Architectural Projects

1540 – Hungry Point Reserve, Cronulla
Conservation Management Plan
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EXECUTIVE SUMMARY

The three hectare Former Fisheries site, Hungry Point Reserve, is a spectacular piece of land jutting out into Gunnamatta Bay that sits adjacent to a residential area in South Cronulla. The site is owned by the Crown and managed by Hungry Point Reserve Trust. The Trust has prepared a Master Plan so that it can pursue the opportunities the site provides. As the site is State heritage listed, a Conservation Management Plan has defined the heritage significance of the site and informed the recommendations for future use.

THE PROJECT

The project brief called for the drafting of a Conservation Management Plan (CMP) to cover the conservation of all places and items of cultural significance (Aboriginal and non-Aboriginal [European]) within the Reserve and to review future development opportunities within the Reserve.

The specific objectives of the CMP are to:

- Understand the Heritage Item through investigation of its historical and geographical context, its history, fabric, research potential, and importance to the community
- Prepare a statement of significance – the plan will analyse documentary and physical evidence to determine the nature, extent and degree of significance of the Fisheries site
- Develop a conservation policy, arising out of the statement of heritage significance, to guide current and future owners of the site, on the development potential of the site and its ongoing maintenance. Constraints and opportunities are to be examined
- Consider current proposals for re-use or development, and how they can best be achieved in accordance with conservation policy. Where proposals may have adverse impact on the heritage significance of the site or individually listed buildings or Aboriginal items, this is to be detailed. Where development proposals have not been finalised, several likely options are to be discussed
- The Conservation Management Plan is to take into consideration the objectives of the draft Masterplan currently in the course of preparation. (Refer Project Brief at Appendix A)

HERITAGE LISTINGS

The site is listed on the State Heritage Register as The Cronulla Fisheries Centre (SHR:1011). NSW Fisheries Heritage and Conservation Register includes 'Fisheries Research Centre Cronulla' (F0013) 'Fish Pond' (F00012) (Building No 23), Boat Shed '(F00011) (Building No. 11), 'Aboriginal Middens, Three sites' (F0009), and Former Hatchery Building' (F00010) (Building No. 6). The site of the Fisheries Research Institute, Lots 257, 1129 and 1187, DP 752064, is included in Schedule 5 of Sutherland LEP 2015 as a Heritage Item of State Significance, (Item No.1040) and as an archaeological site of local significance (A036/1073). A number of Aboriginal Sites are identified in the Office of Environment and Heritage AHIMS database, including Aboriginal shell middens (#45-6-2491, #52-3-0188, #45-6-2491, #52-3-0188) as well as two shelters with occupation deposit (#45-6-2490, # 45-6-2490)

HISTORY KEY PERIODS

Hungry Point Reserve is a site of great historical significance. The site was held as a reserve for defence purposes from 1895 until 1902, when an area on the western side (Gunnamatta Bay side) was transferred to the NSW Government for the purpose of fish culture. Under various names and organizations, the Cronulla Fisheries Research Centre was the site from which fisheries resources in

Australia have been explored and the fishing industry developed. It was the first fisheries research centre in Australia, and in the southern hemisphere, with the buildings dating from 1904 having been purpose built for fisheries research. The site also has associations with notable scientists. In 1947, a migrant hostel was built on the eastern side of the site.

The CMP identifies the following key periods of significance:

- Aboriginal Occupation (pre-1902)
- Establishment of Hatchery (1902-1914)
- CSIR Fisheries Investigations, Fisheries School and Migrant Hostel (1938-1949)
- CSIRO (1950-1984)
- NSW Fisheries Research Institute (1985-2011)

SUMMARY STATEMENT OF SIGNIFICANCE

Hungry Point Reserve is of state and potential national heritage significance as the first marine investigation establishment in Australia, commencing in 1904. It is significant for its continued association with NSW and Commonwealth Government Fisheries and for activities relating to aquaculture/fisheries research from 1904 until 2011.

The site provides evidence of the establishment of commercial Fisheries and its first attempts at scientific enquiry into the protection of marine life. Original structures from 1904, the Hatchery (Building 6), Boat Shed (Building 11) Aquaria (Building 23) and the remains of the Water Wheel/Pump and Header Tank (MA6 /Building 21) survive: the group, as a rare resource, demonstrates the evolution of an experiment into marine fish hatching from 1875-1904. The site of the Former Caretaker's Cottage (A1) and Stone Steps (MA8), also associated with the early establishment of the Fisheries, have archaeological potential.

The place has an historical association with Harald Dannevig (1871-1914), internationally renowned fisheries expert, the Superintendent of Fisheries from 1902-1908 and Commonwealth Director of Fisheries in Australia, 1908-1914. It is also associated with David Stead (1877-1957), naturalist, who carried out early research into the State's fish stock. It is associated with NSW Fisheries from 1904, the Commonwealth Scientific and Industrial Research (CSIR) from 1939 and CSIRO from 1949 as the base of Commonwealth Fisheries Investigations. As part of the NSW Fisheries Research Institute, it was associated with the state community of fishery scientists for over 100 years. Evidence of historical associations and use exists in its collection of drawings and maps.

As one of a limited number of surviving Migrant Hostels built after WWII, the site is of historical significance for its association with the post-war migration program and provides evidence of migration patterns after WWII. Buildings 13 and 15 display physical evidence of the experience of the former Cronulla Migrant Hostel, as built c1949. The former Cronulla Fisheries School (Building 10) demonstrates evidence of the Commonwealth Reconstruction Training Program for ex-servicemen, set up in 1946.

The place, rich in evidence of Aboriginal cultural heritage, demonstrates a continuous history of occupation of the east coast of Australia. It holds clear and valuable evidence of indigenous occupation prior to European settlement and the natural history of the state.

Extensive shell middens and multiple rock shelters with occupational deposits, located along the eastern, western and southern foreshores of the Hungry Point Reserve, are representative of past activity by Aboriginal people. The Port Hacking waterway and foreshores, including neighbouring Burraneer and Cabbage Tree Point at Bundeena, provided an abundance of food and water resources. The area has potential to contribute archaeological information relating to local Aboriginal diet, occupation patterns and burial customs.

An important meeting place for Aboriginal people and protected as a Government Reserve since mid-nineteenth century, the site has potential to reveal information about the Gweagal people and provides evidence of their long occupation.

The Historic Survey Mark (MA10) signaling the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, is historically significant; as is the reservation of land since 1861 for coastal defence purposes by government agencies in the greater Sydney region.

Prominently located on the northern headland of Port Hacking, the place has landmark and scenic qualities. The headland is representative of the natural topography and indigenous vegetation of Port Hacking. Ecologically sensitive, it includes largely undisturbed areas and endangered species.

The Hatchery precinct including its cultural plantings, layout, landscape setting and marine archaeology, has the ability to interpret the cultural landscape layers as a visually cohesive area that retains much of its early twentieth century character. The former CSIR Laboratory (Building 1) is a good, substantially-intact example of the Interwar Functionalist Style of architecture.

Well known to the local community and a tourist attraction in the early twentieth century, it is held in high esteem by the community, evident by the public response to the proposed closure of the Cronulla Fisheries Research Centre in 2012

CONSERVATION MANAGEMENT POLICIES

The conservation policy focuses on retaining the site and significant buildings as a financially viable facility, commensurate with current standards, while protecting its cultural significance as identified in this document.

The site has been associated with fisheries since 1904. Some later buildings constructed since 1950 have been poorly sited because they obscure earlier layers which are more important and do not reach the threshold for individual listing. The CMP identifies that where a suitable adaptive use cannot be found, demolition and return to the earlier landscape setting is preferred. This is particularly the case at the entry to the site where Building 16 Commercial Management, on the site of the temporary migrant camp, blocks views to Port Hacking, available prior to 1970. This is also the case for Building 18 Residence, Building 12 and Building 4 Garages which have interrupted the setting to Darook Park since 1970. These buildings are approved for removal under a S60 approval.

Significant landscape, archaeological and built elements relating to the key periods of significance should be preserved.

As the site is listed on the State Heritage Register, a Section 60 application for an archaeological investigation is required prior to any excavation. An Aboriginal Heritage Impact Permit (AHIP) is also required prior to any activity that may harm Aboriginal objects or places including excavation.
The specific policies relating to conservation of fabric, intervention into significant fabric, setting, landscaping , exterior, interior, tenancy fit out guidelines, signage, ordinance compliance, integration of services, interpretation and future use are provided to provide guidance for the ongoing management of the site.

Inventories of identified European cultural heritage sites are included at Section 8 and 9. For a description of each Aboriginal archaeological site, refer Australian Museum Consulting Aboriginal Heritage Assessment at Attachment A.

1. INTRODUCTION

1.1. BACKGROUND

The site of Hungry Point Reserve fronting Nicholson Parade, Cronulla, is currently the subject of a Conservation Management Plan (CMP). The Architectural Projects consultancy team were commissioned by the Hungry Point Reserve Trust to prepare this document in July 2014.

Two key reports preceded the development of this CMP: David Harley provided a report entitled *"Cronulla Fisheries Site: Recommendations for Future Use" for the NSW Department of Primary Industries*. Then Clouston Architects prepared a Draft Master Plan for the Hungry Point Reserve Trust.

The CMP was commissioned after the Master Plan, and has adopted similar building identification numbers from both Harley and the Master Plan, and supplemented the Master Plan policies to address heritage concerns.

The site is listed in the State Heritage Register as The Cronulla Fisheries Centre (SHR:01011), NSW Fisheries (45-6-2990). NSW Fisheries Heritage and Conservation Register includes 'Fisheries Research Centre Cronulla (F0013), 'Aquaria Fish Pond' (F00012) (Building No.23), 'Boat Shed '(F00011) (Building No. 9), 'Aboriginal Middens, Three sites' (F0009), and 'Former Hatchery Building' (F00010) (Building No. 6). The site of the Fisheries Research Institute, Lot 1129 and 1187 DP 752064, is included in Schedule 5 of Sutherland LEP 2015 as a Heritage Item of State Significance, (Item No.1040) and as an archaeological site of local significance (A036/1073). A number of Aboriginal Sites are identified in the Office of Environment and Heritage AHIMS database, including Aboriginal shell middens (#45-6-2491, #52-3-0188, #45-6-2491, #52-3-0188) as well as two shelters with occupation deposit (#45-6-2490, # 45-6-2490).

1.2. SITE LOCATION AND DESCRIPTION

The Assessment relates to a study area defined by the 3-hectare former Fisheries site, Hungry Point Reserve, Cronulla. The site is located at the end of Nicholson Parade, on land that is managed by the Hungry Point Reserve Trust. It is defined as Lots 257, 1129 and 1187 of DP 752064, and is bound by Darook Park, residential properties fronting Nicholson Parade and Cowra Place, and Salmon Haul Reserve. (Figures 1.1 and 1.2)

1.3. AUTHORSHIP

The report has been prepared by a team consisting of the following key members:
Jennifer Hill – Architectural Projects Pty Ltd – Heritage Architect
Elizabeth Gibson – Architectural Projects Pty Ltd – Heritage Architect
Jennie Lindbergh – Australian Museum Consulting – Manager, Heritage and Archaeology Unit
Chris Langeluddecke – Australian Museum Consulting – Archaeologist
Laressa Berehowyj – Australian Museum Consulting – Archaeologist
Cosmos Coroneus – Cosmos Archaeology – Marine Archaeologist
Chris Lewczak – Cosmos Archaeology – Marine Archaeologist
Simon Goodwin – Botanist
Julie Nimmo – Sutherland Shire Council

1.4. LIMITATIONS

Access was given to the site and Council records held by the applicant and Council. No physical intervention was undertaken to prepare this report. No historical archaeological work other than the site surveys provided herein was commissioned for the report.

1.5. METHODOLOGY

The Assessment has been prepared in accordance with the methodology outlined in the CMP by Dr James Semple Kerr (7th Edition 2013). The report complies with the principles of *The Burra Charter,* The Australian ICOMOS Charter for Places of Cultural Significance, 2013 and its Guidelines (refer Appendix B). The methodology used in the evaluation of the place is that recommended by the Heritage Branch of the Office of Environment and Heritage. It seeks to identify from documentary and physical evidence any historic, aesthetic, social and technological values of each component and to determine their level of representatives or rarity by comparison with other identified examples.

Figure 1.1	2015	Aerial photograph showing regional context	Sutherland Shire Council E-View

1.6. TERMINOLOGY AND DEFINITIONS

The terms fabric, place, preservation, reconstruction, restoration, adaptation and conservation used throughout this report have the meaning given them in Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (*The Burra Charter*).

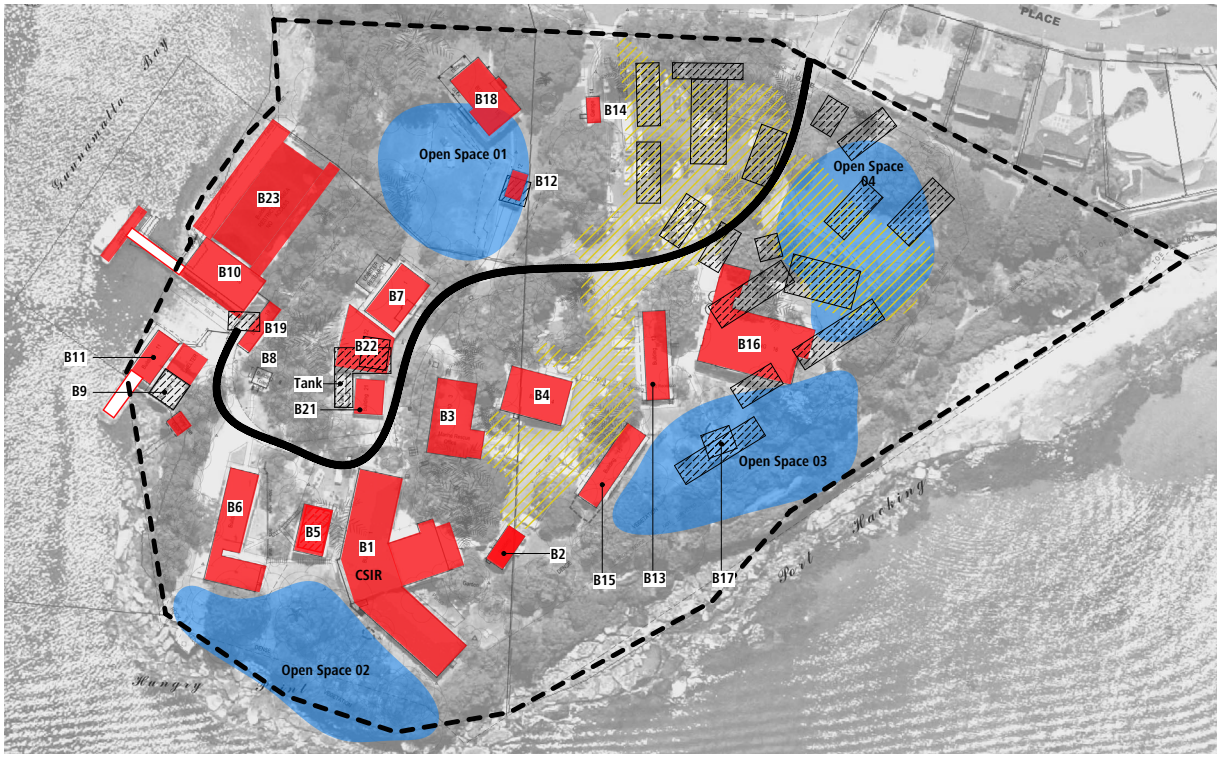
The terminology used to describe building styles follows the nomenclature set out in Apperly, R., Irving, R. and Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture*, 1989.

In order to achieve a consistency in approach and understanding of the meaning of conservation by all those involved, a standardised terminology for conservation processes and related actions should be adopted. The terminology in *The Burra Charter* is a suitable basis for this. Article 1 of *The Burra Charter* gives the following definitions:

Place	means site, area, building or other work, group of buildings or other works together with associated contents and surround.
Cultural significance	means aesthetic, historic, scientific or social value for past, present or future generations.
Fabric	means all the physical material of the place.
Conservation	means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may, according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these.
Maintenance	means the continuous protective care of the fabric, contents and setting of a place, and it is to be distinguished from repair. Repair involves restoration and reconstruction and it should be treated accordingly.
Preservation	means maintaining the fabric of a place in its existing state and retarding deterioration.
Restoration	means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.
Reconstruction	means returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either recreation or conjectural reconstruction, which are outside the scope of The Burra Charter.
Adaptation	means modifying a place to suit proposed compatible uses.
Compatible use	means a use which involves no change to the culturally significant fabric, changes that are substantially reversible, or changes which require a minimal impact.

Figure 1.2	2015	Aerial photograph of Hungry Point Reserve area	Sutherland Shire Council E-View

Figure 1.3 | 2012 | Site Identification Plan | Architectural Projects



Building – Existing

Building – Demolished

Original 1904 Track

Open Space

Paved Areas

Site

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Cooler Shed Demolished 1930 Rebuilt 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971
B19	Dive Store 1994
B20	Pump Shed 1955
B21	Header Tank (Refer Also MA6) 1904
B22	Boat Storage/Generator Slab (Note: 2 Buildings) 2013
B23	Aquaria, Fish Pond 1904

1.7. ACKNOWLEDGMENTS

La Perouse Local Aboriginal Land Council – Chris Ingrey, Shane Ingrey
Sutherland Shire Council – Julie Nimmo, Claudia Miro, Melissa Daley, Sue Cleal, Kevin Schreiber
Sutherland Local Studies Library – Helen McDonald
Hungry Point Reserve Trust – Kevin Schreiber, Mark Aprilovic, Bruce Watt, Mary Jacobs
Marine Rescue NSW – Stacey Tannos
Crown Lands – Stephen Fenn, Michael Kneipp
Sutherland Shire Historical Society – Bruce Watt
Professor Stephen Kennelly, Former Chief Scientist, Former Director of Fisheries Research, Former Director of Cronulla Fisheries Research Centre of Excellence 2001-2012
Dennis Reid, Retired Research Scientist, CSIRO and NSW DPI, Cronulla 1974-2007
Les Bursill OAM, Dharawal Historian/Archaeologist/Anthropologist
Dr Laila Haglund, Adjunct Senior Fellow, University of Queensland
Crosbie Lorimer, Clouston Associates
Simon Goodwin, University of Sydney

1.8. EXTENT OF SEARCHES

Information searches have occurred with the following organisations:

- The Mitchell Library
- The NSW Land Titles Office: Specific subdivision/title information
- Sutherland Shire Local Studies Library
- Sydney Water Archives
- National Parks and Wildlife Service
- Sutherland Council Archives
- Sutherland Shire Historical Society
- Commonwealth Archives
- Australian Heritage Council
- National Trust of Australia (NSW)
- Heritage Council of NSW
- NSW State Heritage Inventory
- RAIA Twentieth Century Heritage Inventory
- Art Deco Society of NSW Heritage Inventory

1.9. COPYRIGHT

2. HISTORICAL DOCUMENTARY ANALYSIS

2.1. SITE AND BUILDING TIMELINE[1]

YEAR	EVENT
Pre-1902	ESTABLISHMENT OF FISHERIES INVESTIGATIONS AND MARINE HATCHERIES
1861	Government Reserve of 300 acres notified 24 December
1865	NSW Fisheries Act passed
1881	NSW Commissioners of Fisheries appointed under Fisheries Act
1895	Reserved for defence purposes
1902	Fisheries Act
1902	HK Dannevig appointed superintendent of NSW Fisheries Investigations
1902	Letter from Edmund Barton to Premier of NSW acknowledging intention to reserve for Defence Purposes
1902	Part of site transferred from the Commonwealth to NSW 'for pisciculture purposes'
1902	Plans for proposed fish tank (Building 23) at Hungry Point prepared
1903	NSW Commissioners of Fisheries replaced by the Board of Fisheries
1904	Tender for £1371 for construction of a fish hatchery (Building 6) at Hungry Point accepted
1902-1914	ESTABLISHMENT OF FISHERIES INVESTIGATIONS AND MARINE HATCHERIES
1904	Hatchery (Building 6), laboratory, experimental pool (Building 23) and holding tank (Building 21) completed
1905	Hatchery (Building 6) and laboratory commissioned
1908	Dannevig resigns from NSW Fisheries and is appointed first Commonwealth Director of Fisheries Investigations. Hatchery continues to operate under Inspector Frederick Aldrich
1911	The Fisheries Act, 1910 Fisheries of NSW placed under ministerial control as Chief Secretary's Department – Fisheries Branch
1914-1937	NSW GOVERNMENT
1914	Hatchery work ceased on the site
1917	Professor WA Haswell proposes establishment of a marine biological station in Sydney
1926	HF Heath's Recommendations for the Reconstitution of the Commonwealth Institute of Science and Industry (CSIR) included establishment of a Fisheries Section
1926	CSIR established by Act of Parliament
1927	Conference on Australian fisheries led to establishment of marine biological institution as part of the CSIR

1. Chronology compiled from Dennis Reid, Submission to Inquiry 2012, and Vivienne Mawson et al, CSIRO at Sea.

YEAR	EVENT
1929	National fisheries conference urges the Commonwealth government to set up an organisation for fisheries investigations
1929	Saltwater pool (Building 23) used for experiments on the effect of electrical fields on sharks by Swedish engineer Dr EO Möller. Results of these trials formed part of the 1929 report by the Shark Menace Advisory Committee
1935	Commonwealth fisheries investigations transferred to CSIR; Stanley Fowler seconded to CSIR; Professor WJ Dakin appointed marine biology adviser
1935	Fisheries and Oyster Farms Act, 1935 sets out the powers and functions of the State Minister in relation to fisheries generally
1937	Dr Harold Thompson takes up duties as first officer in charge of CSIR Fisheries Investigation Section
	Thompson recommends Port Hacking site for the fisheries laboratory
1938-49	CSIR FISHERIES INVESTIGATIONS
1938	PM seeks acquisition of Cronulla from NSW Premier
	CSIR Fisheries Section transferred from Melbourne to the hatchery site in Cronulla – shares site with NSW Fish Biology Branch and research students from University of Sydney
	CSIR Fisheries section commenced at Cronulla
1939	CSIR Fisheries main building (Building 1) completed. New biological laboratory occupied
1940	CSIR Fisheries Investigation Section renamed Division of Fisheries
1941	First issue of Fisheries Newsletter (now Australian Fisheries) published at Cronulla
1946	Commonwealth Fisheries Office established in Department of Commerce & Agriculture to co-ordinate fishing industry
1947	States maintain control of inshore fishing and fish inspection. Commonwealth to supervise matters re extra-territorial waters; whaling, pearling, research and co-ordination between states.
1947	First technical training school for the fishing industry under the Commonwealth Reconstruction Training Scheme held in Cronulla.
1949-1967	CRONULLA MIGRANT HOSTEL
1949	Migrant hostels (Buildings 13 and 15) built on eastern half of site to house migrants to be trained in fisheries work.
1967	Cronulla Migrant Hotel closed.
1949-1984	COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION
1949	CSIR reconstituted as CSIRO.
1953	Advisory Committee Review of Division of Fisheries.
1954	Harold Thompson retires; Maurice Blackburn appointed Acting Chief.
1956	George Frederick Humphrey appointed Chief.
	Division renamed Division of Fisheries and Oceanography.

YEAR	EVENT
1962	Fisheries Conference held at CSIRO Cronulla.
1967	George Humphrey retires as Chief.
	David J Rochford appointed Acting Chief.
	Marine Biochemistry Unit established; EG George Humphrey.
	Plans for new residence and garage at Fisheries Office.
1972	Kenneth Radway Allen appointed Chief.
1975	The administration of the Fisheries and Oyster Farms Act, 1935 was transferred from the Chief Secretary to the Minister for Lands and Forests.
1976	NSW State Fisheries established as a separate department under the Minister for Conservation and Director of Fisheries.
1976	Fisheries Biology building at Cronulla completed.
1977	K Radway Allen retired; David Rochford appointed Chief. Trenches excavated by
1977	Trenches excavated by Haglund
1980	David Rochford retires as Chief; Brian Stacey appointed Acting Chief.
1981	Division of Fisheries and Oceanography split into two separate divisions.
	Angus McEwan appointed Chief, Division of Oceanography.
1983	NSW State Fisheries abolished as a separate government department and became the Division of Fisheries of the Department of Agriculture.
1984	CSIRO Divisions of Fisheries and Oceanography relocated to Hobart. Site handed over to NSW 'for fisheries research purposes'.
	CSIRO Fisheries and Oceanography facilities at Cronulla transferred to NSW Government. The site subsequently occupied by the Division of Fisheries of the Department of Agriculture for the establishment of a Fisheries Research Institute .
1985-2011	NSW FISHERIES RESEARCH INSTITUTE
1985	Cronulla laboratories formally cease operation.
	NSW Fisheries Research Institute commenced at Cronulla.
1986-1987	Review of the Department of Fisheries research carried out – more senior scientific staff recommended for Cronulla Review of Department's Aquatic Reserves activities leads to transfer from Fisheries Research Institute to Policy Section.
1995-2011	Significant renovations occurred that brought the laboratories, aquaria, pool and other fisheries research aspects of the site up to world's best practice standards.
2002	Godden Mackay Logan Cronulla Fisheries Centre Hatchery Precinct CMP
2005	Centenary of aquatic research at the Cronulla marine laboratories celebrated.
2007	HC Dannevig Laboratory upgraded and named after founder of the Cronulla marine laboratories.
2009-2011	Mayor upgrade of the aquaria, pool and laboratories were undertaken.
2011	CLOSURE OF CRONULLA FISHERIES CENTRE FOR EXCELLENCE ANNOUNCED.
2012	Recommendations for Future Use of Cronulla Fisheries Site report prepared by David Harley.

YEAR	EVENT
	Select Committee on Cronulla Fisheries Research Centre.
	NSW Government Response to Select Committee on Cronulla Fisheries Research Centre.
2013	Hungry Point Reserve Trust board announced.
2013	Marine Rescue NSW occupied the site.
2013	The Chemical Store was demolished.
2013	Lightweight cover constructed Building 22

2.2. HISTORY OF THE SITE

2.2.1. PRE-1902 ESTABLISHMENT OF FISHERIES INVESTIGATIONS AND MARINE HATCHERIES

Aboriginal Historical Context

At the time of European settlement, the Aboriginal people of the greater Sydney region were organised into named territorial groups. Those groups local to the study area are likely to have spoken the Dharawal (Tharrawal) language. Speakers of the Dharawal language extended from the south side of Botany Bay, along the coast as far as the Shoalhaven River, from the coast to the Georges River and Appin, and possibly as far west as Camden.[2]

The earliest description of the study area, from a European perspective, was given by explorer Matthew Flinders, who in April 1796 spent time navigating the shores of Port Hacking:

"April 1st, was employed in the examination of the port. It is something more than one mile wide in the entrance; but soon contracts to half that space, and becomes shallow. The shores of the port are mostly rocky, particularly on the north side; but there is no want of grass or wood; and without doubt there are many culturable spots on the sides of the streams which descend, apparently from the inland mountains, into the uppermost branch. Two natives came down to us in a friendly manner, and seemed not to be unacquainted with Europeans. Their language differed somewhat from the Port Jackson dialect; but with the assistance of signs, we were able to make ourselves understood."[3]

The Hungry Point Reserve was a highly utilised Aboriginal site prior to European settlement. The landscape of the foreshore would have been considered important due to its association with Port Hacking, neighbouring areas of Burraneer and Cabbage Tree Point and the abundance of food and water resources. The rock shelters on the site would have offered protection and privacy while providing sweeping views of the waterways and surrounding land (refer to the Aboriginal Heritage Assessment at Attachment A).

The study area would have provided rich marine resources for the inhabitants, in terms of both food resources and shelter. Shellfish and fish such as Sydney Rock Whelk and Sydney Rock Oyster were integral to the diet of coastal tribes, as were snapper and bream[4].Both men and women spent considerable time fishing from bark canoes with hooks, made from ground Turban (Turbo torquate) shell, and line made from twine of the cabbage leaf palm[5]. The diet of Dharawal people within the study

2. Attenbrow, 2010:34; Dallas, 2004:37; AMBS, 2007:13; Harley 2012:19.
3. Flinders, Matthew, *"A Voyage to Terra Australis"*, 1814.
4. Attenbrow, 2010:63; Therin, 2005:13.
5. Dallas 200 4:39.

area could have also included rhizomes of the Bracken Fern, seeds of the Wattle, fruit of the Gee bung, and terminals and buds of the Cabbage Palm. [6]

Hawkesbury sandstone geology provided ample rock platforms and overhangs for sheltering from inclement weather and for art production.

The Gwiyaga (Gweagal), a clan of the Dharawal tribe of Indigenous Australians, are traditional custodians of the southern areas of Sydney. The Gweagal hunted and fished in the swamps between Botany Bay and Port Hacking. They spoke the Dharawal language.

Radiocarbon dating indicates that Aborigines were using areas of the Royal National Park at least 7500 years ago.

Frank Cridland recorded Aboriginal occupation in the area in 1924[7], noting that *"Burraneer Point was a favourite haunt of the blacks. No part of Port Hacking shows more evidence of continued Aboriginal occupation"*.

Ian Sim recorded engravings in Darook Park and Wahgunyah Cliffs in the 1960s, commenting on how rich the Burranneer peninsula was in rock art and noting many spear sharpening grooves in the rock.[8]

European Encounters

For eight days between late April and early May 1770, Cook's ship was anchored in Botany Bay. The Gweagal shouted and displayed signs of strength and weaponry. At times, the locals simply went about their own business, fishing from their canoes, cooking shellfish on the shore, walking along the beach, appearing to ignore the strangers, although no doubt observing them closely. And on a few occasions, some groups of Gweagal men made an approach towards members of Cook's expedition, before slowly retreating.[9]

Joseph Banks described some local men he saw fishing in their canoes as the Endeavour sailed into the bay: *"under the South head of it were four small canoes; in each of these was one man who held in his hand a long pole with which he struck fish, venturing with his little embarkation almost into the surf. These people seemed to be totally engaged in what they were about: the ship passed within a quarter of a mile of them and yet they scarce lifted their eyes from their employment; I was almost inclined to think that attentive to their business and defined by the noise of the surf they neither saw nor heard her go past them".*[10] (Figure 2.2.1)

Explorers George Bass and Matthew Flinders camped adjacent to the 'Fisheries Site' at (presumably) Salmon Haul Bay in 1776. They liaised with two of the local native people, an early example of friendly relations between Europeans and members of the local native population.[11]

6. Brayshaw McDonald Pty Ltd, 1987:2.
7. Frank Cridland, *"The Story of Port Hacking, Cronulla and Sutherland Shire"*.
8. Bruce Watt, *"The Shire: A journey through time"*, p.20.
9. Maria Nugent *"A place of encounters: A short history of Botany Bay National Park",* Department of Environment and Conservation (NSW), Monash University.
10. Joseph Banks, The Endeavour Journal of Joseph Banks: 1768-1771, ed. J.C. Beaglehole, 1962, pp. 53-54.
11. NSW State Heritage Register (1999).

European Settlement

In 1835, John Connell received a 380 acre grant to the south end of Bate Bay and north of the entrance to Port Hacking. *The importance of the sites strategic location at the entrance to Port Hacking was recognised in site being reserved for Defence in 1861.* Prior to this a Cumberland County map published in the Baker Australian Country Atlas 1843-1845 indicates the Cronulla Peninsula 'GR' government reserve. (Figure 2.2.2). On 24th December 1861, a Government Reserve of 300 acres on the Cronulla Peninsula was notified. This was later expanded to 412 acres. The name Hungry Point appears on a sketch Guide Map of 1886, showing the newly created National Park, and on a Parish Map of 1882. No evidence of modification of the landscape relating to this phase has been identified, other than the historic survey mark MA10 at the point. This was one of a series of engravings of Roman numerals in rock around Port Hacking to record the coastline.

In 1868 Holt commissioned a report on the whole of his Sutherland Estate, which lay to the north and west of Connell's grant. The 1868 Report described the Government Reserve: *"Beyond the Reserve Paddock is Gunnamatta Point, a block of 300 acres forming the entrance to Port Hacking which is reserved by the Government for fortifications. This is nearly all barren land growing a coast scrub too thick in places it cannot be ridden through".*

Figure 2.2.1 | 1770 | People in canoes at Botany Bay by Tupaia | British Museum

In November 1894, Surveyor E. Twynam found that the area had suffered little disturbance. *"The eastern watershed towards the ocean is exposed to the full face of the easterly winds, it is storm swept and barren, covered by scrub of stunted growth, the conditions are unfavourable for occupation as the site is too exposed and not protected by forest growth; and there is but a thick covering of the usual sandy clay over the rock so that vegetation would not flourish."* It identified his land in the south-east corner of the Estate as the Reserve Paddock, which runs to the boundary of the Estate at Hungry Point. So it would seem that Hungry Point was the whole of the government reserve and was named prior to 1868.[12]

In 1895, when the Cronulla peninsula was subdivided seven acres of land at Hungry Point was held as a reserve for 'defence purposes' from 1895. (Figure 2.2.3) A second subdivision in 1900 (Figure 2.2.4) also notes a 'Reserve for Access' along the foreshore east of the subject site.

Development of Fisheries Legislation

As a reaction to a decline in landings from the fishing grounds near Sydney, Parliament passed NSW's first Fisheries Act in 1865. Until then, no attempt had been made to bring the fisheries under legislative enactment. Seine hauling had been carried out extensively, with serious impact on the supply, which attracted public attention. Mr Richard Driver, Member of the Legislative Assembly, brought the matter before Parliament and a Select Committee was set up for consideration. The outcome of the Select Committee was the enactment of the Fisheries Act 1865 known as 'Dick Driver's Act'.

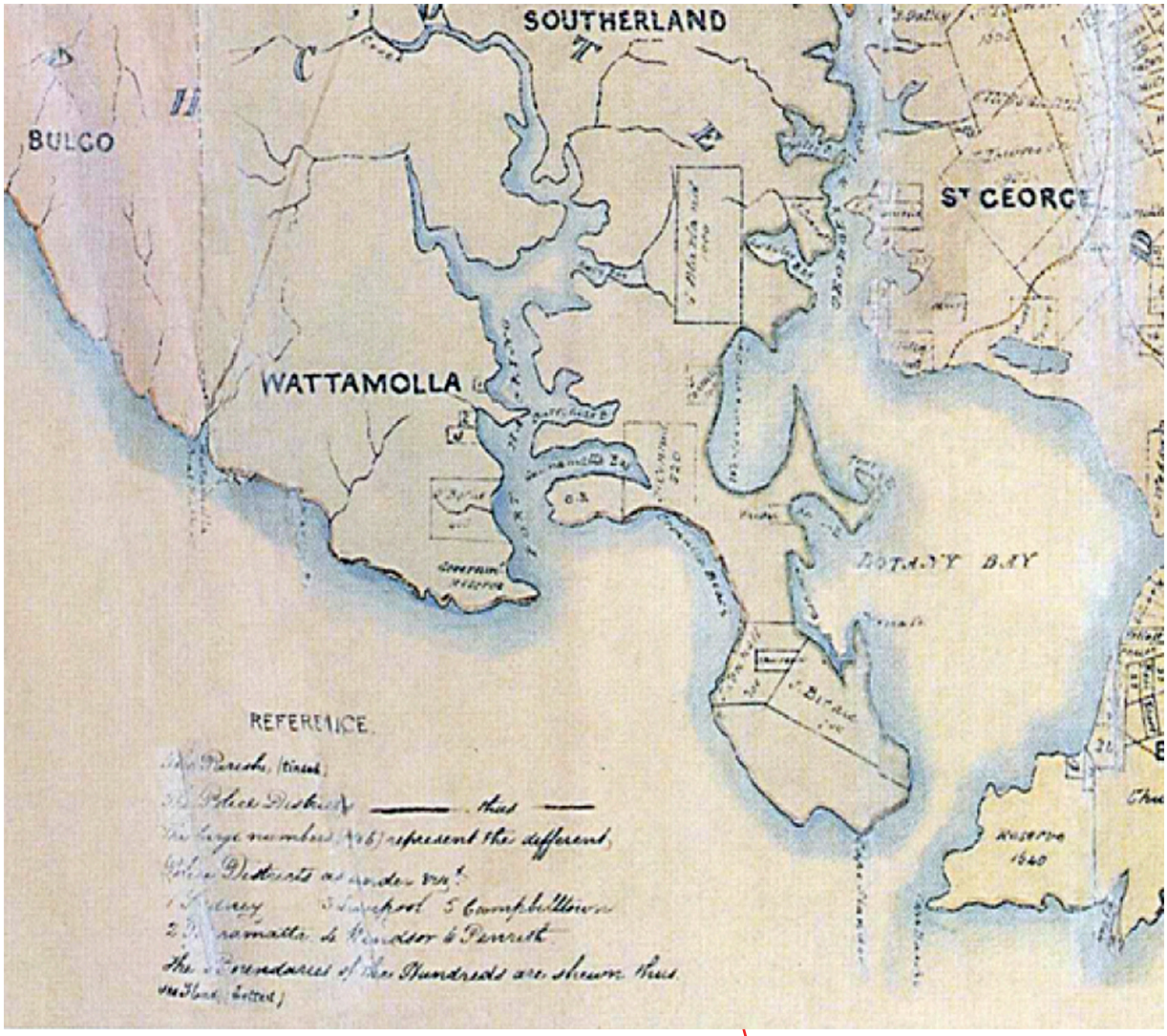
In 1880 a Royal Commission under the Presidency of the Honourable William Macleay, M.L.C. was appointed, to inquire into the marine and fresh water fisheries and oyster fisheries of the Colony. The outcome of the report of this Royal Commission was the Fisheries Act of 1881.

In 1881 a NSW Fisheries Branch was created to manage the State fisheries. Commissioners of Fisheries were sought, to address the indiscriminate fishing being carried out in every water within reach of the metropolis including the George's and Port Hacking Rivers, having each been depleted to an alarming extent.

In 1893, Lindsay Thompson, chief inspector of NSW Fisheries, described the situation in Port Hacking *"…a splendid fishing ground but as bordering on the National Park it has been considered proper to restrict its use for purposes of public recreation and amusement. Netting in any part of it is prohibited by special Act of Parliament, and the rights of public thus created as against the net fishermen are most zealously guarded"*.[13]

12. Bruce Watt, Hungry Corner to Hungry Point.
13. Thompson, Lindsay, *History of the Fisheries of NSW*, 1893, Government Printer (https://openlibrary.org/books/OL20504867M).

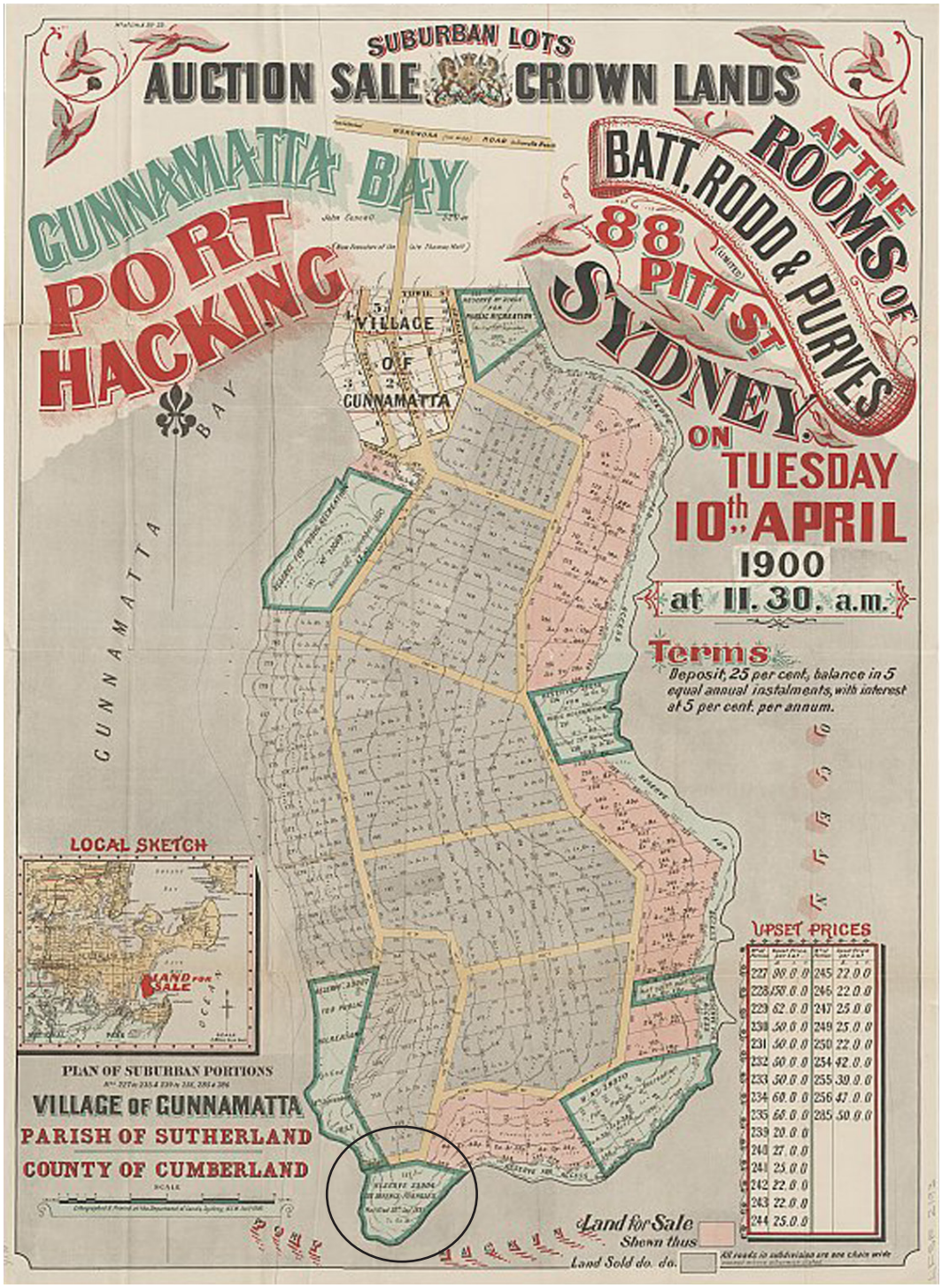
Figure 2.2.2	1843-45	Cumberland County Map	Baker Australian Country Atlas



Site

Figure 2.2.3	1895	Auction sale of Crown Lands – Map showing reserve for defence purposes, site circled in black	National Library of Australia

Figure 2.2.4	1900	Auction sale of Crown Lands – Map showing subdivision at Gunnamatta Bay, site circled in black	National Library of Australia



Public and political demand for fisheries development was repeatedly voiced in newspapers and the NSW Parliament from the 1880s.

After Federation in 1901, it became the responsibility of the Fisheries Branch to support the development of existing coastal and estuary fisheries.[14] The new Fisheries Act that passed in December 1902, applied only to fisheries within NSW territorial limits. Port Hacking was closed to net fishing in 1902 in an effort to conserve the declining fish stocks.[15]

Fisheries Research

During the second half of the Nineteenth Century, it became a popular idea to support hatching and the subsequent release of young fish to create a supply of free living fish populations, especially in situations where extensive fishing had affected the recruitment. Support of the Marine Fish Hatchery Movement was especially strong in the USA and Norway, but also found support in Newfoundland, Canada, Scotland, Australia and New Zealand. The first experimental mass hatching and release was carried out in Massachusetts in 1878. (Section 3.8.1 Historical Marine Hatchery and Research Institutes.)

Marine hatching in Australia began in 1899, when the NSW Fisheries Board constructed a simple enclosure at Cabbage-Tree Creek, Port Hacking. The purpose of the construction at the Port Hacking Fishery, known as the Maianbar Hatchery, was to experiment with introducing fish not native to NSW waters, as well as to make much needed observations of native species habits and spawning. (Figure 2.2.5)

The Board decided to press for the construction of a proper sea fish hatchery. The president of the Fisheries Board, Dr Cox, in 1901 visited fishing centres in Scotland including the sea fish hatchery at Aberdeen. (See 3.8.1 Historical Marine Hatchery and Research Institutes.) Prior to 1902, the NSW Fisheries Branch had no scientific officers and was not involved in international fisheries science.

14. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
15. Bruce Watt, The Shrie: A Journey through time.

Figure 2.2.5	No date	Entrance to Maianbar hatchery inlet west of Hungry Point (taken from Burraneer Point)	Sutherland Shire Library

2.2.2. ESTABLISHMENT OF FISHERIES INVESTIGATIONS AND MARINE HATCHERIES – 1902-1914

In May 1902, 31 year old Norwegian Harald Dannevig, was selected for the newly created position of Superintendent of Fisheries Investigations and Marine Hatcheries, to be responsible for all investigations connected with fisheries and the culture of fish. Dannevig had constructed the Dunbar and Aberdeen Marine Fish Hatcheries in Scotland and had extensive knowledge of the commercial fishing industries in the North Sea, based on his early training with his father, Gunder Dannevig. (Section 3.8.1 Historical Marine Hatchery and Research Institutes and Harald Dannevig p.28)

Harald Dannevig was specifically appointed to construct a marine hatchery and laboratories in NSW, with a view to restock the depleted inshore waters as well as introduce new species. He was also to undertake general research into the life and habits of the principal food fish in NSW and provide advice on fisheries matters. The Board appointed David G. Stead as the Branch's scientific assistant, to investigate the habits and life history of the State's fish, crustacean and molluscs, to some extent in connection with the experiments at the Maianbar fish nursery.[16]

Dannevig arrived in Sydney 2 August 1902 with a large number of live fish, and within days of his arrival had selected the site for the new sea hatchery.

On 18th August 1902 The Board of Commissioners reported: "*After consideration of the suitability of different sites as regards the density, purity, and temperature of the salt water procurable for the development of marine fish eggs, and harbour and other required accommodation, it was decided to select a site on the eastern shore of Gunnamatta Bay, near the entrance to Port Hacking*".

Hungry Point had been set aside as a reserve for Defence Purposes since 1895. The reserve was adjacent to a public reserve for recreation on the west side, and on the east side, private lots. On the premises a boatshed and one rood of land was occupied by F.S. Smart.[17] A cottage, which was later described as the Fisheries District Inspector's residence at Cronulla, was later said to have been built c1897, prior to the subdivision of the peninsula, however, no evidence of an existing cottage has been found in early plans of the site or other documentary evidence.[18]

On 29 August 1902 the Board approached the Chief Secretary with a request to acquire the land to establish "*a hatchery and ponds for the propagation of sea fish and crustacean*". The Defence Department was unwilling to revoke the whole of the reserve.

In October 1902, an area of three acres 1 rood 20 perches (1.37 ha) on the Gunnamatta Bay side of the site was transferred from the Commonwealth for use by the New South Wales Government, under the control of the Fisheries Commissioners for the purpose of pisciculture.[19] On 30 October 1902 Edmund Barton, Prime Minister of Australia, wrote to the Premier of NSW acknowledging the intention of NSW

16. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
17. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
18. Sydney Morning Herald.
19. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.

Government to revoke part of the reserve for defence purposes at Gunnamatta Bay.[20]

In 1902 plans were prepared for 'proposed fish tank at Hungry Point' and Harbours and Rivers Department of Public Works commenced the construction of the aquarium (refer Appendix C). In April 1903 the Fisheries Branch was ready with plans and specifications for a fully functional marine hatchery with a hatchery building, fishponds, boatsheds, storage tank, pumping plant, laboratory and residence for the caretaker at a total cost of 2,125 pounds. Several changes were made to the plans, including the addition of a fireplace and verandah to the south side of the laboratory, louvre shutters to windows on north and west side of the Hatchery and a change of material of Caretaker's Cottage from brick to timber. The project was put to tender in December 1903 and Mr Charles McCarthy of Mosman was the successful tenderer with his quotation of 1371 pounds.[21] Construction was to be completed in 26 weeks from January 28 1904.

The Hatchery (Building 6) and Aquarium fish pond (Building 23) were completed by August 23 1904. Work was undertaken by McCarthy in October 1904, including open roofing the Aquarium with galvanised wire and lattice on hardwood posts, a combined engine shed, store room and boat house, constructed in weatherboard with an iron roof, boat slip platform and a flight of steps in stone, and the construction of a waterwheel and pit. The entire area was also fenced at this time with six inch wire anchor fencing and a nine inch gate (Figure 2.2.6).

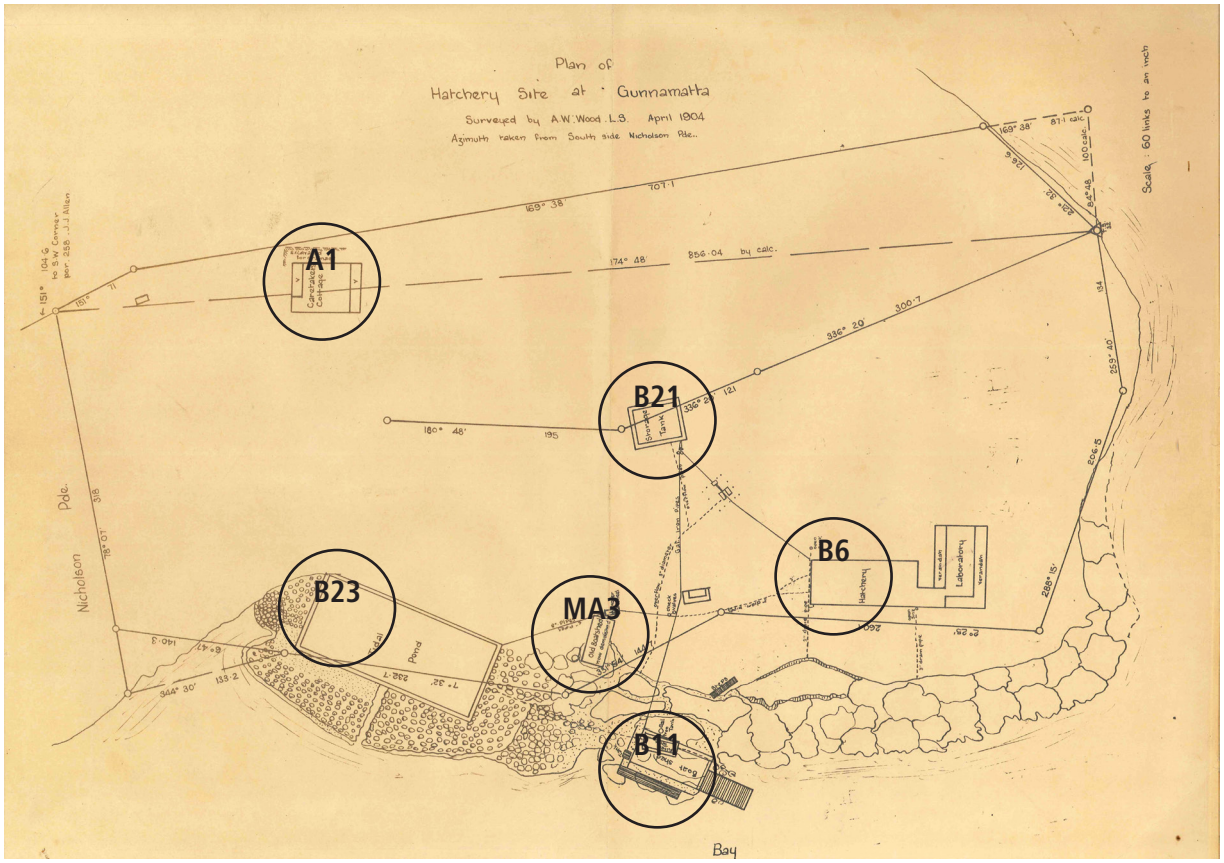
The character of the maritime landscape setting of the 1904 buildings clustered on the protected western shore is evidenced in a number of plans and photographs of the period. (Refer Figure 2.2.7). The setting comprised clearing and modification of the shoreline at the Aquaria, boatshed and ramp. The Hatchery building is set amidst dense indigenous vegetation. The boatshed (Building 11) had a cleared level behind, (evident in Fig 2.2.12). A distant view of the site (Figure 2.2.17) shows the original residence also nestled in the trees. A track was established between the buildings.

