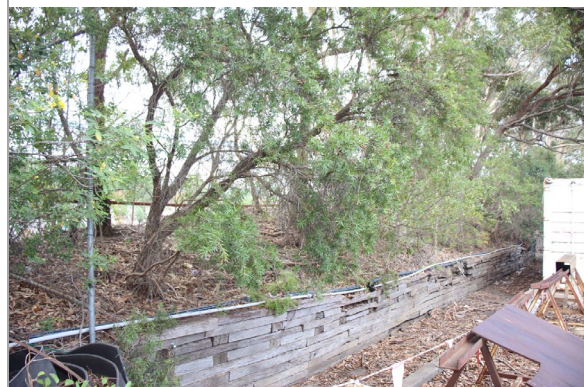
Modified landscape associated with the Cooks River canalisation



Modified landscape associated with the Cooks River canalisation



Surface exposure showing underlying crushed limestone, concrete, glass



View of modified landform and small trees along the southern margin of the investigation area



Investigation area showing existing areas cut and fill, train tracks



Investigation area showing existing hardstand



Surface exposure showing underlying mixed fill sandy deposit



Small trees identified within the on the southern margin of the investigation area

Discussion

Archaeological sensitivity is closely related to levels of ground disturbance within a given area. However, other factors are also considered when assessing archaeological sensitivity, such as whether artefacts are located on the surface, and whether the area is within a sensitive landform context.

Although the investigation area is located within 200m of water, the waters dissecting the site consists of the headwaters of the Cooks River, which have been entirely canalised and the original alignment of the watercourse heavily modified, and therefore is unlikely to demonstrate archaeological sensitivity in this area.

Areas of surface exposure within the investigation areas demonstrated a truncated/ heavily modified landform context with frequent evidence of historical period disturbance, comprising mostly of fill. No Aboriginal objects were identified, and no areas of archaeological sensitivity were identified.

Site investigation conducted prior to the commencement of the flood mitigation works did not identify Aboriginal artefacts or areas of archaeological sensitivity. The flood mitigation works will substantially alter the landform compared to that inspected during the site investigation. The Proposal site will be subject to excavation, filling and capping as part of site establishment and flood mitigation works.

In summary:

- The site investigations and desktop assessment of the Proposal site did not identify any Aboriginal objects or areas where Aboriginal objects may be located beneath the ground surface.

Recommendations

The following recommendations regarding Aboriginal heritage are based on consideration of:

- Statutory requirements under the *National Parks and Wildlife Act 1974*
- The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010)
- The results of background research, site survey and assessment
- The likely impacts of the proposed development.

It was found that:

- No previously recorded Aboriginal sites are located within the investigation area
- No previously unrecorded Aboriginal sites or areas of archaeological sensitivity were identified within the investigation area during the site inspection.

The following recommendations are made:

- In accordance with the due diligence guidelines, no Aboriginal heritage constraints have been identified for the proposed works within the investigation and works may proceed with caution
- If changes are made to the project that may result in impacts to areas not assessed in this report, additional assessment may be required
- Unexpected finds remain protected under the NPW Act until the project has been determined under the SSD project approvals at which time management of unexpected finds must be undertaken in accordance with the conditions of approval.

References

Artefact, 2016 *Aboriginal and non-Aboriginal Heritage Assessment, 15-19 Muir Rd, Chullora*

Attenbrow, V, 2010 *Sydney's Aboriginal Past: Investigating the archaeological and historical records*. UNSW Press

Bannerman, S. M. & Hazelton, P.A. 1990. *Soil Landscapes of Penrith 1:100,000 Sheet*. Soil Conservation Service of New South Wales. Sydney.

Matthews, R.H. and Everitt, M.M. (1900). "The organisation, language and initiation ceremonies of the Aborigines of the south-east coast of N.S. Wales." *Journal and Proceedings of the Royal Society of NSW* 34: 262-281.

Tench, Watkin (1789). *Sydney's First Four Years: Being a reprint of 'A narrative of the expedition to Botany Bay' and 'A complete account of the Settlement at Port Jackson'*, Angus & Robertson.