The Hatchery Building and Laboratory were designed in the Government Architects Office, c1903. The name *"L. Drew"* appears on drawings, and as this was a time when Edward Lambert Drew was in the employment of Government Architect, the Hatchery may represent a rare early use of interlocking brick, which was invented by Drew and in production by 1905.[22] An unusual hollow red clay interlocking brick was also described at Caretaker's Cottage, 1904 (demolished 1970).[23]

The Hatchery was opened 29 November 1905 by Mr F. Farnell, Chairman of the Fisheries Board. At the time of opening it was promoted as a tourist attraction, a day trip from Sydney.[24]

20. Letter from Edmund Barton, copy in collection Dennis Reid.
21. Sydney Morning Herald, 15.01.1904, p.4.
22. Drew was known for inventing a type of interlocking brick and by 1905 up to 10,000 of these were being produced daily.
23. Propeller 23.2.1939, p.2.
24. *"Marine Fish Hatchery at Gunnamatta Bay, Port Hacking. New Tourist Attraction"*, Sydney Morning Herald, 30 November 1905, p.8.

Figure 2.2.6	1904	Plan of hatchery site at Gunnamatta Bay.	Dennis Reid (*Survey AW Wood)*



A1	Site of Former Caretaker's Cottage 1904
MA3	Former Boatshed 1904
B6	Former Hatchery 1904
B11	Boat Shed 1904
B21	Header Tank (Refer also MA6) 1904
B23	Aquaria, Fish Pond 1904

The following description appeared in the Sydney Morning Herald, 20 November 1905, *"The spawning pond is 100ft x 40ft and takes in tidal water to the depth of 6ft. Basin shaped at the bottom, it can be emptied as desired. Water generally allowed to partly run out every second tide. Inflow sea water runs through a filter chamber. The pond and lattice roof were designed by Messrs L. Drew and Dannevig".*

The Sydney Morning Herald described the newly opened Hatchery: "*The pumping station a 6-hp engine forces the water from the filter-chamber up pipes into a storage well about 30ft above the level of the pond and back from it. The water from this reservoir runs into a curious filter box. The excess water and used water from the hatchery runs through a pipe, and is shot over a large water-wheel before it is allowed to run into the spawning pond or the bay. This wheel is somewhat on the turbine principle, and gives two-horse power, which will ultimately be used in the hatchery. The hatching laboratory itself is a high, light building. In it are 10 sets of hatching boxes, with their six inner compartments in which the floating ova is placed. The boxes are made of buoyant wood, and have silken bottoms, through which the water gets away. In the laboratory office microscopes have been fitted up for biological work.*" (Figures 2.2.7 to 2.2.10)

Dannevig stated: *"The process I have adopted here is that discovered by my father, Captain GM. Dannevig, in 1883, and now used in all the best laboratories and marine fish hatcheries in the world. I have made some experimental alterations to meet the altered local conditions, and I think these will be found beneficial."*

"Dannevig, Major Spain, and others, who have seen the principal marine hatcheries of the world, express the opinion that the New South Wales hatchery will be equal to the best and largest in the world."

The Commissioners reported that the hatchery came into full operation at the beginning of 1906, the initial stock comprising whiting, red bream, flathead, trevally and crayfish. Many of the species selected for hatching were marine species native to Tasmanian (flounder and crayfish) were considered more valuable than the local NSW varieties. In 1906 Dannevig travelled to Hobart to secure the shipment of 1,200 flounder. The hatching of Tasmanian flounder in 1907 and 1909 saw nearly a total of 40 million fry liberated in NSW waters. The second largest hatching program conducted at the Gunnamatta Hatchery took place in 1908-09 and focused on (Tasmanian) crayfish. The Fisheries Branch succeeded in establishing some measure of scientific bureaucracy and began participating in scientific networks, mostly at a national level. The attempt to establish local populations of Tasmanian founder and crayfish proved unsuccessful.

The hatching program proved short-lived, hastened by the deteriorating relationship between Dannevig and the chairman of the Board of Fisheries, Frank Farnell.

In 1908, Dannevig left the NSW Government to take up the new position of Commonwealth Director of Fisheries in Melbourne. His main activity was centred on trawling investigations from the purpose built Federal Investigation Ship Endeavour, documenting suitable trawling grounds along the south-east coast of Australia.[25]

25. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.

Figure 2.2.7	1908	Gunnamatta Bay Hatchery on completion from Darook Park (Aquaria Fish Pond B23, Boat Shed B11, and former Boatshed MA4) Dannevig in Foreground	Dennis Reid

Figure 2.2.8	No date	Waterwheel mechanism located between the Hatchery (B6) Aquaria Fish Pond (B23) and Dive Store (B19).	Sutherland Shire Library

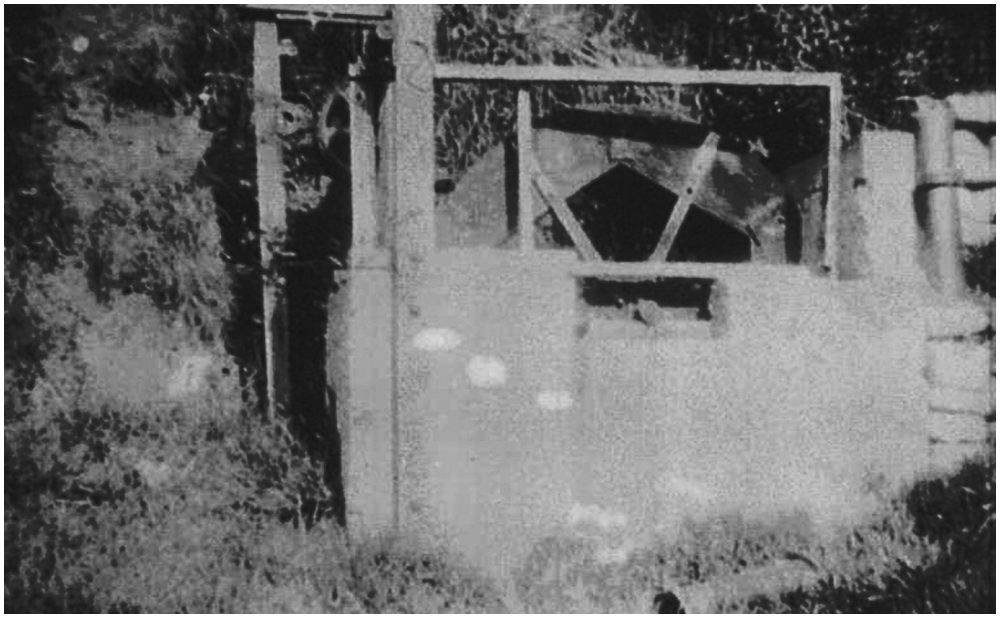


Figure 2.2.9	c1907-11	Cronulla Fish Hatchery (B6) – Interior with manager, Frederick Aldrich on the right inspecting water flow in hatching tanks	Sutherland Shire Library

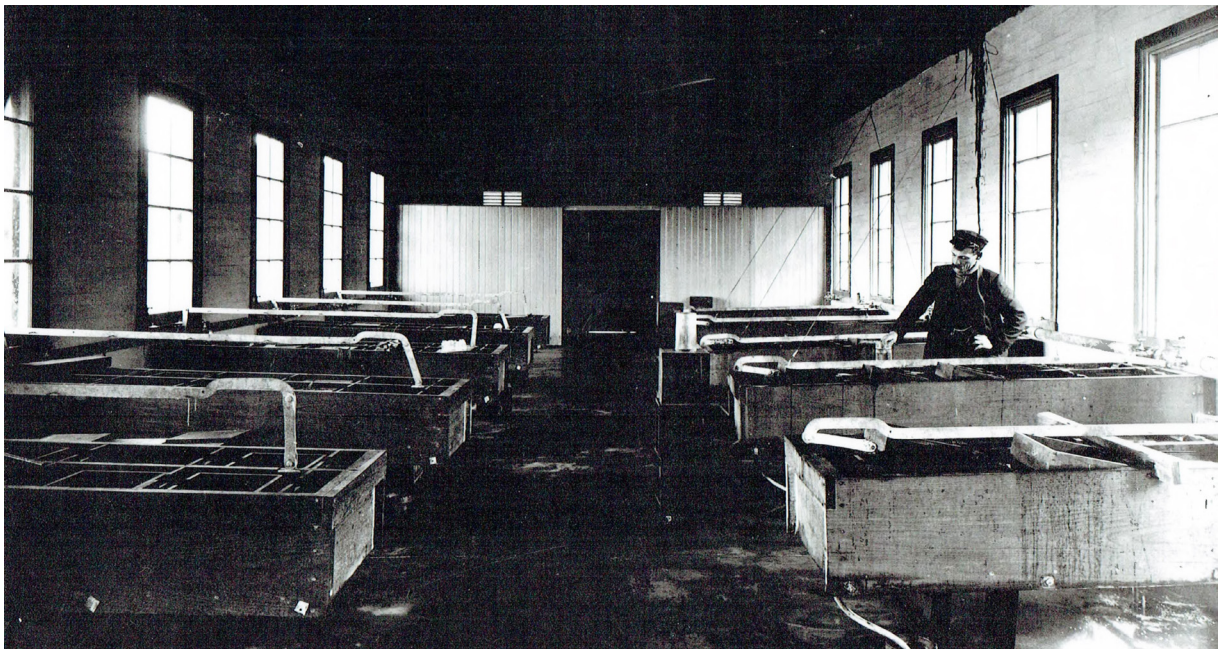


Figure 2.2.10	1909	Cronulla Fish Hatchery (B6) – Frederick Aldrich measuring rock lobsters for growth studies	Denis Reid

After Dannevig left NSW for Melbourne, the hatching work continued under leadership of Inspector Frederick Aldrich. Plans and photographs of the site 1907-1910 show the extent of development at the time of Dannevig's departure.

The Aquaria Fish Pond (Building 23) retained its simple structure (Figure 2.2.11) The Boatshed (Building 11) remained in reasonable condition and the vertical window evident in the photo remains today. The State records indicate a 1909-1910 plan in which the Aquaria fish pond (Building 23), header tank (Building 20) and caretaker's cottage (A1 Archeological Site) and fences are indicated (Figure 2.2.13). By 1910 the fence line becomes the boundary for Defence Lands (Figure 2.2.14).

Based on early photos of the site and Cronulla the cultural landscape was composed of a tree canopy made up of remnant local tree species with limited shrub borders in the vicinity of the caretaker's cottage.

As a working scientific site, flower and leisure gardens would not have been a priority. Given the remote nature of the site in relation to the rest of Sydney, there may have been vegetable gardens to meet the needs of the scientific staff however no evidence has been found to support this. Real estate promotions of the time promoted land in the Shire as suitable for orchards, vineyards, poultry and gardens.[26]

The site formed part of an international scientific network, and so it is possible that staff at the Fish Hatchery may have exchanged plant material with visitors to the site from elsewhere in Australia and overseas.

Mains water was not available at Cronulla until 1931[27]*. Generally, rainfall at Cronulla was sufficient to establish shrub borders, though this would be problematic in times of drought. Monthly rainfall has been measured since 1934 at the Cronulla South Bowling Club*[28]*, with the maximum rainfall recorded of 2063mls in 1934 and the lowest of 554mls in 1944 and a mean of 1223mls pa.*[29] *With water as a scarce resource it is unlikely that extensive annual or shrub gardens would have been planted at the site.*

Transport limitations would have meant that plant material would likely have only been of a small form. The tramline to Cronulla was established in 1911 and the railway was opened in 1939. Nurseries of the time include Anderson & Co. Sydney, and Arthur Yates & Co., Sydney.[30] *Other sources of plants were seed catalogues but plant nurseries may have been available perhaps through Council or other institutional nurseries. The three Norfolk Island Palms at Hungry Point which as a group of three at Hungry Point Reserve are similar in age and form to the groups of three Norfolk Island Palms at Shelley Beach, Cronulla (planted 1910 and 1930s).*

26. Ashton et al, 2006, p.65
27. Larkin, 1998, p.43.
28. Weather Station 066014.
29. BOM http://www.bom.gov.au/climate/data/index.shtml accessed 24/01/2017.
30. Clough Collection of Garden and Nursery Catalogues 1890-1995, Mitchell Library ML?Q635.0994/36

Locals with their bush blocks in South Cronulla such as Heyde in 1907 were known to 'potter about cutting down trees and grassing his land'.[31] This description suggests a style of open tree canopy and lawn. Heyde's land adjoined the Hatchery site to the north and was subdivided in 1921.

The marine fish hatchery movement in Australia, which lacked political support, was eventually abandoned.[32]

By 1911, the Fish Hatchery had ceased operations and was temporarily closed in 1914.[33]

Harald Kristian Dannevig

Dannevig, Harald Kristian Dannevig was born on 2 February 1871 on the island of Hisøy, near Arendal, Norway (Fig 2.2.15). His father, Gunder Mathiesen Dannevig developed fish hatcheries, and came to be regarded as the leading fisheries expert in Europe. In 1894, Harald Dannevig was selected by the Fishery Board of Scotland to supervise the completion of marine fish hatcheries at Dunbar. Transferred to the marine station at the Bay of Nigg, near Aberdeen, Dannevig designed new plant and a tidal spawning pond. Dannevig was chosen by the New South Wales Government as the most competent expert available in Europe, and was appointed superintendent of fisheries investigations and fish hatcheries in May 1902. Harald Dannevig was responsible for the design and construction of the first stage of the marine station at Cronulla. Dannevig's work at the Cronulla hatchery was some of the earliest government research undertaken in Australia. On the Fisheries' investigation trawler ship, Endeavour, Dannevig identified 6000 sq. miles of trawlable fishing grounds, between Port Stephens in New South Wales and the south of Tasmania. On the outbreak of World War I, the Endeavour was ordered to Macquarie Island to relieve the meteorological station. The Endeavour left Macquarie Island on 3 December 1914 and Dannevig was never seen again.

David George Stead

David George Stead was appointed a scientific assistant under Harald Dannevig in the Fisheries Commission in May 1902. He published "*Fishes of Australia*" (1906) and "*Edible Fishes of New South Wales*" (1908). In 1914-54, as a special commissioner, he investigated European and American fisheries for the government. His great work was as a popular scientific educator and as an advocate of conservation in the 1920s and 1930s. In 1909 he had helped to found the Wild Life Preservation Society of Australia, becoming secretary then president.[34] (Figure 2.2.16)

31. Larkin, 1998, p.29.
32. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
33. Ashton et al, 2006, p.77.
34. G. P. Walsh, 'Stead, David George (1877-1957)', Australian Dictionary of Biography, 1990

Figure 2.2.11	c1907-11	Cronulla Fish Hatchery – Looking south-east, Aquaria (B23), Hatchery (B6) and Boatshed (B11)	Sutherland Shire Library

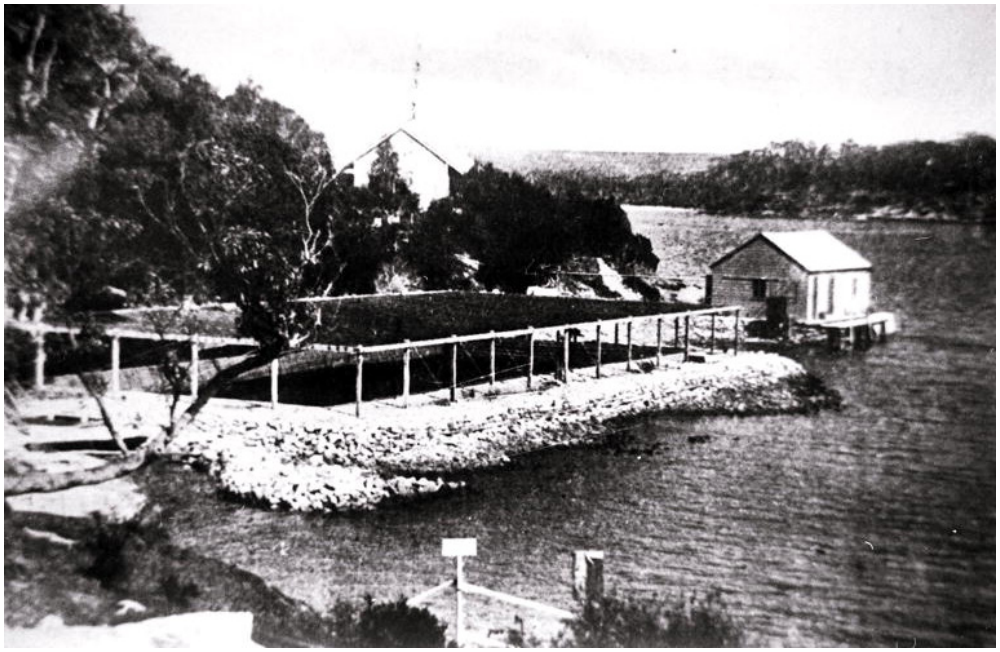
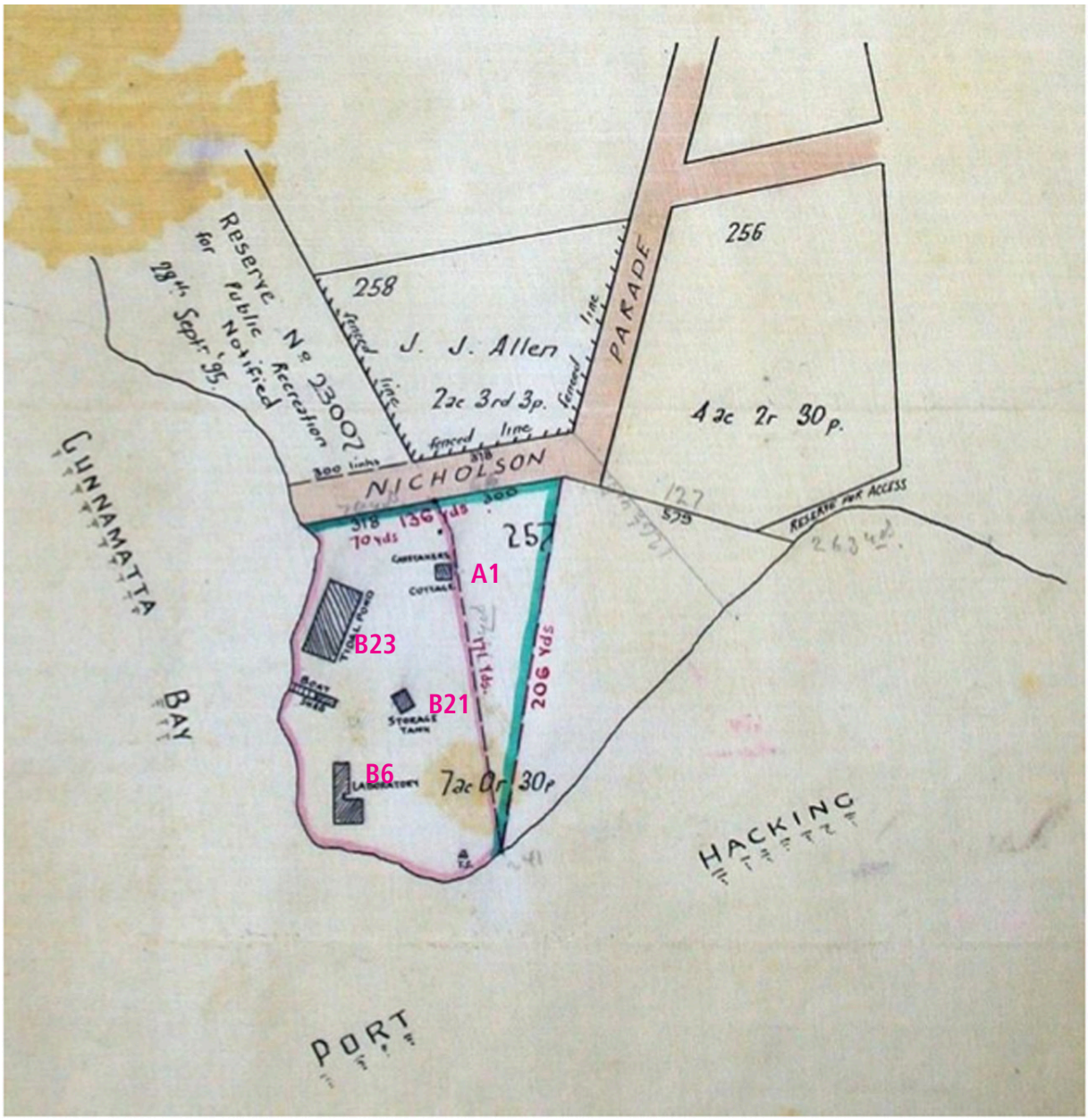


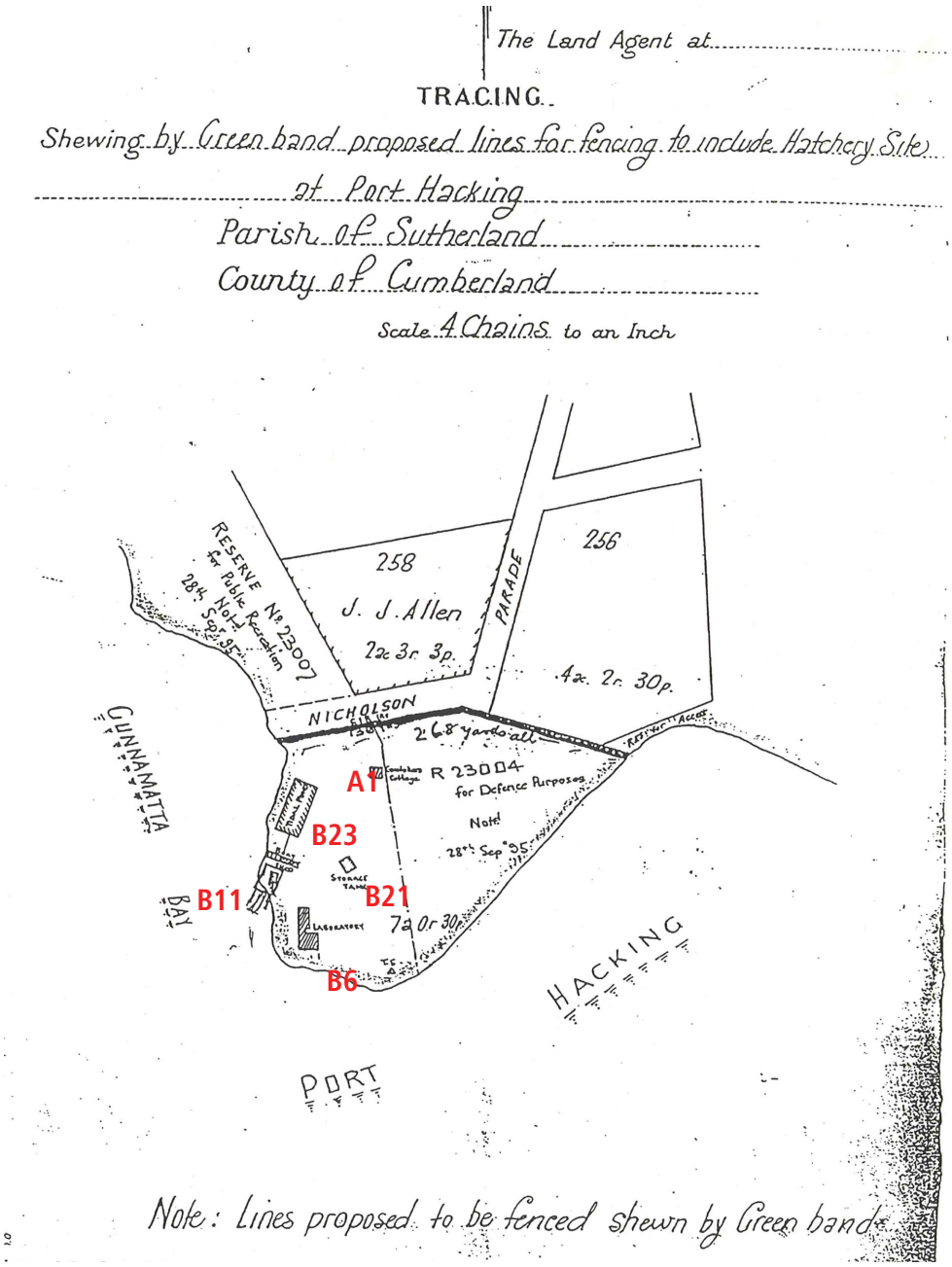
Figure 2.2.12	c1907-11	Boatshed (B11) at Cronulla Fish Hatchery	Sutherland Shire Historical Society

Figure 2.2.13	1909-10	Plan showing early development of the site at Hungry Point, Gunnamatta Bay	State Records of NSW



A1	Site of Former Caretaker's Cottage 1904
B6	Former Hatchery 1904
B21	Header Tank (Refer also MA6) 1904
B23	Aquaria, Fish Pond 1904

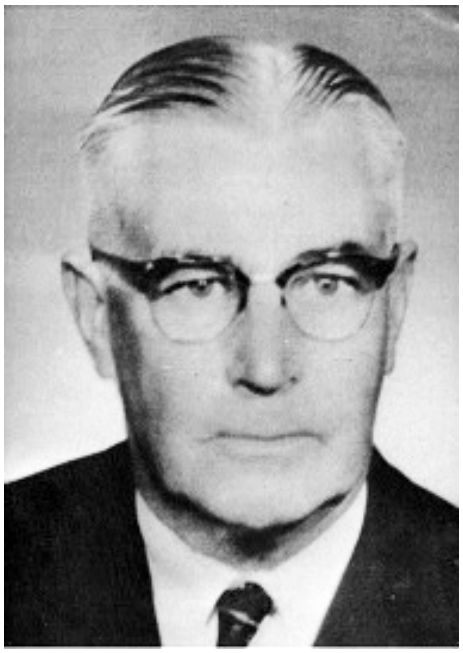
Figure 2.2.14	c1910	Subdivision of Defence Reserve to create Fish Hatchery on 3 acres, 1 rod and 20 perches	Mitchell Library



A1	Site of Former Caretaker's Cottage 1904
B6	Former Hatchery 1904
B11	Boat Shed 1904
B21	Header Tank (Refer also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.2.15	No date	Harald Dannevig	Sutherland Shire Library

Figure 2.2.16	1918	David George Stead	Stead Foundation



2.2.3. NSW GOVERNMENT – 1914-1937

With the disruption of World War I, and without the leadership and vision of Harald Dannevig, fisheries research and development in Australia floundered. The Gunnamatta Hatchery finally closed in July 1914. The fisheries inspector of the Port Hacking River and brother to Frederick Aldrich, Frank Aldrich and his family moved into the Cronulla premises and lived there until 1920.[35] From 1914 to 1937, the NSW Fisheries Branch did not have a scientific officer and research focussed on solving the acute problems facing coastal and inland fisheries.[36]

Photographs of the site during this period show the site to be little changed since the Dannevig period. (Figure 2.2.17) The buildings are small scale set within a landscape setting.

The 1930 aerial is the earliest aerial photograph of the site, and shows the site generally well vegetated particularly along the shoreline and ridgeline. The track along the ridge is ill defined. Cleared areas are evident on the south western headland (in the location of future CSIR Building 1), surrounding the former caretakers residence (A1 Archeological Site), and in the vicinity of today's Commercial Management (Building 16). A track leads north west from the caretakers cottage in the direction of Darook Park. A small cleared area is apparent to the north of the Hatchery Building (Building 6), and around the header tank (Building 21) however dense vegetation is evident beyond this.

Views of the Aquaria Fish Pond (Building 23) indicate little has changed to the structures (Figure 2.2.18). The fish pond was used for experiments on the effect of electrical fields on sharks by Swedish engineer Dr EO Möller. Results of these trials formed part of the 1929 report by the Shark Menace Advisory Committee. (Figures 2.2.19 and 2.2.20)

In 1916 Prime Minister Billy Hughes set up the 'Advisory Council of Science and Industry', which considered contemporary scientific questions and made recommendations to government. In 1926 the Council for Scientific and Industrial Research (CSIR) was formed as the successor of the Advisory Council. The need for a dedicated fisheries research centre was debated, and in 1935 the CSIR Fisheries Investigations Section was established. Contracts for repairs and painting of the boatshed and renovation of caretaker's cottage were accepted in November 1935 and February 1936.

By August 1935 Cabinet had approved that all fisheries research should be placed under the CSIR. Dr Harold Thompson, a Scot, at that time at the Canadian fisheries laboratory in Nova Scotia, was chosen to take charge. Thompson was appointed as the first Officer in Charge of the Fisheries Investigations Section of CSIR in 1937 and selected the Cronulla site for his laboratory and headquarters.

Thompson, supported by the biologists such as Blackburn, Serventy and Kesteven, saw the government's role as the identification of fish stocks and the analysis of their population dynamics, especially the impact of fishing on them. They foresaw that resources were not unlimited and that while

35. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
36. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.

exploratory fishing would still uncover new fisheries, those already exploited needed management and that needed an understanding of the fish populations.[37]

Initially based at Portsea in Melbourne, the new research section was relocated to the Cronulla site in 1938. In 1937, The Propeller, a marine magazine, reported on Dr H. Thompson's development of the fisheries industry in Australia *"…has been rumoured that a marine biological station is to be established at Port Hacking… State Fisheries Department were considering a centre for scientific investigation, and that at the old disused fish hatchery at Hungry Point."*[38]

The NSW Government's part holding of Hungry Point was transferred back to the Commonwealth the following year to accommodate the newly established CSIR Fisheries Division, the NSW Fish Biology Branch and students from the University of Sydney.[39] It was not until the NSW Fisheries Branch appointed a scientific officer in 1937 that the Branch began supporting CSIR research, and its members showed an emerging awareness of the need to govern marine resources.[40]

The former hatchery was not used for fisheries research from 1914 until 1938 when the CSIR Fisheries Investigation Section took over the site.[41]

37. Harrison, Anthony, *"CSIR Goes Fishing"*, 2008.
38. *"Fisheries Investigation"*, Propeller, 9 December 1937, p.4.
39. *Dennis Reid, "Inquiry into Closure if the Cronulla Fisheries Research Centre of Excellence"*, 30/07/12.
40. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
41. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961"*, School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.

Figure 2.2.17 | No date | Gunnamatta Head and Hatchery Point from Cronulla ferry | State Library NSW

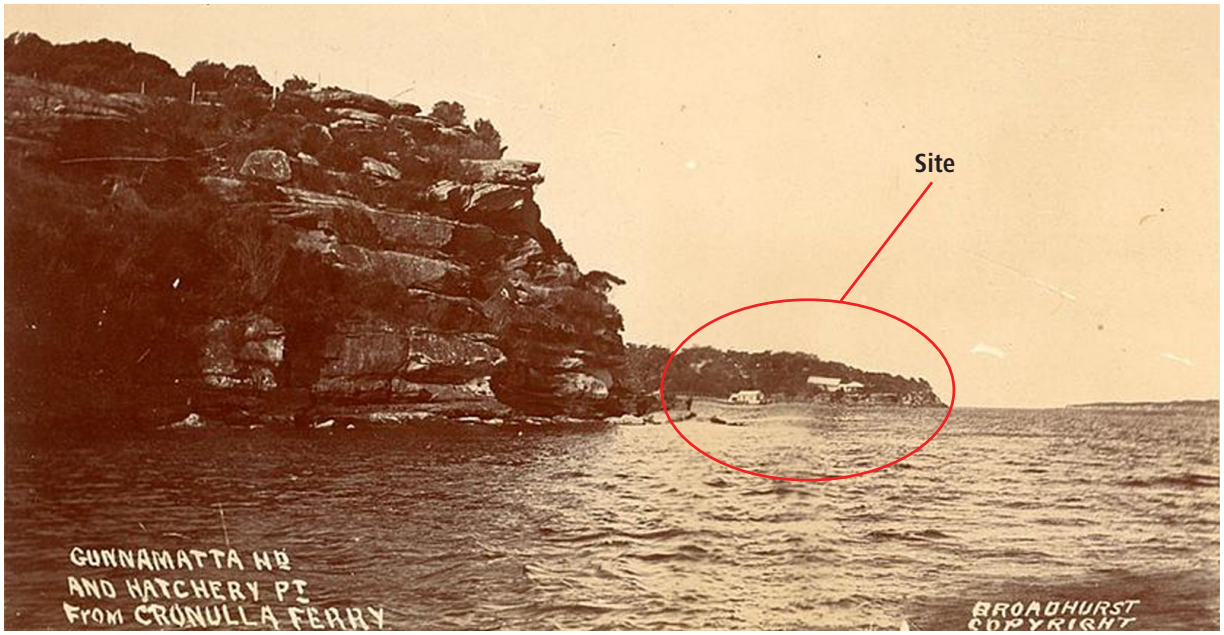
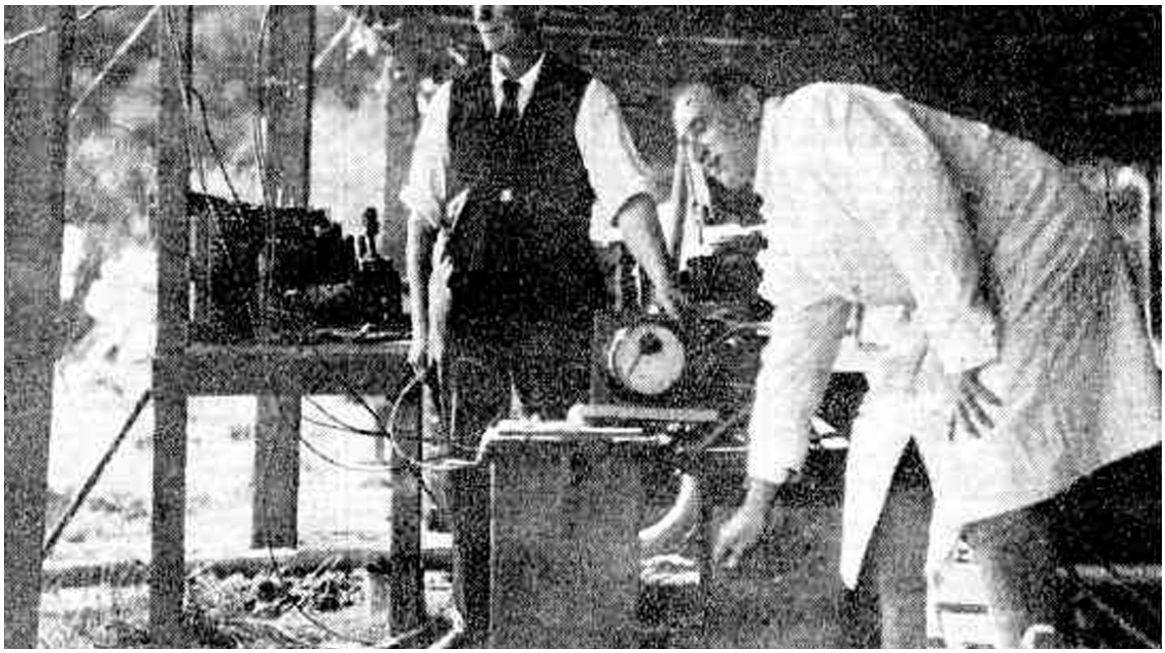


Figure 2.2.18 | c1920 | Aquaria Fish Pond (B23) and Boat Shed (B11) and Hatchery (B6), Cronulla | Sutherland Shire Historical Society

Figure 2.2.19	1929	Møller experiment to repell sharks, showing ramp and boatshed	Sydney Morning Herald 10 August

Figure 2.2.20	1929	Møller experiment to repel sharks, showing technicians	Sydney Morning Herald 10 August



2.2.4. CSIR FISHERIES INVESTIGATIONS – 1938-49

CSIR

In 1937 the hatchery was described as derelict, and restoration works were carried out prior to the CSIR moving in.

The Headquarters of the Fisheries Investigation Branch of the Council for Scientific and Industrial Research moved from Melbourne to Port Hacking in 1938. Subsequent decades saw the rapid expansion of research programs in physical and chemical oceanography, fish biology, population dynamics and plankton research.[42] The construction of the central block offices, laboratories and library (Building 1) began in 1939.

Dr H. Thompson stated the new laboratory would provide accommodation for the New South Wales Fish Biology Branch and for students from the University of Sydney, in addition to the staff of his department. Experimental equipment for the canning, smoking and refrigeration of fish would be provided. His department was concentrating on investigating the movements and quantity of tuna in Australian waters.[43]

The CSIR Annual Report for 1938-39 describes new works on the site:
"The [biological laboratory] building (Building 1) contains offices and a strong room, one bacteriological and one chemical laboratory (with common preparation room), five biological laboratories, a dark room, a balance room, a library, a stock room, and a draughting room. Several storage rooms and a workshop are also included in the new works. The pre-existing (hatchery) works have been re-conditioned and adapted. They include a centrifugal pump with pipeline to a 25,000 gallon concrete sea-water reservoir, from which there is gravity feed to the former hatchery buildings (Building 6), which have been converted to contain two biological laboratories, a projector room, and a large main experimental aquarium. The latter is supplied with ordinary water under pressure, and conditioned (heated or chilled) sea water is also available for experimental work. Extra working space is also available in this room, which is fitted in addition with three thermostatically controlled refrigerating chambers (two maintained at zero and one at 30° F), and a small canning plant. A small commercial-type smokehouse (Building 9) and a net-storage and fish-processing shed have been built on the foreshore, while a small jetty has been constructed from the end of which certain experimental work can be carried out. The large concrete tidal pond (Building 23) (100 feet x 42 feet) will be reconditioned during the coming year. For estuarial surveys, a 16-vet. 3. ½hp skiff has been constructed, and for fieldwork, a 2-ton Bedford mobile unit has been acquired and fitted with the necessary apparatus."

Tenders for extensions to the main Laboratory Building (Building 1) at CSIR fisheries division were called in January 1946.[44] The existing path was widened. The newly constructed 2 storey building is evident in photographs of the site c1939-1942 as viewed from the south (Figure 2.2.21) and the north (Figure 2.2.22). The building's interwar characteristics are evident in photographs of the building (Figure 2.2.23). Internally the building housed equipment (Figure 2.2.24). The waterfront remained little altered until the post War period with the exception of the demolition of a *"police"* boatshed in the 1920s (Refer Inventory Sheet MA4).

42. Dennis Reid, *"Inquiry into Closure of the Cronulla Fisheries Research Centre of Excellence"*, 30/07/12.
43. Newspaper Clipping *"Fisheries Investigation Branch – New Station at Port Hacking"*, March 1938 (Sutherland Shire Local Studies Collection Fish Hatchery, Cronulla).
44. Sydney Morning Herald, 26.01.1946, p18.

The Boatshed (Building 11) retained its original character. The ramp was elevated above the water (Figures 2.2.25, 2.2.26).

The original character of the site at the time of establishment of CSIR on site is evidenced in a number of photographs. Figure 2.2.21 and 2.2.24, c1939 aerials of the site, show the site still largely uncleared. Substantial cultural plantings of Araucaria are evident in these aerials. Cleared areas surround Former CSIR Fisheries Laboratory (Building 1) and the Residence (Building 18), however the ridgeline and shoreline remain vegetated. The roadway accessing Former CSIR Fisheries Laboratory (Building 1) is defined in the aerial photograph of 1940. A pedestrian track links Former CSIR Fisheries Laboratory (Building 1) directly with Hatchery (Building 6). Photographs of the site in 1947 show informal cleared areas with indigenous trees to cliff edge and shoreline. A Fisheries Conference was held in 1947.

Figure 2.2.21	1939	Aerial photograph showing Cronulla Marine Laboratory (CSIR) indicating Hatchery (B6), Boat Shed (B11) and Aquaria Fish Pond (B23)	Dennis Reid

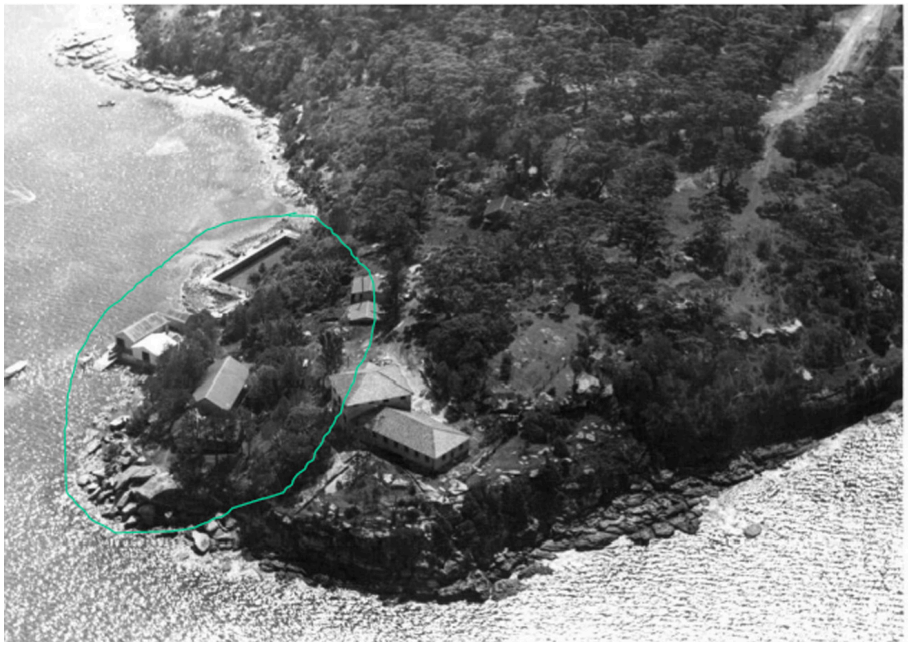


Figure 2.2.22	c1939	Aerial view of Fisheries buildings, indicating Former CSIR Fisheries Laboratory (B1) and Aquaria Fish Pond (B23)	National Archives of Australia

Figure 2.2.23	c1939	CSIR Fisheries Laboratory – Entrance to main building Former CSIR Fisheries Laboratory (B1) (incorrectly dated 1923)	National Archives of Australia

Figure 2.2.24	1947	CSIR Fisheries Laboratory, Cronulla – Inspecting machinery during the 1947 Fisheries Conference	National Archives of Australia

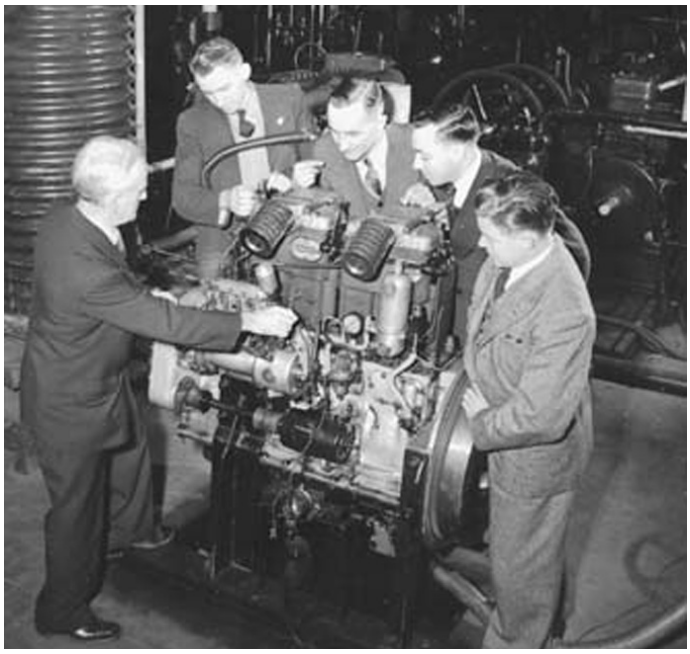


Figure 2.2.25	c1940	Aquaria Fish Pond (Building 23) Boatshed (Building 11) and Boatshed demolished 1940s, as viewed from Darook Park	Sutherland Shire Library

Figure 2.2.26	1947	Fishermen hauling a cage out of the water, showing ramp and boatshed (B11) Hungry Point, Cronulla	National Archives of Australia

Fisheries School

The waterfront weatherboard building (Building 10) situated next to the aquarium (Building 23) was built c1946 to accommodate a Fisheries School, part of Commonwealth Reconstruction Training Scheme for ex-servicemen. The School commenced in January 1947, staffed by officers of the Department of Fisheries. Students lived on site and trained for four months and then progressed to subsidised employment.[45]

Students were taught to weave nets (Figures 2.2.27), study fish measurement (Figure 2.2.28), measure crustaceans (Figure 2.2.29) and use sonar beacon devices (Figure 2.2.30).

Dr Geoffrey L. Kesteven, who was biologist at CSIR and later assistant director of Division of Fisheries, Department of Commence and Agriculture, was described as the instigator of the scheme. Kesteven wrote the syllabus and delivered lectures. The school was a unit of Division of Fisheries, Department of Commence and Agriculture.[46]

The school was established as *"part of the Hungry Point site that adjoins the CSIR Marine Biology Laboratory"*.[47]

The school was self-contained with 12 ex-naval huts of substantial size, providing living quarters for staff and trainees, lecture rooms, library, workshops, recreational facilities and two vessels.[48] It had been suggested that Fisheries School (Building 7) was constructed as a Caretaker's Cottage and as migrant hostel accommodation, however, this has not been confirmed. It is likely that this building, which was constructed c1943-46, provided facilities for the Fisheries School.

45. 'New Fisheries Course', Newcastle Morning Herald, 10 April 1947, p.6.
46. Sydney Morning Herald, 15.1.1947, p.2.
47. Sydney Morning Herald, 15.1.1947, p.2.
48. Sydney Morning Herald, 15.1.1947, p.2.

Figure 2.2.27	1947	CSIR Fisheries School, Cronulla – Students weaving fishing nets	National Archives of Australia

Figure 2.2.28	1947	CSIR Fisheries School, Cronulla – Trainee fishermen under instruction	National Archives of Australia

Figure 2.2.29	1947	CSIR Fisheries School, Cronulla – Students examining a fish and crustaceans	National Archives of Australia

Figure 2.2.30	1947	CSIR Fisheries School, Cronulla – Students examining a sonar beacon	National Archives of Australia

2.2.5. CRONULLA MIGRANT HOSTEL 1947-1967

Hungry Point Site was one of a number of sites developed as a Hostel to cater for the influx of migrants in the post War period. Two buildings dating from this period survive on the site (Buildings 13 and 15), substantially intact and in a fair to good condition.

The Cronulla Migrant Hostel operated adjacent to the CSIRO Fisheries and Research Station from 1949 to 1967. It seems likely that the Hostel may have utilised ex-naval huts erected for Fisheries School in 1946/1947.

The Government Gazette of 22 April 1949 announced acceptance of tenders for construction of accommodation for migrants at Cronulla to value of ƒ30, 254. Construction continued into 1950 when a carpenter's strike threatened to "*delay completion of a migrant's hostel in Cronulla, which should be ready for 200 of displaced persons by the end of the month. The dispute was likely to spread to other migrant camps. The hostel constructed by J. L. Phillip was almost completed. The Builder Union declared the job "black*".[49]

The camp was separated from the fisheries facility by a mesh fence and the access road was used as separate entrance to the migrant camp. A new entrance was provided to the fisheries section.

The Migrant Hostel on the eastern portion of the site is pictured soon after construction, in a landscaped setting (Figure 2.2.32). The canopy on the ridge forms a backdrop to the hostel buildings. The 1961 aerial shows the Hostel buildings in a densely landscaped setting, with narrow straight paths and small cleared areas close to the hostel buildings. The eastern shoreline has shrubby vegetation and exposed rock shelf, with isolated trees. No evidence of any planting relating to the hostel phase has been identified. The extent of development of the Hostel would have required extensive clearing of this portion of the site, see Figure 2.2.31. A fence line is indicated on this plan.

Life at the Cronulla Hostel, considered the 'best in Australia' was like living at a' holiday resort', however, the South Cronulla Progress Association expressed dissatisfaction about the location of the hostel.[50] The hostel temporarily closed in 1964. In early 1966, the hostel reopened to accommodate 102 migrants, mainly of British nationality. In February 1967 the hostel closed permanently because it was surplus to requirements. The land was transferred to the CSIRO who expanded their facilities. This was typical of redundant facilities. South Cronulla Progress Association requested that the site be used for public recreation.[51] This did not occur.

Of the 18 Migrant Hostel buildings located between the fence and east line of the cliff (Figure 2.2.31) two of the buildings (Buildings 13 and 15) remain today.

49. 'Builders' Union Declare Migrant Jobs *"Black"'*, The Northern Miner, 23 January 1950, p.1.
50. *"The Cronulla Migrant Hostel"*, Sutherland Shire Local Studies Collection, p.82.
51. *"The Cronulla Migrant Hostel"*, Sutherland Shire Local Studies Collection, p.82.

Figure 2.2.31	c1954	Cronulla Hostel – Site Layout indicating Buildings 13 and 15 located behind these buildings	Sutherland Shire Council

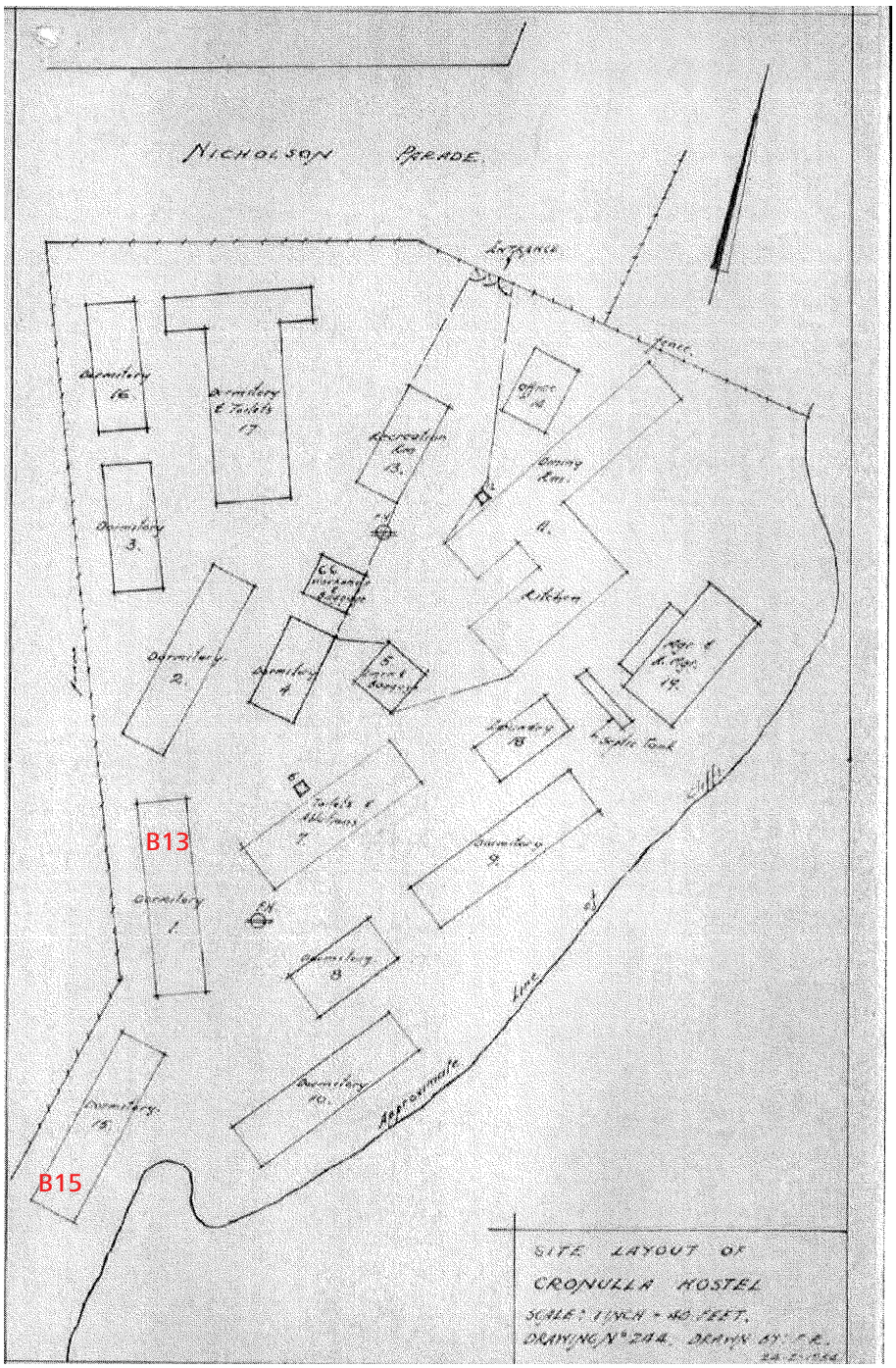


Figure 2.2.32	c1950	Hungry Point – Migrant hostels (B13 and B15) located behind these buildings	Sutherland Shire Council

2.2.6. COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION 1950-1984

In 1949, CSIR was renamed CSIRO, the Commonwealth Scientific and Industrial Research Organisation. The educational role of the site continued with the CSIRO hosting a Fisheries Conference on the site in 1962 (Figure 2.2.33) and the establishment of an Officers' Training School (Figure 2.2.34). During the 1960s and 1970s repairs were made to the old Boatshed and the seawall, and sections of the Boatshed were reclad. Research undertaken included investigation into breeding species. The 1962 conference was a national conference. Its focus was on breeding species.

Plans were prepared in 1971 for a new residence and garage (Buildings 18 and 12).[52] The garage was located on the site of the original c1904 Commercial Management (Building 16) Caretaker's Cottage (Archaeological Site A.)

A new Fisheries Biology Complex was constructed in 1976 at a cost of $300,000 and Included offices and laboratory accommodation for 15 scientists. As well as this building, the site was occupied by six permanent buildings and a number of temporary buildings to house the 130 staff working at the site A survey dated 1975 shows the development of the shoreline and Records and files (Building 4) recently constructed (Figure 2.2.35).

Agreement was secured in 1977 for Council to lease and develop a section of the site for open space purposes including fencing, pathway and provision of vantage points and continuity of pedestrian access around the foreshore of the South Cronulla Peninsula. In 1979, plans were prepared for reconstruction of boat ramp and launching ramp.[53]

A CSIRO review of the Division of Fisheries and Oceanography in 1979 recommended a new location for the expanding Fisheries Division and in early 1980, the CSIRO announced that the Marine research section would be relocated to a new site. It was eventually decided that the new facility would be built in Hobart. The Shire Planner visited the site in 1983 following information indicating the CSIRO would be relocating to Hobart and described the complex as follows: *"At present, the CSIRO occupies both the Commonwealth holding of 1.51 ha and the State owned holding of 1.58 ha which is under lease for a Marine Biology Station until the year 2000. On the combined site is a total of 19 buildings of which about 5 are of brick construction and reasonable size. The remainder are a mixture of weatherboard, fibro structures and temporary building that may not meet present day standards."*[54]

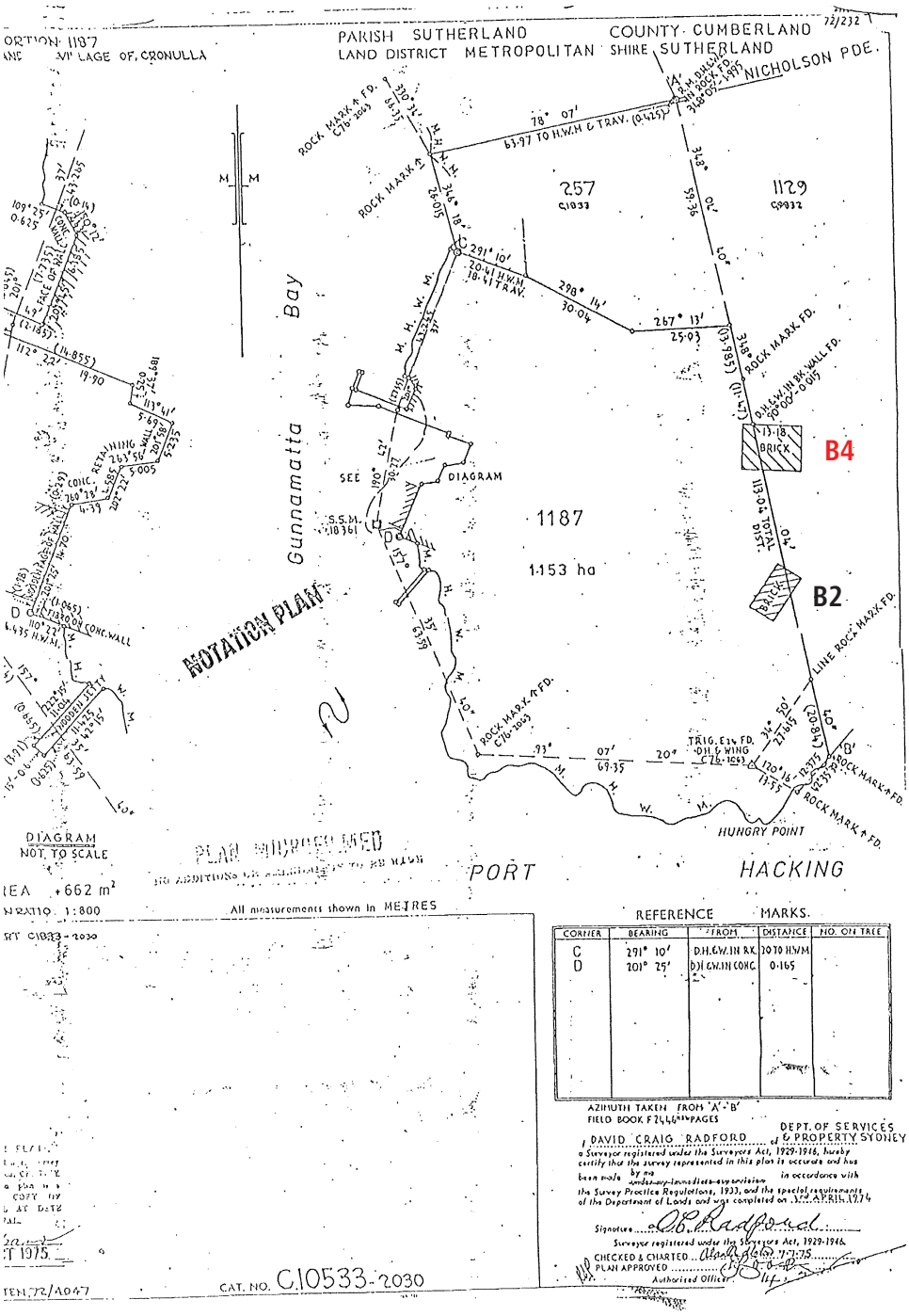
In August 1983, Council resolved to approach both the Federal and State Governments to establish a working party to formulate guidelines for disposal of the site. In 1984 Council made representations to Department of Agriculture (Fisheries Branch) to try and achieve a broader based open space community use of this area. Some concession was made by the Department of Agriculture in relation to facilities for the Water Police and the Volunteer Coast Guard.[55] The Metropolitan District Surveyor surveyed the entire site in 1984 to delineate an area on the waterfront as open space for public recreational purposes. The area of open space extended down the east coast without affecting the security requirements of the research facility (Figure 2.2.36).

52. Plan Services.
53. Plan Services.
54. Sutherland Shire Council Files.
55. Sutherland Council Building & Property Files.

Figure 2.2.33	1962	CSIRO, Cronulla – Opening of Fisheries Conference (showing internal detail of building)	State Library of NSW

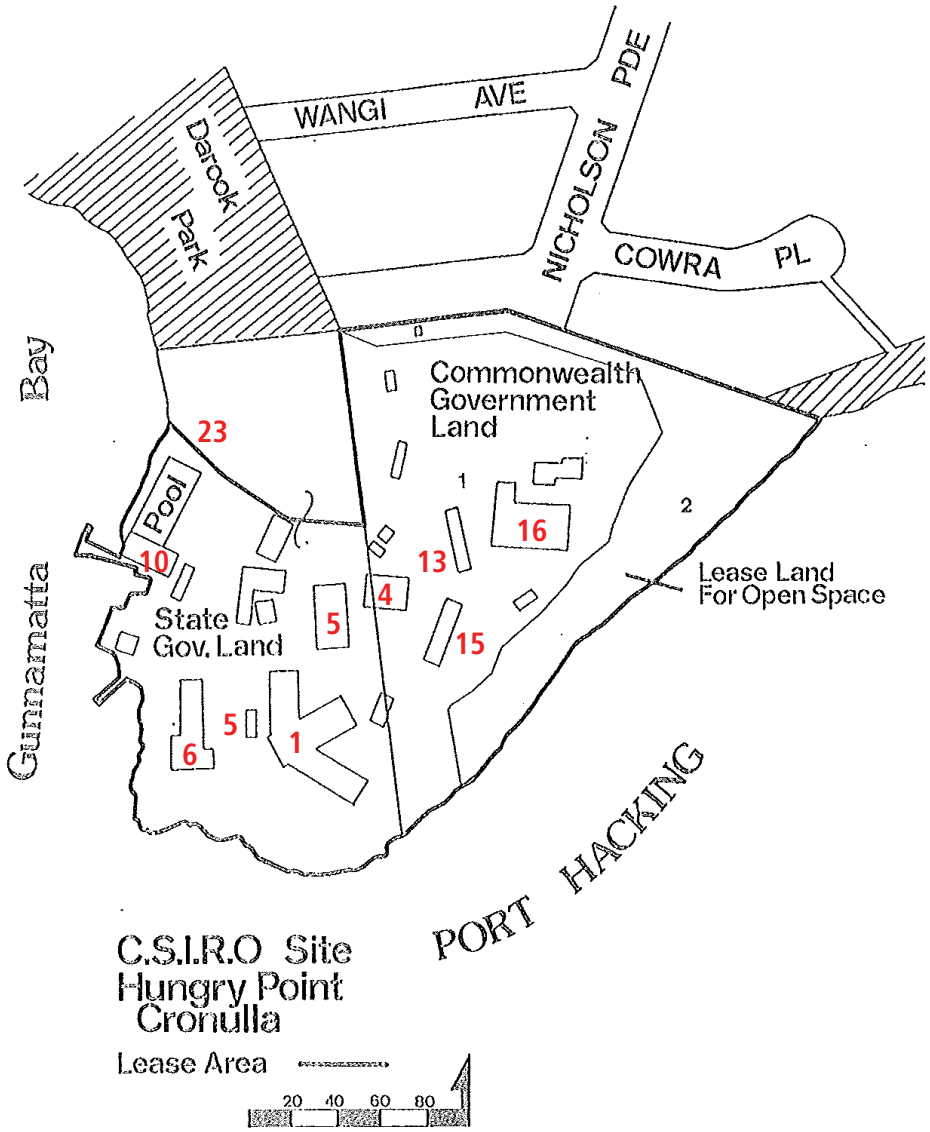
Figure 2.2.34	1963	CSIRO, Cronulla – Officers' training school, David Hickson (middle)	State Library of NSW

Figure 2.2.35	1975	Survey – Portion 1187 at Gunnamatta Bay, showing eastern shoreline Computer Room (B2) and Records and Files (B4)	Sutherland Shire Council



B2 Computer Room 1940
B4 Records and Files 1960

Figure 2.2.36	1984	CSIRO Site, Hungry Point, Cronulla – Site Plan indicating B1, B4, B5, B6, B10, B13, B15 and B16	Sutherland Shire Council



B1	Former CSIR Fisheries Laboratory 1939
B4	Records and Files 1960
B5	Fields store 1940 demolished shed 1984
B6	Former Hatchery 1904
B10	Former Fisheries School, Laboratory 1946
B13	Former Migrant Hostel 1949-67
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B23	Aquaria, Fish Pond 1904

Also in 1984 maintenance work was carried out on the buildings by Community Employment Programme staff and funds.

The site landscape was significantly altered during this period. The roadway accessing the foreshore (Buildings 10 and 11) was built between 1955 and 1961. A comparison of aerial photographs from 1955 and 1984 show the ridgeline was cleared of vegetation and car parking areas were constructed in this period. The demolition of Migrant hostel buildings and further loss of trees in the vicinity these buildings is evident in the later aerial. The area to the west of Hatchery (Building 6) was also cleared over this time. Evidence of garden beds with exotic plantings around Residence (Building 18), Conference Room (Building 2) and Field store (Building 5) appear to date from this period when the buildings were constructed.

An aerial photograph dated 1985 (Figure 2.2.37) shows planting concentrated in the area behind the Aquarium and Fisheries school and along the shoreline. The grassy area in the vicinity of the Residence (Building 18) is almost continuous with Darook Park.

The Prime Minister issued a media statement on 19th March 1984 to the effect that the Federal Government had to transfer the CSIRO site to the State Government to enable continuing use for fisheries research and as Water Police Station and MSB local patrol craft.[56]

The CSIRO Marine Laboratories were transferred to Hobart in 1984, and the NSW Government took possession of the Cronulla site.

2.2.7. NSW FISHERIES RESEARCH INSTITUTE – 1985-2011

When the Federal Government transferred the Hungry Point site back to the NSW Government in 1985, the facility was renamed the NSW Fisheries Research Institute. Dennis Reid summarises research carried out by the Institute including *"investigations into the dynamics of trawl fish, estuarine fish and invertebrate populations, the effects of impounding inland waterways, and the impact of the Deepwater Ocean Out falls, the ecological impact of the third Sydney Airport runway, estimation of by catch in commercial fisheries, the effects of fishing over seagrass and estimation of the levels of effort and catches in recreational fisheries".* An aerial photograph shows the condition of the site at the time of the transfer. The number of buildings and their location result in a greater proportion of built structure to landscape. The aquaria (Building 23) remains unroofed and Waterfront Laboratory (Building 10) has been constructed (Figure 2.2.37).

In January 1985 the Minister for Agriculture & Fisheries wrote to the Premier, Hon. N.K. Wran noting that the Department of Agriculture & Fisheries had met with the Maritime Services Board and Water Police. An agreement was reached that Fisheries School (Building 7) should be set aside and renovated to accommodate their officers and facilities. *"Provision has also been made to moor their two boats in a protected area at the wharf. Agreement was reached with Mr Lund (Council) that a commitment would be given by my Department, when it develops the wharf area at a future date, to provide the public with unbroken access around the peninsula. It is considered that a facility could be designed and constructed to provide this access as well as to meet the needs and security of my Department. The availability of funds will be the limiting factor. CSIRO will not vacate the Cronulla site until 31 January 1985… It is proposed to convert one of the buildings to a conference*

56. Sutherland Shire Council Files.

room provided with toilets designed to meet the needs of the handicapped. This facility will be used for display purposes and available for appropriate public functions as well as serving the needs of my research staff. [57]

A comparison of aerial photographs from 1984 and 2006 show only small changes to the landscape on the site in this period. The boundary to Darock Park has revegetated with views to the Park obscured. Additional parking areas were formalised north of Building 16 and west of the access road at the top of the site.

NSW Department of Agriculture said the hatchery had fallen into disrepair and required a great amount of work to return it to an adequate standard. The Agriculture Department agreed to share the complex with the Maritime Services Board and the Water Police.[58]

57. Sutherland Shire Council Files.
58. *"Institute now in swim from CEP's double"*, The Leader, 8 August 1985, p.23.

Figure 2.2.37	1985	Aerial photograph showing Fisheries Research Centre, Hungry Point, Cronulla	Dennis Reid

A map was prepared identifying the buildings to be removed by CSIRO, buildings that have already been removed by them or beyond economical repair, the building set aside for the Maritime Services Board and Water Police and the building to be converted to a conference room available for public use[59]. The area was divided into State Government land, Commonwealth land and lease land for open space. The parking area is identified. (Figure 2.2.38)

Renovations at the Cronulla Fisheries Research Institute under the Commonwealth Employment Program carried out in 1985 included renovations to existing offices, laboratories and the conference room and preservation of the fish hatchery. *"Landscaping and beautification of the Fisheries site"* were also carried out as part of this program.[60]

A survey of the seawall at the aquaria was undertaken in 1987 (Figure 2.2.41) which indicates a chain wire fence for security (Figure 2.2.40). A Development Application for its reconstruction was approved in the same year. (Figures 2.2.39 and 2.2.40). The proposal was to construct a new seawall at the toe of the existing rubble wall, relocate security fencing and install new tanks on either side of the pool.[61]

A Development Application for the upgrading of an existing wharf was approved in 1988.[62]

The CSIRO site was surveyed by Perumal Edward Higginbotham in 1993 as part of the Sutherland Shire Heritage Study (Figure 2.2.42). The site was listed by NSW Fisheries in 1997 and on the Sutherland Shire LEP in 2000. By this stage the structure to the fibrous cement Aquaria (Building 23) has been expanded (Figure 2.2.42).

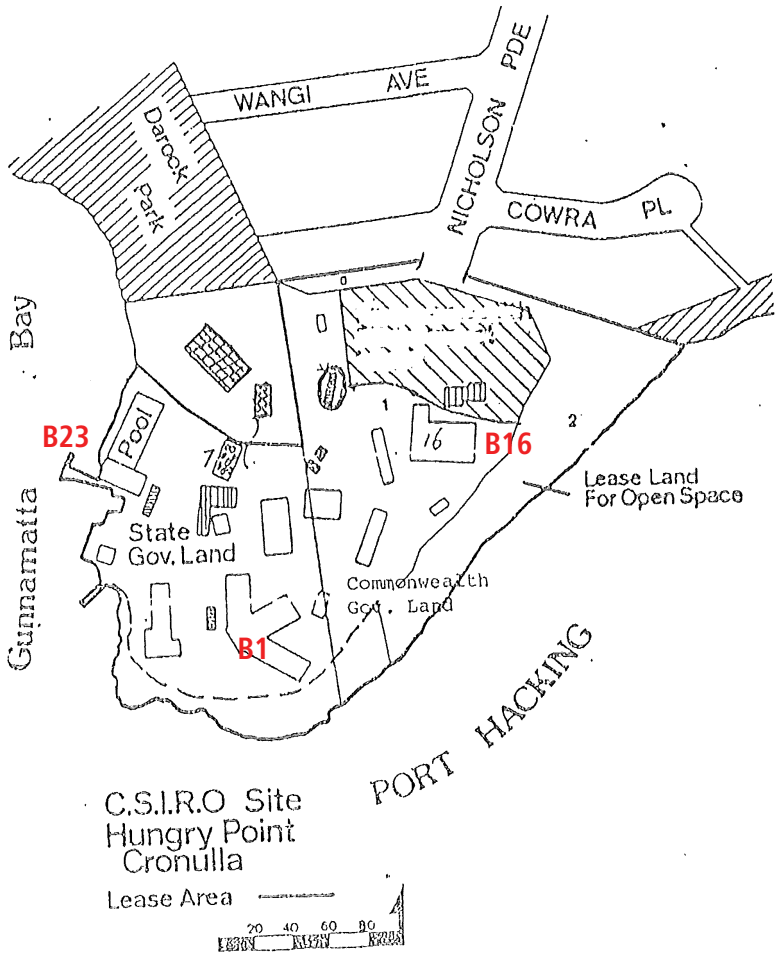
In February 1995, following approval of works around Bass and Flinders Point,[63] Sutherland Shire Council approached Fisheries Research Institute to facilitate an extension to The Esplanade to discuss the issue of public access around the foreshore from Salmon Haul to Darook Park[64]. The response came in December 1995, when NSW Fisheries advised Council that they had no plans to vacate the site nor provide public access along the foreshore – security and practicality being the main reasons.[65]

In 2004 NSW Fisheries was amalgamated with other departments to form the Department of Primary Industries.[66]

From 2009 to 2011 mayor upgrades of the aquaria, pool and laboratories, were undertaken.

59. Sutherland Shire Council Files.
60. Sutherland Shire Council Files.
61. Sutherland Council Building and Property Files.
62. Sutherland Shire Council Files.
63. Sutherland Shire Council Files.
64. Sutherland Shire Council Files.
65. Sutherland Shire Council Files.
66. Reid, Dennis: Inquiry Into Closure Of The Cronulla Fisheries Research Centre Of Excellence, 30 July 2012.

Figure 2.2.38	1985	CSIRO Site, Hungry Point, Cronulla showing proposed uses	Sutherland Shire Council



buildings to be relocated by c.s.i.r.o.

buildings either demolished by c.s.i.r.o. or beyond renovating

building to be renoated and used by M.S.B. and POLICE (water)

additional land to be surveyed for recreational purposes:— open space

fisheries inspectors home and boat shed

site for proposed boat shed

area for parking and landscaping

entrance to be widened

B1 Former CSIR Fisheries Laboratory 1939
B16 Commercial Management 1970
B23 Aquaria, Fish Pond 1904

Figure 2.2.39	1987	CSIRO, Aquaria – Seawall (B23)	Sutherland Shire Council

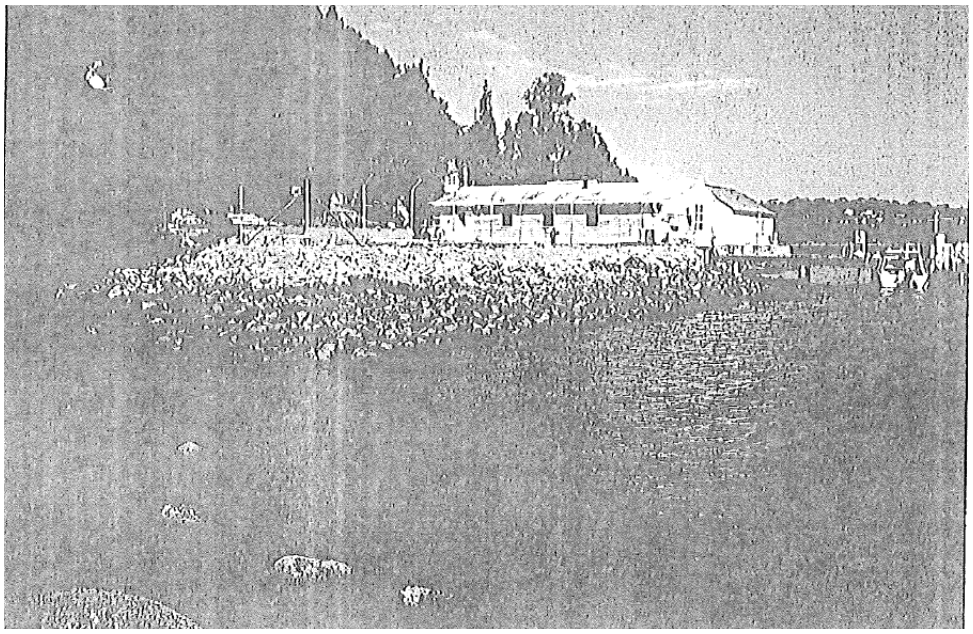


Figure 2.2.40	1987	CSIRO, Aquaria – Seawall (B23)	Sutherland Shire Council

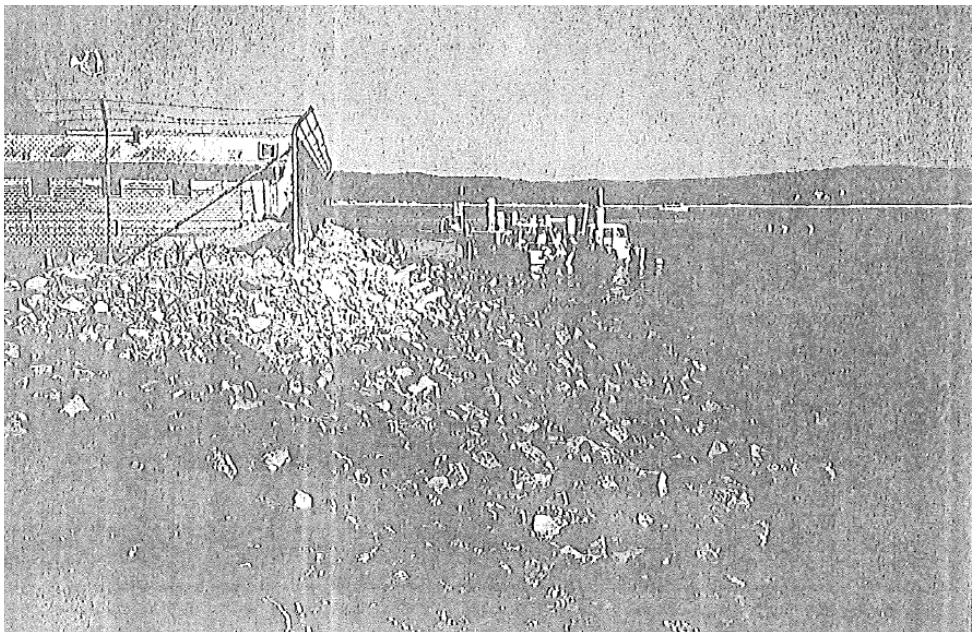


Figure 2.2.41	1987	CSIRO, Aquaria, Fish Pond – Seawall Survey (B23)	Sutherland Shire Council

Reference: HO 84 H 457
MN 84 R 211

New South Wales Government
METROPOLITAN
Land Board Office

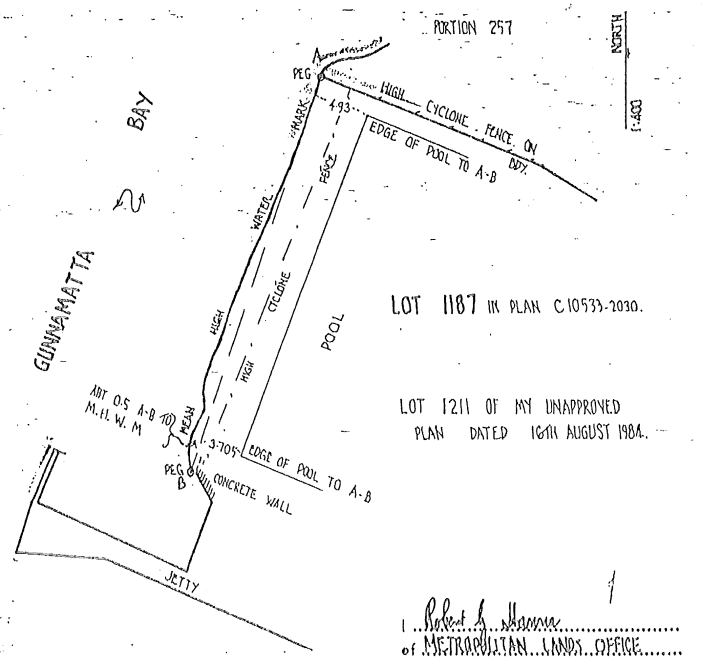
P.O. Box 878
BLACKTOWN
NSW 2148
Telephone: 671-6111
Extension: 8874.

SURVEY REPORT
SURVEYOR'S CERTIFICATE

MR JOHN MOSES,
DEPT. OF AGRICULTURE
McKELL BUILDING
LEVEL 9
GEORGE STREET
SYDNEY

DEAR SIR,

MARKING OF POINTS 'A' AND 'B' ON SKETCH BELOW WAS COMPLETED ON JULY 31ST 1987.
THE EDGE OF THE POOL IS LOCATED 4·93 METRES AND 3·705 METRES RESPECTIVELY FROM THE LINE JOINING 'A' AND 'B'.
MEAN HIGH WATER MARK IS THE BOUNDARY
A AND B ARE POINTS ESTABLISHED ON M.H.W.M.



I Robert G. Hanna
of METROPOLITAN LANDS OFFICE
a Surveyor registered under the Surveyors Act, 1929, as amended, hereby certify the survey is in accordance with Regulation 45 of the Survey Practice Regulations 1933, and was completed on 31.7.87
Robert G. Hanna

Reduction Ratio 1:400

Figure 2.2.42	1993	CSIRO, Aquaria – Fish Pond (B23)	Perumal Edward Higginbotham

2.2.8. CLOSURE OF CRONULLA FISHERIES RESEARCH CENTRE OF EXCELLENCE

On 8th September 2011, Katrina Hodgkinson, MP Minister for Primary Industries and Deputy Premier Andrew Stoner, MP for the O'Farrell Government announced the closure of the Cronulla Fisheries Research Centre of Excellence. Staff mounted an industrial and community campaign.[67]

An enquiry into the closure of the Cronulla Fisheries Research Centre of Excellence was instigated and a committee was established by resolution of the Legislative Council on 21 June 2013. The terms of reference required the Committee report by 23 October 2012. The Committee was chaired by the Rev Hon. Fred Nile MLC. The Committee considered among other things, the impact of the closure on the heritage values of the Cronulla Fisheries Research Centre (CFRC).

The Committee made its recommendations, including that the NSW Government reverse the decision to close the CFRC and not proceed with the closure. The NSW Government responded to the recommendations of the Committee in December 2012, stating the Government did not support their recommendation to reverse the decision to close the centre.

The NSW Department of Primary Industries Director General issued terms of reference to recommend future uses of the site. In November 2012, David Harley AM prepared a report for the NSW Department of Primary Industries, 'Cronulla Fisheries Site: Recommendations for Future Use'. Harley made 25 recommendations for the future use of the site MP The Harley Report (see 5.5 Constraints). One of these recommendations was that a Management Trust be established to manage the site. The numbering of buildings in the report is consistent with the Harley Report (see fig 3.5).

The Trust was established to manage the Crown Reserve Land, with the existing facilities on the site to be used by volunteer Marine Rescue, Water Police and Roads and Maritime Services. On 4 April 2013, appointments to the Hungry Point Reserve Trust Board were announced by Deputy Premier Andrew Stoner. Councillor Kevin Schreiber was appointed Chairman of the Trust.

Marine Rescue NSW partly occupied the site in March 2013. They currently occupy Buildings 1, 3, 5, 9 and 22 (by licence). Building 17, Chemical Store was demolished in 2013 and the Aquaria Fish Pond (Building 23) is disused.

By 2013 additional structures had been built on the site (Figure 2.2.43). A lightweight cover was erected to the fish pond aquaria (building 23) (Figure 2.2.44) and demolition of Building 17 occurred at the time (Figure 2.2.45). A Boat Storage (Building 22) was erected.

2.2.9. Closure of Cronulla Fisheries Research Centre of Excellence (2012-present)

Bush regeneration and weed control has been carried out on the site since 2012, through the Bushcare Volunteers program administered by Sutherland Shire Council.

67. Architectural Projects (2013): Sutherland Shire Community Based Heritage Study Review including draft Inventory sheets for Fisheries Research Institute.

Figure 2.2.43	2016	Hungry Point, from the south showing vegetation of western slopes	The Leader, 2 November 2016

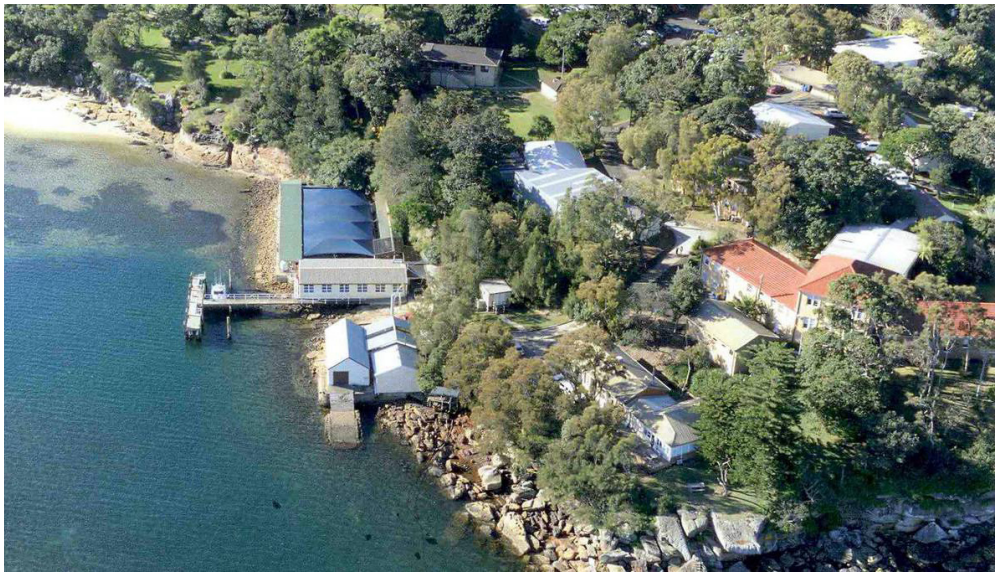


Figure 2.2.44	2015	Hungry Point, Cronulla – Aquaria Fish Pond (Building 23)	Steve Kennelly

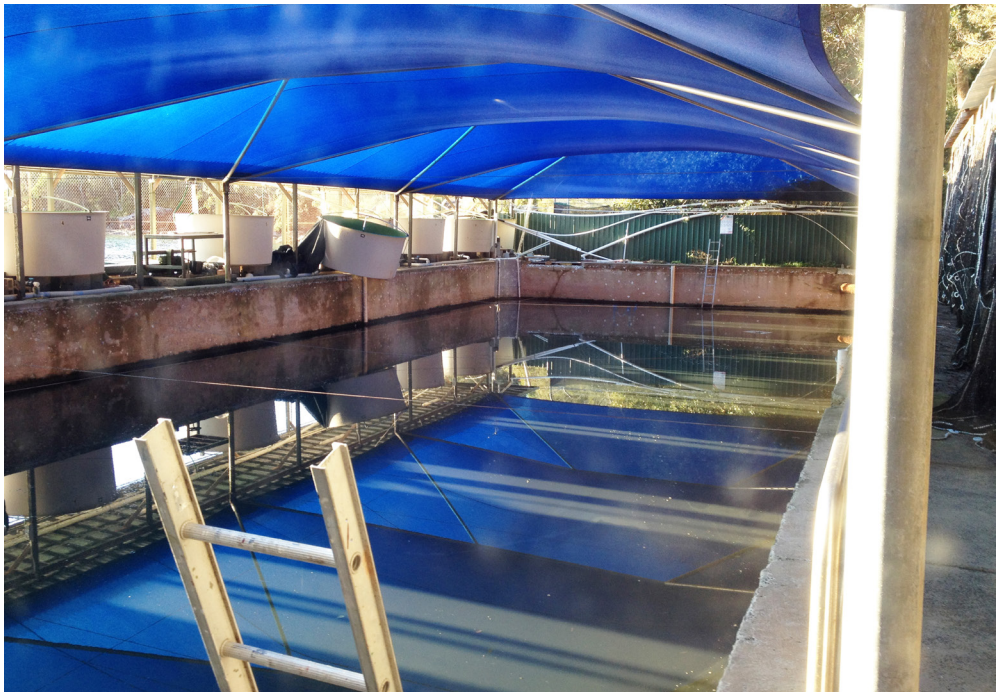


Figure 2.2.45	2013	Hungry Point, Cronulla – CSIRO site, Building 17 during demolition	Steve Kennelly

2.3. EVOLUTION OF THE LANDSCAPE AT HUNGRY POINT

The evolved landscape and buildings at Hungry Point express the interaction between land use and natural systems over time. The landscape extant today represents the accumulation of layers of change, without any overt comprehensive design intent, and as such it is considered to be a 'vernacular' landscape. Modification of the landscape followed the major phases of development for the site. An analysis of photographs, plans and historic aerials reveals the changing landscape character of the site. (Fig 2.3.1 – Fig 2.3.9)

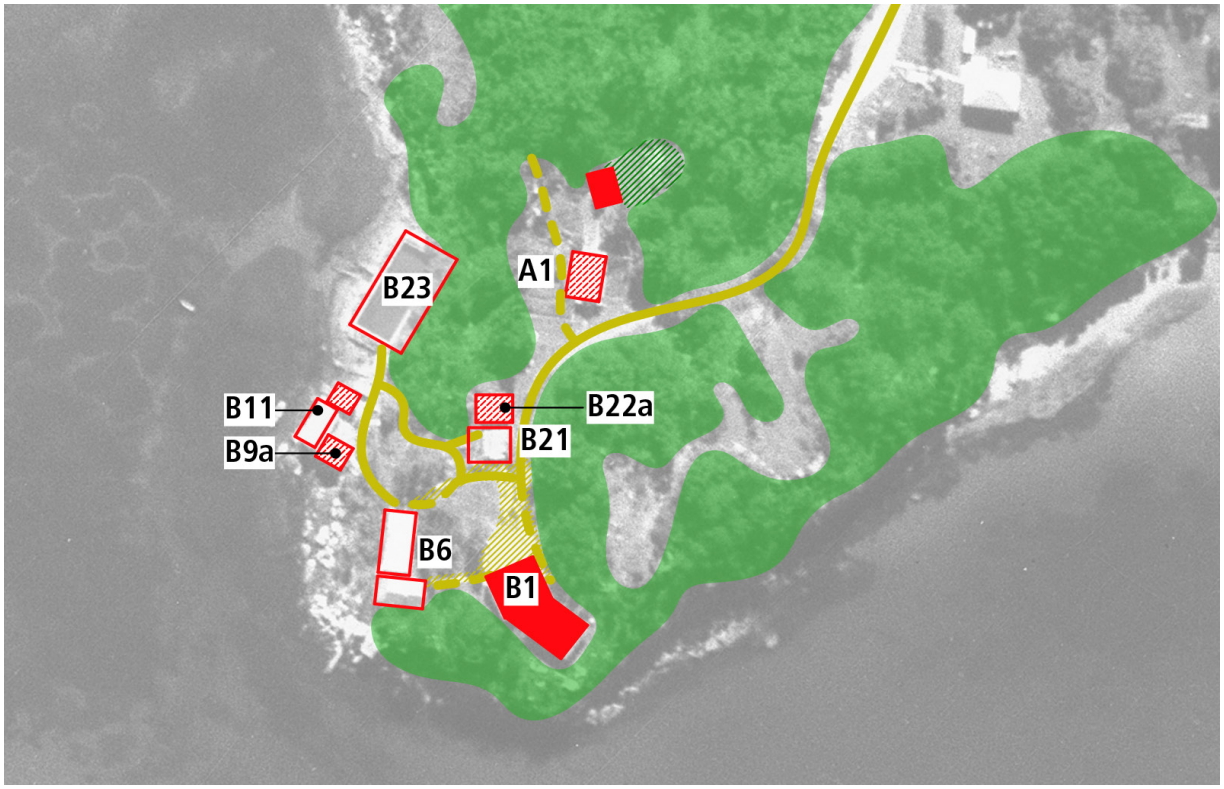
Figure 2.3.1	1930	Aerial Map – Landscape, Path & Building Location	Architectural Projects

LEGEND

- 7 — Buildings surviving
- Buildings demolished
- 7 — Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

A1	Site of Former Caretaker's Cottage 1904
B6	Former Hatchery 1904
B11	Boat Shed 1904
B21	Header Tank (Refer also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.3.2 | 1940 | Aerial Map – Landscape, Path & Building Location | Architectural Projects



LEGEND

- 7 Buildings surviving
- Buildings demolished
- 7 Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

A1	Site of Former Caretaker's Cottage 1904
B1	Former CSIR Fisheries Laboratory 1939
B6	Former Hatchery 1904
B9a	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B11	Boat Shed 1904
B21	Header Tank (Refer also MA6) 1904
B22a	Boat Storage/Generator Slab, Structure 1940
B23	Aquaria, Fish Pond 1904

Figure 2.3.3 | 1955 | Aerial Map – Landscape, Path & Building Location | Architectural Projects

LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period
- Boundary between fisheries and migrant hostel

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9a	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B13	Former Migrant Hostel 1949-67
B15	Former Migrant Hostel 1949-67
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

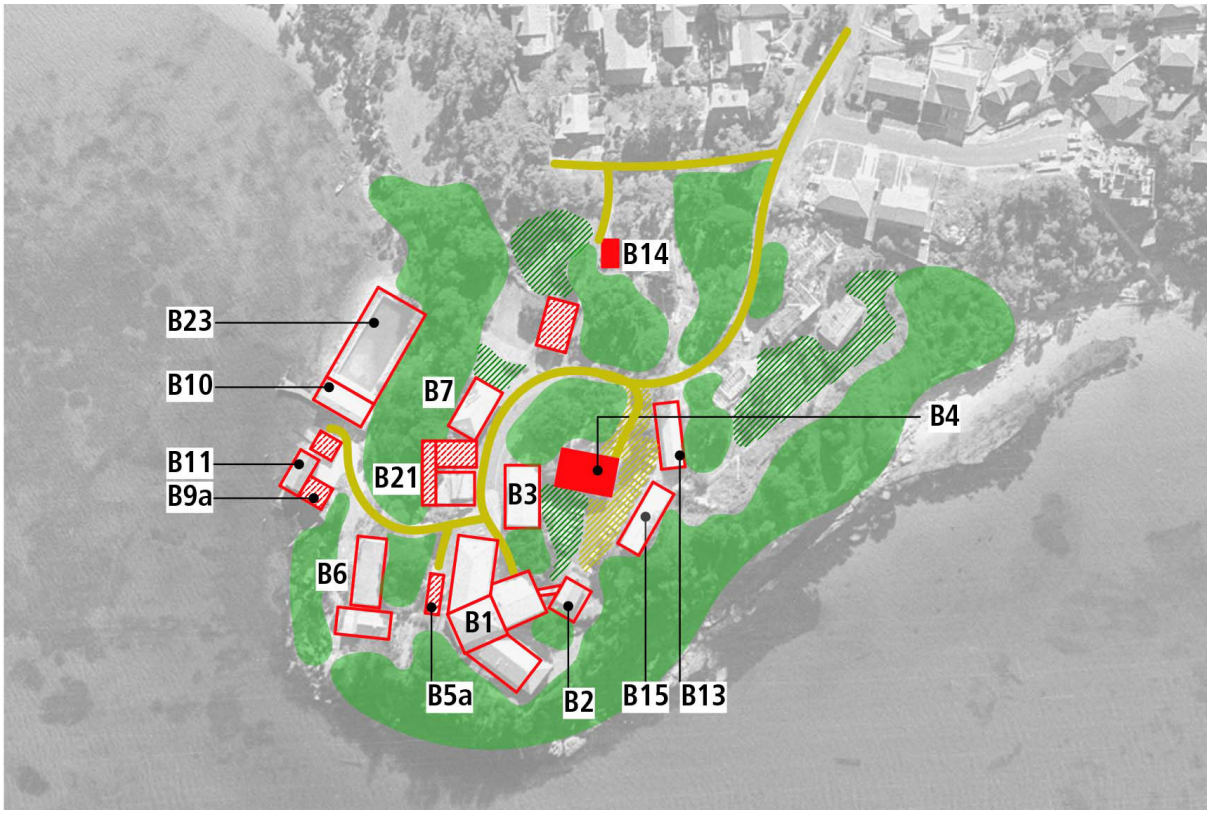
Figure 2.3.4 | 1961 | Aerial Map – Landscape, Path & Building Location | Architectural Projects

LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period
- Boundary between fisheries and migrant hostel

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9a	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B13	Former Migrant Hostel 1949-67
B15	Former Migrant Hostel 1949-67
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.3.5 | 1970 | Aerial Map – Landscape, Path & Building Location | Architectural Projects

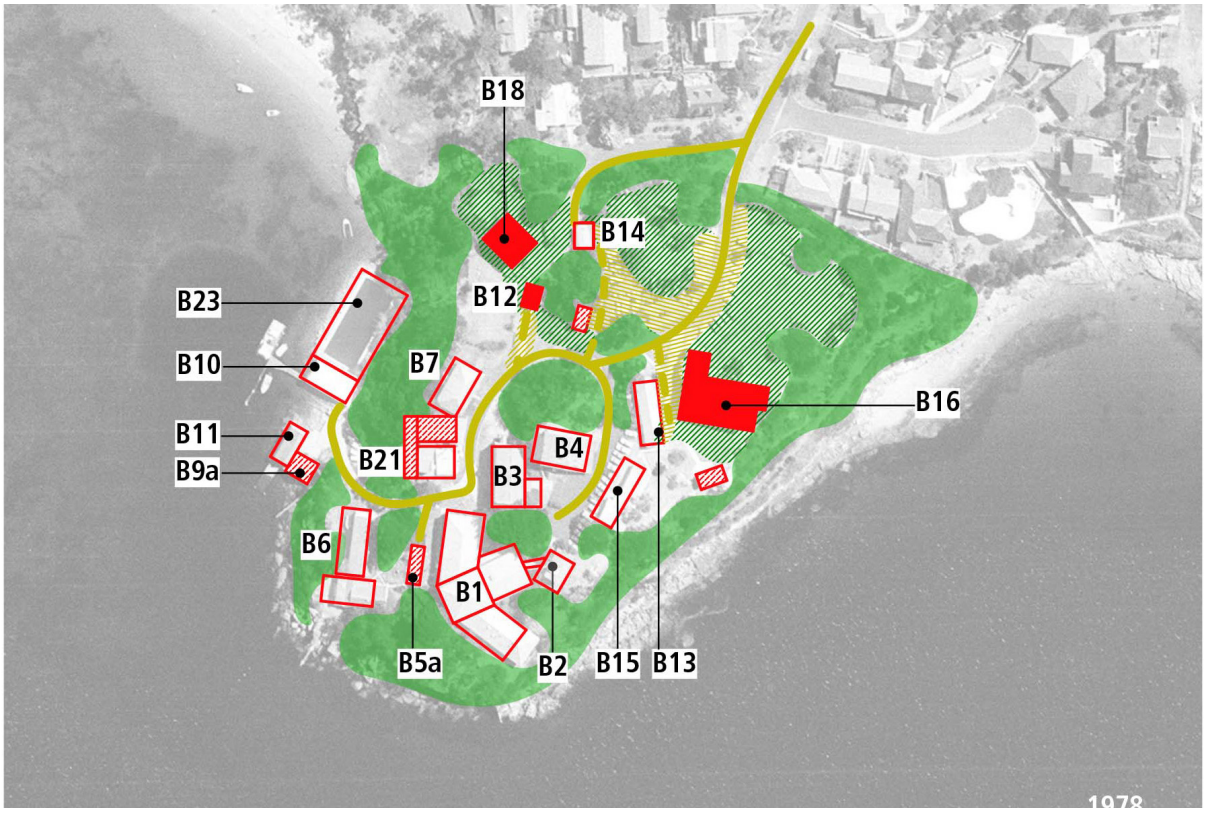


LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9a	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.3.6 | 1978 | Aerial Map – Landscape, Path & Building Location | Architectural Projects



LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9a	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B18	Residence 1971
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

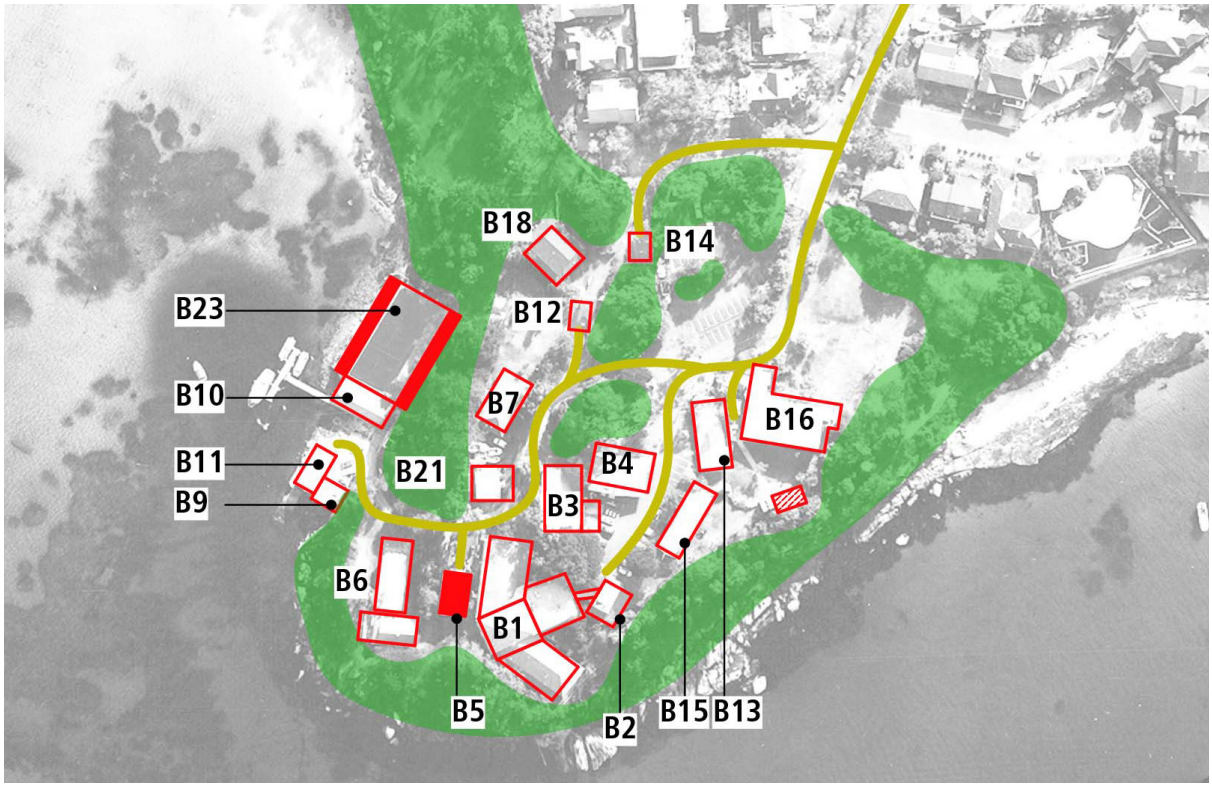
Figure 2.3.7 | 1984 | Aerial Map – Landscape, Path & Building Location | Architectural Projects

LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.3.8	1994	Aerial Map – Landscape, Path & Building Location	Architectural Projects



LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B9	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.3.9	2006	Aerial Map – Landscape, Path & Building Location	Architectural Projects

LEGEND

- Buildings surviving
- Buildings demolished
- Constructed in current period
- Road/ path constructed in current period
- Road/ path constructed in current period
- Parking area constructed in current period
- Vegetation
- Vegetation removed in current period

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5a	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Cooler Shed 1930-40, Demolished Rebuilt in 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971
B21	Header Tank (Refer Also MA6) 1904
B23	Aquaria, Fish Pond 1904

2.4. PHASES OF DEVELOPMENT

The historical research has identified the following key period of significance

Aboriginal Occupation (pre-1902 Establishment of Hatchery) Reservation of Land (1861-1902)	Key period of significance
Establishment of Hatchery (1902-1914) NSW Government (1915-1937)	Key period of significance
CSIR Fisheries Investigations Fisheries School	Key period of significance
Migrant Hostel (1938-1949)	Key period of significance
CSIRO (1950-1984)	Key period of significance
NSW Fisheries Research Institute (1985-2011)	Key period of significance
Closure of Cronulla Fisheries Research Centre of Excellence (2012-present)	

The historical development of the site shows a gradual increase of buildings located higher up the slope. In 1904 the Aquaria (Building 23), Hatchery (Building 6) and Boatshed (Building 11) were located at the shoreline and Header Tank (Building 21) higher up to achieve gravity flow.

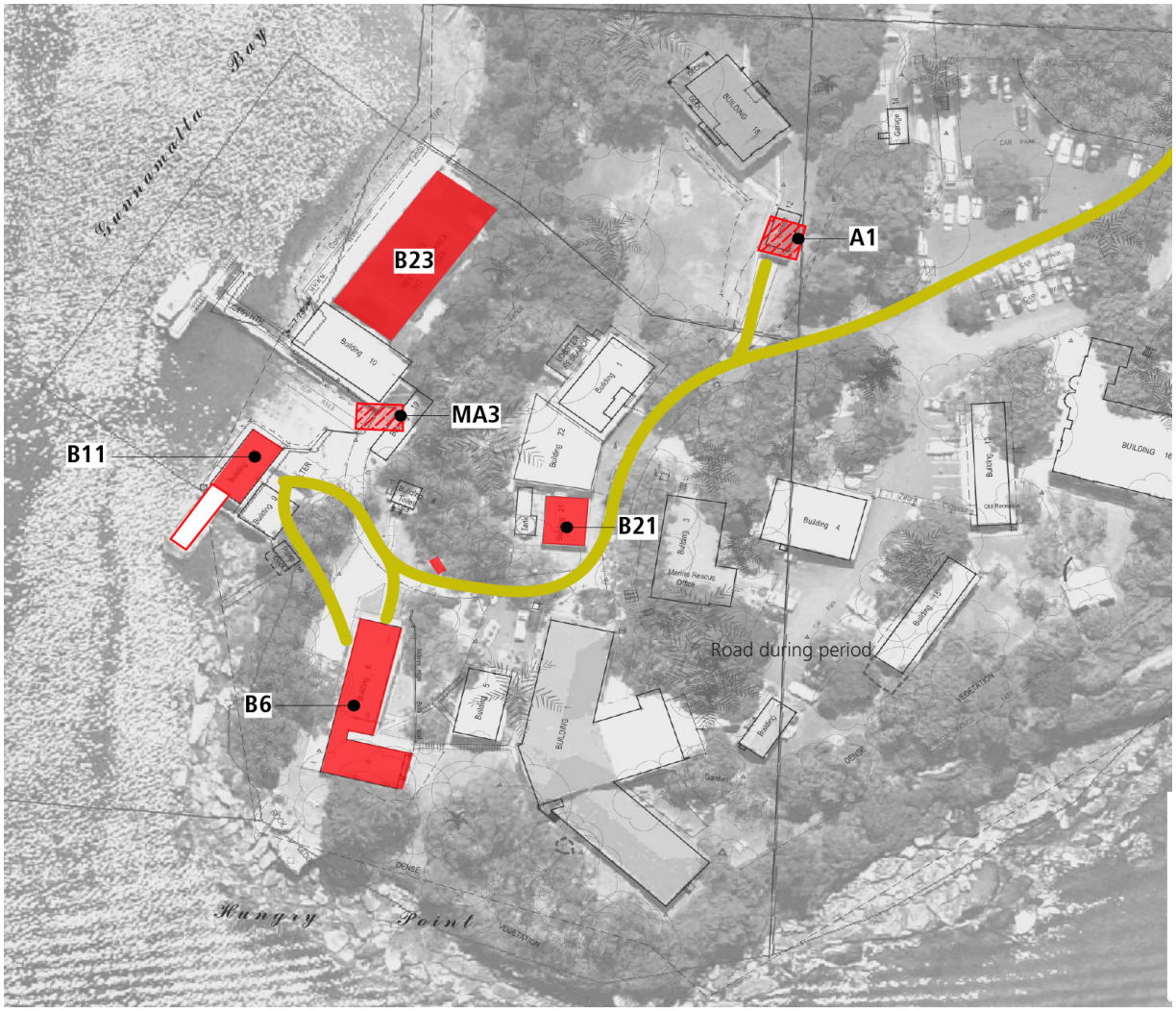
Between 1938 and 1949 five additional buildings were constructed on the Fisheries site and were located at both the shoreline and higher levels following the contours and nestled into the dominant landscape setting.

Between 1950 and 1984 eighteen buildings were constructed on the east half of the site allocated for the Migrant Camp. Only two of these buildings, Building 13 and Building 15, remain. Eight additional buildings constructed on the west half of the site were located at higher levels and due to their bulk were more dominant in the landscape setting. Building 17 has since been demolished.

Between 1985 and 2011 four additional buildings were constructed on the site. They were poorly sited and dominant within the landscape setting. Additions were added to the Aquaria Fish Pond (Building 23), at this time.

Refer Figures 2.4.1, 2.4.2, 2.4.3, 2.4.4 and 2.4.5

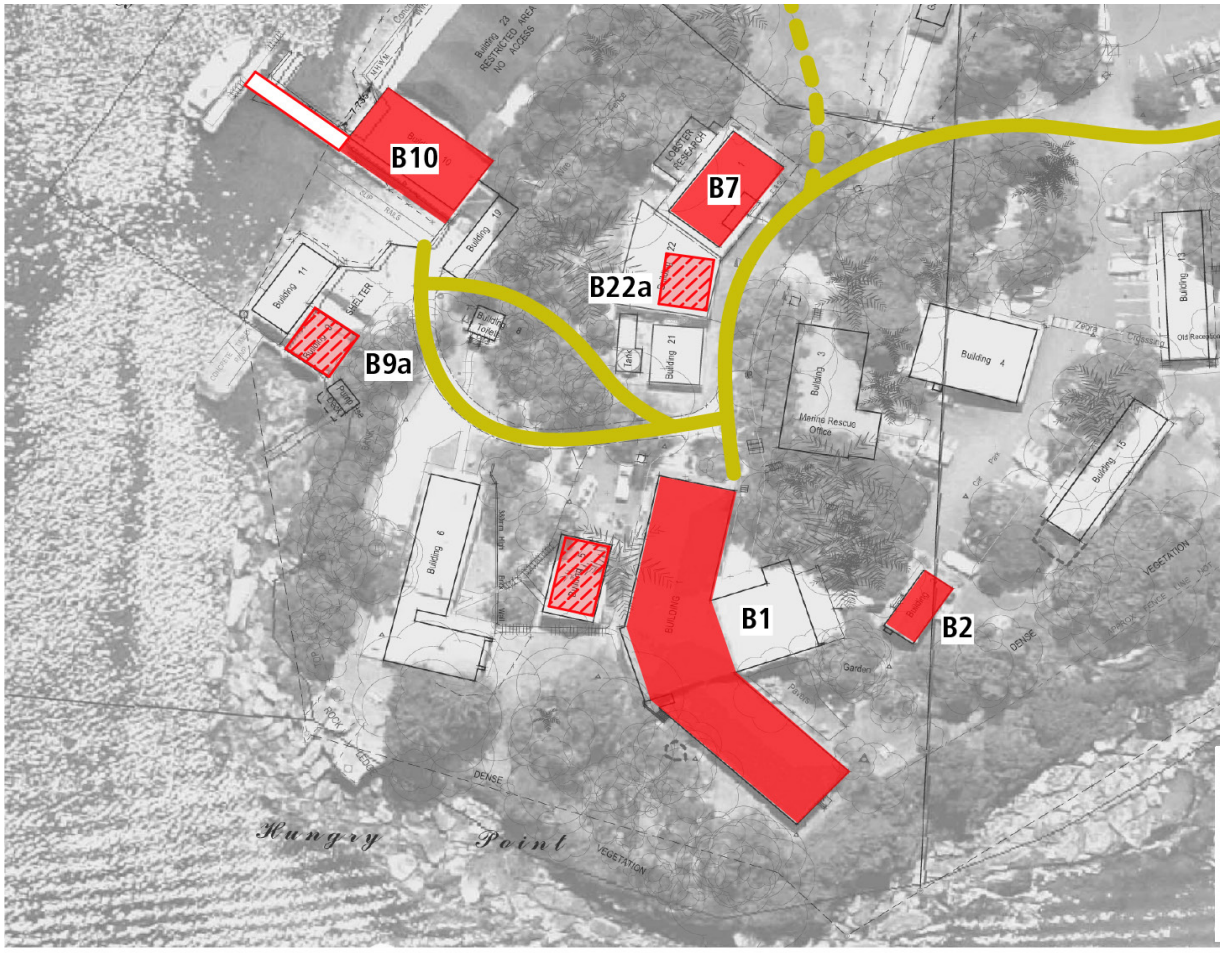
Figure 2.4.1	2017	Construction on site 1902-1914	Architectural Projects



Buildings from the period - existing	
Buildings from the period - demolished	
Existing road network	
Road during period	

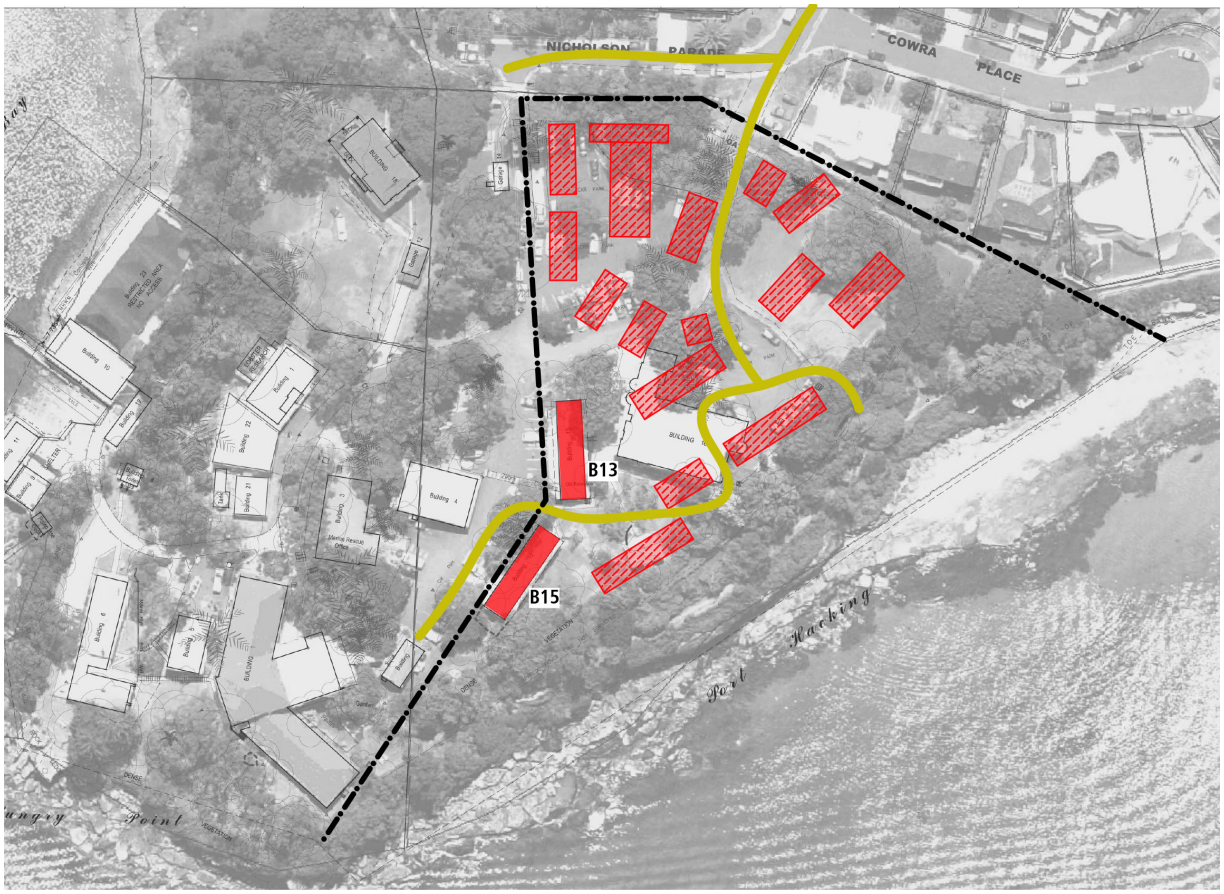
A1	Site of Former Caretaker's Cottage 1904
MA3	Former Boatshed 1904
B6	Former Hatchery 1904
B11	Boat Shed 1904
B21	Header Tank (Refer also MA6) 1904
B23	Aquaria, Fish Pond 1904

Figure 2.4.2	2017	Construction on site 1938-1949	Architectural Projects



	Buildings from the period - existing	B1	Former CSIR Fisheries Laboratory 1939
	Buildings from the period - demolished	B2	Computer Room 1940
	Existing road network	B7	Water Police/Fisheries School 1943
	Road during period	B9a	Cooler Shed 1930-40, Demolished Rebuilt 1984
		B10	Former Fisheries School, Laboratory 1946
		B22a	Boat Storage/Generator Slab, Structure 1940

Figure 2.4.3	2017	Construction on site 1950-1967	Architectural Projects



Buildings from the period - existing

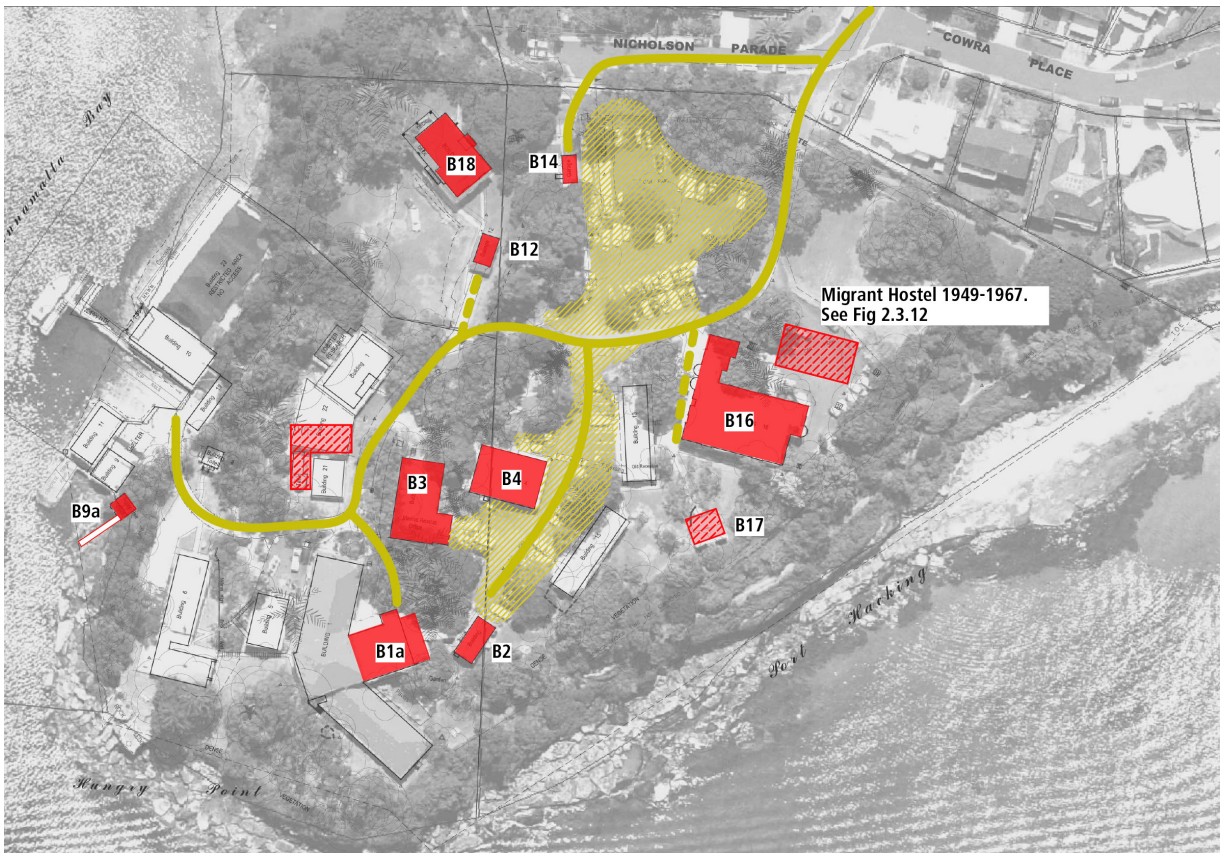
Buildings from the period - demolished

Existing road network

Road during period

B13	Former Migrant Hostel 1949-67
B15	Former Migrant Hostel 1949-67

Figure 2.4.4	2017	Construction on site 1950-1984	Architectural Projects



Buildings from the period - existing

Buildings from the period - demolished

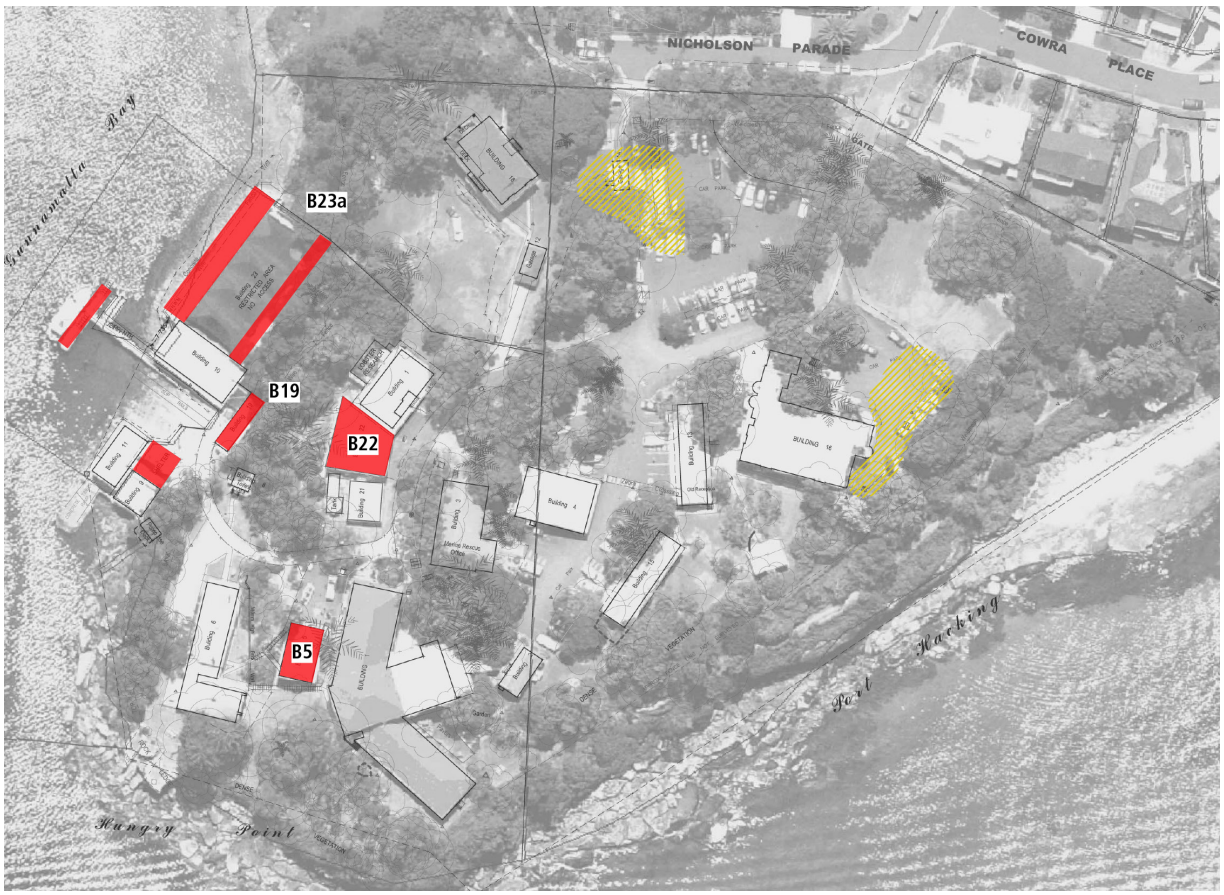
Existing road network

Road during period

Parking area constructed in current period

B1a	Former CSIR Fisheries Laboratory, extension 1960
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B8	Toilet Block 1984
B9a	Cooler Shed 1930-40, Demolished Rebuilt 1984
B12	Garage 1971
B14	Storage 1961
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971

Figure 2.4.5	2017	Construction on site 1985-2001	Architectural Projects



Buildings from the period - existing

Buildings from the period - demolished

Existing road network

Road during period

Parking area constructed in current period

B5	Field Store 1940 Demolished Rebuilt 1984
B19	Dive Store 1994
B22	Boat Storage/Generator Slab 2010
B23a	Aquaria, Fish Pond, Additions 1985

2.5. HISTORICAL THEMES

The site has been assessed in comparison to the Historic Themes devised by the Office of Heritage.

NATIONAL	STATE	LOCAL	ABILITY TO DEMONSTRATE THE THEME
Tracing the natural evolution of Australia	Environment – naturally evolved	• Rock outcrops • Threatened species	The rock outcrops and substantially unaltered coastline on the eastern and southern shore of the Hungry Point Site together with remnant vegetation, notably the threatened species Villous Mintbush, are able to evidence this theme.
Peopling Australia	• Aboriginal cultures and interactions with other cultures • Migration	• Evidence of Gwaegal occupation • Early encounters • Post WWII Migration	The Hungry Point Site provides material evidence of past Gwaegal occupation through burial sites, midden deposits and rock shelters on the site. It is considered to be part of the area where Matthew Flinders camped and made contact with Aboriginal people. The site has the ability to reinforce this theme. The theme of migration is demonstrated at Hungry Point in surviving migrant residential Buildings 13 and 15.
Developing local, regional and national economies	• Exploration • Fishing • Industry • Science	• Bass and Flinders • Fisheries Research • Hatchery • CSIR/CSIRO/ Biology/ Fisheries Research	The theme of exploration is best demonstrated at the nearby Bass and Flinders Point. Explorers George Bass and Matthew Flinders camped adjacent to the 'Fisheries Site' at (presumably) Salmon Haul Bay in 1776. The walkway around the point to the west from Bass and Flinders Point to Salmon Haul Bay, and around the Fisheries Site interprets this theme. The Site has the ability to demonstrate the Fishing, Industry and Research themes through the Fisheries research buildings and marine archaeological sites including the Hatchery, Aquarium, boatsheds and header tanks, wharf and the CSIR buildings.
Building settlements, towns and cities		• Migrant Camp Accommodation	Ability to demonstrate the theme: Remnant migrant accommodation buildings, Buildings 13 and 15, and their landscape settings have the ability to demonstrate the theme of Accommodation/Migrant Camps on the site.

NATIONAL	STATE	LOCAL	ABILITY TO DEMONSTRATE THE THEME
Working	• Labour	• Fisheries, CSIR, CSIRO	Ability to demonstrate the theme: The theme of Labour is demonstrated at Hungry Point by the Fisheries, CSIR and CSIRO buildings and particularly the training buildings.
Educating	• Education	• Fisheries Research, University of Sydney, Training, Cronulla Fisheries School	Ability to demonstrate the theme: The theme of Education is demonstrated at Hungry Point by the Fisheries, CSIR and CSIRO research buildings and particularly the Fisheries School buildings 10 and 7.
Governing	• Defence • Government and administration • Law and order	• Reserve for Defence • NSW and Commonwealth Fisheries CSIR/ CSIRO • Cronulla Fisheries School and Migrant Camp • Water Police	Ability to demonstrate the theme: The Hungry Point Site demonstrates the theme of defence as part of Cronulla peninsula, reserved for defence in 1861. The Hungry Point Site demonstrates the theme of Government and Administration through the activities and buildings of the NSW and Commonwealth Fisheries CSIR/CSIRO, Cronulla Fisheries School and Migrant Camp. The Water Police building demonstrates the theme of Law and Order on the site.
Developing Australia's cultural life	• Domestic life • Leisure	• Migrant Camp • Recreational Fishing	Ability to demonstrate the theme: The Hungry Point Site has the ability to demonstrate the domestic life in Migrant Camp through Buildings 13 and 15 and their landscape setting. The theme of Leisure and Recreational Fishing is demonstrated on the site at archaeological site MA 9 Steps and wharf used for recreational fishing.
Marking the phases of life	• Persons	• Dannevig, Stead, Thompson	Ability to demonstrate the theme: The site evidences associations with important persons Dannevig, Stead in the buildings and landscapes of the 1904 precinct, and by and Thompson in the CSIR buildings of the 1930s and 1940s, particularly Building 1 the CSIR offices.

3. PHYSICAL ANALYSIS

3.1. DESCRIPTION OF THE SITE

The site is located at Hungry Point, the southernmost tip of the Cronulla Peninsula. The Peninsula forms the southern head to Port Hacking and includes numerous Aboriginal sites. Beyond the site to the north lies Cronulla residential subdivisions and Darook Park. Salmon Haul Reserve is north-east of the site.

The site comprises three acres and three allotments.

The study area is underlain by Hawkesbury Sandstone slopes and ridges of the Woronora Plateau, and is located within the Gymea Soil Landscape.

The vegetation of the site contributes to the natural vegetated character of the point, and provides a landscape setting and backdrop which dominates the buildings as viewed from the east (Figure 3.1.1) and the south (Figure 3.1.2). On the west the buildings sit at the waterside.

Eleven historical archaeological sites have been identified at the Hungry Point site, and these are primarily maritime sites relating to the establishment of the Fisheries from 1902, although the Historic Survey Marker (MA10) predates this. (Figure 3.1.4)

There are 22 buildings on the site dating from 1902 to 2010. Chemical Store (Building 17) shown on the Harley 2012 site plan (Figure 3.1) was demolished in 2013 leaving 22 of the original 23 remaining.

The site is secured by 2m high fencing and includes substantial areas of car parking on the north near Nicholson Parade and along the ridge. The lower western side of the site (Hatchery precinct) is accessed by a steep driveway. A footpath extension of the esplanade continues part way along the north-eastern shore within the allotment.

The topography of the site varies greatly with natural surface levels between 0-22.5 metre above MHWM. The site is well vegetated and the number of buildings on the site is far less than earlier periods (Figure 3.3). The site falls from the Nicholson Parade entrance, and the crest between records (Building 4) and Migrant Hostels (buildings 13 and 15); and coastal fringe feature sheer rock faces and steep lawn areas.

The climate in the locality of Hungry Point is temperate, with warm summers and mild winters, with temperatures moderated by the proximity to the ocean. Rainfall is generally spread evenly throughout the year, with a small increase in the period from March-June. The site is subject to strong winds from the ocean on the eastern side, while the west facing slopes are protected.

3.2. THE ABORIGINAL HERITAGE POTENTIAL

A high quantity of shell material was observed throughout the site, despite the construction of various buildings and car parking areas across the Hungry Point Reserve. This included Aboriginal midden material in both disturbed and undisturbed contexts, as well as redeposited shell in garden beds and as reintroduced fill for the installation of services.

Midden deposits have been extensively disturbed and destroyed in some places, with evidence of significant ongoing threat from natural and human-induced erosion. The midden deposits are particularly concentrated and visible on top of sandstone shelves overlooking the Port Hacking River and the coves of Salmon Haul Bay and Gunnamatta Bay.

No pigmented or engraved art was observed during the site survey undertaken in 2014, though it should be noted that rock shelters, cliffs and stone overhangs below the Reserve's boundaries were not inspected.

Limited numbers of mature trees with potential to contain cultural scarring were present within the study area, and none of the mature trees inspected contained evidence of cultural scarring by Aboriginal people.

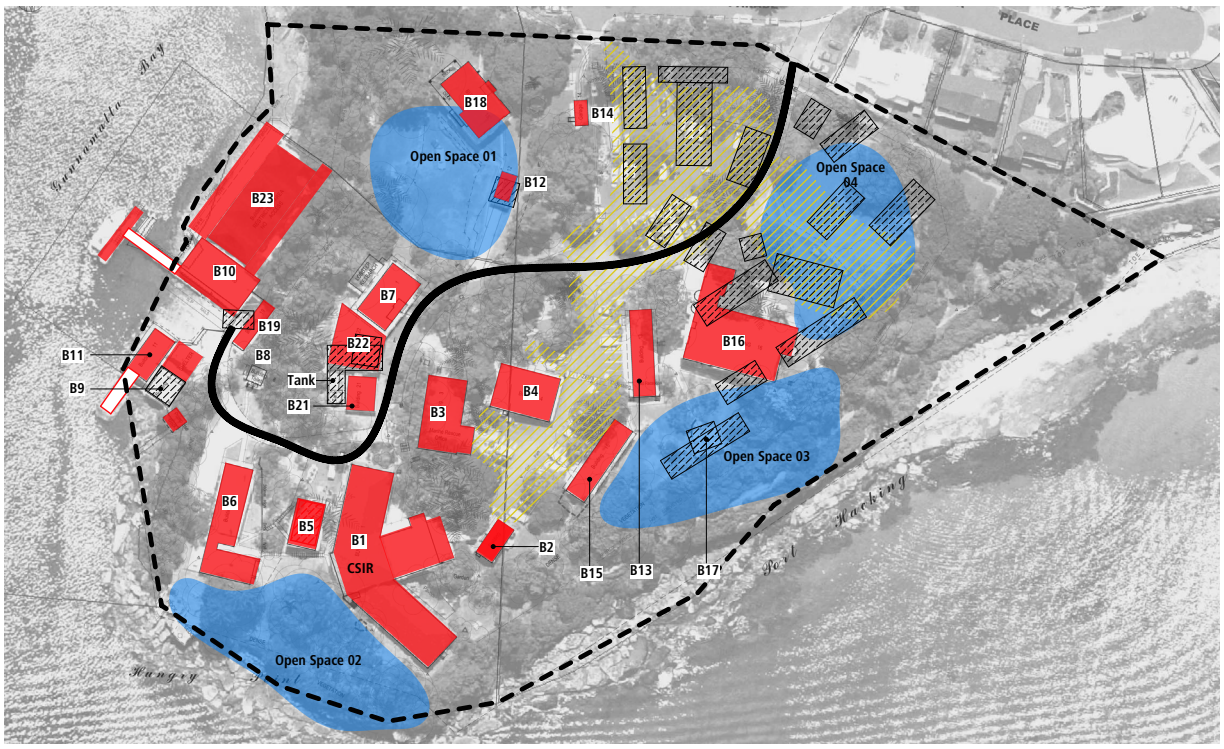
No Aboriginal place names have been identified.

Given the profusion of midden and other sites within the study area and surrounds, and the likelihood that further subsurface archaeological evidence is present throughout the landform, the entire peninsula is considered to be an area of cultural and archaeological significance in which recorded sites are visible and interacting indicators of this significance.

Trenches excavated by Haglund 1977 along the eastern foreshore. Site CB15 (east of Building 15), observed an Aboriginal burial and grinding grooves. (Haglund 1977).

Refer Australian Museum Consulting Aboriginal Heritage Assessment 2017 at Attachment A for description of each site.

Figure 3.1	2012	Site identification plan	Architectural Projects



Buildings - existing

Buildings - demolished

Original 1904 track

Open Space

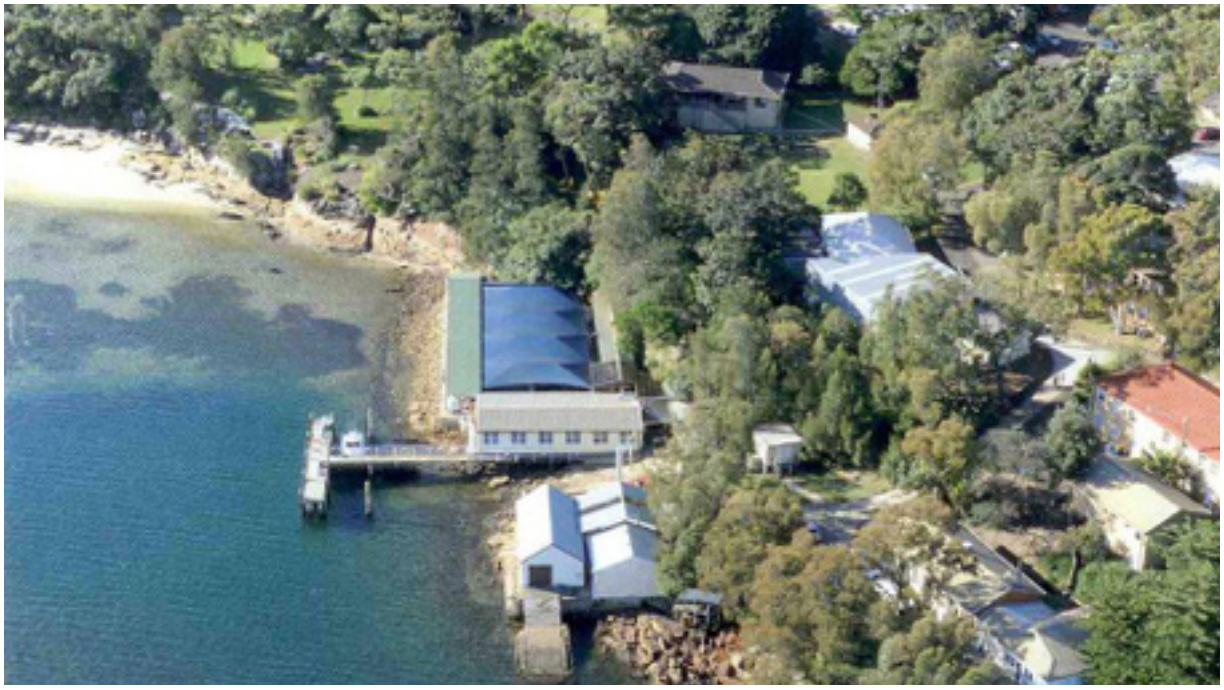
Paved Areas

Site Boundary

B1	Former CSIR Fisheries Laboratory 1939	B12	Garage 1971
B2	Computer Room 1940	B13	Former Migrant Hostel 1949-67
B3	Conference Room/Licensing 1950/1955	B14	Storage 1961
B4	Records and Files 1960	B15	Former Migrant Hostel 1949-67
B5	Field Store 1940, Demolished Shed 1985	B16	Commercial Management 1970
		B17	Chemical Store (demolished) 1970
B6	Former Hatchery 1904	B18	Residence 1971
B7	Water Police/Fisheries School 1943	B19	Dive Store 1994
B8	Toilet Block 1984	B20	Pump Shed
B9	Demolished Cooler Shed 1984	B21	Header Tank (Refer Also MA6) 1904
B10	Former Fisheries School, Laboratory 1946	B22	Boat Storage/Generator Slab (Note: 2 buildings)
B11	Boat Shed 1904	B23	Aquaria, Fish Pond 1904

Figure 3.1.1	2015	Hungry Point, from the east showing vegetation of eastern slopes	Sutherland Shire Council

Figure 3.1.2	2016	Hungry Point, from the south showing vegetation of western slopes	The Leader, 2 November 2016



3.3. LANDSCAPE ASSESSMENT

3.3.1. LANDSCAPE CONTEXT

There are significant turfed open space areas adjacent to Residence (Building 18) (open space 1) relating to the former Caretaker's Cottage (A1) Archeological Sites, and adjacent to Hatchery (Building 6) (open space 2) with cultural plantings (Figure 3.3). The site of demolished Chemical Store (Building 17) has retained the slab (open space 3) and contributes to the setting for Migrant Hostels (Buildings 13 and 15) of the migrant period (Figure 3.3.2). The house (Building 18) is framed by Port Jackson figs (Figure 3.3.3). Another large turfed area has evolved north west of Commercial Management (Building 16) however this area was vegetated until the 1950s (open space 4) and has little historic significance.

The study area is underlain by Hawkesbury Sandstone slopes and ridges of the Woronora Plateau, and is located within the Gymea Soil Landscape. The Gymea Soil Landscape is characterized by sandy infertile soils and large areas of exposed rock outcrop.

Vegetation

The existing vegetation is a combination of remnants from the original plant communities, planted trees and shrubs and the introduction and establishment of weeds. The site has a long history and it is sometimes difficult to distinguish whether indigenous specimens are naturally occurring or whether they were planted.

Aspect has largely influenced the vegetation communities on the site. On the sheltered central and north-west slopes the existing species suggest the original vegetation was littoral rainforest dominated by Port Jackson (*Ficus riubiginosa*) and Tuckeroo (*Cupaniopsis anacardioides*). The presence of Kangaroo Vine (*Cissus antarctica*), Native Guava (*Eupomatia laurina*) and Bastard Rosewood (S*ynoum glandulosum*) (Figure 3.3) also confirm a littoral rainforest vegetation type. Littoral rainforest is listed as an Endangered Ecological Community (EEC) under the NSW Threatened Species Conservation Act 1995. It is noted that nearby Darook Park contains littoral rainforest vegetation as evidenced in the area below Hatchery (Building 6) adjacent to the car park. (Figure 3.3.4).

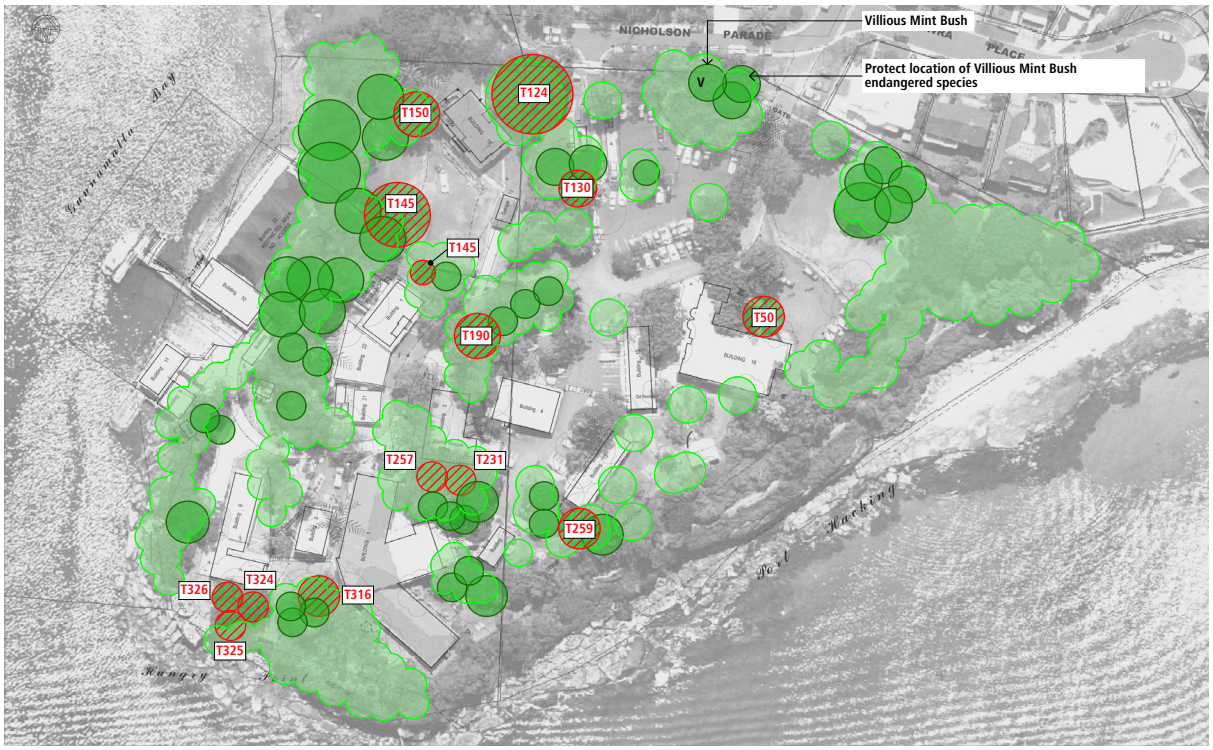
Around the south and easterly aspects of the site vegetation is exposed to strong salt laden winds. Soils here are also shallow above the cliffs. In response to the difficult conditions trees and shrubs are stunted, lean against the wind and have more dieback. The dominant vegetation community in these areas is coastal escarpment low banksia/casuarina forest dominated by Coastal Banksia (*Banksia integrifolia*) and Swamp Oak (*Casuarina glauca*). (Figure 3.3.5).

A single Villous Mintbush (*Prostanthera dens*a) plant was observed in an area of vegetation in the northern central part of the site. (Figure 3.3) The small plant which rarely reaches a metre is until now only known to exist at Salmon Haul Reserve 400m to the east of the Fisheries Site. Prostanthera densa is listed as vulnerable to extinction on both the NSW Threatened Species Conservation Act and the Commonwealth Environmental Protection and Biodiversity Conservation Act.[68]

There are a large number of weed species on the site including Canary Island Palm *(Phoenix canariensis)* (Figure 3.3.8) and Coral Tree (*Erythrina x sykesii*).Approximately 45% of the site area is built or hard surfaces, leaving 55% of the site vegetated.

68. Sutherland Shire Council, "*Tree Survey: The old NSW Fisheries site, Hungry Point Cronulla*", 2013.

Figure 3.3	2012	Significant Landscape Elements	Architectural Projects



Littoral forest (Ficus rubiginosa), Cupaniopsis anacardiodes canopy

V Villious Mint Bush Location

T_ Significant Tree, cultural planting

Remnant Vegetation

T50	Washington Palm (*Washington robusta*)
T124	Port Jackson Figs (*Ficus rubiginosa*)
T130	Port Jackson Figs (*Ficus rubiginosa*)
T141	Frangipani (*Plumeria acutifolia*)
T145	Mature Canary Islands Palms (*Phoenix canariensis*)
T150	Port Jackson Figs (*Ficus rubiginosa*)
T190	Port Jackson Figs (*Ficus rubiginosa*)
T231	1 x Tuckeroo (*Cupaniopsis anacardioides*)
T257	Mature Canary Islands Palms (*Phoenix canariensis*)
T259	Port Jackson Figs (*Ficus rubiginosa*)
T316	Port Jackson Figs (*Ficus rubiginosa*)
T324	3 x Norfolk Island Pine (*Araucaria heterophylla*)
T325	3 x Norfolk Island Pine (*Araucaria heterophylla*)
T325	3 x Norfolk Island Pine (*Araucaria heterophylla*)

2014 | Landscape Elements | Architectural Projects

Figure 3.3.1 Cultural plantings and open space near Building 6 (T324, 325, 326)

Figure 3.3.2 Open area at site of demolished Building 17

Figure 3.3.3 Open space and Port Jackson figs frame building 18 (T150)

Figure 3.3.4 Remnant littoral forest adjacent to carpark

Figure 3.3.5 Swamp Oak (Casuarinas) dominate vegetation on coastal fringe

Figure 3.3.6 Significant *Ficus rubiginosa* north of Building 18 (T124)

Figure 3.3.7 Significant Mature figs adjacent to Building 15 (T259)

Figure 3.3.8 Self seeded Canary Island Palm (weed species) (T257)

3.3.2. LANDSCAPE ANALYSIS

Scenic and visual qualities

Views and vistas form an important part of the experience of the site; internal views within the boundaries of the place, and external views beyond the boundaries are considered.

Hungry Point is an important Headland with strong physical relationship with Burraneer and Cabbage Tree Point Bundeena across Port Hacking.

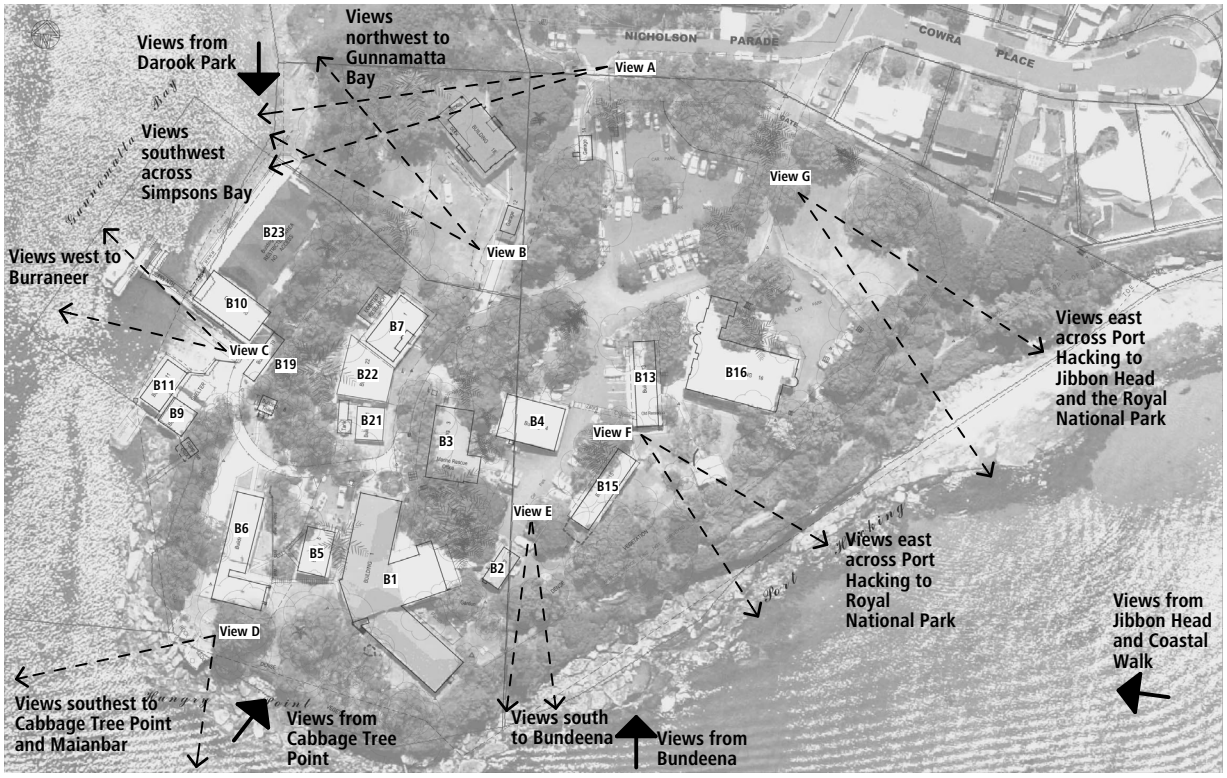
There are significant views from the site to the south, east and west (Refer Figure 3.3.9 Significant views). There are no documented historic significant views from site, however the secluded nature of the site and specific views available since occupation would support their importance. The first thing a visitor to this site notices is the views. Some views are between buildings and others are across lawn vistas or under trees. Figure 3.3.9 shows the view corridors to be maintained and enhanced.

The wharf and Aquaria provide panoramic views across Gunnamatta Bay to Burraneer, and up the Hacking River (Figure 3.3.13). Elevated grassy areas on the eastern side of the site in the vicinity of Building 16 (Open Space 4) and demolished Building 17 (Open Space 3), provide views to the east along the fence line and public walkway along the eastern escarpment provided extensive views to the east and southeast across Port Hacking to Jibbon Head and the Royal National Park (Figure 3.3.17). The rear of Building 6 and Former CSIR Fisher Laboratory (Building 1) define a secluded grassed area historically known as the secret fishing spot (Open Space 2), with panoramic views across Port Hacking to Bundeena, Cabbage Tree Point, Cabbage Tree Basin to Constables Point. (Figure 3,3,14). Framed views of Gunnamatta Bay from the open space in the vicinity of Buildings 12 and 18 (Open Space 1, refer Figure 3.3) date from the Hatchery period (Figures 3.3.11, 3.3.12). Views to Bundeena and the south are obtained from the high point of the site near Computer Room (Building 2) (Figures 3.3.15 and 3.3.16).

These views frame views of the Port Hacking and surrounds with vegetation and enhance the visitor experience.

There are significant views to the site from Bundeena and Burraneer and from the Hacking River.

Figure 3.3.9	2017	Significant views	Architectural Projects



Views out from site

Views towards the site

Photographs of significant views are as follows:

Figure 3.3.10 View A – Public view from Nicholson Parade across site to Gunnamatta Bay since 1950s
Figure 3.3.11 View B – Historic view from open lawn looking west to Burraneer since 1904
Figure 3.3.12 View B – Historic view from open lawn looking north west to Burraneer since 1904
Figure 3.3.13 View C – Historic view looking north west across Gunnamatta Bay from hatchery since 1904
Figure 3.3.14 View D – Historic view looking to Port Hacking and Cabbage Tree Point from hatchery since 1904
Figure 3.3.15 View E – Historic view from ridge of site looking south, since 1930
Figure 3.3.16 View F – Historic view from site since 1930s and migrant hostel since 1950
Figure 3.3.17 View G – Historic view from entry looking south east across Port Hacking since 1967

2016 | Significant Views from the site

Architectural Projects

Figure 3.3.10 | View A

Figure 3.3.11 | View B

Figure 3.3.12 | View B

Figure 3.3.13 | View C

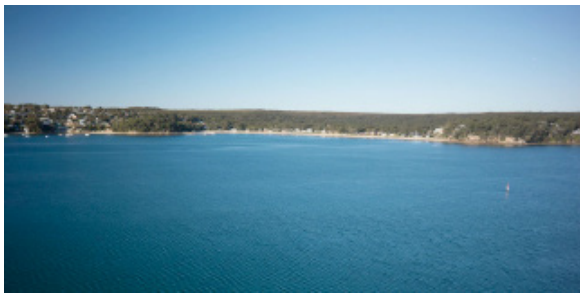


Figure 3.3.14 | View D

Figure 3.3.15 | View E

Figure 3.3.16 | View F

Figure 3.3.17 | View G

3.4. DESCRIPTION OF THE ARCHAEOLOGICAL POTENTIAL

The site includes 11 identified archaeological sites. Fig 3.4 These sites have been assessed by Cosmos Archaeology and the full findings of their study are included in the inventory sheets Section 8. The sites include cultural land and marine archaeological sites, and have been grouped according to the period of development of the site to which they relate.

The sites examined for the purpose of this report include all potential sites relating to the site's aquatic research uses and other sites identified following the historical analysis of the site and its early use.

Archaeological Potential Overview

Archaeological Potential is the degree to which archaeological remains are considered likely to survive within the study area in light of modern impacts. The archaeological potential of an area depends on the historic uses of the site, its archaeological context and other factors including previous impacts. This section will present additional material relating to the historical archaeological remains of the eleven historical archaeological sites have been identified within the study area, and a discussion and assessment of the archaeological potential of the study area.

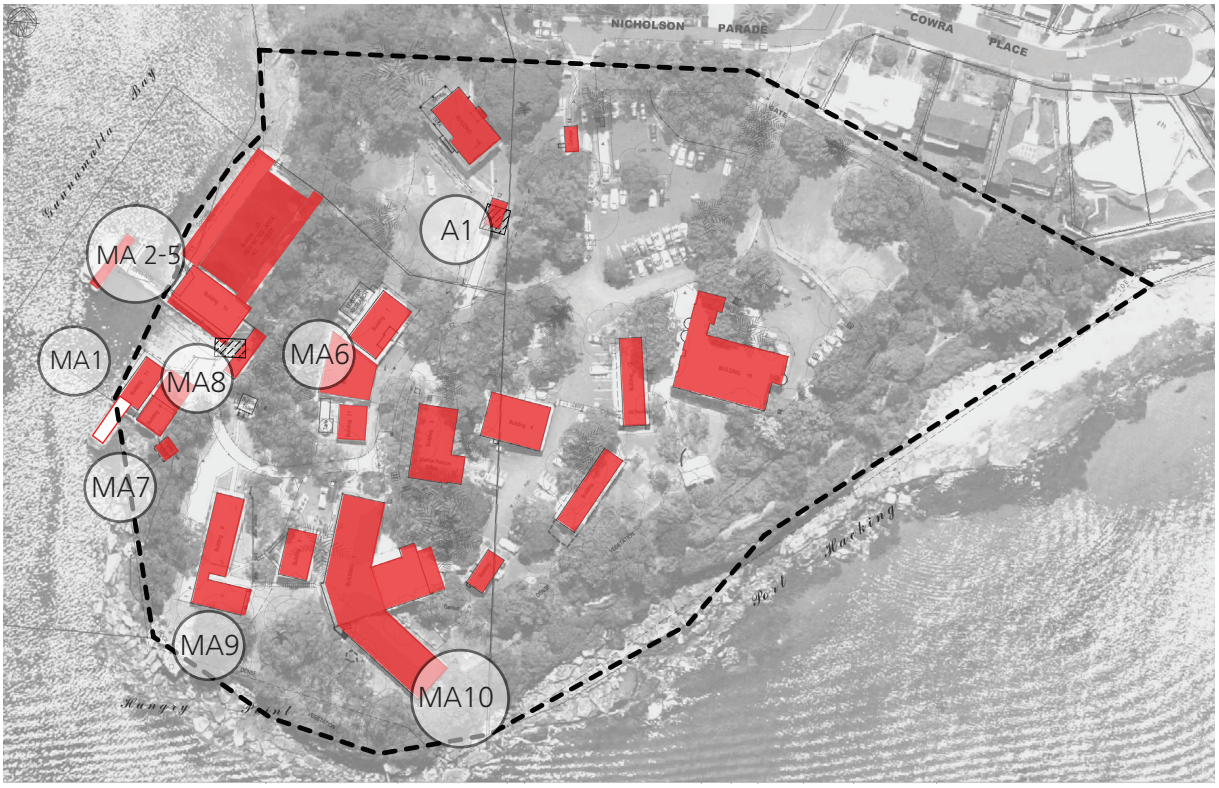
The site was a Government Reserve since 1861 and there is no evidence to suggest that the site was occupied by Europeans prior to the establishment of the Fisheries on the site in 1902-4, however the Historic Survey Mark (MA10) predates this period and is assessed below. The 1904 plan of the Hatchery Site shows the location of features of the site at this time, including elements that are now demolished. The site of the Former Caretaker's Cottage (A1), the Former Boatshed (M3), Maritime Infrastructure for Boatshed Building 11 (MA1), the Header Tank Former Water Wheel/Pump (MA6), and Stone Steps (MA8) are shown on the 1904 plan and are considered individually below. The c1920 Slipway (MA2) and the 1920s Police Boatshed (MA4), date from the next period 1915-1937 (NSW GOVERNMENT), and are assessed below. The Stone Steps, Former Wharf (MA9) and the c1945 Jetty (MA5), are remnants from the 1938-1949 (FISHERIES/MIGRANT HOSTEL) period while the Marine Structure (MA7) represents the period 1950-1987 (CSIRO), both of which are key periods of significance in the development of the site.

Archaeological Context

Few historical archaeological investigations have been undertaken in the vicinity of the study area. The shire-wide 1993 report by E. Higginbotham identified the Fisheries Research Institute (Hungry Point) Item 36 in a schedule of Archaeological Inventory Items. The report surveyed and recorded the site. The site is identified under the theme of industrialisation and notes: *"Industrial archaeology: Historical archaeology also embraces· Industrial Archaeology, which studies both, traditional and industrial technology, or the archaeology of the work place. Technology represents an increasingly sophisticated adaptation and response to the exploitation of the environment and its resources."* Specifically about the site it notes: *"Related to exploitation of marine resources, the Fisheries Research Institute site represents scientific research into fish breeding. The institute was established at Cabbage Tree Point in 1904, but moved to Hungry Point in 1911."*[69]

69. Sutherland Shire Heritage Study Specialist Reports, Historical Archaeology. Volume 4. Perumal Murphy Wu Pty Ltd., Sutherland Shire Council, 1993.

Figure 3.4	2018	Location of archaeological sites investigated	Architectural Projects



LEGEND

A1	Site of former Caretaker's cottage (1904)
MA1	Building 11 – Maritime Infrastructure 1904
MA2	Slipway (c1920)
MA3	Former Boatshed 1904
MA4	Police Boatshed 1920-1978
MA5	Jetty 1945
MA6	Header Tank, former Water Wheel/Pump 1904
MA7	Marine Structure 1961
MA8	Stone steps 1904
MA9	Stone steps, Wharf 1940
MA10	Historical Marker 1880s

Historical Context

The site has the potential to contain archaeological remains from a number of key periods which are identified in Section 2.2 as Aboriginal Occupation (pre-1902), Establishment of Hatchery (1902-1914), NSW Government (1915-1937), CSIR Fisheries Investigations Fisheries School and Migrant Hostel (1938-1949), and the CSIRO (1950-1984).

Physical material related to later periods is not considered to have archaeological research potential due to the relatively modern date and nature of construction and the availability of other sources of information.

Potential Historical Archaeological sites Archeological sites and Marine Archeological Sites 1-10 and are considered within this historical framework.

PERIOD	BUILDING	
Pre-1902	MA10	Historical Marker
1902-1914	A1	Site of Former Caretaker's Cottage
	MA1	Building 11 1904 Boatshed Maritime Infrastructure
	MA3	Former 1904 boatshed
	MA6	Header Tank, former Water Wheel/Pump
	MA8	Stone Steps
1915-1937	MA2	c1920 Slipway
	MA4	1920s Police Boatshed
	MA5	Jetty
1938-1949	MA9	Stone Steps, Wharf
1950-1987	MA7	Marine Structure
1985-2011	–	No sites identified

Assessment of Archaeological Potential

The following assessments which include a brief history, description and assessment of archaeological potential and significance for each of the 11 identified sites, were undertaken by Cosmos Archaeology for inclusion in this CMP. (Inventory Sheets are included at section 8). The assessments are considered in chronological groupings, relating to the period of construction.

3.4.1. PRE-1902 (PRE EUROPEAN SETTLEMENT)

MA10 – Historic Survey Mark

The survey mark is known by its Roman numeral name XXXII. This mark was placed during the 1800s and is a historic survey mark. There is also another mark located on a rock platform to the south-west of the Bass & Flinders Memorial which is known as XXXIV. There is a number engraved in the rock as '32' and not 'XXXII'. Some of the marks in the series around Port Hacking shoreline do not display an identifying number.[70] Fig 3.4.1

70. Brian A Myers email correspondence, Sutherland Shire Council.

The Historic Survey mark is located approximately 5m to 6m south-west of the southernmost corner of the main building on Hungry Point. The Historic Survey Mark indicates the Roman numeral co-ordinates. The Historic Survey Mark is slowly being covered over by grass. (Figure 3.4.1) The Historic Survey Mark is considered to be in a poor condition as the engravings have worn away and appear faded. The Historic Survey Mark is considered to be intact.

The Historic Survey Mark relates to the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, and is considered to be historically significant at a local level.

3.4.2. 1902-1914 (FISHERIES)

A1 – Site of Former Caretaker's Cottage

The Former Caretaker's Cottage was located in the northern part of the site. The 1904 survey of the site shows a building of rectangular footprint of approximately 8 x 10m in size, oriented north-south. The survey also shows a verandah on each of the north and south faces and the outline of an area marked 'excavated for drainage'. It is described in 1939 as being... *"Built of hand-made bricks specially brought from England, bound together with English cement… The bricks are hollow and made of red clay. They are quite different from the usual household brick, being of peculiar shape, each having a tongue which fits into the adjoining brick. All walls of the cottage are of single brick width only, yet the whole structure is absolutely weather-proof."* These unusual bricks described above may be E.L. Drew's interlocking hollow brick, also used at the Hatchery (Building 6). The site of the Former Caretaker's Cottage contains a low drystone retaining wall on the western side of the existing driveway, originally used to create the level ground. The area currently contains a brick storage shed that has been built on a floating slab, and a driveway. Underground water and telecommunication lines have also been installed on the western side of the driveway. The area as a whole does not appear to have been significantly disturbed. As such, there is a high potential for archaeological relics associated with the Former Caretaker's Cottage to be present. A mature date palm is located to the west of the former cottage site, with another low drystone wall to the north of the site. Based on the 1904 plan, no other buildings were constructed in this area. Aerial photographs from 1930 show formal gardens present to the north, west and south of the cottage are still there. It is possible that additional ancillary buildings may have been added to the site, such as sheds, however, these do not appear on any plans or aerials. (Figures 3.4.2 and 3.4.3) Archaeological relics associated with the Former Caretaker's Cottage site are likely to be present and in good condition. The archaeological site is expected to contain foundation and possible subfloor deposits. These archaeological deposits are considered to be relatively intact, with minor impacts from the construction of the current driveway and brick storage building.

The Caretaker's Cottage is associated with the historical early establishment of the Fisheries site at Hungry Point. Relics are likely to be present on the site, and would relate to the household and works of the former caretaker and his family at the site. As such the area is an archaeological site and the relics are considered to be significant at a local level.

MA1 – 1904 Maritime Infrastructure Boatshed (Building 11)

One of two boatsheds present in 1904, the boatshed (Building 11) extant, included two slipways, one built on the southern side of the building (still present at the time of this survey) and another built on the western side of the shed. During the 1940s mooring dolphins and a short jetty were added to this western side of the boatshed on the southern side of the slipway. All maritime infrastructure items built

on the western side of the boatshed were removed by 1960. Maritime infrastructure associated with the 1904 boatshed (Building 11) were removed by 1960 and are no longer present. The slipway and short jetty present on the western side were built over a natural rock platform. This survey was conducted during low tide and did not find any evidence of posts or postholes present. It is possible that remains of the mooring dolphins are present on the seabed only. (Figure 3.4.4) No physical remains of the former slipway or short jetty are present on the site. Potential remains of the mooring dolphins (timber piles) may exist on the seabed and would be expected to be in poor condition.

Limited archaeological remains are expected to be present associated with the maritime infrastructure sites associated with the western side of the boatshed (Building 11), specifically with the mooring dolphin. This infrastructure and any associated relics are not considered to have scientific or research value.

MA3 – Former 1904 Boatshed

The 1904 plan of the site indicates that there were two boatsheds present, one located to the northeast of the Hatchery Building (Building 11) and one located between the Hatchery Building and the Tidal Pond (annotated as *"Old Boat Shed"*). This boatshed was built between 1902 and 1904, but was removed in 1904. The former Boatshed was demolished 1904, and was situated at the eastern end of the slipway, underneath the Dive Store (Building 19). The ground level around the Dive Shop building has been raised by approximately 0.9m, with the Dive Shop likely to have been built on the ground level similar to the ground level of the Former Boatshed. The 1904 Boatshed was likely a timber framed structure that was present over the top of the eastern end of the slipway, indicating that it was a light-weight structure. No archaeological remains associated with this boatshed are expected to be present underneath the Dive Shop building. (Figure 3.4.5)

No archaeological remains are expected to be present associated with the Former 1904 Boatshed.

MA6 – Header Tank Former Water Wheel/Pump (Refer Also Building 21)

The structure referred to as the header tank appears to be the original storage tank shown on the 1904 survey. The tank was used to store sea water which had been pumped from the bay. It was then distributed around the site to various locations where it was required. A valve associated with the tank is located down the slope from the tank. It has been refurbished and enclosed but is not in current use. The header tank is an open, rectangular, concrete tank of 8.57 x 7.1m in size. It is built into the ground with a low wall (approximately 0.5m) projecting about the ground level. A colorbond clad shed with a flat roof, no windows and roof ventilation covers over the header tank. Towards the southeast, between the storage tank and the Hatchery Building and immediately above the cutting for the access road, are the remains of a brick and timber inspection portal that houses a valve for the former 3" overflow pipe. This pipe connects with the water pipe to the Hatchery Building. The portal is approximately 1.2m long and 0.6m wide and is cut back into the slope of the hill. The location of the former water wheel at the back of the header tank behind the *"1904 Boat Shed"* (MA3), is currently overgrown with grass and vegetation and was not visible. (Figures 3.4.6 and 3.4.7) The header tank is considered to be in good condition. The water wheel structure, if present, is not likely to be intact due to tree root damage. The header tank can be considered to be intact, beneath the colorbond shed. The water wheel, if present, is less likely to be intact due to the number of tree roots present in the locality.

The header tank and former water wheel/pump are key functional structures of the former fisheries complex c1904 and as such are considered to be of state significance.

MA8 – Stone Steps (near Building 11)

The steps are indicated on the 1904 survey and provided access from the hatchery to the boatshed and aquaria. The stone steps are carved out of the rock platform to the east of the boatshed building (Building 11). They are covered over by vegetation and are not visible. These steps are likely to be intact as they were carved out of stone.
While the steps are not key structures of the former fisheries complex, they are important evidence of the layout and function of the 1904 fisheries establishment and have significance at a local level.

3.4.3. 1915-1937 (NSW GOVERNMENT)

MA2 – c1920 Slipway

The 1904 plan of the site indicates that there were two boatsheds present, one located to the northeast of the Hatchery Building (Building 11) and one located between the Hatchery Building and the Tidal Pond (annotated as *"Old Boat Shed"* and known as MA3 in this inventory). The slipway was added sometime around c1920. The slipway consists of two iron girders spaced 1.8m (6 ft.) apart running on an east-west orientation. The remains of the slipway extend into the water and the visible extent of the slipway is approximately 16m long. The eastern end of the slipway has been built over with the current walkway surrounding the Diving Store (Building 19). Between the girders are timber sleepers, 0.18m wide that are irregularly spaced between 0.4m and 0.7m apart. Recent repairs to the slipway has seen both the inside and outside sections of the slipway encased in aggregate concrete, including sections that were underwater at the time of the survey. The girders are still present above the concrete repair work, but have degraded. (Figures 3.4.9 and 3.4.10) The slipway appears to be in poor condition but intact.

The slipway is a significant element dating back to the NSW Government period of the Fisheries Site, and is considered to be of significance at a local level.

MA4 – 1920s Police Boatshed

After the initial construction of two boatsheds in 1904, this additional boatshed was built during the c1920s. This boatshed was built immediately on the northern side of the 1904 boatshed (Building 11) and included a slipway and shed built directly on top of the natural rock outcrop present. This boatshed is later associated in the 1950s as being a weatherboard police boatshed, and was removed from the site by 1978.

The c1920s boatshed and slipway was constructed on the northern side of the boatshed (Building 11), between this building and the slipway, and was removed from the site by 1978. The structure was likely a ceramic and concrete pile built directly onto the rock platform present. No archaeological remains of the boatshed were visible during the survey of this site (conducted at low tide). The slipway was present in front of (to the west of) the building and extended out into the rock rubble area in front of this rock platform. No physical remains of piling or other structural remains associated with a slipway were visible. (Figures 3.4.11 and 3.4.12) No archaeological relics are expected to be present on this site.

No archaeological remains are expected to be present associated with the c1920 boatshed and slipway.

MA5 – c1945 Jetty and Current West Jetty

The first jetty constructed on the site was at the same time as the wet laboratory (Building 10) in c1945. By 1978 the jetty had been upgraded to include six mooring dolphins (three each side) were added to the end of the jetty to create a "T" head. This allowed for larger vessels to moor off the end of the jetty in deeper water. The jetty was demolished and replaced between 1985 and 1994 with the Current Jetty. Very few physical remains of the c1945 to c1990s jetty are present on the site. A section of cut down piles are visible from the current jetty on the seabed. There is the potential for maritime archaeological remains associated with this former jetty, being cut down piles, and possibly relics that have been accidently dropped or discarded from this jetty to be present, however, these are likely to be limited in regards to quantity and research value given the limited use of this jetty. (Figure 3.4.13)

The present day jetty is "T" shaped and consists of a combination of concert (landward end) and metal (seaward end) piles. The metal piles have been cast into a concrete headstock that supports the 1.5m wide concrete deck. A timber panel breakwater system is present along the northern side of the walkway and on the outside (western side) of the "T" section underneath the deck. The "T" section of the jetty includes 11 "Koppers" pile bollards, six on the inside of the "T" section and five on the outside of the jetty. The six inside piles support the mooring system for vessels that berth inside the "T" section and act as fenders. The five outside piles also have additional timber attached to them to act as a fender system. Timber steps are also present on the inside of the "T" section of the jetty. (Figure 3.4.8) The jetty appears to be in good condition. The remains of the cut down piles associated with the earlier c1945 jetty are likely to be in poor condition. The jetty appears to be substantially intact.

The current jetty is not considered to be significant as it was built between 1984 and 1994. Limited archaeological potential associated with the c1945 jetty is expected to be present but is not likely to have any archaeological research value.

3.4.4. 1938-1949 (FISHERIES/MIGRANT HOSTEL)

MA9 – Stone Steps, Former Wharf

The wharf appears on aerial photos from the 1940s, and it can be assumed that the steps are contemporary with the presence of the wharf. The steps and wharf/landing were used almost exclusively by three friends, Dennis Stratford, Brian McClenaughan and Joseph Hatton. It is not known why these three people were given access to the controlled site. The wharf/landing appears to have been removed by the 1950s.

The steps have been formed using concrete aggregate and are set into a crevice in the natural rock platform. There are two flights of stairs, the first set consist of 10 concrete formed steps leading from the top of the site down to the top of a rock overhang. A second series of steps leads from the rock landing down to the water's edge. Approximately 3.5m in front of the last step is a concrete footing, used for the wharf platform. (Figures 3.4.14 and 3.4.15) The steps are in good condition, however the bottom two steps along the water's edge have deteriorated through water and wave action. The concrete foundation is in poor condition. The steps are considered to be intact. The wharf/landing is damaged with the decking missing.

The remains of the steps relate to an association between three local residents who were given permission to use the site for recreational purposes and does not relate to the actual running of the Fisheries or later CSIRO site.

Two memorials to the three fishermen have been placed into the rock on the first landing. The steps and the concrete footing are not considered to be of research value.

3.4.5. 1950-1987 (CSIRO)

MA7 – Marine Structure

This structure first appears on a 1961 aerial photograph. Built over the rocky outcrop to the east of the boatshed (Building 11), the structure may have been associated with a trolley system or a narrow jetty/gantry used to load or unload boats at high tide. The remnant marine structure comprises of three still standing concrete-filled earthenware pipes and one that has collapsed. No foundation cut or postholes were present within the rock outcrop, indicating that they were built directly onto the rock outcrop. The earthenware pipes are the same foundation type used in the boatshed (Building 11). The earthenware foundations support two timber bearers with transverse timbers, and possibly with decking timbers on top. (Figure 3.4.16) This structure is in poor condition. This item is considered to be fragmented, with sections of the structure missing or fallen onto the rock platform. Only one section of the timber section of this structure is present.

This structure relates to the mid Twentieth Century development of the site associated with the CSIR and CSIRO and hence contributes to the interpretation of the CSIR/CSIRO occupation of the site. The site does not contain any research value and is not considered to have any associated relics.

3.4.6. SUMMARY OF ARCHAEOLOGICAL POTENTIAL

The Historic Survey Mark (MA10) relates to the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, and is considered to be historically significant. There is low potential for further archaeological remains pre-dating the Fisheries across the site, such as evidence of land clearing and cultivation and unrecorded structural remains.

The former Caretaker's Cottage (A1) is associated with the historical early establishment of the Fisheries site at Hungry Point. Relics are likely to be present on the site, and would relate to the household and works of the former caretaker and his family at the site. As such the area is an archaeological site and the relics are considered to be significant. Archaeological potential would be reduced if remains are found to be substantially removed or disturbed.

The Header Tank Former Water Wheel/Pump (MA6) are key functional structures of the former fisheries complex c1904. Archaeological potential would be reduced if remains are found to be substantially removed or disturbed.

The Stone Steps (MA8) are evidence of the 1904 fisheries establishment. The c1920 Slipway (MA2) is a significant element dating back to the period of the original establishment of the Fisheries Site.

Limited archaeological remains are expected to be present associated with the maritime infrastructure sites (MA1) specifically with the mooring dolphin. This infrastructure and any associated relics are not assessed to have scientific or research value. Similarly, no archaeological remains are expected to be present associated with the former 1904 Boatshed (MA3). The 1920s Police Boatshed (MA4) dates from the next period 1915-1937 (NSW GOVERNMENT). No archaeological remains associated with the c1920 Police Boatshed and slipway are expected to be present. Limited archaeological potential associated with the c1945 jetty (MA5) is expected to be present but is not likely to have any archaeological research value. The current jetty is not considered to be significant as it was built between 1984 and 1994. The Stone Steps, former Wharf (MA9), from the 1938-1949 (FISHERIES/MIGRANT HOSTEL) period, and the Marine Structure (MA7) from the period 1950-1987 (CSIRO) have not been found to be of research value.

Summary of possible archaeological remains across the site

Archaeological Potential	Likely kinds of remains
Low	There is no record of structures on the site prior to 1904 although the Historic Marker (MA10) predates occupation of the site by Fisheries. Unrecorded archaeological features such as unrecorded structures and land clearance are possible but unlikely. Later landscaping, tree planting and construction are likely to have impacted these remains.
Low to Moderate	Structural remains and occupation deposits of the former Caretaker's Cottage (A1) built 1904, associated outbuildings, wells, cisterns, rubbish pits, yard deposits and evidence of early land clearing are possible. Later construction, clearing and landscaping are likely to have impacted these remains. Archaeological potential would be reduced if remains are found to be substantially removed or disturbed.
Moderate	The Header Tank Former Water Wheel/Pump (MA6) are key functional structures of the former fisheries complex c1904. Archaeological potential would be reduced if remains are found to be substantially removed or disturbed.

Summary of significance of archeological sites investigated

Site		Local Significance	State Significance
A1	Site of former Caretaker's Cottage	√	x
MA1	Building 11 – Maritime Infrastructure	x	x
MA2	c 1920 Slipway	√	x
MA3	Former 1904 Boatshed	x	x
MA4	1920s Police Boatshed	x	x
MA5	Jetty	x	x
MA6	Header Tank/Water wheel	√	√
MA7	Marine Structure	x	x
MA8	Stone Steps	√	x
MA9	Stone Steps/Wharf	x	x
MA10	Historic Survey Marker	√	x

2014 | Archaeological sites pre 1902, 1902-1914 | Cosmos Archaeology

Figure 3.4.1 | MA10: Historic survey marker

Figure 3.4.2 | A1: Former Caretaker's Cottage

Figure 3.4.3 | A1: Former Caretaker's Cottage

Figure 3.4.4 | MA1: Maritime Infrastructure

Figure 3.4.5 | MA3: 1904 Boatshed

Figure 3.4.6 | MA6: Header tank

Figure 3.4.7 | MA6: Header tank

Figure 3.4.8 | MA8: Stone steps

2014 | Archaeological sites 1915-1937

Cosmos Archaeology 1938-1949
1950-1987

Figure 3.4.9 | MA2: Slipway

Figure 3.4.10 | MA2: Slipway

Figure 3.4.11 | MA4: Former Police boatshed site

Figure 3.4.12 | MA4: Former Police boatshed site

Figure 3.4.13 | MA5: Jetty

Figure 3.4.14 | MA9: Concrete Steps (former wharf)

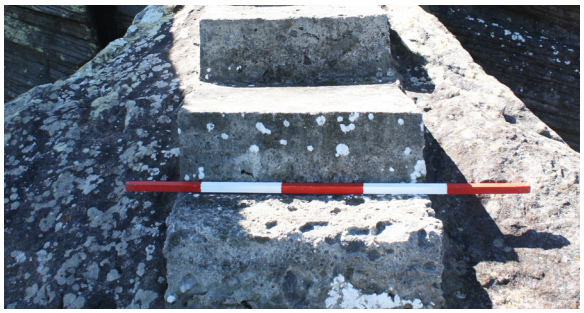
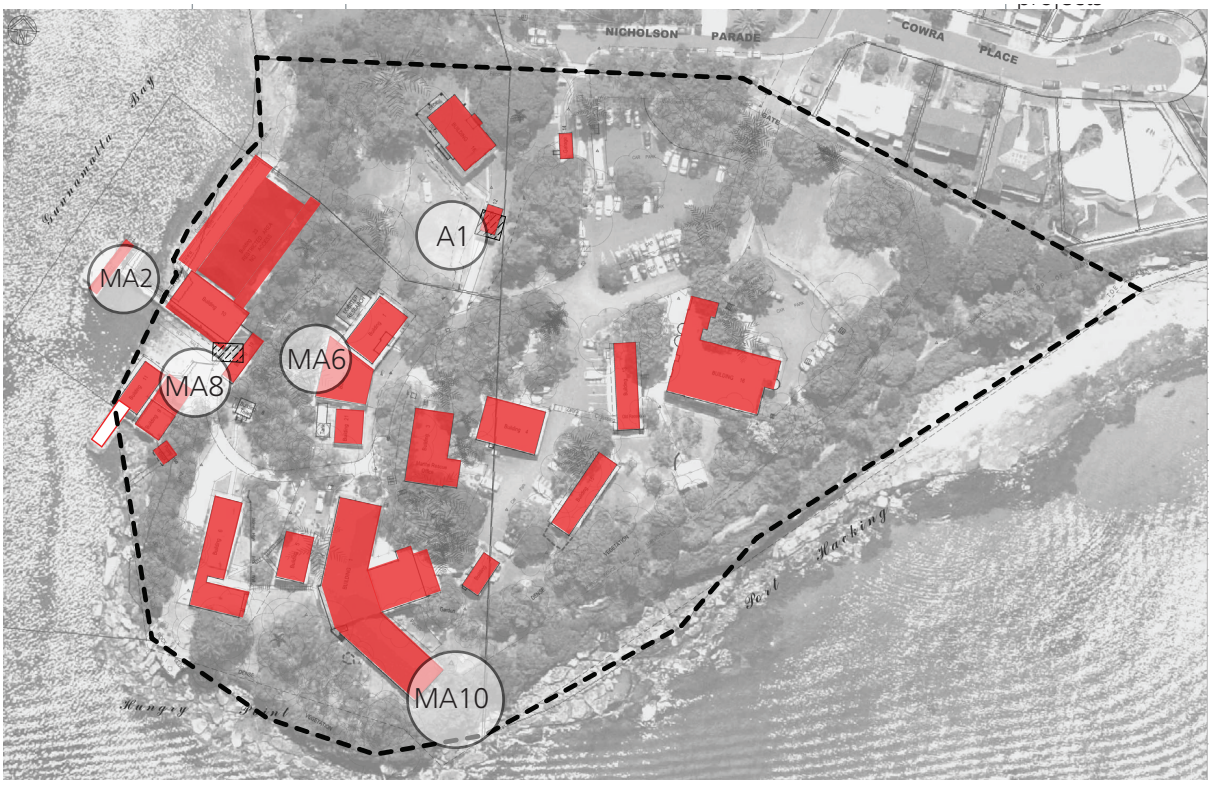


Figure 3.4.15 | MA9: Concrete steps detail

Figure 3.4.16 | MA7: Jetty/gantry

Figure 3.4.17	2018	Sites of archaeological potential	Architectural Projects



LEGEND

A1	Site of Former Caretaker's cottage (1904)
MA2	Slipway (c1920)
MA6	Header Tank, former Water Wheel/Pump 1904
MA8	Stone steps 1904
MA10	Historical Marker 1880s

3.5. DESCRIPTION OF THE BUILT ELEMENTS

There were 23 buildings on the site dating from the various phases of development at the time of the Harley Report. (Figure 3.5)

Chemical store (Building 17) was demolished in 2013

PERIOD		BUILDING	
1902-1914	Fisheries	Building 6	Former Hatchery
		Building 11	Boat Shed
		Building 21	Header Tank (Refer Also MA6)
		Building 23	Aquaria, Fish Pond
1915-1937	NSW Government	–	
1938-1949	Fisheries/Migrant Hostel	Building 1	Former CSIR Fisheries Laboratory
		Building 2	Computer Room
		Building 7	Water Police/Fisheries School
		Building 9	Cooler Shed (demolished and rebuilt 1984)
		Building 10	Former Fisheries School, Waterfront Laboratory
		Building 13	Former Migrant Hostel
		Building 15	Former Migrant Hostel
1950-1984	CSIR	Building 3	Conference Room/Licensing
		Building 4	Records and Files
		Building 9	Cooler Shed
		Building 12	Garage
		Building 14	Storage
		Building 16	Commercial Management
		Building 17	Chemical Store (demolished)
		Building 18	Residence
		Building 20	Pump Shed
1985-2011	NSW Fisheries	Building 5	Field Store
		Building 8	Toilet Block
		Building 19	Dive Store
		Building 22	Boat Storage/Generator Slab

Figure 3.5 | 2012 | Building identification plan | Harley

B1	Former CSIR Fisheries Laboratory 1939	B13	Former Migrant Hostel
B2	Computer Room 1940	B14	Storage 1961
B3	Conference Room/Licensing 1950/1955	B15	Former Migrant Hostel
B4	Records and Files 1960	B16	Commercial Management 1970
B5	Field Store	B17	Chemical Store (demolished) 1970
B6	Former Hatchery 1904	B18	Residence 1971
B7	Water Police/Fisheries School	B19	Dive Store 1994
B8	Toilet Block	B20	Pump Shed
B9	Cooler Shed	B21	Header Tank (Refer also MA6) 1904
B10	Former Fisheries School, Waterfront Laboratory	B22	Boat Storage/Generator Slab, Structure 1940
B11	Boat Shed 1904	B23	Aquaria, Fish Pond 1904
B12	Garage 1971		

3.5.1. 1902-1914 (HATCHERY)

The hatchery complex comprises Buildings 6 Former Hatchery, Building 11 Boat Shed, Building 21 Header Tank and Building 23 Aquaria Fish Pond. Buildings 11 and 23 are generally located around the shore line. Building 6 ,the Hatchery, is set within a landscaped setting. The Header Tank (Building 21) is located within a landscaped setting above the group due to its need to provide a gravity feed water supply to the hatchery.

BUILDING 6 – FORMER HATCHERY

In 1904 the building was constructed as a hatchery in the hatchery period 1902-1914. In 1914 it was decommissioned. In 1916 it was converted to a general laboratory. In 1937 it was restored during the CSIR period 1938-1949. In 2017 it was used for offices. It has a direct functional relationship to Building 23 Aquaria Fish Pond. The 1930 aerial photograph first indicates the building. (Fig 3.5.1, 3.5.2)

BUILDING 11 – BOAT SHED

In 1904 the building was constructed as a boat shed in the Hatchery period 1902-1914. The 1930 aerial photograph first indicates the building. (Fig 3.5.4, 3.5.5)

BUILDING 21 – HEADER TANK (REFER ALSO MA6)

In 1904 the structure was constructed as an open tank in the Hatchery period 1902-1914. The 1930 aerial photograph first indicates the building. (Fig 3.5.6)

BUILDING 23 – AQUARIA, FISH POND

In 1904 the building was constructed as an Aquaria in the Hatchery period 1902-1914. It was converted to a fish pond. It has a direct functional relationship to Hatchery (Building 6). The 1930 aerial photograph first indicates the building. (Fig 3.5.7, 3.5.8)

2014 | Buildings from 1902-1914 period | Architectural Projects

Figure 3.5.1 | Building 6: Former Hatchery

Figure 3.5.2 | Building 6: Former Hatchery

Figure 3.5.3 | Building 6: Former Hatchery

Figure 3.5.4 | Building 11: Boat shed

Figure 3.5.5 | Building 11: Boat shed interior

Figure 3.5.6 | Building 21: Header tank

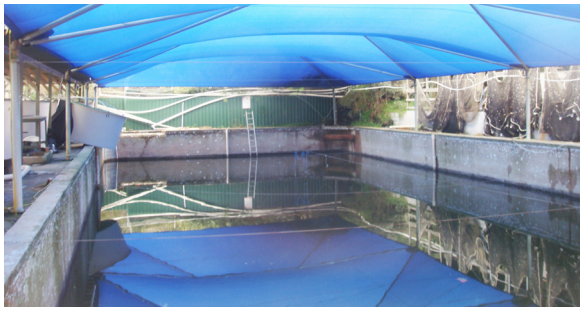


Figure 3.5.7 | Building 23: Aquaria (fish pond)

Figure 3.5.8 | Building 23: Aquaria (fish pond)

3.5.2. 1938-1949 (CSIR FISHERIES/INVESTIGATIONS/FISHERIES SCHOOL/MIGRANT HOSTEL)

Buildings 1 Former CSIR Fisheries Laboratory, Building 2 Computer Room, Building 7 Water Police, Buildings 13 and 15 Former Migrant Hostels are located generally above the shoreline, while Buildings 9 Cooler Shed and 10 Former Fisheries school are located at the shoreline. The elevated buildings sit within a dense landscape.

BUILDING 1 – Former CSIR FISHERIES LABORATORY

In 1938 the building was constructed as laboratories, library and central block offices in the CSIRO period 1938-1949. In 1946 it was extended to provide more labs and seminar rooms. The 1940 aerial photograph first indicates the building. The 1955 aerial photograph indicates the building completed. The 1961 aerial photograph indicates the building extension. Since 2013 it has been used as offices for Marine Rescue. (Fig 3.5.9)

BUILDING 2 – COMPUTER ROOM (GITT HOUSE)

Between 1940-49 the building was constructed as an office for scientific research in the CSIR period 1938-1949. Harry Gitt, chemist worked with radioactive isotopy Physio-plankton research 1938-1949. In 1985 the building was reused as a computer room. The 1955 aerial photograph first indicates the building. (Fig 3.5.11)

BUILDING 7 – WATER POLICE/FISHERIES SCHOOL

In 1946 the building was constructed for training courses at the time of establishment of the Fisheries School NSW on the site in the CSIRO period 1949-1984. It had no residential usage. In 1970 it was converted to DRP photographic section. The 1955 aerial photograph first indicates the building. (Fig 3.5.12)

BUILDING 9 – COOLER SHED (DEMOLISHED AND REBUILT 1984)

A building was constructed on the site as a smokehouse, a net-storage and fish-processing shed in the CSIRO period 1938-1949. In 1984 the building was demolished and a new building constructed around a new large tank. The 1940 aerial photograph first indicates the building which was demolished. (Fig 3.5.13)

BUILDING 10 – FORMER FISHERIES SCHOOL, WATERFRONT LABORATORY

In 1946 the building was constructed as Fisheries School in the CSIR period 1938-1949. The 1955 aerial photograph first indicates the building. In 1974 it was used for labs offices. In 1990s it was used as a visitors centre. In 2003/2 it was an open plan office and in 2009 it was used as a meeting room. In 2000 36 separate tanks were installed in part of the building. (Fig 3.5.14)

BUILDING 13 – FORMER MIGRANT HOSTEL

In 1949 the building was constructed as a migrant hostel in the Migrant Hostel period 1949-1967. In 1967 the building was used as offices by NSW Fisheries. It has a direct functional relationship to Building 15, also a Migrant Hostel. The 1955 aerial photograph first indicates the building. (Fig 3.5.15)

BUILDING 15 – FORMER MIGRANT HOSTEL

In 1949 the building was constructed as a migrant hostel in the Migrant Hostel period 1949-1967. In 1967 the building was used as offices by NSW Fisheries. It has a direct functional relationship to Building 13, also a Migrant Hostel. The 1955 aerial photograph first indicates the building. (Fig 3.5.16)

2014 | Buildings from 1938-1949 period | Architectural Projects

Figure 3.5.9 | Building 1: Former CSIR Laboratory

Figure 3.5.10 | Building 1: Former CSIR Laboratory

Figure 3.5.11 | Building 2: Computer room

Figure 3.5.12 | Building 7: Water Police

Figure 3.5.13 | Building 9: Cooler shed

Figure 3.5.14 | Building 10: Fisheries School

Figure 3.5.15 | Building 13: Former Migrant Hostel

Figure 3.5.16 | Building 15: Former Migrant Hostel

3.5.3. 1950-1984 (CSIR)

Buildings 3 Conference Room/Licensing and Building 4 Records and files are located on the ridge and are visually dominant on the site. Building 16 Commercial Management is located lower than the ridge but is visually dominant on the site due to its scale. Residence (Building 18) is located towards Darook Park and is visually dominant. Building 12 and 14 provide garage facilities. Conference Room (Building 2) is one storey to the carpark and two storey to the lower drive.

BUILDING 3 – CONFERENCE ROOM/LICENSING

In 1950 the building was constructed as an office for scientists in the CSIRO period 1949-1984. In 1970 it was reused for computer services. In 1990 it was reused as an open office, and in late 1990 used as a meeting room. The 1961 aerial photograph first indicates the building. (Figure 3.5.17, 3.5.18)

BUILDING 4 – RECORDS AND FILES

In the 1960s the building was constructed as metal and carpentry workshop in the CSIRO period. In 1985 it was converted to offices. In 1990 it was converted to storage. The 1970 aerial photograph first indicates the building.(Fig 3.5.19)

BUILDING 12 – GARAGE

In 1971 the building was constructed as garage in the CSIRO period 1950-1984. In 1990 the building was used as offices. It has a direct functional relationship to Building 18. The 1978 aerial photograph first indicates the building. (Fig 3.5.20)

BUILDING 14 – STORAGE

In 1961 the building was constructed as a store in the CSIRO period 1950-1984. The 1970 aerial photograph first indicates the building. (Fig 3.5.21)

BUILDING 16 – COMMERCIAL MANAGEMENT

In 1976 the building was constructed as offices and purpose built laboratory in the CSIRO period 1950-1984. The 1978 aerial photograph first indicates the building. The building has some specific features such as articulated curved toilet surrounds. The plan was considered too restrictive for additions. The building has a large basement which has damp problems. (Fig 3.5.22)

BUILDING 17 – CHEMICAL STORE (DEMOLISHED)

In 1974 the building was constructed as chemical store and demolished in 2013. The 1978 aerial photograph first indicates the building.

BUILDING 18 – RESIDENCE

In 1971 the building was constructed as a residence. The 1978 aerial photograph first indicates the building. (Fig 3.5.23)

BUILDING 20 – PUMP SHED

In 1955 the building was constructed as a Pump Shed in the CSIRO period. The 1961 aerial photograph first indicates the building. (Fig 3.5.24)

2014 | Buildings of 1950-1984 period

Figure 3.5.17 | Building 3: Conference/Licensing

Figure 3.5.18 | Building 3: Conference/Licensing

Figure 3.5.19 | Building 4: Records and Files

Figure 3.5.20 | Building 12: Garage

Figure 3.5.21 | Building 14: Storage

Figure 3.5.22 | Building 16: Commercial Management

Figure 3.5.23 | Building 18: Residence

Figure 3.5.24 | Building 20: Pump shed

3.5.4. 1985-2011 (NSW FISHERIES)

BUILDING 5 – FIELD STORE

In 1984 the building was constructed as electrician/plumber's site and equipment in the CSIRO period 1949-1984. In 1985 it was converted to storage. The 1984 aerial photograph first indicates the building.

BUILDING 8 – TOILET BLOCK

In 2000 the building was constructed as a toilet block in the NSW Fisheries period 1985-2011. The 2006 aerial photograph first indicates the building.

BUILDING 19 – DIVE STORE

In 1994 the building was constructed as a Dive Store in the vicinity of the former 1904 water wheel associated with Header Tank (Building 21). The 2006 aerial photograph first indicates the building.

BUILDING 22 – BOAT STORAGE/GENERATOR SLAB

In 2006 the building was constructed in the post closure period. The 2006 aerial photograph first indicates the building.

2014 | Buildings of 1985-2011 period | Architectural Projects

Figure 3.5.25 | Building 5: Field store

Figure 3.5.26 | Building 5: Field store

Figure 3.5.27 | Building 8: Toilet block

Figure 3.5.28 | Building 19: Dive store

Figure 3.5.29 | Building 22: Generator/Boat storage

Figure 3.5.30 | Building 22: Generator/Boat storage

3.6. OTHER ASPECTS OF SITE

3.6.1. MOVEABLE CONTEXT

A collection of drawings and maps existed in a cabinet in the basement of Commercial Management (Building 16) and were later relocated from the site to the Fisheries Institute at Port Stephens.

3.7. SUMMARY PHYSICAL DESCRIPTION

The site is located at Hungry Point, the southernmost tip of the Cronulla Peninsula. The Peninsula forms the southern head to Port Hacking and includes numerous Aboriginal sites.

The site comprises three acres and three allotments.
The site is secured by 2m high fencing and includes substantial areas of car parking on the north near Nicholson Parade and along the ridge. The lower western side of the site (Hatchery precinct) is accessed by a steep driveway. A footpath extension of The Esplanade continues part way along the north-eastern shore within the allotment.

The vegetation includes a littoral rainforest vegetation type. A single Villous Mintbush (Prostanthera densa) plant was observed in an area of vegetation in the northern central part of the site and is listed as vulnerable to extinction.

The vegetation of the site contributes to the natural vegetated character of the point, and provides a landscape setting and backdrop which dominates the buildings

Eleven historical archaeological sites have been identified at the Hungry Point site, and these are primarily maritime sites relating to the establishment of the Fisheries from 1902, although the Historic Survey Marker (MA10) predates this. (Figure 3.1.4)

There are 22 buildings on the site dating from 1902 to 2010. Chemical Store (Building 17) shown on the Harley 2012 site plan (Figure 3.1) was demolished in 2013 leaving 22 of the original 23 remaining.

A high quantity of shell material was observed throughout the site, despite the construction of various buildings and car parking areas across the Hungry Point Reserve. This included Aboriginal midden material in both disturbed and undisturbed contexts, as well as redeposited shell in garden beds and as reintroduced fill for the installation of services.

Midden deposits have been extensively disturbed and destroyed in some places, with evidence of significant ongoing threat from natural and human-induced erosion. The midden deposits are particularly concentrated and visible on top of sandstone shelves overlooking the Port Hacking River and the coves of Salmon Haul Bay and Gunnamatta Bay.

No pigmented or engraved art was observed during the site survey undertaken in 2014, though it should be noted that rock shelters, cliffs and stone overhangs below the Reserve's boundaries were not inspected.

Limited numbers of mature trees with potential to contain cultural scarring were present within the study area, and none of the mature trees inspected contained evidence of cultural scarring by Aboriginal people.

No Aboriginal place names have been identified.

Given the profusion of midden and other sites within the study area and surrounds, and the likelihood that further subsurface archaeological evidence is present throughout the landform, the entire peninsula is considered to be an area of cultural and archaeological significance in which recorded sites are visible and interacting indicators of this significance.

3.7. A COMPARATIVE ANALYSIS

3.7.1. HISTORICAL MARINE HATCHERY AND RESEARCH INSTITUTES

Introduction

Three pioneering marine fish hatcheries of the late nineteenth century and early twentieth century have been identified as important predecessors for comparison with the 1904 Fish Hatchery at Hungry Point. The first mass marine fish hatching took place in North America at Woods Hole in 1875. With the early apparent success of this experiment, sea fish hatching was begun in Europe by Harald Dannevig at Flødevigen, Norway in 1882. Dannevig had inspected the Woods Hole establishment in 1881. Dannevig then established the first marine hatchery in Scotland prior to coming to Australia to establish the Hatchery at Cronulla. (Figure 3.8.1)

1. Woods Hole Massachusetts

   Spencer Fullerton Baird, Assistant Secretary of the Smithsonian Institution, wrote to Congress in January 1871, calling for attention to the problem of depletion of food fishes of the seacoasts and lakes of the United States and offering suggestions for remedial measures.[71]The Woods Hole Laboratory was established in 1875, with biological investigations carried out by Board. The first experimental mass hatching and release was carried out in Massachusetts in 1878 and from 1885, the US Fishery Commission Hatchery at Woods Hole. The Woods Hole Marine Biological Laboratory still operates as a private non-profit institution affiliated with University of Chicago dedicated to scientific discovery.[72] (Figures 3.8.1.1 and 3.8.1.2)

2. Flødevigen Research Station, Norway

   The Flødevigen Research Station near Arendal was founded in 1882, on the initiative of Norwegian (Captain) Gunder Mathiesen Dannevig. Dannevig wished to regenerate the cod stocks of the Skagerrak coast. The work of the station focused on hatching cod and trying to demonstrate the usefulness of the procedure.[73]

   GM Dannevig who, having inspected the method applied in Woods Hole the year before, set up his own marine sea hatcher in an old quarry in Flødevig near his hometown of Arendal, Norway. He developed an improved method of cod hatching and began a program of hatching and releasing in nearby fiords.[74]

   The station developed from being a purely privately financed institution in the direction of a growing dependence on public sector support, and was finally taken over by the state in 1917. From 1911, G.M. Dannevig's son Alf was director of the station. Little by little, it assumed the character of a marine biology research station, which worked on a large number of problems in the field and the laboratory. However, it retained its name of *"hatchery"* until 1957, when a third-generation Dannevig-Gunnar took over, since when it has been known as the Flødevigen Biological Station.[75] In 1974, the Station became part of the Institute of Marine Research and still operates at a Research Station. (Figure 3.8.1.3)

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71. A Century of Conservation, John A. Guinan and Ralph E. Curtis NMFS, April 1971.
72. *"History and Legacy: Over 80 years of Ocean Research, Education and Exploration"*, Woods Hole Oceanographic Institution website.
73. *"Flødevig Research Station"*, Institute of Marine Research, www.imr.no.
74. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia: An environmental history of fishing, management and science in NSW, 1865-1961",* School of Geography and Environmental Studies, University of Tasmania, unpublished, August 2010.
75. *"Flødevigen Research Station"*, Institute of Marine Research, www.imr.no.

3. Dunbar/Aberdeen, Scotland

The Fisheries Board for Scotland was established in 1882 to research fishing techniques and ways of enhancing fish stocks in the North Sea. The Fishery Board for Scotland had convinced itself that the natural production of young fish in the North Sea could be materially increased by the release of fry reared in a hatchery. By 1892, a hatchery and laboratory were established at Dunbar in south-east Scotland. The Dunbar site lacked a sea water enclosure large enough to hold adequate numbers and so, at the end of the 1899 the whole complex was dismantled and taken to a site at the Bay of Nigg near Aberdeen where a laboratory had been erected the year before. The release of reared plaice fry from the Bay of Nigg ceased in the early 1920s without demonstrating any benefit to the fishery.[76]
In 1894 Harald Dannevig was selected by the Fishery Board for Scotland to supervise the building of Scotland's first marine hatchery at Loch Fyne, Dunbar, where he was later in charge of its operations. Transferred to the marine station at the Bay of Nigg near Aberdeen, Dannevig designed a new plant and tidal spawning pool.[77] The layout and use of Dannevig hatchery boxes were repeated at Cronulla.
The Hatchery at Bay of Nigg was relocated in 1914 to accommodate a new road.[78] The Laboratory was moved to Torry in 1923.[79]
The layout and use of Dannevig hatchery boxes were repeated at Cronulla.
The Freshwater Laboratory originated as the Brown Trout Research Laboratory at Faskally in 1948. Marine Scotland: Science (formerly Fisheries Research Service) was established as a division of Marine Scotland on April 1, 2009. Its purpose is to provide expert scientific and technical advice on marine and freshwater fisheries, aquaculture, and the protection of the aquatic environment and its wildlife. Scotland: Science comprises two principal laboratories including the Marine Laboratory in Aberdeen and the Freshwater Laboratory near Pitlochry.[80]

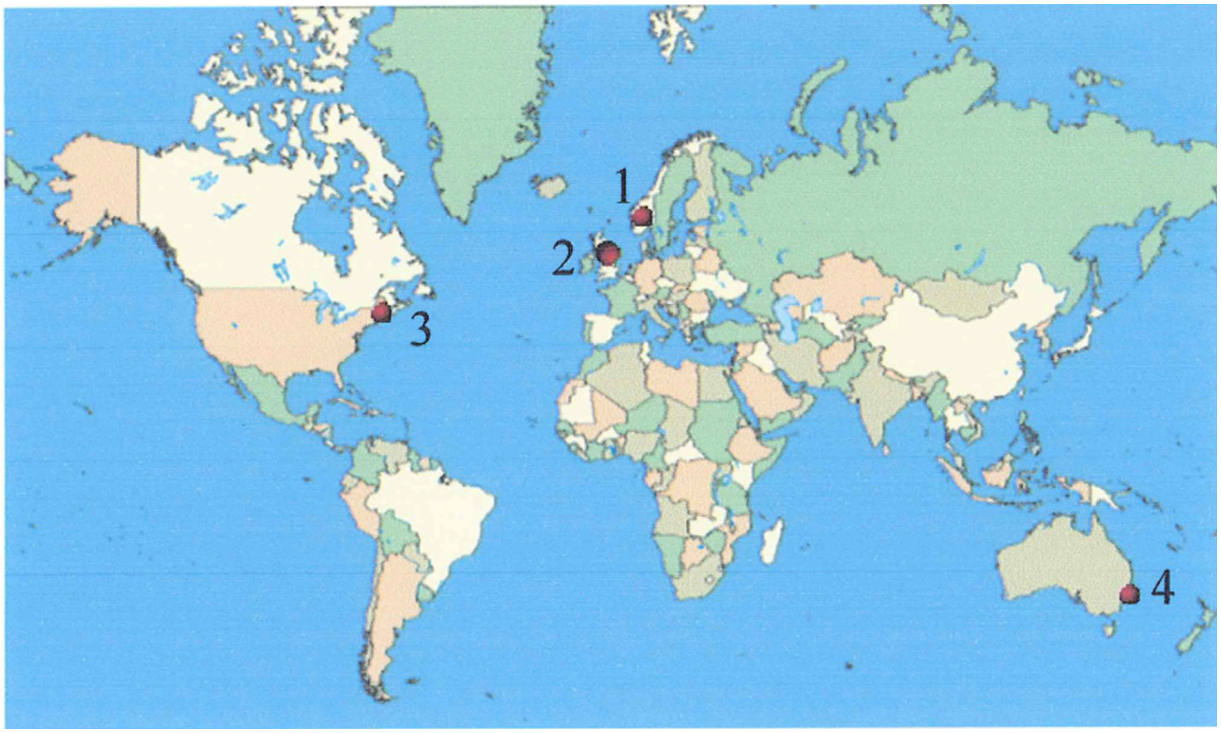
The interiors of the Marine Laboratory and Fish Hatchery, Bay of Nigg (near Aberdeen), Scotland are similar to the Hatchery building (Figure 3.8.1.4). Like Hungry Point Reserve, the Marine Laboratory and Fish Hatchery, Bay of Nigg is located on a remote coastal location (Figure 3.8.1.5) and the distribution of buildings on the site is similar to Hungry Point Reserve (Figure 3.8.1.6).

Conclusion

Woods Hole, Flødevigen, Bay of Nigg and Hungry Point together represent the evolution of an experiment into Marine fish hatching from 1875-1904, the latter three being strongly associated in their early years with Harald Dannevig. The Cronulla site being the latest and last of Dannevig's hatcheries represents the ultimate in this unsuccessful experiment. The group share characteristics in the laboratory arrangement and tidal spawning pools as evidenced in the photographs. Dannevig's legacy in Scotland was lost when the site relocated in 1914. With the ultimate failure of Marine Fish Hatchery, all sites evolved in to Marine Laboratories and research stations. The comparative significance of Hungry Point site is eroded by the recent closure of the Fisheries Research Facility.

76. Richard Shelton, *"The Longshoreman: A Life at the Water's Edge"*.
77. ABD, *"Harald Kristian Dannevig"*.
78. 'Old Torry – Aberdeen, The Doric Columns'.
79. Aberdeen City Council, *"Torry Industrial & Maritime Trail"*.
80. Marine Scotland: Science, http://www.scotland.gov.uk/Topics/marine/science.

Figure 3.8.1	No date	World location map – Historical Marine Research Institutes



1. Flødevigen Marine Research Station, Arendal, Norway
2. Marine Laboratory and Fish Hatchery, Bay of Nigg (near Aberdeen), Scotland
3. Woods Hole Hatchery, Massachusetts, United States of America
4. Marine Laboratory and Fish Hatchery, Hungry Point, Cronulla, New South Wales, Australia

Figure 3.8.1.1	1910	Woods Hole Hatchery, Massachusetts, USA	Freshwater and Marine Image Bank

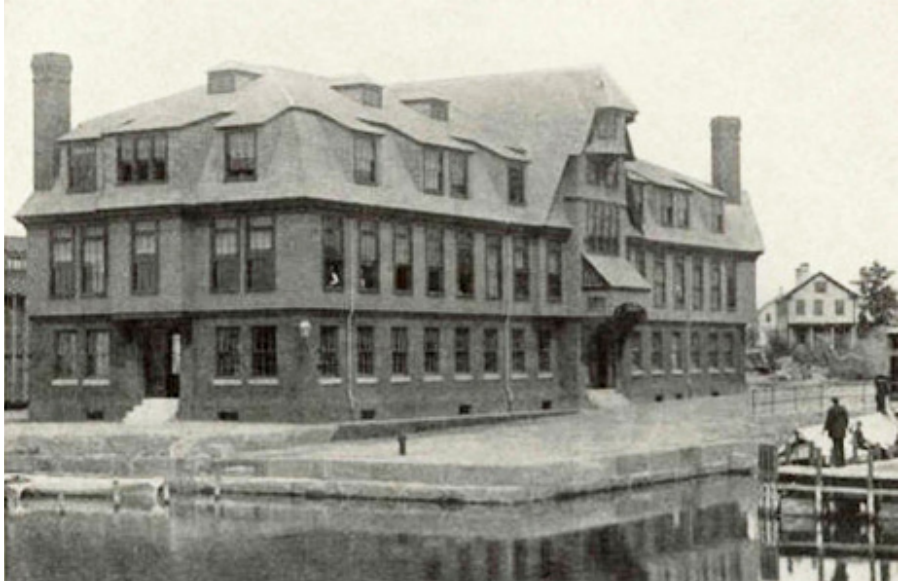


Figure 3.8.1.2	No date	Woods Hole Hatchery, Massachusetts, USA indicating Norwegian hatchery boxes	Smithsonian Institution Archives

Figure 3.8.1.3	No date	Flødevigen Marine Research Station, Arendal, Norway. Original building	Institute of Marine Research, Bergen

Figure 3.8.1.4	1916	Marine Laboratory and Fish Hatchery, Bay of Nigg (near Aberdeen), Scotland indicating Dannevig hatchery boxes	University of Washington Libraries

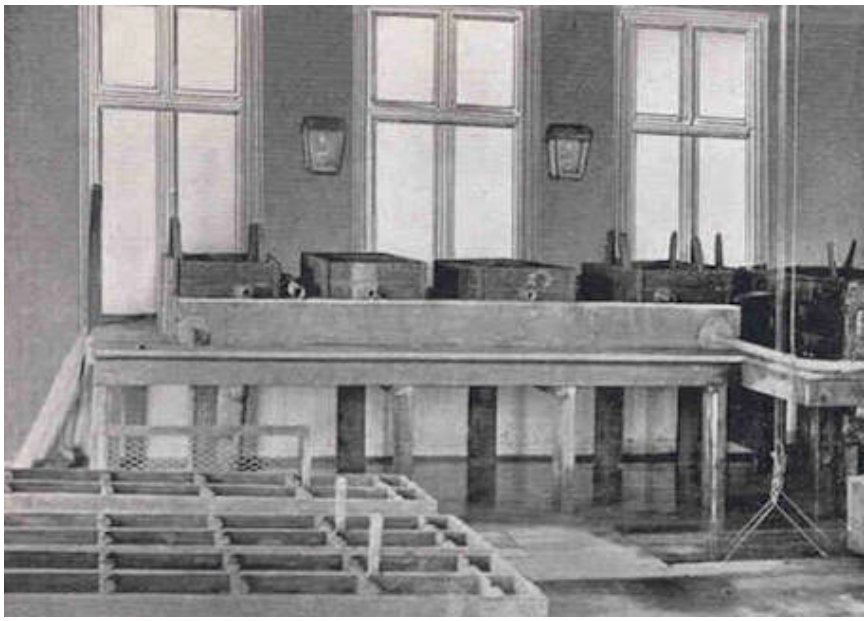
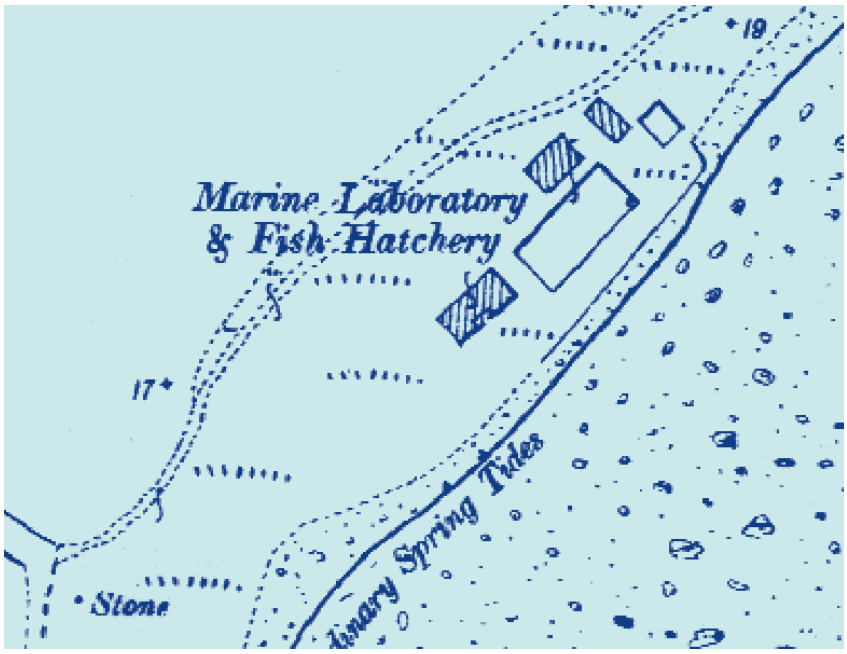


Figure 3.8.1.5	No date	Marine Laboratory and Fish Hatchery, Bay of Nigg (near Aberdeen), Scotland – Workmen repairing erosion damage	University of Aberdeen

Figure 3.8.1.6	No date	Marine Laboratory and Fish Hatchery, Old Torry, Aberdeen, Scotland	www.mcjaz.f2s.com



3.7.2. MIGRANT HOSTELS

Introduction

Hungry Point Site was one of a number of sites developed as a Hostel to cater for the influx of migrants in the post War period. Two buildings dating from this period survive on the site (Buildings 13 and 15), substantially intact and in a fair to good condition. The Cronulla Migrant Hostel operated adjacent to the CSIRO Fisheries and Research Station from 1949 to 1967. It seems likely that the Hostel may have utilised ex-naval huts erected for Fisheries School in 1946/1947.

A comparison with other surviving Post War Migrant Hostels follows to determine the relative significance of the site and buildings at Hungry Point as an example of the type.

For 150 years following European settlement, government policies ensured that the majority of Australia's immigrants were of European origin and preferably British. After World War Two, however, feeling vulnerable after the near invasion by Japan, Australia looked to the rest of Europe desperate to 'populate or perish'.[81] In 1945 Arthur Calwell was appointed the first Federal Government Immigration Minister and set about putting policies in place that would attract over 70,000 migrants a year. Migrants from Britain alone could not meet this number, and in 1947 the Australian Government reluctantly agreed to accept 'Displaced Persons', or refugees, from the war in Europe. Over the next five years nearly 171,000 migrants – mainly from Poland, Yugoslavia and the Baltic States – arrived. When this source of migrants was exhausted, the Government signed formal agreements to sponsor migrants from a number of European countries including Germany, Italy, Greece and Malta.

Migrant camps were established after World War II to house displaced persons and assisted migrants. The largest hostels were at Bonegilla and Bathurst (Figure 3.8.2.1). Migrant families could remain in the hostels from three to 12 months, and were given training to assist settlement into the community. Much of the early accommodation consisted of disused army structures, gradually replaced with purpose built proper buildings[82].

The earlier camps, constructed between 1945-48 were called Migrant Reception and Training Centres. These included Greta in the Hunter Valley (demolished), Bonegilla on the Murray, and Graylands in Perth.

The Department of Labour and National Service ran the migrant hostels until 1948 when the Migrant Workers' Accommodation Division was created to manage the centres. Between 1945 and 1975, Australia's population almost doubled. Almost three million migrants arrived, half from Britain and half from other European countries.

To accommodate the huge influx of migrants to Australia surplus army, navy and airforce camps were converted to migrant accommodation. Army training camps were used at Greta, Bonegilla and Bathurst.

Nelson Bay with a similar picturesque coastal location to Cronulla was also a converted WWII site. (Figure 3.8.2.2)

By late 1948 other areas that could be rapidly converted to migrant accommodation were needed.

81. Arthur Calwell, First Minister for Immigration.
82. *"Migrant Hostels in New South Wales, 1946-78"*, NSW Migration Heritage Centre Publication, 2011.

Figure 3.8.2.1	1951	Bathurst – Migrant camp	National Archives of Australia

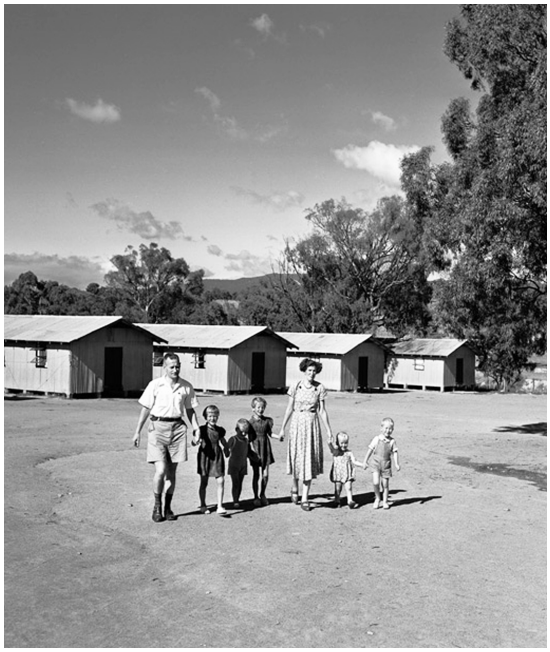


Figure 3.8.2.2	c1951	Nelson Bay – Migrant Camp	National Archives of Australia

In New South Wales, thirty migrant hostels have been identified, and include hostels at Matraville (demolished), Randwick (three buildings remain), Cronulla, Wallgrove, Dundas, East Hills, Lindfield, Balgownie, Blacktown and Cabramatta and regionally at Port Kembla, Mayfield at Newcastle (kitchen dining room), Lithgow, Bathurst, Parkes (2 buildings), Goulburn and Scheyville near Windsor (three dining rooms and three Nissen huts). Only a small number of these are extant[83]. (Figure 3.8.2.3)

From January 1952, the operation of the hostels was handed over to Commonwealth Hostels Limited to 1978[84].

Of the thirty hostels which have been identified in NSW, only a handful are known to retain physical fabric associated with their hostel function, especially fabric associated with the late 1940s-1950s phase of migration.

It would appear that no hostel established in the late 1940s-1950s survives in its entirety. A number of Nissen huts and post-war fibro buildings survive at the Villawood/Westbridge hostel, amongst new buildings, which accommodated migrants on the site from the 1960s, and more recent buildings associated with the migrant detention function (Figure 3.8.2.4). The majority of the buildings associated with the late 1940s-1950s phase were demolished during the 1960s to make way for the new style of accommodation. Other examples include: Balgownie Hostel (Fairy Meadow, Wollongong) at which three huts, one Nissen and two Quonset, survive but have been relocated on the site to avoid further flood damage; Parkes Hostel, which retains a house and administration building only; Greta Hostel where all buildings have been demolished and only footings, roads and kerbs remain. The Scheyville Hostel, established in 1910 as a training farm and hostel for English child migrants, and then used as a general migrant hostel 1949-1964, retains a number of Nissen huts and other accommodation buildings, and mess and kitchen building, making it one of the more complete examples along with Villawood. The Former Cronulla Hostel, is one of a small group of migrant hostels, which retain part of their physical fabric.[85]

Conclusion

A comparison with other surviving Post War Migrant Hostels reveals that from thirty sites, only a few hostel buildings of the period survive. (Buildings at Balgownie [relocated], Parkes, Scheyville and Villawood are extant.) While Scheyville is the most complete example, the grouping of two hostel buildings at Hungry Point within the landscape well represents the post war period, and can be considered to be representative of the type and rare as an example of migrant hostel in a landscape coastal setting in the state.

83. Australian Heritage Commission database , Villawood Immigration Centre, Miowera Rd, Villawood, NSW, Australia, Place ID 105543.
84. *"Migrant Hostels in New South Wales, 1946-78"*, NSW Migration Heritage Centre Publication, 2011.
85. SHI, Former Migrant Camp, Mayfield West.

Figure 3.8.2.3	No date	Mayfield – Migrant camp	State Heritage Registry

Figure 3.8.2.4	No date	Villawood – Migrant hostel	State Heritage Registry

4. ASSESSMENT OF CULTURAL SIGNIFICANCE

4.1. GENERAL

A statement of cultural significance is a declaration of the value and importance given to a place or item, by the community. It acknowledges the concept of a place or item having an intrinsic value that is separate from its economic value.

There are a number of recognised and pre-tested guidelines for assessing the cultural significance of a place or item established by organisations including among others, the ICOMOS (International Committee on Monuments and Sites, Australia), The National Trust of Australia, The Australian Heritage Council (Australian Government) and in New South Wales by the NSW Heritage Council (The Heritage Branch of the Office of Environment and Heritage).

The Heritage Council's criteria 'NSW Heritage Assessment Criteria' are based on the Australian Heritage Commission criteria and encompass the five values in the Australia ICOMOS The Burra Charter; Historical Significance, Historical Association Significance, Aesthetic Significance, Scientific Significance, Social Significance and 'two' grading level Rarity and Representativeness. These criteria were gazetted following amendments to the Heritage Act, which came into force in April 1999 and further amended in 2004.

This report uses the NSW Heritage Assessment Criteria to assess the significance of the study area.

4.2. CRITERION A – HISTORICAL EVOLUTION

An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area.

Matthew Flinders association with the Hungry Point Reserve does not meet the historic value criterion for this aspect of significance.

When Matthew Flinders described the rocky shoreline along the northern bank of the Port Hacking River, with its multiple habitation spots and hospitable groups, it is possible that the area he was referring to included Hungry Point. However, contact sites are common throughout Sydney, and there is no conclusive historic or archaeological evidence directly linking the Hungry Point Reserve with Matthew Flinders' navigation activities.

The site evidences the provision of land for coastal defense by government agencies in the greater Sydney region in the Nineteenth Century.

The Historic Survey Mark MA10 relates to the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, and is considered to be historically significant at a local level.

The Hatchery Precinct including Aquaria (Building 23), Hatchery (Building 6) and Boat Shed (Building 11), historical and marine archaeology sites A1, MA2, MA6 and MA8, provides evidence of the first marine fisheries research establishment in Australia and the first attempts at scientific enquiry into protection of marine life. The Aquaria (`Building 23), Hatchery (Building 6), Boat Shed (Building 11) and Header Tank/ Water Wheel (MA 6) are key functional elements of the 1904 Fisheries complex and are significant at a state level.

The site of the former Caretaker's Cottage (A1) is associated with the historical early establishment of the Fisheries site at Hungry Point. Relics are likely to be present on the site, and would relate to the household and works of the former caretaker and his family at the site. As such the area is an archaeological site and the relics are considered to be significant at a local level. The Stone Steps (MA8) are evidence of the 1904 fisheries establishment, and are of significance at a local level.

Despite failure of Hatchery experiment, the 1904 Hatchery complex retained association with fisheries investigations for over 100 years, and the site is able to evidence activities relating aquaculture/fisheries research from 1904 to 1984. The site has historic significance at a State level as a fisheries/scientific research site.

The site is of historical significance to the state for its association with the post-war migration programme and provides evidence of migration patterns after WWII. The remaining site layout, buildings and landscape elements provide rare physical evidence of the first phase of the migration experience, accommodation in camps and the compulsory work obligation for men. Migrant Hostel (Building 13 and Building 15) provide physical evidence of experience of post-war migrant site of the Former Cronulla Migrant Hostel as built c1949. These buildings exemplify the era of Government sponsored post war migration to Australia.

The site and particularly Fisheries School (Building 10) and Former Fishery School (Building 7), provides evidence of the Cronulla Fisheries School c1946 part of Commonwealth Reconstruction Training Scheme for ex-servicemen.

As the first marine research establishment in NSW which continued for over 100 years, and as evidence of the post war migration program, the Hungry Point Site possesses State level historical significance for its importance in the course of NSW's cultural history.

4.3. CRITERION B – HISTORICAL ASSOCIATIONS

An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

The place has an identified association with Harald Dannevig, Superintendent of Fisheries, and internationally renowned fisheries expert. Dannevig was the first marine scientist and Superintendent of Fisheries for the NSW government and first Director of Fisheries for the Commonwealth Government. The site is also associated with David Stead who carried out some of the earliest research into the State's fish stock, and was an early popular scientific educator and advocate for conservation in NSW.

The place has an identified association with NSW Fisheries pioneers in scientific marine life research from 1902 to 1985.

The site is associated with the Fisheries Institute from 1939 and with CSIRO from 1949, as the base of Commonwealth Fisheries Investigations. Part of NSW Fisheries Research Institute from 1985, the site is associated with community of fishery scientists.

The Hungry Point Site possesses National level heritage significance for its Associations with Dannevig and Commonwealth Fisheries Investigations CSIR and CSIRO. The Hungry Point Site possesses State level heritage significance for its Associations with NSW Fisheries, and David Stead.

4.4. CRITERION C – AESTHETIC VALUES

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

The site is prominently located on the northern headland of Port Hacking and possesses exceptional landmark and scenic qualities due to its peninsula setting and the retention of indigenous vegetation.

The site retains its natural topography and some indigenous vegetation, and contributes to an understanding of the pre-European state of the peninsula.

The Hatchery precinct including Hatchery (Buildings 6), Boat Shed (Building 11) and Aquaria (Building 23) and their landscape settings including mature Norfolk Island pines, canopy backdrop, the Former Hatchery, Boat Shed, Aquaria and coastal escarpment foreground vegetation have the ability to interpret and evoke the historical associations as a visually cohesive area that retains much of its early twentieth century character.
Building 1, the Former CSIR Laboratory has moderate aesthetic significances as a good substantially intact example of the Interwar Functionalist Style in a prominent setting.

The Hungry Point Site possesses Local level heritage significance for its landmark and scenic qualities and for the Hatchery Precinct and CSIR building, which demonstrate aesthetic characteristics of the early Twentieth Century in NSW.

4.5. CRITERION D – SOCIAL VALUE

An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

The site is of state heritage significance as a place demonstrating the continuous history of occupation of the east coast of Australia. The place holds clear and valuable evidence of indigenous occupation prior to European settlement and the natural history of the state.

Extensive Aboriginal shell middens and multiple rock shelters with occupational deposits, located along the eastern, western and southern foreshores of the Hungry Point Reserve, suggest that the area is representative of past activity by Aboriginal people. Although such sites retain cultural significance, a sense of place, and heritage value for local Aboriginal people, individually they are not rare at a local or regional level. However, consultation with La Perouse LALC and Mr Les Bursill during the project identified that the subject area is significant to the Aboriginal community for the following reasons:

- Sites identified within the Hungry Point Reserve are material evidence of past Aboriginal occupation, and it was considered likely that additional evidence of occupation would be found with improved ground surface visibility;
- The landscape of the foreshore area was considered significant due to its association with Port Hacking and the neighbouring areas of Burraneer, Cabbage Tree Point Bundeena, and an abundance of food and water resources;

- Rock shelters within the Hungry Point Reserve were considered to offer occupants protection and privacy whilst affording sweeping views of the waterways and surrounding land. Such prized vantage points were vigorously defended from neighbouring groups; and
- It is considered to be part of the area where Matthew Flinders camped and made contact with Aboriginal people.

In addition, the area contains one known Aboriginal burial site, and midden deposits within the study area have potential to contain additional burials. Such burials have very high cultural significance to the Aboriginal community.

As such, natural features of the site has been identified as having a high level of social significance to the Aboriginal community.

The site is well known to the local community and was known to be a tourist attraction in the early Twentieth Century.

The esteem in which the site is held in the community is evident in the response to proposed closure of centre in 2012.

Many of the former workers and occupants of the migrant hostel have settled locally and represent an important group within the community.

The Migrant Hostels are of social significance for the State as a part of the network of camps which provided the first home for post-war migrants to Australia, and the place where they were introduced to Australian language, culture, food and people. As one of the few camps retaining original fabric, the camp may have the potential to preserve and evoke aspects of the experiences of migrants who came to other camps in the State, that have since been demolished. The former hostels are one of the few migrant hostel sites in the State, which retain built and landscape elements articulate about the migration experience and its administration. With the remaining fabric of the Villawood, Mayfield, Scheyville and Balgownie hostels in particular; the surviving buildings at Cronulla make a significant and unique contribution to the story of post war migration in NSW and unusual for its water location.

The Hungry Point Site is believed to possess State and Local level heritage significance for its associations with the Aboriginal community and may also have Local level heritage significance for its associations with the post war migrant community, however further study is required to quantify this significance.

4.6. CRITERION E – TECHNICAL/RESEARCH VALUE

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).

The site is of state heritage significance as a place demonstrating the continuous history of occupation of the east coast of Australia. The place holds clear and valuable evidence of indigenous occupation prior to European settlement and the natural history of the state.

Aboriginal shell midden sites are the second most common site type in the region, and therefore the midden sites are not considered to have archaeological rarity. The 2014 Survey identified Area 1 – above a western facing rock shelf in the NW portion of the site, comprising Building 18 and terraced lawn sloping down to the foreshore; Area 2 – south facing rock shelf overlooking Port Hacking River; and Area 3 – rockshelter along the eastern foreshore overlooking Salmon Haul Bay, located in dense vegetation at the base of a rock shelf close to Building 15. Portions of the study area, particularly in 2014 Survey Areas 2 and 3, and in the rock shelter below CB 15 (trenches along the eastern foreshore east of Building 15 identified by Haglund 1977), have the potential to retain intact sub surface archaeological deposits, beneath buildings and above rock shelves below lawn and topsoil. 2014 Survey Areas 2 and 3 are considered to have moderate archaeological significance, given their potential to contribute archaeological information relating to Aboriginal diet and occupation patterns. 2014 Survey Area 3 may also contribute archaeological information relating to burial customs and is considered, along with 2014 Survey Area 2, to have moderate archaeological research potential and meet the scientific (archaeological) value criterion.

Portions of 2014 Survey Area 1 beneath the Building 18's foundations, as well as AHIMS sites 45-6-2490 and 45-6-2491, have been partially disturbed by past development, vegetation clearing and the creation of formal gardens. As such, it appears unlikely that significant undisturbed in situ archaeological material remains in these areas. Analysis of the midden's shell material has some potential to contribute archaeological information relating to Aboriginal diet and occupation patterns, although given the high level of disturbance experienced by these areas, it is likely that the shell material has been extensively reworked and damaged. AHIMS sites 45-6-2490 and 45-6-2491, as well as 2014 Survey Area 1, are therefore considered to be of low archaeological research potential and do not meet the scientific (archaeological) value criterion.

The site is ecologically sensitive and includes largely undisturbed areas and an endangered species (Prostanthera densa) and an endangered ecological community – littoral rainforest.

The site has potential to yield information on an important research establishment dating from c1902. The site has potential to yield information on the development and nature of scientific marine research in NSW from c1902 to 2012.
The construction of the Former Hatchery Building 6, c1904 using interlocking hollow bricks has potential to yield information that will contribute to an understanding of early innovation in building technology in the Government Architects Office.

The site of former Caretaker's Cottage (A1) is associated with the historical early establishment of the Fisheries site at Hungry Point. Relics are likely to be present on the site, and would relate to the household and works of the former caretaker and his family at the site. As such the area is an archaeological site and the relics are considered to be significant at a local level. The Header Tank and Former Water Wheel/pump (MA6) are key functional structures of the Former Fisheries Complex c1904 and have research potential to yield information about the function of the Hatchery. The c1920 Slipway (MA2) is a significant element dating back to the NSW Government period of the Fisheries Site that has research potential at a local level.

The Hungry Point Site possesses State level heritage significance for its potential to yield information that will contribute to an understanding of NSW's cultural history and specifically to reveal information about

the Gweagal culture, an endangered ecological community, the development of the Research facility, and the use of interlocking hollow bricks in the NSW Government Architect's Office.

As an important meeting place for Aboriginal people, the site has potential to reveal information about the Gwaegal, and provides a rich evidence of long occupation. The area is rich in evidence of Aboriginal culture.

4.7. CRITERION F – RARITY VALUE

An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area.

The site is a rare example of a Government sponsored Fisheries Research Institute, constructed to international standards, that operated for over 100 years.

The 1904 Hatchery is a rare pioneering marine fish hatchery, the only one in the southern hemisphere, that has the ability to represent the evolution of an experiment into Marine fish hatching from 1875-1904. The archaeological remains of the Water Wheel/Pump and Header Tank (MA6), are considered to be a rare resource directly relating to that experiment, and of potential State significance.

The surviving Former Migrant Hostel Buildings 13 and 15 provide rare physical evidence of the experience of migrants to Australia in the immediate post war period. One of a limited number of Migrant Hostels built after WWII many of which are longer extant. It is a rare example of a migrant hostel set within a maritime landscape setting.

Protected as Government Reserve since mid-Nineteenth Century, areas of the site are largely undisturbed, ecologically sensitive and includes an endangered species – *Prostanthera densa*, and littoral rainforest, an endangered ecological community.

The use of interlocking hollow bricks in Hatchery Building 6 is rare. Interlocking hollow bricks were invented by EL Drew of the NSW Government Architect's office who designed the buildings.

The Hungry Point Site is rare at the State level as a government sponsored Fisheries Research facility in operation for over 100 years from 1904 to 2011, and as an example of post war Migrant Hostel with two building substantially intact. The site is rare as a post WWII migrant camps with a coastal location.

4.8. CRITERION G – REPRESENTATIVENESS

An item is important in demonstrating the principal characteristics of a class of NSW's

- *Cultural or natural places; or*
- *Cultural or natural environments*

(or a class of the local areas' cultural or natural places; or cultural or natural environments).

The headland setting of the complex is representative of the natural topography and indigenous vegetation of Port Hacking.

The Hungry Point Site is of State level heritage significance for its importance in demonstrating principal characteristics of Post War Migrant Camps and Fisheries Research Facilities in NSW, as well as the natural topography and vegetation of Port Hacking. The site is representative of post WWII migrant camps and is comparable to Balgownie, Parkes, Scheyville, Villawood. The site is representative of post WWII fisheries research facilities such as, Nirandra, West Wagga and the Taylors Beach. Fisheries at Port Stephens where the Cronulla Fisheries was located to.

4.9. LEVELS OF SIGNIFICANCE

4.9.1. BACKGROUND

The terms 'local', and 'state' relate to the geographical and social context of an item's significance. For example, an item of local significance will be of historical, aesthetic, social or technical/research significance in a local geographical context; an item of state social heritage significance will be important to an identifiable, contemporary, state-wide community.

Due to historic aesthetic, social, technical a research values the site reaches the threshold for State and National significance.

4.10. GRADING OF SIGNIFICANCE

GRADING		JUSTIFICATION	STATUS
A	EXCEPTIONAL	Rare or outstanding element directly contributing to an item's local and State significance.	Fulfils criteria for local or State listing
B	HIGH	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.
C	MODERATE	Elements of typical representative quality. Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.
D	LITTLE	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.
E	INTRUSIVE	Damaging to the item's heritage significance.	Does not fulfil criteria for local or State listing.

4.10.1. SCHEDULE OF SIGNIFICANT FABRIC

Refer to Grading of Significance Figure 4.1, 4.2, 4.3 and 4.4

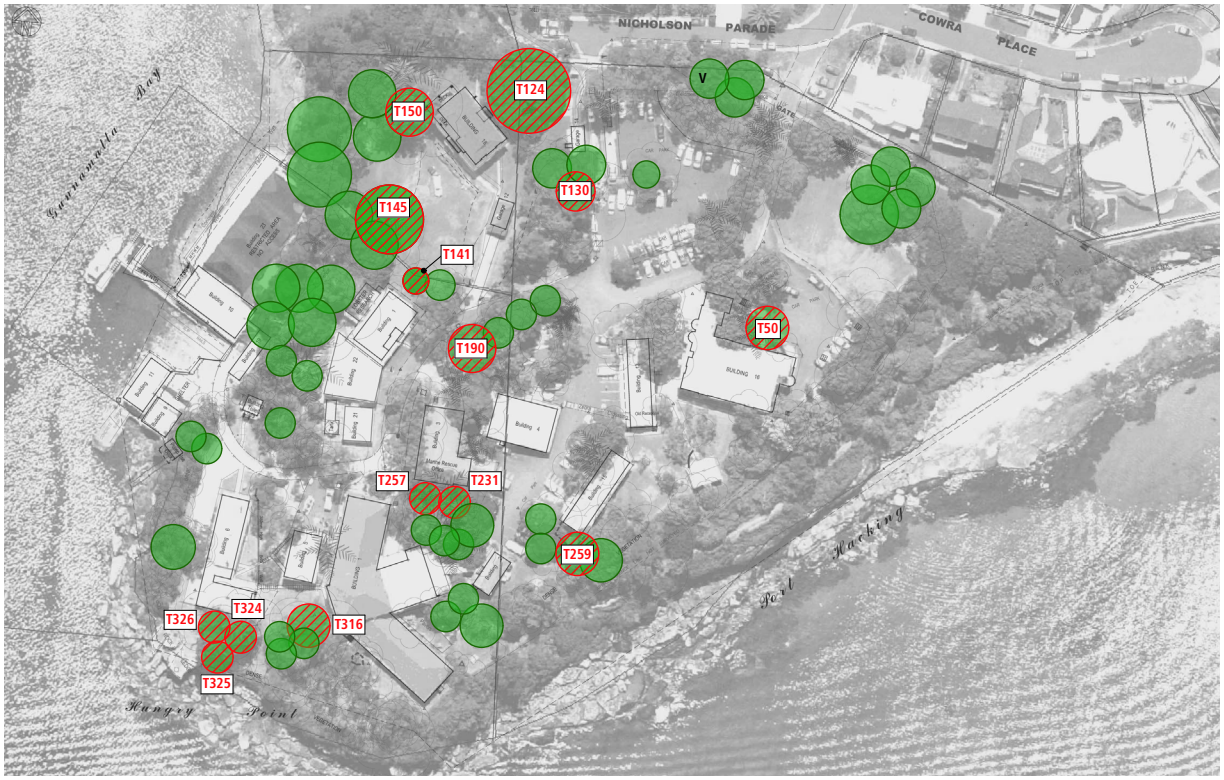
The following schedule of existing fabric notes the relevant area and its level of significance.

ELEMENT		GRADING
Peninsular setting		A
Landscape setting		A
Landscape Elements	T50 Washington Palm (*Washington robusta)*	B
	T124 Port Jackson Figs *(Ficus rubiginosa*)	B
	T130 Port Jackson Figs *(Ficus rubiginosa*)	B
	T141 Frangipani (*Plumeria acutifolia*)	C
	T145 Mature Canary Island Palms (*Phoenix canariensis*)	B
	T150 Port Jackson Figs *(Ficus rubiginosa*)	B
	T190 Port Jackson Figs *(Ficus rubiginosa*)	B
	T231 Tuckeroo *(Cupaniopsis anacardioides)*	B
	T257 Mature Canary Island Palms (*Phoenix canariensis*)	B
	T259 Port Jackson Figs *(Ficus rubiginosa*)	B
	T316 Port Jackson Figs *(Ficus rubiginosa*)	B
	T324 Norfolk Island Pine *(Araucaria heterophylla)*	B
	T325 Norfolk Island Pine *(Araucaria heterophylla)*	B
	T326 Norfolk Island Pine *(Araucaria heterophylla)*	B
	Villous Mintbush *(Prostanthera densa*)	B
	Remnant Littoral rainforest (*Ficus rubiginosa/Cupaniopsis anacardioides)*	B
	Coastal escarpment low Banksia/Casuarina forest	C
Open Spaces	Open Space 1	C
	Open Space 2	C
	Open Space 3	C
	Open Space 4	C/D
	(Refer Figure 3.3 Significant Landscape Elements.)	
Cultural Landscapes	Development from 1902-1914	A
	Development from 1938-1949	B/C
	Development from 1950-1984	D/E
	Development from 1985-2011	D/E
Archaeological Sites	Site A1, site of former Caretaker's Cottage	B/C
Maritime Archaeological Sites	Site 2, Slipway	B/C
	Site 6, Header Tank/Water Wheel	A/B

ELEMENT		GRADING
	Site 8, Stone Steps	B
	Site 10, Historic Survey Marker	B
	Sites 1, 3, 4, 5, 7 and 9	D
The Buildings	Building 1 – Former CSIR Fisheries Laboratory	B
	Building 2 – Computer Room	C
	Building 3 – Conference Room/Licensing	D
	Building 4 – Records and Files	E
	Building 5 – Field Store	D
	Building 6 – Former Hatchery	A/B
	Building 7 – Water Police/Fisheries School	C
	Building 8 – Toilet Block	E
	Building 9 – Cooler Shed (rebuilt 1984)	D
	Building 10 – Former Fisheries School, Waterfront Laboratory	B
	Building 11 – Boat Shed	B
	Building 12 – Garage	E
	Building 13 – Former Migrant Hostel	B
	Building 14 – Storage	D
	Building 15 – Former Migrant Hostel	B
	Building 16 – Commercial Management	E
	Building 17 – Chemical Store (demolished)	–
	Building 18 – Residence	E
	Building 19 – Dive Store	E
	Building 20 – Pump Shed	D
	Building 21 – Header Tank	A/B
	Building 22 – Boat Storage (site of former Generator Pad)	E
	Building 23 – Aquaria, Fish Pond	A/B

While the presence of burials make the site extremely important to the Aboriginal community it is inappropriate to grade the various Aboriginal archaeological sites.

Figure 4.1	2017	Significant Landscape Elements	Architectural Projects



LEGEND

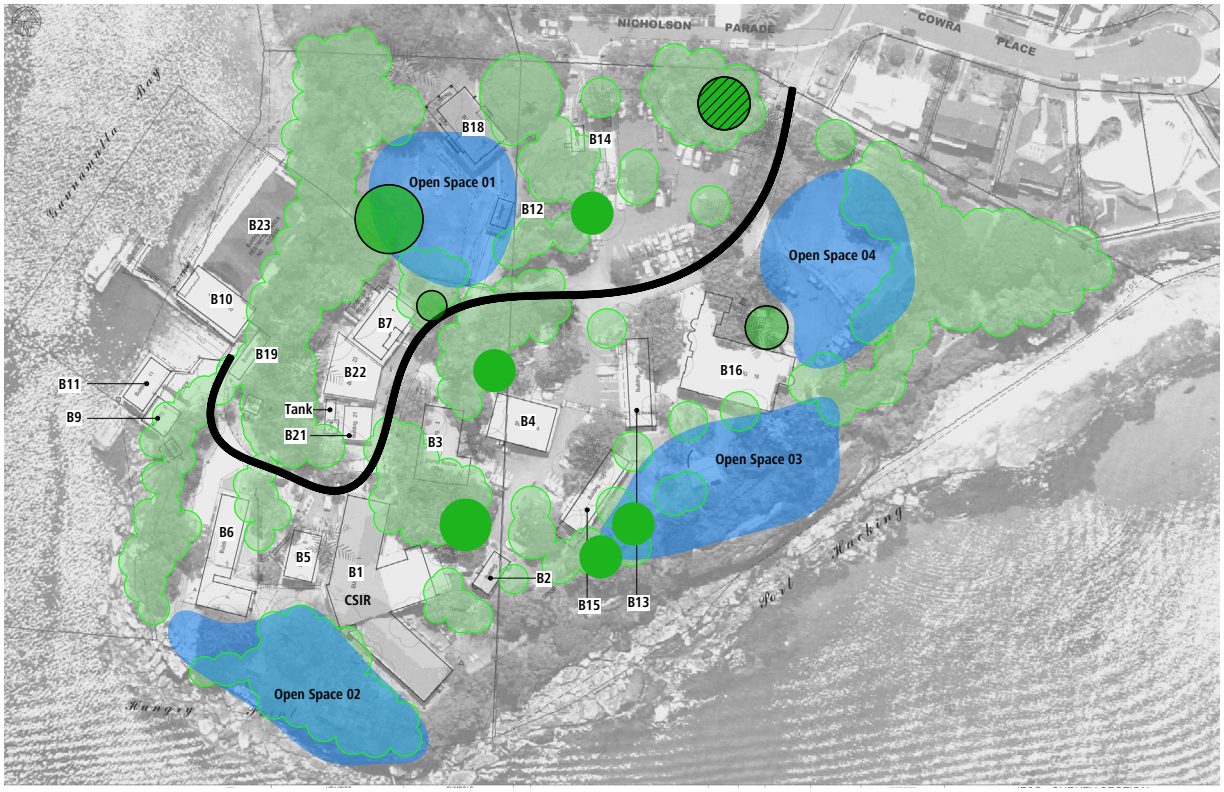
Littoral forest (Ficus rubiginosa), Cupaniopsis anacardiodes canopy

V Villious Mint Bush Location

T___ Significant Tree, cultural planting

T50	Washington Palm (*Washington robusta*)
T124	Port Jackson Figs (*Ficus rubiginosa*)
T130	Port Jackson Figs (*Ficus rubiginosa*)
T141	Frangipani (*Plumeria acutifolia*)
T145	Mature Canary Islands Palms (*Phoenix canariensis*)
T150	Port Jackson Figs (*Ficus rubiginosa*)
T190	Port Jackson Figs (*Ficus rubiginosa*)
T231	1 x Tuckeroo (*Cupaniopsis anacardioides*)
T257	Mature Canary Islands Palms (*Phoenix canariensis*)
T259	Port Jackson Figs (*Ficus rubiginosa*)
T316	Port Jackson Figs (*Ficus rubiginosa*)
T324	3 x Norfolk Island Pine (*Araucaria heterophylla*)
T325	3 x Norfolk Island Pine (*Araucaria heterophylla*)
T325	3 x Norfolk Island Pine (*Araucaria heterophylla*)

Figure 4.2	2017	Significant Open Space & Paths	Architectural Projects



Cultural Planting

Significant Tree

Endangered Species

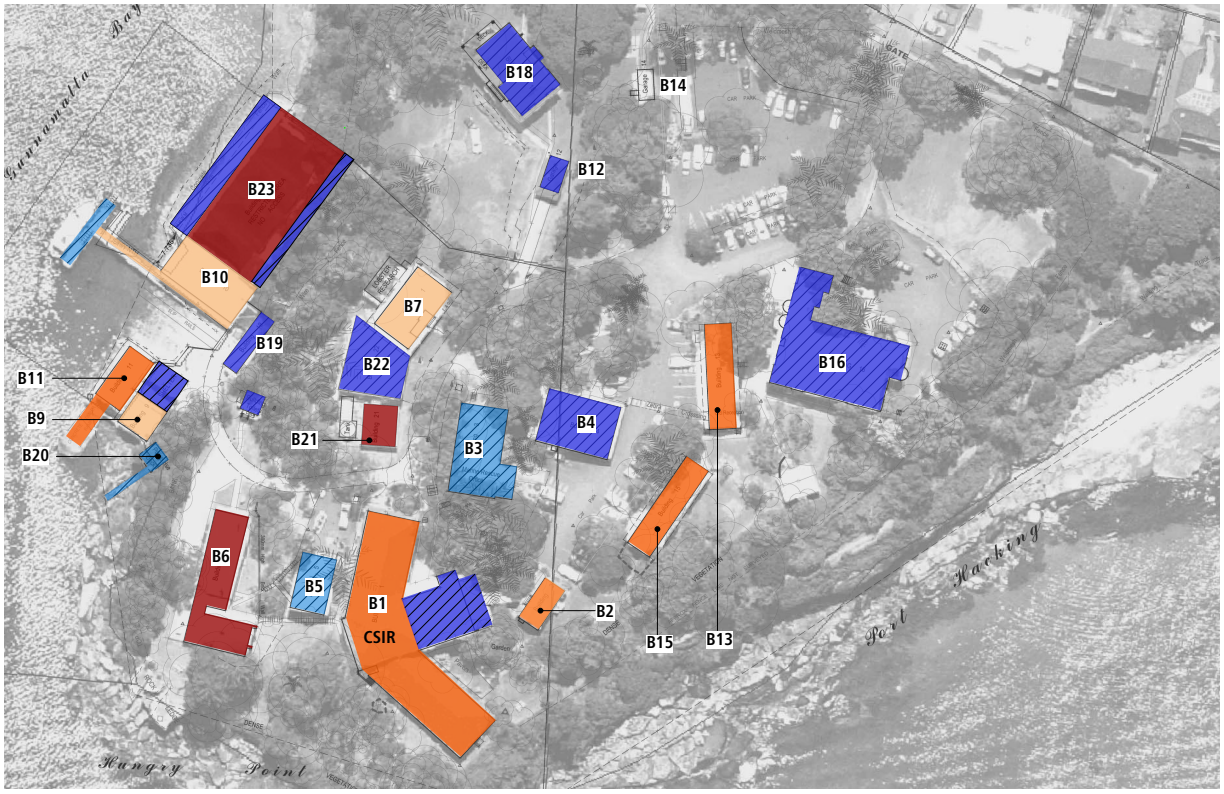
Remnant Vegetation

Original 1904 track

Open Space

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store
B6	Former Hatchery 1904
B7	Water Police/Fisheries School
B8	Toilet Block
B9	Cooler Shed
B10	Former Fisheries School, Waterfront Laboratory
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel
B14	Storage 1961
B15	Former Migrant Hostel
B16	Commercial Management 1970
B18	Residence 1971
B19	Dive Store 1994
B21	Header Tank (Refer also MA6) 1904
B22	Boat Storage/Generator Slab, Structure 1940
B23	Aquaria, Fish Pond 1904

Figure 4.3	2017	Grading of Significance – Built Form	Architectural Projects



A Exceptional / High

B High

C Moderate

D Low

E Intrusive

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store
B6	Former Hatchery 1904
B7	Water Police/Fisheries School
B8	Toilet Block
B9	Cooler Shed
B10	Former Fisheries School, Waterfront Laboratory
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel
B14	Storage 1961
B15	Former Migrant Hostel
B16	Commercial Management 1970
B18	Residence 1971
B19	Dive Store 1994
B21	Header Tank (Refer also MA6) 1904
B22	Boat Storage/Generator Slab, Structure 1940
B23	Aquaria, Fish Pond 1904

Figure 4.4	2017	Significant Precincts and Proposed Heritage Curtilage	Architectural Projects

Precinct relating to key period

Significant Building

Site Boundary

Proposed Heritage Curtilage 30 m beyond the tidal boundary (MHWM)

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store
B6	Former Hatchery 1904
B7	Water Police/Fisheries School
B8	Toilet Block
B9	Cooler Shed
B10	Former Fisheries School, Waterfront Laboratory
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel
B14	Storage 1961
B15	Former Migrant Hostel
B16	Commercial Management 1970
B18	Residence 1971
B19	Dive Store 1994
B21	Header Tank (Refer also MA6) 1904
B22	Boat Storage/Generator Slab, Structure 1940
B23	Aquaria, Fish Pond 1904

4.11. DEFINING HERITAGE CURTILAGE

4.11.1. BACKGROUND

There are different types of Heritage Curtilage that relate to the history and significance of the site.

Lot Boundary Heritage Curtilage

The most common type of heritage curtilage comprises the boundary of the property containing the heritage item, or items. The property may also contain associated buildings, gardens and other significant features, including walls, fences, driveways or tennis courts, all which may contribute to the heritage significance of the property.

Reduced Heritage Curtilage

This type of heritage curtilage is less than the lot boundary of the property. It arises where the significance of the item may not relate to the total lot, but to a lesser area, and is often only defined when development occurs.

Expanded Heritage Curtilage

There may be circumstances where the heritage curtilage may need to be greater than the property boundary. Depending on the topography, an expanded curtilage may be required to protect the landscape setting or visual catchment of a heritage item.

Composite Heritage Curtilage

This type of curtilage applies to heritage conservation areas and defines the boundaries of land required to identify and maintain the heritage significance of an historic district, village or suburban precinct.

4.12. HERITAGE CURTILAGE

Aboriginal and natural heritage values encompass the whole of the site, with no regard to the allotments currently and historically applied to the land. Likewise significant vegetation occurs across the allotments. The site as a whole possesses important scenic qualities in views form Port Hacking and Gunnamatta Bay. Views from the site are obtained right around the shoreline and coastal escarpment from important landscape spaces as shown in Figure 3.3.10. Since 1902, the site has developed in precincts. The most important part of the site incorporates the Hatchery precinct, in the south west of the site. This precinct lies within Portion 1187 and is ill defined. Subsequent historic precincts of significance developed in this portion namely the CSIR and Fisheries School, however the Migrant Hostel was built on the eastern side of the site on Commonwealth land. While the site has been divided into State and Commonwealth land (refer Figure 2.2.37) it was united under the CSIRO, and is now managed as a single entity. The three allotments contain evidence of the key phases of significance and should be included in these heritage curtilage.

An expanded Heritage Curtilage that extends 30 meters out beyond the shoreline is recommended to include maritime infrastructure and archaeological sites beyond the tidal boundary, as well as protecting the maritime setting of the site and the relationship of the site to the water, aspects which contribute to the significance of the site.

Refer Figure 4.4 for Heritage Curtilage and Precincts relating to key periods of significance.

4.13. SUMMARY STATEMENT OF SIGNIFICANCE

Hungry Point Reserve is of state and potential national heritage significance as the first marine investigation establishment in Australia, commencing in 1904. It is significant for its continued association with NSW and Commonwealth Government Fisheries and for activities relating to aquaculture/fisheries research from 1904 until 2011.

The site provides evidence of the establishment of commercial Fisheries and its first attempts at scientific enquiry into the protection of marine life. Original structures from 1904, the Hatchery (Building 6), Boat Shed (Building 11) Aquaria (Building 23) and the remains of the Water Wheel/Pump and Header Tank (MA6 /Building 21) survive: the group, as a rare resource, demonstrates the evolution of an experiment into marine fish hatching from 1875-1904. The site of the Former Caretaker's Cottage (A1) and Stone Steps (MA8), also associated with the early establishment of the Fisheries, have archaeological potential.

The place has an historical association with Harald Dannevig (1871-1914), internationally renowned fisheries expert, the Superintendent of Fisheries from 1902-1908 and Commonwealth Director of Fisheries in Australia, 1908-1914. It is also associated with David Stead (1877-1957), naturalist, who carried out early research into the State's fish stock. It is associated with NSW Fisheries from 1904, the Commonwealth Scientific and Industrial Research (CSIR) from 1939 and CSIRO from 1949 as the base of Commonwealth Fisheries Investigations. As part of the NSW Fisheries Research Institute, it was associated with the state community of fishery scientists for over 100 years. Evidence of historical associations and use exists in its collection of drawings and maps.

As one of a limited number of surviving Migrant Hostels built after WWII, the site is of historical significance for its association with the post-war migration program and provides evidence of migration patterns after WWII. Buildings 13 and 15 display physical evidence of the experience of the former Cronulla Migrant Hostel, as built c1949. The former Cronulla Fisheries School (Building 10) demonstrates evidence of the Commonwealth Reconstruction Training Program for ex-servicemen, set up in 1946.

The place, rich in evidence of Aboriginal cultural heritage, demonstrates a continuous history of occupation of the east coast of Australia. It holds clear and valuable evidence of indigenous occupation prior to European settlement and the natural history of the state.

Extensive shell middens and multiple rock shelters with occupational deposits, located along the eastern, western and southern foreshores of the Hungry Point Reserve, are representative of past activity by Aboriginal people. The Port Hacking waterway and foreshores, including neighbouring Burraneer and Cabbage Tree Point at Bundeena, provided an abundance of food and water resources. The area has potential to contribute archaeological information relating to local Aboriginal diet, occupation patterns and burial customs.

An important meeting place for Aboriginal people and protected as a Government Reserve since mid-nineteenth century, the site has potential to reveal information about the Gweagal people and provides evidence of their long occupation.

The Historic Survey Mark (MA10) signaling the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, is historically significant; as is the reservation of land since 1861 for coastal defence purposes by government agencies in the greater Sydney region.

Prominently located on the northern headland of Port Hacking, the place has landmark and scenic qualities. The headland is representative of the natural topography and indigenous vegetation of Port Hacking. Ecologically sensitive, it includes largely undisturbed areas and endangered species.

The Hatchery precinct including its cultural plantings, layout, landscape setting and marine archaeology, has the ability to interpret the cultural landscape layers as a visually cohesive area that retains much of its early twentieth century character. The former CSIR Laboratory (Building 1) is a good, substantially-intact example of the Interwar Functionalist Style of architecture.

Well known to the local community and a tourist attraction in the early twentieth century, it is held in high esteem by the community, evident by the public response to the proposed closure of the Cronulla Fisheries Research Centre in 2012.

5. CONSTRAINTS & OPPORTUNITIES

5.1. GENERAL

The following sections include analysis of constraints and opportunities summarising factors which will influence the use and development of the site based on its significance, condition and integrity (intactness) property ownership, future uses and the statutory and code requirements.

A general policy for the preservation of a place is based on recognition of its significance which is one of the chief constraint associated with the site.

The State and potential National Heritage significance of the site as the first marine investigation establishment in Australia must be protected through the protection and interpretation of the group comprising Hatchery (Building 6), Boat Shed (Building 11) and Aquaria Fish Pond (Building 23), and their landscaped setting. Enhancement of the group legibility and interpretation of the period as evidenced in early photographs should occur.

Interpretation of associations with important persons including Dannevig and Stead should occur.

The State significance of the site as a post war migrant hostel should be retained and protected. The migrant buildings (Building 13 and 15) and landscape qualities of the precinct as evidenced in aerials and photographs should be reinstated. Original use of these buildings should be interpreted. The scenic quality of the site should be protected.

The local aesthetic significance of the site as a visually cohesive area that retains much of its early and mid twentieth century character should be protected by the conservation of Fisheries Laboratory (Building 1), Hatchery (Building 6), Boat Shed (Building 11), Migrant Hostels (Building 13 and Building 15) and Aquaria Fish Pond (Building 23). Ecologically sensitive areas of the site should be protected.

Archaeological survey has shown that Aboriginal midden material is present throughout Hungry Point Reserve. Exposures are visible in varying degrees along the foreshore, in rock shelters, in garden beds, and beneath buildings in both disturbed and undisturbed contexts. Shell midden deposits are particularly concentrated and visible on top of sandstone shelves overlooking the Port Hacking River and the coves of Salmon Haul Bay and Gunnamatta Bay, and are experiencing ongoing impacts from garden maintenance activities and erosion.

Refer Figure 5.1 Opportunities.

Figure 5.1	2017	Opportunities	Architectural Projects

- Buildings of Heritage Value to be Retained
- Demolition desirable
- Landscape - reinstate
- Landscape - Retain
- Car Parking
- Access / Roadway
- Footpath

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Demolished Cooler Shed 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B18	Residence 1971
B19	Dive Store 1994
B20	Pump Shed
B21	Header Tank 1904 (Refer also MA6)
B22	Boat Storage/Generator Slab 2010
B23	Aquaria, Fish Pond 190

5.2. CONSTRAINTS & OPPORTUNITIES ARISING FROM THE CULTURAL SIGNIFICANCE OF THE PLACE

5.2.1. EUROPEAN CULTURAL SIGNIFICANCE

The site has significance for its continuity of use as a Fisheries, although development was concentrated during key periods. The following buildings and related sites represent the significant key periods of development of the site:

Aboriginal Occupation (pre-1902)	Key period of significance
Establishment of Hatchery (1902-1914)	Key period of significance
CSIR Fisheries Investigations, Fisheries School (1938-1949)	Key period of significance
Migrant Hostel (1938-1949)	Key period of significance
CSIRO (1950-1984)	Key period of significance
NSW Fisheries Research Institute (1985-2011)	Key period of significance

These should be retained and conserved in a recognisable form:

- Archaeological Sites A1, MA2, MA6, MA8 and MA10
- Buildings Former CSIR Fisheries Laboratory (Building 1), Computer Room (Building 2), Conference Room/Licensing (Building 3), Former Hatchery (Building 6), Water Police/Fisheries School (Building 7), Former Fisheries School, Waterfront Laboratory (Building 10), Boat Shed 1904 (Building 11), Former Migrant Hostel (Building 13), 1Former Migrant Hostel (Building 5), Header Tank (Building 21) and Aquaria Fish Pond (Building 23).
- Cultural plantings as identified in Figure 3.3.

The following buildings represent layers of less significance and retention is not required on Heritage Grounds:

- Conference Room (Building 3), Records and files (Building 4), Field store (Building 5), Toilet Block (Building 8), Cooler Shed (Building 9), Garage (Building 12), Storage (Building 14), Commercial Management (Building 16), Residence (Building 18), Dive Store (Building 19), Pump Shed(Building 20) and Boat Storage (Building 22).

The Commercial Management (Building 16), while a site of scientific research was Inappropriately sited and impacted on the setting of earlier more important buildings from the migrant hostel key period of significance.

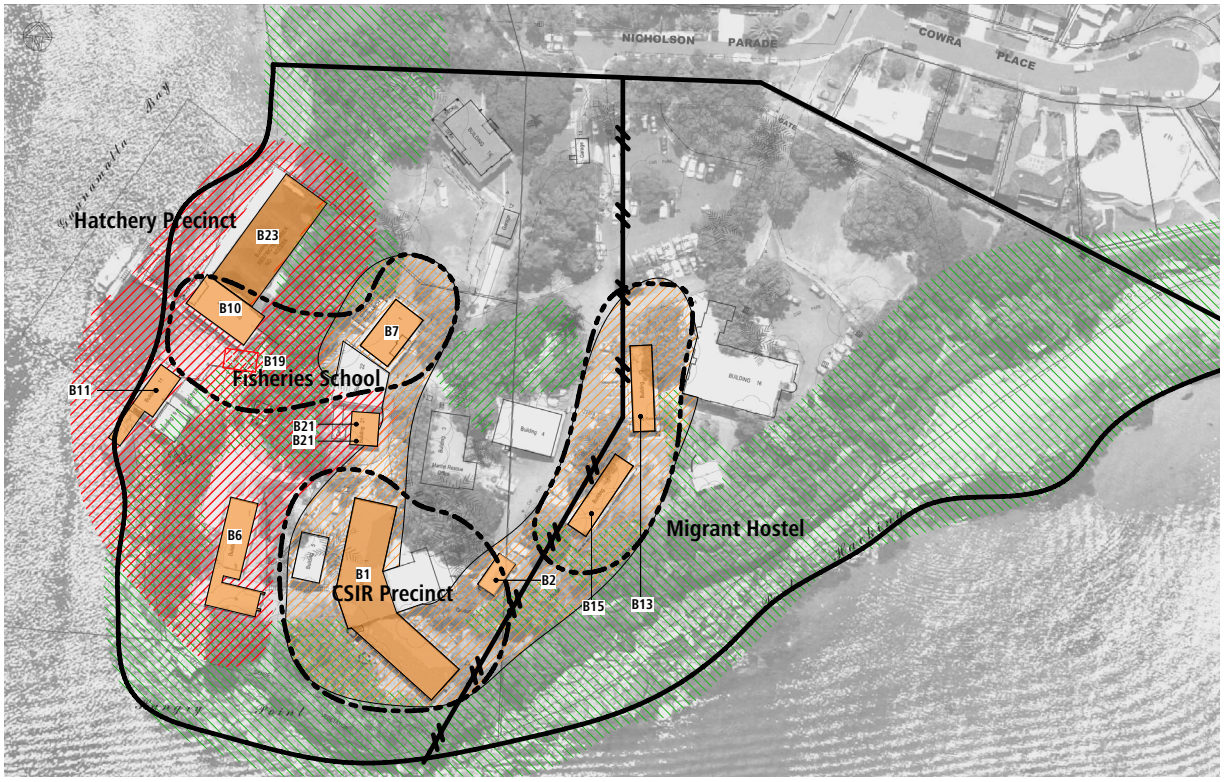
General Constraints Arising out of Cultural Significance.

No new work or activity should be carried out which will detract from or obscure physical evidence of the major phases of development of the key period of significance 1902-1914 and 1938-1949. Landscape, archaeological and built elements that date from these key periods of significance should be conserved. No new building or site works should detract from the setting of these elements on the site.

The future development of the site provides opportunity to interpret significant phases including the Hatchery 1902-1914, CSIR 1938-1949, Cronulla Fisheries School 1946 and Migrant Hostel 1949-1967, through re-establishment of landscape settings as evidenced in early photographs.

Refer Figure 5.2 showing areas with high potential for Interpretation of these Key Periods.

Figure 5.2	2017	Potential for interpretation of the site	Architectural Projects



Pre 1902 Key Period

1902-1914 Key Period

1938-1949 Key Period

1949-1967 Key Period

1949 fence to migrant camp

1950-1985 Period

Significant Buildings

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Demolished Cooler Shed 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B18	Residence 1971
B19	Dive Store 1994
B20	Pump Shed
B21	Header Tank 1904 (Refer also MA6)
B22	Boat Storage/Generator Slab 2010
B23	Aquaria, Fish Pond 1904
B22	Boat Storage/Generator Slab, Structure 1940
B23	Aquaria, Fish Pond 1904

5.2.2. ABORIGINAL CULTURAL SIGNIFICANCE

The management of the Hungry Point Reserve study area should consider the future requirements of the stakeholders and users of the Reserve, and the Aboriginal cultural heritage values of the place. The Reserve is currently used as the premises for the Marine Rescue NSW. Informal tracks around the Reserve's perimeter, from Salmon Haul Bay Reserve to Darook Park, are used by local residents and others for walking, jogging, fishing, picnicking and dog walking. Broader issues for consideration are:

- Ongoing degradation of midden deposits between the grassed and vegetated garden areas, leading to erosion
- Ongoing impacts of informal use of the rock shelter in Area three, given its potential to retain subsurface archaeological deposits
- Ongoing degradation and destruction of exposed middens beneath building foundations by the dumping of refuse material.
- The site provides opportunities to interpret the Aboriginal heritage of the area and pre-European settlement period. These opportunities include interpretation of Aboriginal sites and remnant ecological groups. Refer Figure 5.2 showing the area with high potential for interpretation of the pre-European settlement period.

5.3. CONSTRAINTS & OPPORTUNITIES ARISING FROM THE CONDITION OF THE PLACE

Many of the buildings and infrastructure are presently in need of significant maintenance work and upgrade. Essential works should be undertaken as soon as possible prior to the commencement of conservation and refurbishment works.

A planned maintenance program should be prepared for significant buildings, archaeological elements and landscape elements.

For buildings of less significance where retention is not required, a minimum standard of maintenance is adequate, including clearing of gutters, maintenance of rainwater goods.

5.4. CONSTRAINTS & OPPORTUNITIES ARISING FROM PROPERTY OWNERSHIP

The site is owned by Crown and managed by Hungry Point Reserve Trust.

The Hungry Point Reserve Trust was appointed to oversee the reserve following its closure as a fisheries research centre. The Trust has prepared a draft Strategic Masterplan to manage the site and provide a strongly coordinated and comprehensive response to a wide range of factors to be considered. The Masterplan is supported by this document. Its focus is to establish the reserve as a regional destination for the public, which both conserves and capitalises on the reserve's significant environmental, cultural and heritage qualities. Implementation of the Masterplan will depend on funding sources available. The Masterplan identifies a number of key steps in planning, design and costing of works, including DA preparation, Plan of Management preparation, concept planning, detailed design work, preliminary cost planning and preparation of Asset Management Plan. The approval process will require Heritage Council approval under Section 60 or exemption approval under Section 57.

5.5. CONSTRAINTS & OPPORTUNITIES ARISING FROM HARLEY REPORT

5.5.1. HARLEY, *"CRONULLA FISHERIES SITE: RECOMMENDATIONS FOR FUTURE USE"*, 2012.

Following the Fisheries site closure in 2011, the NSW Department of Primary Industries appointed an external consultant David Harley AM to complete a study of the site, which produced a report titled 'Cronulla Fisheries Site: Recommendation for Future Use', completed in November 2012. This report provided a history of the site and concluded with a number of key recommendations, many of which have been considered in the preparation of this Masterplan.

Three overarching principles were established in the Harley Report:

- The site should reflect the community and the majority of their views;
- The Aboriginal and heritage aspects of the site should be protected and conserved;
- People and organisations invited onto the site should serve the interests of the local community in undertaking their activities.

The second principle is supported by this CMP. The report made recommendations relating to ownership, management, occupation and use of the site as follows:

1. *The Cronulla Fisheries Site should remain in public ownership and, except as otherwise provided by these recommendations:*
   - *The existing buildings should remain intact without height changes to any structure; Hotel or motel development, or conversion of facilities to hotel/motel style accommodation, should not be permitted; Large-scale commercial development in other forms should not be permitted; and*
   - *The site should be opened to the public by continuing the walkway around the point to the west from Bass and Flinders Point through and around the Fisheries Site and then northward through Darook Park to link up with Gunnamatta Park.*
2. *A Fisheries Site Management Trust to be established to manage the site.*
3. *The following marine rescue groups should be invited to establish a combined marine rescue facility as tenants on the site: NSW Police Marine Area Command; Marine Rescue NSW; NSW Transport Maritime.*
4. *The Waterfront Laboratory (Building 11) and the Hatchery Building (Building 6) should be maintained and preserved as Heritage items.*
5. *The Sutherland Shire Historical Society should be invited to establish an educational centre featuring Aboriginal heritage, the marine science history of the site and other local history.*
6. *An educational centre featuring local Aboriginal history and culture should be established in a separate building and a management plan developed by Chris Ingrey, Les Bursell, Bruce Howell and the Sutherland Shire Historical Society.*
7. *The site should be utilised for secondary school excursions focussing on the site's marine science history, Aboriginal heritage, and heritage buildings and landscape. The Rathane or Deer Park Conference Centres at Port Hacking could be considered where overnight accommodation is required.*
8. *The Fishcare educational organisation currently using the site should be allowed to remain together with its equipment.*

9. *The Steven Walter Children's Cancer Foundation should be invited to present a business case to the Trust for use of the house, (Building 18), adjacent to the entrance as a facility for temporary residence for children with cancer and their parents.*
10. *The Trust should conduct a public tender for construction of a kiosk/restaurant, in Commercial Management (Building 16) to establish a revenue stream contributing to upkeep of the site and to provide an amenity to visitors to the site.*
11. *A suitable fence should be erected to isolate the combined marine rescue facility from the proposed public walkway.*
12. *The existing wharf should be expanded to accommodate an additional 12 berths*
13. *If the Trust does not approve establishment of the facility referred to in recommendation 9, the house should be removed to gain more open space for community use. The management Trust will pay for removal.*
14. *Subject to Heritage Council, the concrete walls of the Aquaria pool should be removed and the adjacent coastline restored to its original archaeological state. The pumping station should be removed from the site and either used by the Department of Primary Industries or offered for sale.*
15. *Bush care management volunteer groups, managed by Council, should be invited onto the site to eradicate noxious weeds and replant the site to recreate the original landscape to the greatest extent possible. These groups should also be requested to prepare a draft plan of management for the site for adoption by the Trust.*[86]

Many of these recommendations support the significance of the site and its history as identified by this CMP, specifically the Maintenance and Protection of Hatchery (Building 1) and Boatshed (Building 11) (Recommendation 4), the interpretation and use of the site for educational uses (Recommendations 5, 6, 7, and 8), Marine purposes (Recommendation 3), and the opening up of the site to the public and the restriction of large scale commercial development (Recommendation 1). There are some recommendations which could potentially conflict with the significance of the site and its implications, specifically the proposed use of buildings which the CMP proposes demolition, namely Commercial Management (Building 16,) Residence (Building 18) (Recommendations 9, 10 and 13), although the subsequent Recommendation 12 proposes removal of Residence (Building 18) which is in accord with this CMP. The proposed demolition of the Aquaria pool (Recommendation 14) is in conflict with the CMP which has identified Aquaria (Building 23) as fabric of high significance to be retained and conserved. Recommendation 11, new fence, requires careful design to ensure compatibility with the significance of the site, and likewise the expansion of the existing wharf (Recommendation 12) must be carefully considered to ensure that the heritage significance of the precinct is retained. The work of Bushcare groups on the site to remove weeds and recreate the original landscape (1902-1914) is compatible with the CMP. (Figure 102-14)

86. Harley, D (2012): Cronulla Fisheries Site: Recommendations for Future Use – a report prepared for the NSW Department of Primary Industries.

5.6. CONSTRAINTS & OPPORTUNITIES ARISING FROM CONSULTATION

Local Aboriginal Land Council

La Perouse LALC considered that there was potential for subsurface Aboriginal midden material and artefacts to occur in the vicinity of the Hungry Point Reserve due to its location on a high but sheltered point in the local landscape. A site inspection was carried out with La Perouse LALC Chief Executive Shane Ingrey and it was noted that there had been reports of a possible Aboriginal women's birthing cave located on the Fisheries site. Mr Ingrey agreed to consult directly with female Gweagal Elders, who advised they would like the opportunity to visit the cave. Refer policy 6.20.4-5.

Informal consultation was carried out with Mr Les Bursill, who iterated that the Hungry Point peninsula, with its abundant watercourses and marine resources, would have been a significant Aboriginal occupation area that could have supported between 15 and 20 people at any one time. He was also of the opinion that the cave was unlikely to have been an Aboriginal women's birthing cave given its exposed position and close proximity to other occupation sites.[87]He noted the preference to reinstate the site where feasible the natural character of the peninsula.

The Aboriginal consultation undertaken for this CMP was limited in scope, and should be regarded as preliminary only.

Aboriginal community consultation in NSW is required to comply with the Office of Environment and Heritage's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010,* for projects which will require application for an Aboriginal Heritage Impact Permit (AHIP) to impact Aboriginal heritage. The consultation process incorporates a period of public notification and engagement to ensure that all Aboriginal individuals and organisations who may hold traditional knowledge relevant to areas being assessed are consulted with appropriately. Consultation with Local Aboriginal Land Councils is undertaken as part of Stage 1 of this formal process. Consultation with the local Aboriginal community as part of future Aboriginal heritage assessments is recommended in Section 8.2 of AMBS' report, and consultation with Aboriginal stakeholders is recommended in relation to the potential women's birthing cave site in Section 8.2.1 (refer Attachment A).

The La Perouse Local Aboriginal Land Council did not identify any additional cultural constraints during preparation of the CMP, however broader consultation necessary for future development or works may result in constraints being identified, particularly in relation to the potential women birthing cave site. Further consultation has occurred with former fisheries staff Steve Kennelly Dennis Reid.

5.7. CONSTRAINTS & OPPORTUNITIES ARISING FROM CURRENT USE OF THE SITE

As a government decision the site was leased to three tenants. Only one tenant, Marine Rescue, occupied a large percentage of the available buildings for a nominal rent which ensured ongoing surveillance of the site. The current uses continued the commercial uses of the former Fisheries site with the exception of Buildings 1 and 6 which were specifically used for fisheries related research.

87. *"Australian Museum Consulting, Hungry Point Reserve CMP: Aboriginal Heritage Assessment"*, 2014.

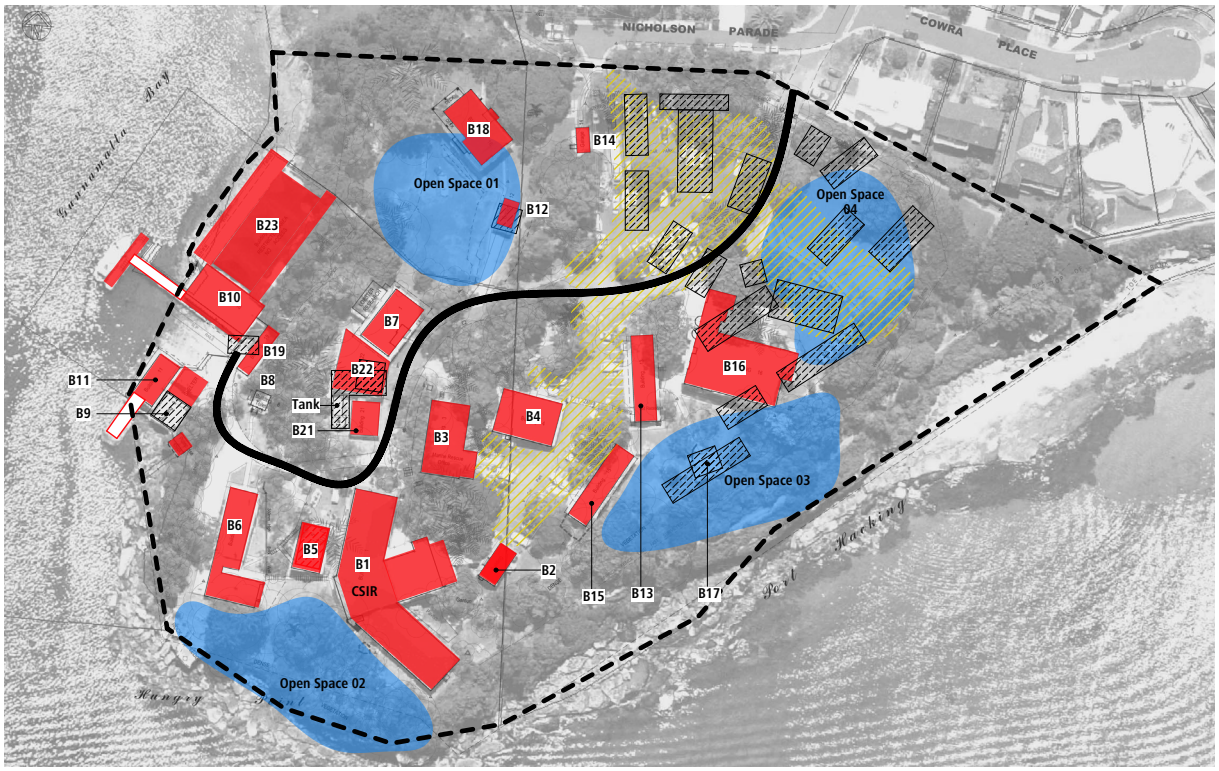
Marine Rescue NSW currently hold two licences under Section 34A of the Crown Lands Act 1989 over:

Marine Rescue NSW have raised the following requirements:

- Improved vehicle access to boats and sheds Building 22 and Building 5
- Adequate car parking for office members
- Improved berthing
- Additional land berthing for boats required. Marine Rescue wish to consider a large floating jetty at the end of the walkway
- Safer access to boats.

The access, berthing and car parking requirements of Marine Rescue present potential conflicts with retention of significance and specifically with the protection of an appropriate Setting. Refer Policy 6.5.

Figure 5.7 | 2012 | Current Usage



B1	Former CSIR Fisheries Laboratory 1939	Office space – East wing	86m²
B2	Computer Room 1940	Office space – West wing	78m²
B3	Conference Room/Licensing 1950/1955	Area 1 –	94m²
B4	Records and Files 1960	Shared with Hungry Point Trust	13m²
B5	Field Store 1940, Demolished Shed 1985	Downstairs office and store room	16m²
B6	Former Hatchery 1904	Shared conference area	37m²
B7	Water Police/Fisheries School 1943	Vacant	
B8	Toilet Block 1984	Under licence to Marine Rescue, (the building is not	
B9	Demolished Cooler Shed 1984	currently in use)	
B10	Former Fisheries School, Laboratory 1946	Under licence to Marine Rescue	
B11	Boat Shed 1904	Vacant	156m²
B13	Former Migrant Hostel 1949-67	Vacant	87m²
B15	Former Migrant Hostel 1949-67	Shared	
B16	Commercial Management 1970	Vacant	
B19	Dive Store 1994		
B22	Boat Storage/Generator Slab 2010		
B23	Aquaria, Fish Pond 1904		

5.8. CONSTRAINTS & OPPORTUNITIES ARISING FROM THE MASTERPLAN

Following the appointment of the Hungry Point Trust in 2012 to manage the site, one of the first priorities had been to prepare a Masterplan so that the opportunities inherent in the site can be pursued and realised. Clouston Associates was commissioned by Sutherland Shire Council on behalf of the Trust to project manage the development of a Masterplan and Business Plan as a tool to guide the long term management of Hungry Point Reserve.

The Masterplan was drafted in 2014 prior to commencement of the CMP. The Draft Masterplan was amended and placed on public exhibition in 2016.

The Masterplan Principles and Recommendations are grouped under six distinct Themes: Context; Access, Address and Circulation; Land Use and Buildings; Cultural and Natural Heritage; Image and Character; and Management, Operation and Maintenance.

The findings of the CMP generally support the Masterplan Principles and Recommendations, however, more detailed heritage principles were required to be consistent with the policies of the CMP. The Masterplan Principles and Recommendations are noted in italics. The more detailed heritage principles are noted below.

The exhibited Masterplan was updated to reflect the heritage principles. The CMP as noted, with the exception of 5.8.3, where Conference Room (Building 3) has been recorded as *"to be retained"*, rather than *"retain or demolish"* as recommended with this CMP. Also in 5.84, the retention and protection of significant cultural plantings needs to be incorporated.

5.8.1. CONTEXT

Principles

- *The tranquil and secluded character of the site on the end of the peninsula should be retained;*
- *The natural environment and recreation connections of the site to its peninsula should be enhanced;*
- *The uses of the site should be compatible with the adjoining land uses and character;*
- Provide for continuity of vegetation and landform to Darook Park and to foreshore to the north-east.

Summary Recommendations

- *Low key development that emphasises the natural and cultural values of the site whilst establishing the site as a regional recreational, cultural and business destination;*
- *Identification of the site as key recreational destination on the peninsula;*
- Existing remnant vegetation on the site should be retained;
- Existing landform of the site should be retained;
- Evidence links to Darook Park and continuity of vegetation around Peninsula;
- Limit new development to sites that have been disturbed;
- Revegetate crest of Peninsula (west of Migrant Hostels Buildings 13 and Building 15).

5.8.2. ACCESS, ADDRESS AND CIRCULATION

Principles

- *Vehicle access to the site should principally be confined to the operational users' day-to-day needs;*
- *The site should form a destination and stop-off point on the coastal walk around the peninsula;*
- *The public should be able to gain pedestrian access to and around the headland where possible (safety in design principles must be considered as well as the security of assets owned by occupants);*
- *Universal access to all retained buildings and around the site should be optimised where possible;*
- *Opportunities to provide public access to the water's edge should be provided where safe to do so* and where it does not propose security risk or operational risk to occupants;
- Retain c1930s roadway as primary vehicular access to site;
- Downplay other access ways as gravel paths.

Summary Recommendations

- *Provision of a connection to the regional coastal walk around the Cronulla peninsula;*
- *Provision of a path connection to the Darook Park;*
- *Establishment of a major public circulation path through the site;*
- *Provision of centralised and consolidated public parking with controlled access to parking for building users;*
- *Securing northern boundary with the use of bollards and vehicular gates, and controlling after-hour access for the southern part of site with an internal fence;*
- Discourage fencing off areas of site;
- Consider removing parking from crest/ridge of Peninsula (west of Buildings 13 and 15) unless critical to building occupation – or (new change by SSC) giving consideration to needs of tenant parking;
- Screen parking from c1930s roadway and from public circulation paths.

5.8.3. LAND USE AND BUILDINGS

Principles

- Buildings that have high and moderate heritage significance should be retained;
- Removal of buildings that detract from the setting and interpretation of the key periods of significance should be encouraged. In the case of where buildings are occupied this should be on vacation or by agreement;
- Plan for removal of all intrusive buildings;
- *Operational and recreational uses of the site should generally be associated with its maritime qualities and values;*
- *Only those buildings that can clearly provide for appropriate operational or public amenity or have heritage significance should be retained;*
- *Uses of the site should not impact adversely on the amenity of the adjoining neighbourhood;*
- *The site should offer opportunity for walking, picnicking, accessing the water, discovering the site's history and enjoying the natural environment,* taking into account tenant's operational needs.
- Provide outdoor open space in areas already cleared.

Summary Recommendations

- *Re-use of a range of buildings (see Buildings Strategy);*
- *Demolition of low-value buildings that do not or cannot serve an appropriate purpose, and are not of heritage significance or meet the long-term objectives of the master planning;*
- *Opportunity to open up the ocean pool (Building 23) to Gunnamatta Bay where deemed appropriate by CMP;*
- *Provision of outdoor spaces for hire as wedding hire venues;*
- *Maintenance of a maritime focused operational precinct;*
- Retain Building 1, Hatchery (Building 1), Computer Room (Building 2), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Building 13, Migrant Hostel (Building 15), Header Tank (Building 21), Aquaria (Building 23);
- Retain or demolish Computer Room (Building 2), Conference Room (Building 2)[88], Cooler Shed (Building 9);
- Demolish Records and files (Building 4), Field store (Building 5), Toilet Block (Building 8), Garage (Building 12), Storage (Building 14), Commercial Management (Building 16), Residence (Building 18), Dive Store (Building 19), Pump Shed(Building 20), Boat Storage (Building 22) in the short or long-term, and where occupied on vacation or by agreement.

5.8.4. CULTURAL AND NATURAL HERITAGE

Principles

- *The natural and cultural heritage values of the site should be conserved and enhanced where compatible with conserving ALL significant landscape spaces and elements, including cultural plantings.*
- *The significance of the site should be interpreted for the public and other users;*
- *The Aboriginal heritage sites should be protected, documented and conserved;*
- The long working history of the site should be interpreted, as should its Aboriginal heritage;
- Management and design of planting on the site,be protected, documented and conserved.
- Archaeological sites, MA2 (Current c1920 Slipway), MA6 (Header Tank), MA8(Stone Steps), MA10 (Historic Survey Marker).

Summary Recommendations

- *Protection and management of native vegetation to capitalise on local plant communities, reinforce the Greenweb links, and habitat links;*
- *Establishment of a register of significant trees and cultural planting to ensure that they are considered and preserved in any future proposal;*
- *Ensure that adaptive design and reuse of the heritage listed buildings and open space conforms with The Burra Charter;*
- *Identification and conservation of Aboriginal heritage sites, and interpretation of the Aboriginal history of the peninsula;*

88. Changed in Masterplan to retain

- *Interpretation of the site's history through signage, historic artefacts and public art;*
- *Significant cultural plantings should be retained and protected*
- *The key periods of significance of the site, pre-1902, Pre European settlement, 1902-1914 Establishment of Hatchery, 1938-1949 CSIR Fisheries Investigations, Fisheries School and Migrant Hostel, 1950-1984 CSIRO, and 1985-2011 NSW Fisheries Research Institute should be interpreted.*

5.8.5. IMAGE AND CHARACTER

Principles

- *The scenic values of the site's natural and cultural heritage qualities should be conserved and enhanced;*
- *Significant views to and from the site across to the water should be available for all to enjoy;*
- *Important views to, across and from the site should be documented and conserved;*
- *The address of the site on its northern boundary should be open and welcoming.*

Summary Recommendations

- Protection of all major views throughout the site (3 major views were identified in the Master Plan and further filtered views are identified in Fig 3.3.9)
- *Opening up of the northern part of the site to more public greenspace;*
- *Reducing the fragmented character of the site by removing walls and fences where practical; any new fences should only be constructed where essential and complement the cultural significance of the site.*
- *Maintenance of the existing natural landscape character.*
- Remove intrusive buildings and rationalise car parking;
- Screen development that does not reflect the key periods of significance;
- Provide landscape screening to car parking areas.

5.8.6. MANAGEMENT, OPERATION AND MAINTENANCE

Principles

- *The site should be securable in case of emergency;*
- *Lighting on the site should be confined to that required to ensure user safety;*
- *Uses of the site's buildings and landscape should include appropriate activities that assist in covering the site's maintenance costs;*
- *Landscape maintenance should seek to maximise amenity, safety and sustainability.*

Summary Recommendations

- *Control of vehicle access to and within the site;*
- *Securing of operational uses of buildings and the wharf;*
- *Lighting of the major vehicle routes and building frontages only;*
- *Security activities which may include opening of main vehicle gate and internal pedestrian gates*

in daylight hours;

- *Long-term maintenance program of assets (duration of tenancy and expectation).*

5.8.7. FUTURE USES

Constraints on Future Uses

The Masterplan notes that a key thread in the Harley recommendations was the recognition that any future uses of the site implied the need to sustainably fund activities, building uses, site servicing and landscape maintenance. As the Hungry Point Reserve Trust presently has no significant funding source, there is a need for a Business Plan that complements the Master Plan proposals, building on and further refining many of the proposals put forward in the Harley Report.

Opportunities for Uses

Harley notes:
"The goal is not to find uses for the site and buildings simply for the purposes of generating revenue, but rather to determine appropriate uses that extend the site's values and enjoyment and which are able to 'wash their face' in respect of costs incurred in their refit and operation."

From a heritage perspective, uses which relate to or interpret original uses are most desirable. In this regard, Buildings of significance that are recommended in the CMP to be retained are noted below next to suitable uses identified in the Masterplan. (Refer Policy 6.13.1 Future Uses).

A range of possible uses were identified in the Masterplan prepared by Clouston Associates:

- Boating recreation (clubs, boat storage, launching facilities, berths, ferry stops) – (Cooler Shed (Building 9), Waterfront Laboratory (Building 10), Boatshed (Building 11));
- Boat building and servicing (docks, haul-out, chandlery) – Cooler Shed (Building 9), Boatshed (Building 11));
- Maritime operations (rescue, emergency, patrol) – Cooler Shed (Building 9), Waterfront Laboratory (Building 10), Boatshed (Building 11), Building 1, Fisheries School (Building 7));
- Markets (food, art, crafts) – open space;
- Food and refreshment outlets (café, kiosk, restaurant) – Computer Room (Building 2), Storage (Building 14);
- Event hire (weddings, celebrations, conferences) – (Building 10) Aquaria (Building 23);
- Visitor Centres (environmental, historical, maritime) – (Building 10) Hatchery (Building 1), Migrant Hostel (Building 13) Migrant Hostel (Building 15));
- Arts facilities (artists' studios and performance amphitheatres) – (Buildings 13) Migrant Hostel (Building 15);
- Historical collections and interpretation (museums) – Hatchery (Building 6));
- Educational uses (environment, marine, cultural heritage) – (Building 10) Fisheries School (Building 7);
- Community facilities (rooms for periodic community and club hire) – (Waterfront Laboratory (Building 10), Hatchery (Building 6);
- Marine/Maritime Research (tertiary institutes) – Hatchery (Building 6) Waterfront Laboratory (Building

10), Cooler Shed (Building 9), Boatshed (Building 11), Aquaria (Building 23), Building 1, Water Police/ Fisheries School (Building 7);

- Children's Health and Wellbeing (hospice, terminal care) (Building 18);
- Accommodation (hotels, motels and overnight accommodation for schoolchildren on education visits) – (Buildings 13 and Building 15).

5.9. CONSTRAINTS & OPPORTUNITIES ARISING FROM HERITAGE PLANNING REQUIREMENTS

5.9.1. NATIONAL PARKS AND WILDLIFE SERVICE

On the Office of Environment and Heritage AHIMS database, 64 registered Aboriginal sites were identified with a search area centred on the study area and bounded by the following geographic co-ordinates: Eastings: 328000 – 330500, Northings: 6227000 – 6230000 (GDA, Zone 56). Two Aboriginal shell middens (#45-6-2491, #52-3-0188) as well as a shelter with occupation deposit (#45-6-2490) were identified in the northern portion of the study area. Site 45-6-2491 was identified as a sparse midden occurring below a sandstone rock face on the westward facing slope directly above Gunnamatta Bay. Shell with less than 5% ground surface coverage was observed in soil below the rock face, which contained a small cave rock shelter of dimensions 1.5 x 1 x 0.75m. Site 52-3-0188 was identified as a midden deposit immediately adjacent to building 16 though no further details were provided. Site 45-6-2490 was identified as a westward facing rock shelter with a sloping floor containing midden deposit. This rock shelter formed part of a formal garden bed and its associated midden deposit was deemed to have been partially disturbed by gardening activities.

Discrepancies in the number of Aboriginal sites identified by OEH and the Heritage Council should be understood in the context of the entire site being regarded as a continuous midden, with exposure in a number of locations evolving over time. The OEH AHIMS database takes precedence over the State Heritage Register in relation to Aboriginal Cultural Heritage.

Any ground breaking works within the Hungry Point Reserve have potential to impact on *in situ* Aboriginal midden sites (refer Section 8.2 of AMBS' report at Attachment A). Should future development works with potential to impact on Aboriginal cultural heritage be required, the proponent will be required to undertake a formal Aboriginal Cultural Heritage Assessment in support of an application for an AHIP prior to undertaking the proposed works, with the support of the Aboriginal community stakeholders. AHIP approval can occur in tandem with other approvals.

5.9.2. HERITAGE COUNCIL OF NSW/NSW HERITAGE ACT

The Cronulla Fisheries Centre is listed on the State Heritage Register under NSW Heritage Act 1977, (Listing No. 01011), and was gazetted 02 April 1999.

Listing on the State Heritage Register means prior approval from the Heritage Council is required when making changes to these heritage items, including any alteration, demolition, excavation etc. A Section 60 Application is required.

No standard exemptions apply as the site has aboriginal significance. The CMP recommends site specific exemptions for the following

1. Maintenance and Cleaning

2. Repairs
3. Painting
4. Minimal Excavation
5. Restoration
6. Minor Development
7. Minor Activities with little or no adverse impact
8. Change of Use
9. Temporary Structures
10. Landscape maintenance
11. Temporary Signage
12. Compliance with minimum standards and orders
13. Saftey and security

Refer Section 6.20

Nothing in the above site specific exemptions under s57(1) of The Heritage Act 1977 removes any requirements under part 6 of The National Parks and Wildfire Act 1974 in relation to Aboriginal heritage.

The Heritage Act provides for minimum standards for maintenance and repair of all SHR places. These standards apply to weatherproofing, fire protection, security measures and essential maintenance and repair. Under the Act, inspection to ensure compliance with the minimum standards must be conducted at least once a year (or at least once every three years for essential maintenance and repair).

5.9.3. SECTION 170 REGISTER

The site and buildings are listed as heritage items on the 170 Register of NSW Fisheries.

NSW Fisheries Heritage and Conservation Register includes 'Fisheries Research Centre Cronulla (F0013) 'Fish Pond' (F00012), 'Building No. 9 Boat Shed '(F00011), 'Aboriginal Middens, Three sites' (F0009), 'Building No. 6 Former Hatchery Building' (F00010).

Note that the NPWS register of sites overrides the Section 170 listings with regard Aboriginal sites.

Section170 listing requires NSW Fisheries to give the Heritage Council of NSW at least 14 days' written notice before it:

(a) removes any s.170 register item;
(b) transfers ownership;
(c) ceases to occupy or demolishes any place, building or work. etc.

Fisheries NSW is also bound by Premier's Department Asset Management Guidelines and best-practice heritage management forms part of these.

5.9.4. SUTHERLAND SHIRE COUNCIL

The site of the Fisheries Research Institute, Lot 1129 and 1187 DP 752064, is included in Schedule 5 of Sutherland LEP 2015 as a Heritage Item of State Significance, (Item No.1040) and as an archaeological site of local significance (A036/1073). The site also lies in the vicinity of Heritage Items – Bass and

Flinders Point and Salmon Haul Reserve (L060K/1054), the walking paths on eastern foreshore (L059/1053, a remnant stand of Tuckeroo (T71/1002) and the remains of Salmon Haul Ocean Wharf (A027/A1070). (Refer Figure 5.9.4)

Figure 5.9.4	2015	Sutherland Shire – Heritage map	Sutherland Shire Council

Implications of Heritage Listings

Development Consent is required when making changes to these heritage items, including any alteration, demolition, excavation, etc and changes which may impact upon Heritage Items in the vicinity. Development Consent may be sought concurrently with an Application to the Heritage Council, and an AHIP where required.

Sutherland Shire Local Environmental Plan 2015 was gazetted in June 2015 and its heritage provisions are relevant.

Clause 5.10 Heritage Conservation has the following objectives:

(1) Objectives

(a) to conserve the environmental heritage of Sutherland Shire Council,

(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,

(c) to conserve archaeological sites,

(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

(2) Requirement for consent

Development consent is required for any of the following:

(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):

(i) a heritage item,

(ii) an Aboriginal object,

(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,

(c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,

(d) disturbing or excavating an Aboriginal place of heritage significance,

(e) erecting a building on land:

(i) on which a heritage item is located or that is within a heritage conservation area, or

(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,

(f) subdividing land:

(i) on which a heritage item is located or that is within a heritage conservation area, or

(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

(3) When consent not required

However, development consent under this clause is not required if:

(a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:

(i) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or archaeological site or a building, work, relic, tree or place within the heritage conservation area, and

(ii) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or

(b) the development is in a cemetery or burial ground and the proposed development:

(i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and

(ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to an Aboriginal place of heritage significance, or

(c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property.

5.9.5. AUSTRALIAN HERITAGE COUNCIL

The site is not included on the National Heritage List, The Commonwealth Heritage List nor on the list of items nominated for evaluation. The site is not covered by statutory protection provided pursuant to the EPBC Act. There are no Aboriginal heritage items or places listed on the National Heritage List or Commonwealth Heritage List within the vicinity of the study area. No constraints apply.

5.9.6. NATIONAL TRUST (NSW)

The site is not classified by the National Trust (NSW). Listings in this register impose no legal restrictions. No constraints apply.

5.9.7. AIA REGISTER OF SIGNIFICANT BUILDINGS

The buildings are not listed as heritage items by the AIA. Listings in this register impose no legal restrictions. No constraints apply.

5.9.8. AUSTRALIAN INSTITUTE OF ENGINEERS

The buildings are not listed as a heritage item by the RAIE. Listings in this register impose no legal restrictions. No constraints apply.

5.9.9. ART DECO REGISTER OF NSW

The buildings are not listed as heritage items by the Art Deco Society of NSW. Listings in this register impose no legal restrictions. No constraints apply.

5.9.10. OTHER STATUTORY REQUIREMENTS

Any changes in the use of the building may result in a need to upgrade certain facilities to meet such obligations as may be imposed by Sutherland Shire Council. Matters may be identified in this study that may require modification includes:

- Local Government Act 1993 BCA
- Public Health Act 2010
- Fire Safety Requirements
- Ingress and Egress
- Disability Access Code

5.10. RELEVANT STATUTORY CONTROLS

5.10.1. GENERAL

Section 79C(1) of the Environmental Planning and Assessment Act 1979 specifies the matters which a consent authority (such as SHFA) must consider when determining a development application. These include:

- The provisions of any environmental planning instrument or draft, any development control plan or matters prescribed by the regulations;
- The likely impact of the proposed development, including environmental impacts on both the natural and built environments and social and economic impacts in the locality;
- The suitability of the site for development;
- Any submissions made in accordance with this act or regulations; and
- The public interest.

The following statutory and non-statutory instruments relate to the site:

- Sutherland Shire Local Environmental Plan 2015.
- Sutherland Shire Development Control Plan 2015 (draft).

Refer to Appendix D for relevant Clauses.

6. STATEMENT OF CONSERVATION POLICY

A Statement of Conservation Policy is a document that provides guidelines to assess many different proposals. Policies for the preservation of a Heritage Item are based on a recognition of its significance and the relevant constraints. Conservation can be regarded as the management of change and can be applicable whether or not the buildings have reached the threshold for listing as a heritage item.

The future conservation and development of the place should be carried out in accordance with the principles of the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter) as revised in 1999.

The Statement of Cultural Significance and Schedule of Significant Fabric set out in Section 4, together with any more detailed assessments of individual items in the policy section should be accepted as one of the bases for future planning and work on the place.

The policies recommended in this document should be endorsed by all parties as a guide to future conservation and development of the place. All work to significant fabric shall be undertaken on the basis of known evidence.

All work affecting significant fabric should be designed and constructed under the constant supervision of a qualified conservation practitioner approved by the Heritage Council of New South Wales. Assessment of cultural significance, and consequent decisions on conservation, should be modified if necessary in the light of further information obtained during conservation work.

This document should be accessible to the public and should be reviewed regularly as the need arises or when new information comes to light.

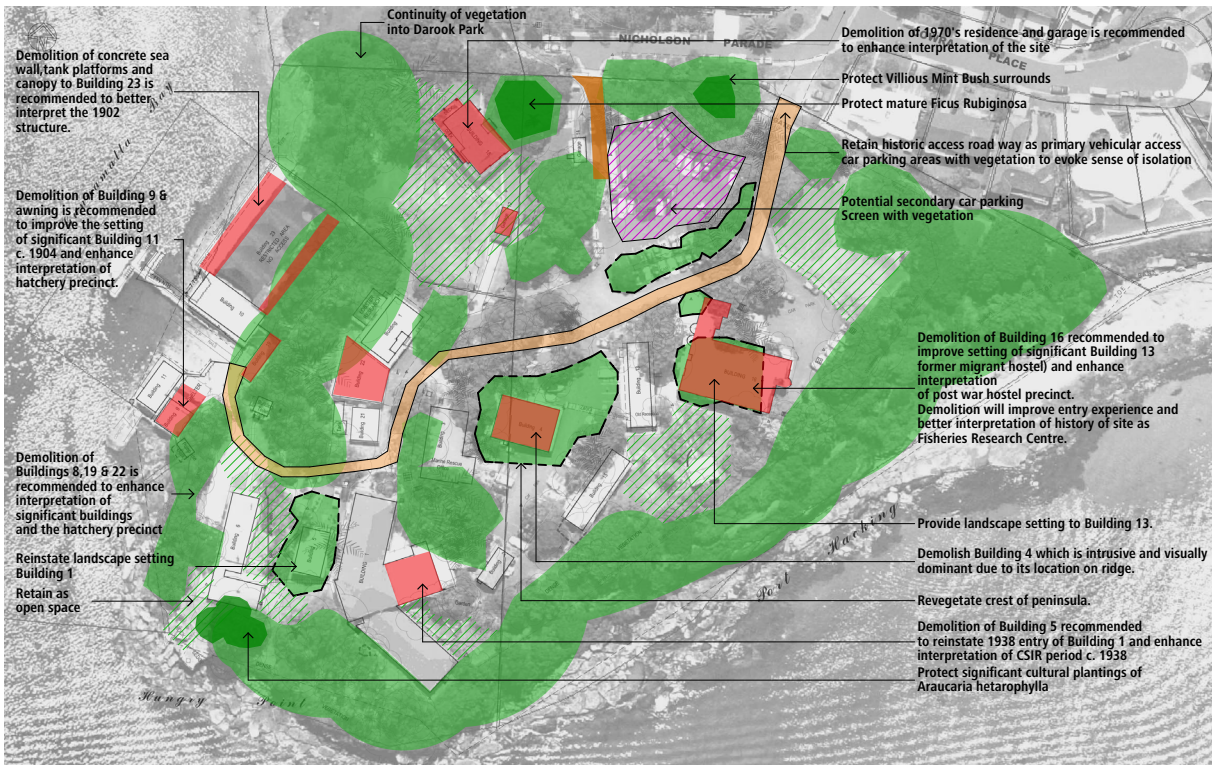
The purpose of the following policy is to provide a framework for the management of the site as a heritage item.

The conservation policy focuses on retaining the site and significant buildings as a financially viable facility, commensurate with current standards, while protecting its cultural significance as a former fisheries research centre.

The Statement of Conservation Policy identifies which buildings should be conserved and nominates intrusive elements in need of modification. The Policy identifies action in terms of essential and desirable works. The Policy also identifies new work opportunities. However, work should not occur at the expense of existing significant places.

Refer Figure 6.1 Heritage Recommendations.

Figure 6.1	2017	Heritage Recommendations	Architectural Projects



- Retain remnant indigenous vegetation
- Additional Landscaping
- Open Space
- Access Road
- Potential Secondary Access
- Retain Significant Specimens
- Demolition Recommended
- Potential Car Parking

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Demolished Cooler Shed 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B13	Former Migrant Hostel 1949-67
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B19	Dive Store 1994
B22	Boat Storage/Generator Slab 2010
B23	Aquaria, Fish Pond 1904

6.1. REVIEW OF THE CONSERVATION MANAGEMENT POLICIES

6.1.1. POLICY – CONSERVATION MANAGEMENT

The Conservation Management Policy should be adopted to guide all work on the site and schedule should be continually reviewed.

6.2. REQUIRED APPROVALS FOR STATE HERITAGE ITEMS

6.2.1. Policy – Approval

Before doing work to any part of the site or lodging a development application or a Section 60 application, the proponent should liaise with heritage officer from the relevant authority.

It is the responsibility of the people undertaking any works and activities on site to seek all relevant approvals prior to undertaking those works and activities on site.

6.2.2. Policy – Archaeology Approval

As the site is listed on the State Heritage Register, excavation works will require an archaeological assessment and may require a Section 60 approval prior to any excavation works commencing.

6.2.3. Policy – Aboriginal Heritage Approval

As the site is identified as having Aboriginal Heritage significance, an Aboriginal Heritage Impact Permit (AHIP) is required prior to any activity that may harm Aboriginal objects or places including excavation.

6.3. CONSERVATION OF FABRIC

6.3.1. Policy – Fabric Conservation

The grading of significance of the various places, buildings and fabrics is a valuable planning tool, and it assists in developing a consistent approach to the treatment of different elements. The various grades of significance generate different requirements for retention and conservation of individual structures and their various elements.

Refer 4.10.1 Schedule of Significant Fabric and figure 4.1, 4.2 and 4.3.

- No significant item identified in this plan should be despoiled and/or removed from the site prior to understanding the significance of the item and its contribution to the significance of the place.
- Surviving building fabric, views and landscape elements nominated in this document as being of exceptional significance shall be retained and conserved. Any work which affects the building fabric, spatial arrangement, views or landscape elements graded in this category should be confined to preservation, restoration or reconstruction, as defined by The Burra Charter.
- Elements of high significance have a high degree of original fabric and demonstrate key aspects of the place's overall heritage significance. These elements must not be obstructed by new works, structures or services and they must be clearly visible and interpreted as part of any new works. Where elements of high significance have been damaged they must be repaired with sympathetic materials in preference to replacement.
- Fabric of moderate significance should generally be retained. Adaptation or alteration may be acceptable if assessed and appropriate within a framework that protects the significance of the whole place.

- Surviving building fabric, views and landscape elements nominated in this conservation plan as being of little significance can be either retained or removed if required as either option does not intrude on the significance of the site.
- *The Burra Charter* recommends a minimalist approach be taken in removing fabric graded as of little significance or intrusive, and it be limited to protecting and enhancing fabric of greater cultural significance, or allowing practical use of the building.
- Elements that are identified in this plan as being of an intrusive nature reduce the overall significance of the place. The preferred option is for their removal.
- Significant fabric unavoidably disturbed during the works shall be salvaged, retained on site, securely stored and may be re-used in the building.

6.3.2. Policy – Protection of Key Periods of Significance

Key periods of significance and items associated with the following periods should be protected.

Aboriginal Occupation (pre-1902)	**Key period of significance**
Littoral Forest, MA10	
Establishment of Hatchery (1902-1914)	**Key period of significance**
(B6,B11,B21,B23 A1,MA6,MA8,Trees 324-326)	
CSIR Fisheries Investigations, Fisheries School and	**Key period of significance**
Migrant Hostel (1938-1949)	**Key period of significance**
(B1,B2,B7,B10,B13,B15)	
CSIRO (1950-1984)	**Key period of significance**
NSW Fisheries Research Institute (1985-2011)	**Key period of significance**

Significant fabric and landscape elements from these key periods including buildings and sites as noted above should be conserved and protected to allow for interpretation of the development and use of the site within these key periods.

6.3.3. Policy – Repairs

Decayed building fabric that is not likely to be causing on-going deterioration should not be repaired for visual reasons if by doing so the patina of age and ability to successfully interpret key periods of significance is degraded.

Where repairs or alterations are required, new material should closely match original or adjacent materials. However, new materials should not be so well matched as to be impossible to read evidence of change on close inspection.

6.3.4. Policy – Reconstruction

Reinstatement or reconstruction missing views, landscape and built fabric should only take place within the context of retention of cultural significance of a particular element and of the site generally.

6.3.5. Policy – Finishes

It is desirable that finishes never intended for painting such as facebrick should continue to be appropriately maintained. Surfaces intended for painting such as face weatherboard should continue to be painted in appropriate colours.

6.3.6. Policy – Define Colours

Original significant colour schemes based on appropriate research and which evoke the original character should be reinstated.

6.4. INTERVENTION INTO SIGNIFICANT FABRIC

Background

Article three of The Burra Charter indicates that conservation is based on a respect for the existing fabric of a place and should therefore involve the least possible physical intervention in order not to distort the evidence provided by the fabric.

Adaptations of existing fabric for practical reasons such as installation of new services and equipment, and the need to meet fire safety and other statutory requirements may be required in terms of securing a viable use for the building components as a whole, and satisfying the changing needs of the general public.

Guidelines

- Intervention into any significant building fabric should respect the integrity of the extant material, be carefully controlled, and be limited to that required by the proposed works.
- Limited intervention for exploratory or research purposes should generally be restricted to approved programs of re-use, or upgrading of service areas and facilities.
- Intervention should not be detrimental to the original fabric.
- Existing service areas may be upgraded. Any upgrading is subject to the proper approval process.
- New internal floor coverings are permissible, but should have minimal impact on the floor structure.

6.4.1. Policy – Restrict Intervention

It is desirable that intervention into building fabric for non-conservation purposes should generally be restricted to approved programs of re-use or upgrading of service areas and facilities.

6.4.2. Policy – Minimise Impact of Intervention

It is desirable that where intervention in significant fabric is unavoidable, the loss of cultural significance should be minimised. Such intervention should occur in areas of lower rather than higher significance, as identified in Figures 4.1, 4.2 and 4.3: Significant landscape elements, Significant Open Space and Paths, Grading of Significance Built Form.

6.5. SETTING

6.5.1. Policy – Setting

The architectural impact of the c1904 group derives from its low scale early twentieth century character and landscape backdrop, and combines well with the landmark quality of CSIR Fisheries (Building 1).

Key views of the c1904 building group available from Port Hacking and Darook Park should be preserved and enhanced.

The visual relationship between the Hatchery Building (Building 6), Aquaria Fish Ponds (Building 23),

Boatshed (Building 11) and Header Tank (Building 21) – Header Tank should be retained and enhanced.

This relationship should be enhanced through the removal of detracting elements, including Toilet Block (Building 8), Dive Store (Building 19), Pump Shed (Building 20), Boat Storage (Building 22).

Removal of Cooler Shed (Building 9) could be considered to better interpret the key period of significance of the precinct 1902-1914.

Cultural plantings that contribute to the setting of the c1904 group (*Araucaria heterophylla spp*) should be retained.

No new structures or landscape elements should be erected that would impact on the setting of the place, the relationships of the significant building and plantings, and views to and from the site. (Refer Figure 3.3.2 Landscape Analysis)

6.5.2. Policy – Views

Optimise identified views to and from the site. (Refer diagram 3.3.9 Significant Views p.89)

The need to protect and enhance framed views of Port Hacking and surrounds must be balanced with the need to protect vegetation and enhance the visitor experience.

6.5.3. Policy – Open Space

In accordance with the Masterplan, the site is intended to be developed as a publicly accessible park that can be enjoyed by the local community and a destination for the greater Sydney. Existing open spaces should be enhanced and improved to provide diversity of use and function that can cater to different type of users:

- Provide usable open space in areas already cleared with essential public amenities such as lighting, seating, picnic setting, bins and water fountain;
- Create open space areas that highlight vistas, views or appreciation towards significant landscape or heritage
- Rationalise car parking areas, and increase accessible parking space as appropriate; and
- Provide artwork and interpretive signage to interpret the significant landscaping and history of the site.

6.5.4. Policy Curtilage

The Heritage Curtilage identified in the State Heritage Register for The Cronulla Fisheries Centre (SHR:01011) should be consistent with the curtilage identified in Section 4.12 of this Conservation Management Plan.

6.6. LANDSCAPING

6.6.1. Policy – Historic Plantings

The Hungry Point Reserve vegetation exhibits character according to the period of planting or management intervention.

The original landscape character of the Hatchery precinct in the key period of significance (1902-1914), as evidenced in early photographs, should be conserved and interpreted. Historic plantings associated with the Hatchery (Building 6) (Trees 324-326) Norfolk Island pines (Araucaria heterophylla) should be retained and protected.

Early cultural plantings including Frangipani (Plumeria acutifolia), Fan Palm, (Washingtonia robusta) and older Phoenix canariensis should be retained. Other palms on site such as Californian and Spanish palms should be retained with the exception of Cocos Palm specimens.

6.6.2. Landscape Character

The original landscape character of the Hatchery precinct in the key period of significance (1902-1914), as evidenced in early photographs, should be conserved and interpreted.

The character of the Federation era landscape of mixed exotics and natives, including palms of the Fisheries Research Centre's character should be conserved. The tall *Phoenix canariensis* may be planted, not bird-dropped seedlings forming part of the cultural plantings, with some significance/contribution to make on the interpretation of the site. Where there are existing significant trees they should be protected and retained as cultural plantings. Refer Figure 3.3 Significant Landscape Elements.The landscape plan should provide a green screen to car parking areas in keeping with the context (either endemic/exotic according to location).

Enhance the clarity and legibility of the landscape, by minimising site fragmentation. The landscape character should reinforce the key period significant precincts as noted in Diagram 4.3. Ensure new landscaping is of a complimentary character with the landscape and other buildings.

6.6.3. Policy – Endangered Species

The location of the endangered Villous Mintbush specimen (Prostanthera densa), be noted and protection of the area ensured.

6.6.4. Policy – Endangered Ecological Community

Conserve Littoral Rainforest by managing threats from clearing and development, vehicular and pedestrian access, and changes to natural hydrology in the vicinity of the community.

Conserve Littoral Rainforest by managing invasive weeds, pathogens and disease.
Improve and extend Littoral Rainforest through active rehabilitation and restoration activities. Increase the resilience of Littoral Rainforest remnants by propagating seeds of key species for use in restoration plantings.

Increase connectivity and create natural buffers to allow for natural expansion of remnant patches.

Engage with the public to increase awareness and community involvement in management and rehabilitation of the endangered community.

6.6.5. Policy – Environmental Weeds

Mature Canary Island palms and *Washingtonia robusta* palms should be retained, but their fruit be removed to prevent weedy seedlings spreading across/outside the site. Young specimens should be removed.

Coral trees were also popular in the Federation and inter-war era so are likely to contribute to the site's key values. Mature specimens within the Hatchery and CSIR/ Fisheries School and Migrant Hostel Precinct should be retained. Young specimens should be removed. Coral trees should be replaced, when they age/ die, with Illawarra flame trees (*Brachychiton acerifolius*) which have similar part- deciduous nature and bright red flowers.

Serious environmental weeds including English Ivy, Asparagus Fern and Fishbone Fern to be controlled.

6.6.6. Policy – Future Plantings

In resilient areas, natural regeneration is to be encouraged.

New planting should be complementary to the cultural and remnant vegetation.
Some replacement plantings, smaller, e.g. shrubs, in this location and these be exotic, not locally-native

The management of new plantings and maintenance should consider the impact to Aboriginal sites and historical archaeology sites.

6.6.7. Policy – Planting Palette

Planting on the site should include exotic species known to have been planted on the site in the key periods, that can be managed such that they do not present a weed problem. Where this cannot be achieved, appropriate look alike substitutes may be planted.

Species selection for the exotic borders could include Hydrangea, Crepe Myrtle, Abelia, Camellia and Hibiscus and other plantings of the period[89]. Catalogues including Yates and Andersons & Co. specifically cover the period, and are available at Mitchell Library in the Clough Collection. The Colonial Plants database is a useful online tool for identifying plants available in Sydney in the late 19th Century. http://sydneylivingmuseums.com.au/research-collections/catalogues-research-tools/colonial-plants-database

6.7. BUILDING EXTERIORS

6.7.1. Policy – Exterior Appearance

The overall building form of significant Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostels (Building 13 and Building 15), and Aquaria (Building 23) should be preserved. The existing form, external surfaces, materials and finishes of the original façades should be preserved. It is desirable that door and window openings should not be enlarged or closed in. No new work should compromise the original façades. All remaining intact fabric on original façades should be retained and conserved. All changes to buildings required Section 60 approval.

89. Interwar Gardens, National Trust, 2003, p.14.

6.7.2. Policy – Façade Modification

It is desirable that where it is necessary to modify the façade of a significant building/s Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostels (Building 13 and Building 15), Aquaria (Building 23) changes to the façade should reinforce the composition of the original façade. Works of this nature require approval from the relevant consent authorities.

6.7.3. Policy – Later Additions

Later additions that do not date from the early key periods of significance and detract from an appreciation of a significant building can be removed or modified to provide a better interpretation of the key periods of significance. (Refer significance diagrams). This includes Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11). (Figure 4.3). Works of this nature require approval from the relevant consent authorities.

6.8. BUILDING INTERIORS

6.8.1. Policy – Interior Elements

Retain original interior detail and fabric to significant buildings Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostels (Building 13 and Building 15), Aquaria (Building 23). Former CSIR Fisheries Laboratory (Building 1) and Hatchery (Building 6) (south wing) have interiors that are substantially intact. Generally, the retention of the original elements and interior finishes is desirable.

6.8.2. Policy – Interior Spaces

The spatial qualities of Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostel (Building 15), and Aquaria (Building 23) contributes to their significance and interpretation and therefore should be conserved as part of the on-going use, on-going management and any future development strategy. Original spatial qualities of Migrant Hostels (Building 13 and Building 15) and Fisheries School (Building 7) should be interpreted.

6.8.3. Policy – Impact on Façade

Internal work should not compromise the façades of the significant buildings Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostels (Building 13 and Building 15), Aquaria (Building 23).

6.8.4. Policy – Low Integrity Interiors

As the interiors of Boatshed (Building 11), Migrant Hostel (Building 13) and the north wing of Hatchery (Building 6) have been extensively modified, further modification could occur to these interiors. The character defined by the original interiors that create the spatial quality should be interpreted. Works of this nature require approval from the relevant consent authorities.

6.9. TENANCY FITOUT GUIDELINES

6.9.1. Policy – Tenancy Fitout

All tenants of the site should be made aware of its cultural significance.

Tenancies should only be selected on the basis that the proposed or future uses are compatible with the significance of the site and buildings and the sensitive fabric and spaces. New work in significant buildings Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boatshed (Building 11), Migrant Hostels (Building 13 and Building 15), Aquaria (Building 23) should be able to be installed and removed without impact.

6.9.2. Policy – Incremental Changes

Proposed changes of use and modifications to any building and site elements should be considered in the context of a coordinated plan for the whole building and site.

6.10. SIGNAGE

6.10.1. Policy – Original Signage

Investigations should occur to uncover evidence of any earlier signage. Original signage should be retained and reinstated.

6.10.2. Policy – Co-ordinated Signage

Co-ordinated signage should be designed for the site that complements the appearance of original fabric and the overall character of the place and is sufficiently flexible to allow for any changes in occupancy. The number and location of signs should be controlled to conserve the character of the site.

6.11. ORDINANCE COMPLIANCE

6.11.1. Policy – Ordinance Compliance BCA

Uses which require an unacceptable degree of intervention in significant fabric for upgrading to ordinance compliance should be avoided or located in buildings of little significance. Where unacceptable levels of intervention are required, exemptions should be sought. Conservation, upgrading and reuse programs of the various components of the site should focus on responding to the spirit and intent of the ordinances if strict compliance would adversely affect the cultural significance.

6.12. INTEGRATION OF SERVICES

6.12.1. Policy – Removal of Inappropriate Services

The provision of new services should consider the removal of inappropriate services. Works of this nature require approval from the relevant consent authorities.

6.12.2. Policy – Installation of Services

The extension or alteration of existing services is acceptable in the context of re-use of significant buildings, but should not have a detrimental impact on the significance of the building or site as a whole. New services should use existing service trenches and disturbances rather than involving new excavation to avoid impact to historical and Aboriginal archaeological sites and areas of potential. Works of this nature require approval from the relevant consent authorities.

6.12.3. Policy – Ventilation

Provide appropriate ventilation and climate control that enables retention of long-term tenants.

6.12.4. Policy – Upgrading of Services

Any proposed upgrading of services should be carefully planned. Brackets or fixings for services that are more visible and do not damage significant fabric are preferred. Works of this nature require approval

from the relevant consent authorities.

6.13. INTERPRETATION

Background

The extraordinary and unique potential of the site to interpret a wide range of heritage values is eloquently described by Anne Lif Lund Jacobsen: *"overlooking the Port Hacking estuary…From the tranquillity of the flat rocks behind Harald Dannevig's unmistakable Norwegian styled marine laboratory, one encounters many of the features that characterised this region's interaction with the sea…the estuary was named in April 1976 by Matthew Flinders and George Bass who explored the place and decided to name it after the Colony's game hunter Henry Hacking. The Gwiyagal, the local aboriginal people, called the estuary Deeban…across the estuary, at Maianbar on the south shore, are the sparse remains of Australia's first marine hatchery, the forerunner of the Research Centre. The south shore of the inlet marks the boundary of The Royal National Park, Australia's first national park, established in 1879…the laboratory and fish pond behind me originated from the State-owned marine hatchery completed in 1908, and that the site had been headquarters for CSIRO's Fisheries Division for nearly 50 years, until it became the home of NSW Fisheries research in 1985. On the site of the Research Centre I have found aboriginal middens of sun-bleached shells overlapped by newer deposits of shellfish used as feed in the hatchery's fishponds or discarded after being used in tagging programs. At Jibbon Head near the town of Bundeena on the south shore are large rock engravings made by the traditional owners showing rays and whales…past the entrance of the estuary out to the sea, I am looking at the 'Home Grounds', the first fishing grounds to be depleted by steam trawlers in the late 1920s…people's struggle to understand and come to terms with the sea's limited capacity for sustainable fisheries…"In my mind all these landmarks come together, weaving a complex tapestry of cultural and natural marine heritage back and forth through time and space"*[90].

Opportunities for the conservation of the heritage and natural values of the place that could be explored may include the preparation of an interpretation strategy for the Reserve. A meaningful interpretation would contribute to an understanding of its significance and the continuity of its use by Aboriginal and European communities.

The potential of the site to interpret these key heritage values is greatest within the precincts that relate to the early key periods of development of the site. Refer Figure 5.2 Potential for Interpretation of Key Periods.

6.13.1. Policy – Interpretation Strategy

An Interpretation Strategy is required to inform future site planning and development. The interpretation strategy should include policies for maritime and potential archaeological sites. The Interpretation Strategy should be prepared within 12 months of endorsement of this CMP.
The Interpretation Strategy should be submitted for approval by the Heritage Council or its delegate.

6.13.2. Policy – Retain and Interpret Site Evolution and Key Periods of Significance

Evidence of the progressive evolution of the site should be respected and retained and interpreted.

90. Jacobsen, Anne Lif Lund, *"Steam trawling on the south-east continental shelf of Australia – An environmental history of fishing, management and science in NSW, 1865-1961"*.

Key periods of significance should be interpreted namely:

- Aboriginal occupation, Pre-1902,
- Establishment of Hatchery, 1902-1914
- CSIR Fisheries Investigations, Fisheries School and Migrant Hostel, 1938-1949
- CSIRO (1950-1984)
- NSW Fisheries Research Institute (1985-2011)

6.13.3. Policy – Interpretation of Aboriginal Heritage

The Hungry Point Reserve has been identified as having Aboriginal cultural heritage values which should be conserved for present and future generations. The association and relationship with the waters of Port Hacking makes a significant contribution to an understanding of the values of this place.

Consideration should be given to developing an interpretation of the area that is readily accessible and makes a meaningful contribution to the dissemination of the Aboriginal values of the Hungry Point Reserve and its relationship with Port Hacking.

Consultation with the La Perouse Local Aboriginal Council should occur in the development of an interpretation plan.

No Aboriginal place names have been identified in consultation to date, however this could be explored in the development of an interpretation plan.

6.13.4. Policy – Appropriate Interpretation

The heritage significance of the site should be interpreted on site by appropriate methods making reference to existing evidence that can be utilised in interpretation as the starting point (rather than rely on introducing new material).

In this regard retention and appropriate re-use of significant buildings and sites, including retention/restoration of appropriate setting and relationships between key buildings should be considered. The Header Tank (Building 21) and the Aquaria (Building 23) should be interpreted rather than restored as their original uses have changed.

6.13.5. Policy – Interpretation of Original Use

As the site's historical significance derives from its early function as a Fisheries Research Centre, conservation should primarily be aimed at retaining and recovering this aspect of the significance.

6.13.6. Policy – Retention of Original Building Names

Consideration should be given for the use of the original building names. The following historic names are recommended:

- Building 1 CSIR Fisheries Laboratory
- Building 6 Hatchery/Laboratory
- Building 10 Fisheries School
- Building 11 Boat Shed
- Building 13 Former Migrant Hostel
- Building 15 Former Migrant Hostel
- Building 21 Header Tank

- Building 23 Aquaria, Fish Pond

6.14. FUTURE USE

6.14.1. Policy – Protection Aboriginal Values historical and marine archaeology and Cultural Heritage Values

Future development of the Reserve must consider Aboriginal Cultural Heritage values of the place, and ensure that potential impacts to Aboriginal sites and places within the Reserve are minimised. Management and development strategies developed for the Hungry Point Reserve should aim to:

- Conserve the condition and integrity of Aboriginal places within Hungry Point Reserve; and
- Incorporate Aboriginal community recommendations, where possible, to ensure that the cultural values and significance of the Reserve is upheld.
- Refer to Policy 6.19
  Policy Protection of historical and marine archaeology and Cultural Heritage Values
- Future development of the Reserve must consider the historical and marine archaeology and cultural heritage values of the place, and ensure that potential impacts to cultural sites within the Reserve are minimized. Management and development strategies developed for the Hungry Point Reserve should aim to:
- Conserve the condition and integrity of cultural heritage places within Hungry Point Reserve

6.14.2. Policy – Landscape Spaces and Elements

Key open spaces relating to historic precincts should be retained and enhanced (Figure 4.2). Significant trees, cultural planting and remnant vegetation to be protected and retained (Figure 4.1). Revegetate crest of the peninsula to reflect landscape and heritage setting. Provide vegetation screening to car parking areas.

6.14.3. Policy – Future Use of Buildings

The original use of the site and buildings has been changed. It is preferable that the original uses of significant buildings remain or are interpreted. New uses should be selected which are most compatible with the retention and recovery of the character and significance of the building and site. The approach should be sufficiently flexible to ensure that the buildings and setting retain the identified cultural significance of the place.

The future use of the site and buildings should be compatible with its conservation, and ideally could include a Research and/or an Education Centre.

Ideally, the buildings and structures should continue to be used for purposes related to those for which they were originally designed. Where it is not possible or feasible to reinstate the original purpose of a building or structure, a compatible use should be found, and its historic use should be interpreted.

Other suitable uses could include:

- Scientific Laboratories
- Offices
- Maritime Government Agencies

- Maritime Rescue, Water Police
- Education Centre
- Temporary Accommodation.

Suitable uses that retain and enhance heritage values of significant buildings are listed in the following table.

BUILDING NO.	BUILDING NAME	POTENTIAL USE
Building 1	Former CSIR Fisheries Laboratory	Marine/Maritime Research Commercial office uses though are difficult due to isolation
Building 6	Former Hatchery	Research, Spectacular location and potential to interpret significance of site, key periods c1904, makes it ideal for public accessibility
Building 7	Water Police/Fisheries School	Education, Offices
Building 10	Former Fisheries School, Waterfront Laboratory	Education, Marine, Maritime Café/restaurant together with building 23
Building 11	Boat Shed	Marine, Maritime, Boat Servicing
Building 13	Former Migrant Hostel	Short-term accommodation would best interpret former use Commercial/office is acceptable use.
Building 15	Former Migrant Hostel	Short-term accommodation would best interpret former use Commercial/office is acceptable use.
Building 21	Header Tank	Interpretation of 1904 tank, no use anticipated
Building 23	Aquaria, Fish Pond	OH&S precludes continuation of use Access difficult Reversible options enable retention and interpretation of fish pond. Potential for reversible floor Café/restaurant uses

The policies set out in this document should be applied irrespective of the uses that occupy the building.

6.14.4. Policy – Incremental Changes of Use

Proposed changes of use to any building or site element should only be considered in the context of a coordinated plan for the whole site.

6.15. ASSET MANAGEMENT

6.15.1. Policy – Asset Management

The management of the site should occur as a single entity.

6.16. CONSERVATION OF HISTORICAL AND MARITIME ARCHAEOLOGICAL SITES

Background

Significant Historical and Maritime Archaeological sites include the Historic Survey Marker (MA 10) and sites associated with the establishment of the fisheries notably the Header Tank and Water Wheel (MA6), and Stone Steps (MA8), the former Caretaker's Cottage (A1), and the c1920 slipway (MA 2). The following policies were formulated in association with Cosmos Archaeology for inclusion in this Conservation Management Plan to protect and limit any potential adverse impacts on the archaeological research potential and significance of the site.

6.16.1. Policy – Historical And Maritime Archaeology

Conservation of the archaeological resources of the site should be a priority. Site planning and development should be carried out to ensure the archaeological resources are retained and conserved in situ, and alternatives should be investigated in order to avoid impacts.

6.16.2. Policy – Works which may impact on Historical Archaeology

Works which may impact archaeological resources should be subject to an archaeological assessment by a suitably qualified archaeologist. An application under S60 will need to be approved prior to works commencing. The archaeologist should guide the preparation of a S60 Application.

6.16.3. Policy – Archaeological Management Strategy

To guide the extent of any proposed works on archaeological resources will be impacted, an archaeological management strategy should be prepared by a suitably qualified archaeologist. This archaeological management strategy may include test excavation, salvage excavation or other options.

6.16.4. Policy – Artefacts

Significant artefacts recovered from the site should be subject to analysis and conservation.

6.16.5. Policy – A1 – Site of Former Caretaker's Cottage

The archaeological site of the former Caretaker's Cottage (A1) should be included in the Heritage Schedule of the LEP.

Any development or landscaping works at the site is to be undertaken in accordance with the Archaeological Policies of this plan to prevent impacts to the identified archaeology and potential relics.

6.16.6. Policy – MA1 – 1904 Maritime Infrastructure Boatshed (Building 11)

Any repair or maintenance works required for the boatshed (Building 11) that may include disturbance to the rock platform or seabed along the western side in the location of the former Maritime Infrastructure (MA1) can be carried out without the need of any maritime archaeological assessment.

6.16.7. Policy – MA2 – c1920 Slipway

Retention or reinstatement of the slipway (MA2) on the site should be considered as it is a significant item related to the early Fisheries complex. Consideration for the removal of the slipway (MA2) can only be done if further maritime archaeological (including archival photographic) recording of the site is undertaken prior to any development works.

6.16.8. Policy – MA3 – Former 1904 Boatshed
Any future work associated with the Dive Store (Building 19) would not require any further archaeological assessment related to the Former 1904 Boatshed (MA3).

6.16.9. Policy – MA4 – 1920s Police Boatshed
Any future proposed plans that takes place within the area of MA4 can be carried out without the need of any maritime archaeological assessment associated with the former 1920s Police Boatshed.

6.16.10. Policy – MA5 – c1945 Jetty and Current West Jetty
The existing jetty (MA5) can be repaired, modified or removed as it is not considered to be significant. Future construction of any maritime structures, such as new jetty, could be constructed in the area between the Boatshed (Building 11) and the Wet Lab (Building 10). Care should be taken to retain the remains of the former slipway where possible (MA2).

6.16.11. Policy – MA6 – Header Tank Former Water Wheel/Pump (Refer Also Building 21)
The Header Tank (MA6, Building 21) should be included in the Heritage Schedule of the LEP, and should be retained and interpreted on site. The supporting structure on top of the header tank is a modern addition and is not considered to be significant, and removal is desirable. Any proposed works in the vicinity of the water wheel (MA6), including landscaping or tree removal, should be done with care so as to not cause any damage to potential remains of the water wheel. In the event that landscape works is to occur in the vicinity of the water wheel location (MA6), an archaeological monitoring plan should be prepared in case remains are uncovered during the works.

6.16.12. Policy – MA7 – Marine Structure
The Marine Structure (MA7) does not meet the threshold for inclusion onto the Heritage Schedule of the LEP. The remains of this item can be considered to be removed after the remaining elements have been appropriately recorded.

6.16.13. Policy – MA8 – Stone Steps (near Building 11)
The stone steps (MA8) should be included in the Heritage Schedule of the LEP and be retained.

6.16.14. Policy – MA9 Stone Steps, Former Wharf
The steps, two memorials and concrete foundation (MA9) do not meet the threshold for inclusion onto the Heritage Schedule of the LEP. The first flight of steps and two memorials set in the rock should be retained on the site. The lower flight of steps and the remnant concrete foundation visually dominate the coastline from the water and can be removed.

6.16.15. Policy – MA10 – Historic Survey Mark
The Historic Survey Mark (MA10) should be preserved and retained.

6.17. MAINTENANCE AND REPAIR

6.17.1. Policy – Maintenance Plan
A site-wide maintenance plan is required to be prepared including a building maintenance plan and a landscape maintenance plan, to achieve minimum standards of maintenance and repair required by regulations combined in section 118 of the NSW Heritage Act.

A building maintenance plan and repair program for Former CSIR Fisheries Laboratory (Building 1), Hatchery (Building 6), Fisheries School (Building 7), Waterfront Laboratory (Building 10), Boat Shed (Building 11), Migrant Hostels (Building 13, Building 15), Header Tank (Building 21) and Aquaria (Building 23) should be prepared and implemented based on a comprehensive knowledge of the building uses and materials, with regular inspection and prompt preventative maintenance and repair.

A landscape maintenance plan for landscape elements by precinct including drives, pathways, stone steps, lawns, cultural plantings, remnant vegetation and planted areas should be prepared.

6.17.2. Policy – Graded Levels of Intervention

The appropriate level of significance of any part or element of the building or site shall be determined from this plan prior to determining the acceptable level of intervention or appropriate action required under maintenance.

6.18. APPROPRIATE SKILLS AND EXPERIENCE

6.18.1. Policy – Skills and Experience

Relevant and experienced professional conservation advice should be provided for all conservation, maintenance, adaptation and repair work proposals and programs on the building, precinct or landscape elements.

All work involving excavation of a site that has archaeological potential should be carried out under the supervision of a qualified archaeologist, with experience of holding excavations on state significant archaeology sites.

6.19. CONSERVATION OF ABORIGINAL SITES, OBJECTS AND PLACES

Background

Conservation of Aboriginal cultural heritage sites within the Reserve will require minimisation of surface exposures in midden areas, arising from loss of groundcover due to intensive mowing, spraying of herbicides, pedestrian traffic, and construction activities. Control of erosion and measures to address any potential groundcover loss is recommended in those areas to limit impacts and ensure the effective long-term conservation of these sites.

Significant Aboriginal sites within the Reserve include rock shelters, a burial and middens that should be protected from harm. Protective measures should include stabilisation of exposed midden material, and access limited to the rock shelter in Area three. The following policies were formulated by Australian Museum Consulting in Hungry Point Reserve CMP: Aboriginal Heritage Assessment, at Attachment A. (Refer to Aboriginal Heritage Assessment at Attachment A)

Midden Deposits

The management of Aboriginal midden deposits along the foreshore requires their protection from degradation and destruction. The loss of groundcover in midden areas through pedestrian traffic and herbicide spraying has led to degradation of exposed midden deposits. These destructive processes should be addressed as a primary short-term threat to midden site stability. Conservation in the Reserve should be considered to minimise this destruction.

Stabilisation of midden erosion in areas where current practices are causing accelerated erosion and rapid midden deterioration should be considered. Patches of bare soil to the south of the two storey Residence (Building 18, Area 1), and to the south of Migrant Hostel (Building 15, Area 3) are areas of concern. Herbicide spraying and intensive lawn mowing should cease in these areas to prevent any further immediate impacts, and to allow natural regrowth of groundcover to occur. (Refer to Aboriginal Heritage Assessment at Attachment A)

6.19.1. Policy – Midden Deposits

Direct impacts to Aboriginal midden sites exposed in Area 1, Area 2 (CB 1), Area three (CB 15) and Area four should be limited, and the use of herbicide and intensive mowing in areas where midden materials are not covered and stabilised by limited ground cover should cease until vegetation can re-establish naturally. (Refer to Aboriginal Heritage Assessment at Attachment A)

Long-term protection of the exposed midden areas may be achieved by the re-establishment of vegetation cover, preventing further erosion from occurring. Under the NPWS Act, any impacts to Aboriginal heritage sites, objects or places require an AHIP approved by OEH prior to works proceeding, including impacts arising from conservation works.

To prevent ongoing erosion and degradation of exposed midden areas, the following conservation works should be considered, following AHIP approval. A dense layer of locally native sedge and grass species including Dianella spp. and Spike Matrush *(Lomandra longifolia)* could be planted on the exposed midden areas, which should stabilise the midden profiles, and in previously sprayed areas, prevent exotic grasses and weeds from further growth. The tubestock to be planted should be of the minimum size possible, such as Grow-Cells and other multi-cell tray types in order to minimise disturbance to the midden.

6.19.2. Policy – Exposed Middens

Where exposed middens cannot naturally revegetate due to erosion, the exposed portions of the sites should be stabilised and rehabilitated through planting locally native sedge and grasses. Any such limited rehabilitation impacts must be carried out under an AHIP granted by OEH.

In areas where it is not possible to establish new vegetation on exposed midden deposits due to significant loss of natural soils, clean fill should be introduced as part of the AHIP approved conservation works, and a more natural and sustainable soil profile created. Such large erosion tends to occur on steep slopes where anchoring vegetation has been removed, and stabilisation of the introduced fill may require the laying of geotextile, followed by plantings.

Where erosional impacts to middens are such that vegetation cannot re-establish, clean fill should be introduced to cover the exposure and prevent further erosion, followed by plantings to stabilise the fill. Any such limited rehabilitation impacts must be carried out under an AHIP granted by OEH.

Extant Demolition Material

Demolition material scattered beneath Migrant Hostel (Building 13) is associated with the construction of the former CSIRO Fisheries facilities. The demolition material comprises timber stakes, stone pebbles

and coarse river sand, and has an adverse effect on the aesthetic values and integrity of the midden it overlies. Removal of such contaminants is in the best interests of all Reserve users in maintaining a safe, clean, and visually pleasing environment. These works would not require application for an AHIP, providing care is taken during removal of the modern refuse to ensure that there are no impacts to the underlying midden or nearby native vegetation.

6.19.3. Policy – Extant Demolition Material

Modern demolition material and rubbish beneath Migrant Hostel (Building 13) should be removed from the site, with due care taken to ensure that no impacts to the Aboriginal midden site occur during works.

Rockshelters

Midden deposits associated with the past Aboriginal use of rock shelter sites AHIMS 45-6-2490 and 45-6-2491, although already considerably degraded, are still considered to hold importance as cultural heritage resources for the local Aboriginal community, and to have archaeological research potential. During the current survey it was not possible to assess the nature and extent of any midden deposit in the rock shelter in Area three, though the thick deposit of soil suggests that sub surface deposits may survive (See Section 6.2.6 above). The isolated, near inaccessible location of the rock shelter would usually serve to protect any archaeological deposits from disturbance, however it is clear that the site has been recently accessed and used as a dumping ground for modern refuse. Access to the rock shelters should be limited through the installation of fencing within the formal gardens around the sites, preventing ease of access. In addition, it is recommended that a significant layer of mulch is introduced to protect these middens from further erosion.

6.19.4. Policy – Rockshelters

Access to rock shelter sites AHIMS 45-6-2490 and 45-6-2491 should be controlled by the installation of fencing within the formal gardens around the sites, and mulch material should be introduced to the sites to control erosion impacts.

Aboriginal Burials

The Hungry Point Reserve is known to contain one Aboriginal burial along its eastern foreshore, and may contain additional human remains of significance to the local Aboriginal community. Although ongoing natural erosion on the site has limited potential to expose Aboriginal burials, should any suspected human remains be identified during ongoing management and use of the site, OEH protocols as per the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010: 34-35) should be followed.

6.19.5. Policy – Aboriginal Burials

If any human remains are disturbed during the demolition works, do not further disturb or move the remains, all work in the vicinity must stop immediately, and the NSW Police and OEH's Environment Line (131 555) must be notified as soon as practicable and provided available details of the remains and their location. Works should not proceed without the written consent of OEH.

Should any additional Aboriginal burials be identified within Hungry Point Reserve, their significance should be evaluated and appropriate management strategies should be developed in close consultation with the local Aboriginal community.

Future Development Applications

The Aboriginal sites within the Hungry Point Reserve and their legislative protection constrain further development within the Reserve likely to impact upon Aboriginal cultural heritage objects. However, protection and conservation of the sites provide opportunities for the preservation of important cultural resources within a wider, layered heritage area.

Any ground breaking works within the Hungry Point Reserve have potential to impact on in situ Aboriginal midden sites. Future master planning and development of the Reserve should seek to avoid significant in-ground impacts, and should consider development options that do not require large scale or intrusive works on the site.

6.19.6. Policy – AHIP Approval

Any future development with potential to impact on Aboriginal cultural heritage will require the approval of an AHIP by OEH, supported by an Aboriginal Cultural Heritage Assessment carried out in formal consultation with the Aboriginal community in accordance with OEH guidelines.

6.19.7. Policy Future Development Impacts

Future master planning and development within Hungry Point Reserve should seek to avoid potential impacts to Aboriginal Cultural Heritage that may arise from intrusive ground-breaking works.

Should future development works with potential to impact on Aboriginal cultural heritage be required, the proponent will be required to undertake a formal Aboriginal Cultural Heritage Assessment in support of an application for an AHIP prior to undertaking the proposed works, with the support of the Aboriginal community stakeholders. The assessment and consultation process must be undertaken in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010) and the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010).

Potential Birthing Cave Site

The potential Aboriginal women's birthing cave associated with AHIMS site 45-6-2491 may represent a highly significant cultural site to the local Aboriginal community; however, historic research and consultation with the Aboriginal community to date has indicated that there is no definite evidence suggesting that the site is an Aboriginal place. Prior to initiation of any action with potential to impact on the potential cultural site, such as demolition and removal of the adjacent fish holding tanks and pool, the proponent should consult with the representatives of the traditional owners of the area, the Gweagal people, to determine the status and legitimacy of the site. Consultation should be facilitated by the La Perouse LALC.

6.19.8. Policy – Potential Birthing Cave Site

Consultation should be initiated with representatives of the Gweagal people female members of the La Perouse LALC and, in particular, female Gweagal community representatives to establish the status and legitimacy of the possible Aboriginal women's birthing cave associated with AHIMS site 45-6-2491.

7. IMPLEMENTATION OF POLICY

7.1. MANAGEMENT PROCESSES

In future management of the site and buildings the decision making process should centre on the protection of heritage values. The site is listed as a Heritage Item of State significance. There are several buildings and archaeological sites that are individually significant. The Sutherland Shire Council is the consent authority for all building work. The approval of the Heritage Council of NSW is also required for any major work. If works are minor in nature and will have minimal impact on heritage significance of the place, they may be exempt from the requirements to submit an application under Section 60 of the *Heritage Act 1977*.

The following management processes should be implemented when considering the future and ongoing use of the site:

- This Conservation Plan should be included in any future lease documents in order that the enquirer or prospective is fully appraised of heritage requirements.
- Skilled and appropriate staff or consultants should be employed to develop an understanding of the nature of the building or place, re-assess its significance and develop compatible approaches taking into consideration user requirements and heritage issues.
- Insurance cover for the building should be reviewed to acknowledge the areas of significance.
- Regular BCA reporting on emergency services as required.
- A building Maintenance Program should be implemented.

7.2. SITE SPECIFIC EXEMPTIONS

The CMP identifies Aboriginal values for the SHR item (refer Section 4).Therefore, as per Note 2 in the Heritage Council of New South Wales Exemption Notification Form (see below) *(s.57 (2) Heritage Act 1977)*, the Standard Exemptions for Works Requiring Heritage Council Approval do not apply:

Note 2. The Standard Exemptions do not apply to anything affecting objects, places, items or sites of heritage significance to Aboriginal people or which affect traditional access by Aboriginal people.

The Heritage Council can, however, endorse a CMP *(s. 38(1) Heritage Act 1977)* and the effect of endorsing the CMP, exempts a person from requiring approval from the Heritage Council to take certain actions *(s. 57 (1D) Heritage Act 1977)* including site specific exemptions. It should be noted that the site specific exemptions in the CMP do not circumvent the processes put in place to protect the Aboriginal cultural heritage values of a place under the *National Parks and Wildlife Act 1974*.

The following works are recommended as exempt activities, uses and events in this CMP as they are minor in nature and will have minimal impact (which is unlikely to have an adverse effect) on the heritage significance of Hungry Point Reserve.

Nothing in the following site specific exemptions under s.57(1D) of the *Heritage Act 1977* removes any requirements and/or permits under Part 6 the *National Parks and Wildlife Act 1974* in relation to Aboriginal heritage.

SITE SPECIFIC EXEMPTION 1: MAINTENANCE AND CLEANING

(a) the maintenance of an item, including the built elements within the cultural landscape, in order to retain its condition or operation without the removal of or damage to the existing significant fabric or the introduction of new materials;

(b) cleaning including the removal of surface deposits, organic growths or graffiti by the use of low-pressure water (less than 100 psi at the surface being cleaned) and neutral detergents, provided there is no adverse impact on significant patina to buildings.

SITE SPECIFIC EXEMPTION 2: REPAIRS

(a) the replacement of services such as cabling, plumbing, wiring and fire services that uses existing service routes, cavities or voids or replaces existing surface mounted services and does not involve damage to or the removal of significant fabric;

(b) the repair (such as refixing and patching) or the replacement of missing, damaged or deteriorated fabric that is beyond further maintenance, which matches the existing fabric in appearance, material and method of affixing and does not involve damage to or the removal of significant fabric.

(c) repair and resurfacing of existing road, paths, fences and gates, wharves and jetties, which matches the existing fabric in appearance, material and method of affixing and does not involve damage to or the removal of significant fabric.

SITE SPECIFIC EXEMPTION 3: PAINTING

Works and activities associated with painting that:

(a) does not involve the disturbance or removal of earlier paint layers other than that which has failed by chalking, flaking, peeling or blistering;

(b) involves over-coating with an appropriate surface as an isolating layer to provide a means of protection for significant earlier layers or to provide a stable basis for repainting; and

(c) employs the same colour scheme and paint type as an earlier scheme if they are appropriate to the substrate and do not endanger the survival of earlier paint layers.

SITE SPECIFIC EXEMPTION 4: MINIMAL EXCAVATION

Excavation or disturbance of land of the kind specified below:

(a) the excavation or disturbance of land is for the purpose of exposing underground utility services infrastructure, which occurs within an existing service trench and will not affect any other relics or Aboriginal archaeological values such as midden material.

(b) the excavation or disturbance of land is to carry out inspections or emergency maintenance or repair on underground utility services and due care is taken to avoid effects on any other relics or Aboriginal archaeological values such as midden material.

(c) the excavation or disturbance of land is to maintain, repair, or replace underground utility services to

buildings, which will not affect any other relics or Aboriginal archaeological values such as midden material.

(d) the excavation or disturbance of land is to maintain or repair the foundations of an existing building, which will not affect any associated relics or Aboriginal archaeological values such as midden material.

(e) the excavation or disturbance of land to expose survey marks for use in conducting a land survey, which will not affect any associated relics or Aboriginal archaeological values such as midden material.

SITE SPECIFIC EXEMPTION 5: MINOR ACTIVITIES WITH LITTLE OR NO ADVERSE IMPACT ON HERITAGE SIGNIFICANCE

Internal works including minor upgrades to achieve compliance with Building Code of Australia standards to:

(a) buildings identified as being intrusive: Building 4, Building 8, Building 12, Building 16, Building 19 and Building 22.

(b) buildings identified as having little significance: Building 3, Building 5, Building 9, Building 14 and Building 20.

SITE SPECIFIC EXEMPTION 6: CHANGE OF USE

The change of use or the commencement of an additional or temporary use provided that:

(a) the use does not involve the alteration of the fabric, layout, setting or Aboriginal archaeological values such as midden material of the item or the carrying out of activities other than that permitted by other site specific exemptions; and

(b) the use does not involve the cessation of the primary use for which the building was erected, a later significant use or the loss of significant associations with the item by current users or loss of Aboriginal archaeological values such as midden material.

SITE SPECIFIC EXEMPTION 7: TEMPORARY STRUCTURES

The erection of temporary structures and installations, including artworks, statues and monuments, provided that:

(a) the structure and installation will be erected within and used for a maximum period of 4 weeks after which it will be removed within a period of 2 days and not erected again within a period of 6 months; and

(b) the structure is not to be located where it could damage or endanger significant fabric including landscape or historical or Aboriginal archaeological features, such as midden material, within its curtilage or obstruct significant views of and from heritage items.

SITE SPECIFIC EXEMPTION 8: LANDSCAPE MAINTENANCE

Works and activities associated with landscape maintenance including:

(a) weeding, watering, mowing, top-dressing, pest control and fertilizing necessary for the continued health of plants, without damage or major alterations to layout, contours, plant species or other significant landscape features such as midden material

(b) pruning (to control size, improve shape, flowering or fruiting and the removal of diseased, dead or

dangerous material) between 10% and 30% of the canopy of a tree within a period of two years;

(c) removal of dead or dying trees which are to be replaced by trees of the same species in the same location; or

(d) tree surgery by a qualified arborist, horticulturist or tree surgeon necessary for the health of those plants.

(e) tree removal by a qualified arborist for the safety of the public or staff provided a concurrent proposal for a replacement occurs.

SITE SPECIFIC EXEMPTION 9: TEMPORARY SIGNAGE

(a) The erection of non-illuminated signage for the sole purpose of providing information to assist in the interpretation of the heritage significance of the item and which will not adversely affect significant fabric including landscape or archaeological features, such as midden material, within its curtilage or obstruct significant views of and from heritage items for a maximum period of eight weeks; or

(b) The erection of a signage which is in the form of a flag or banner associated with a building used for a purpose which requires such form of promotion, which will not adversely affect significant fabric including landscape or archaeological features, such as midden material, within its curtilage or obstruct significant views of and from heritage items for a maximum period of eight weeks.

Signage of the kind described above must:

i. not conceal or involve the removal of signage which has an integral relationship with the significance of the item;

ii. be located and be of a suitable size so as not to obscure or damage significant fabric of the item;

iii. be able to be later removed without causing damage to the significant fabric of the item;

iv. reuse existing fixing points or insert fixings within existing joints without damage to adjacent masonry; and

v. not be located on any relics of Aboriginal archaeological value such as midden material.

SITE SPECIFIC EXEMPTION 10: SAFETY AND SECURITY

(a) All works and activities associated with the erection of temporary security fencing, scaffolding, hoardings or surveillance systems to prevent unauthorized access or secure public safety, which will not adversely affect significant fabric of the item including landscape or archaeological features within its curtilage, for a maximum period of six months.

7.3. DEVELOPMENT APPLICATION

Any Development Application should be accompanied by an Assessment of Heritage Impact (including Aboriginal heritage, non-Aboriginal heritage, maritime heritage and archaeology), which assesses the proposed scheme in terms of the Conservation Policies outlined in this report.

7.4. REVIEW OF THE CONSERVATION MANAGEMENT POLICY

This CMP proposes a framework for the management of heritage issues into the long-term. Conservation Policies need to progressively respond to changing situations if they are to remain relevant.

Conservation Policies should be reviewed every five years or subsequent to major programmes of

upgrading or changes in ownership and should reflect latest relevant legislation and conservation practices. Reviews should be carried out by experienced Conservation Practitioners.

7.5. CONSERVATION WORKS

A Schedule of Essential and Desirable Conservation Works should be prepared to ensure the adequate conservation of significant building.

7.6. MAINTENANCE WORKS

A planned site-wide Maintenance Plan for buildings and archaeological sites, and in accordance with Policy 6.17.1 should be completed within 12 months of endorsement of this CMP and implemented based on the cyclical inspection, monitoring and recording of the condition of the fabric. The main elements requiring attention are:

- Roofing
- Gutters
- Rainwater disposal system
- Brickwork
- Timber cladding
- Windows and doors
- Structural defects.

A schedule of ongoing maintenance works should be prepared. This should identify cyclic maintenance works to fabric and services that should be implemented by the owner/manager as part of the process of ongoing management of the building, beginning from the time that conservation works are substantially completed. A record of when this work is performed, and any faults found, or repairs made should be recorded and kept alongside this maintenance schedule.

7.7. LANDSCAPE MAINTENANCE WORKS

A planned site wide Landscape Maintenance Plan based on a cyclical inspection, monitoring and recording of condition in accordance with Policy 6.17.1 should be completed within 12 months of endorsement of this CMP and implemented.

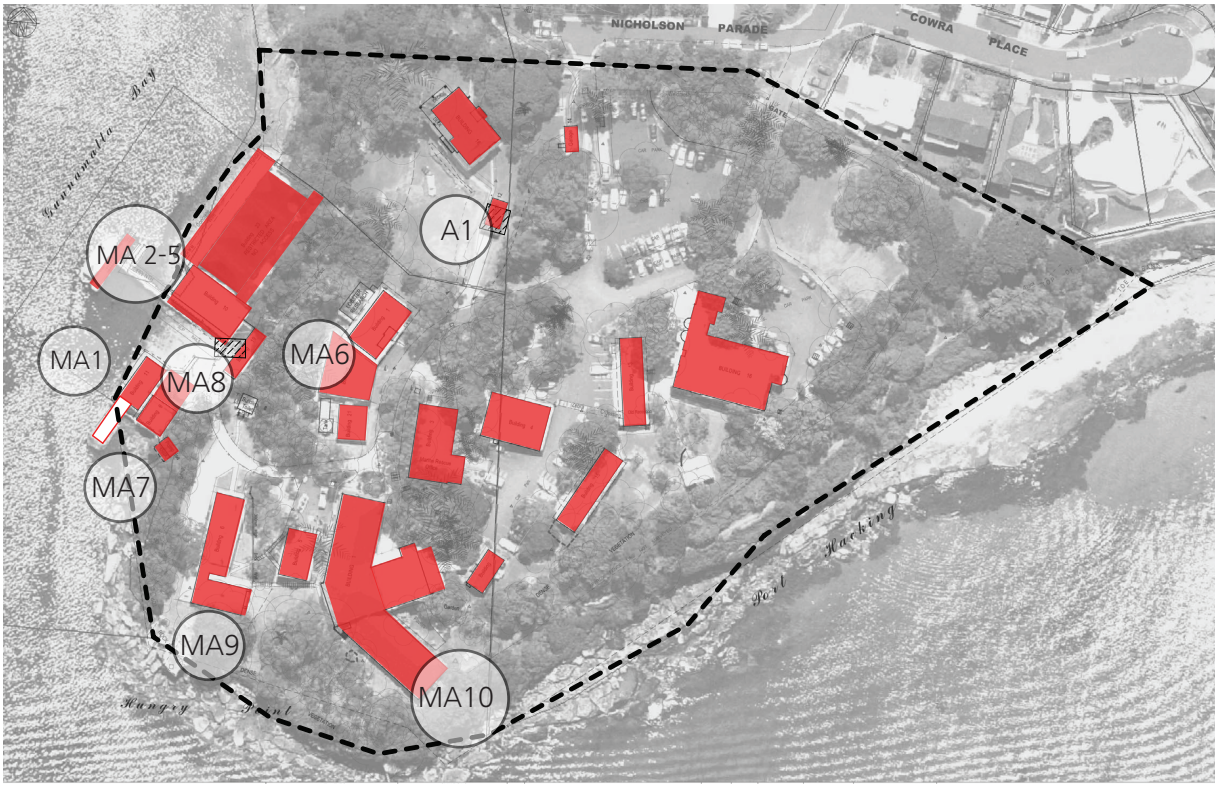
The main elements requiring attention are:

- Open Spaces
- Paths/roads
- Views
- Cultural plantings
- Vegetation Management
- Caves and coastline

Vegetation groups to be considered and the proposed design management response in the Draft Strategic Masterplan is outlined below.

VEGETATION	DESIGN/MANAGEMENT RESPONSE
Littoral rainforest original vegetation	Bushcare activities on site and continued planting of littoral rainforest species.
Coastal escarpment low banksia/ casuarina forest	Species planted where appropriate e.g. tolerate salt winds
Prostanthera densa	Species planted where appropriate once propagated
Early cultural plantings	Norfolk Island Pines (*Araucaria heterophylla*) survive at the very southern tip of the site. Older Canary Island Date Palms (*Phoenix canariensis)* were planted. However, the majority of Canary Island Date Palms are likely to have spread by birds from seed. Other trees that have been planted include Norfolk Island Hibiscus (*Lagunaria pattersonii*)
Plants native to Australia but not indigenous	Plants retained but to be replaced over time with littoral rainforest or coastal escarpment species.
Significant trees	Significant trees on the site include both cultural and indigenous plantings e.g. *Ficus rubiginosa* and *Aracuaria heterophylla* (shown on draft Masterplan Landscape Strategy). Significant trees will be maintained and protected.

Figure 8	2018	Location of archaeological sites investigated	Architectural Projects



LEGEND

A1	Site of former Caretaker's cottage (1904)
MA1	Building 11 – Maritime Infrastructure 1904
MA2	Slipway (c1920)
MA3	Former Boatshed 1904
MA4	Police Boatshed 1920-1978
MA5	Jetty 1945
MA6	Header Tank, former Water Wheel/Pump 1904
MA7	Marine Structure 1961
MA8	Stone steps 1904
MA9	Stone steps, Wharf 1940
MA10	Historical Marker 1880s

8. ARCHAEOLOGICAL SITES

The full findings of the Historical and Maritime Archaeology Assessment, prepared by Cosmos Archaeology are included in this section and incorporated throughout the report.

8.1. A1 – SITE OF FORMER CARETAKER'S COTTAGE – ARCHEOLOGICAL SITE

Inspection Date:	11/09/2014
Date Range:	c1904 (demolished 1970s)
Photo Index:	Figures 3.4.2 + 3.4.3
Latitude/Longitude:	-34.072483638 151.148421526
Current Use:	
Former Use:	
Proposed Use Short-Term:	
Proposed Use Long-Term:	

Historical Notes: The former Caretaker's Cottage was located in the northern part of the site. The 1904 survey of the site shows a building of rectangular footprint of approximately 8 x 10m in size, oriented north-south. The survey also shows a verandah on each of the north and south faces and the outline of an area marked 'excavated for drainage'. The former Caretaker's cottage, later described as the Fisheries district inspectors residence at Cronulla, was thought to have been built on the site c1897, prior to the subdivision of the peninsula. It is described in 1939 as being...*"Built of hand-made bricks specially brought from England, bound together with English cement… The bricks are hollow and made of red clay. They are quite different from the usual household brick, being of peculiar shape, each having a tongue which fits into the adjoining brick. All walls of the cottage are of single brick width only, yet the whole structure is absolutely weather-proof".* These unusual bricks described above may be E.L. Drew's interlocking hollow brick, also used at the Hatchery (Building 6).

	The site of the former Caretaker's Cottage may have potential to contain archaeological remains associated with the former fish hatchery. While this part of the site is separated from the main operations of the hatchery, the site of the former Caretaker's Cottage may provide information associated with the domestic/residential activities at the site during the early Twentieth Century. The cottage was demolished in the 1970s.
Physical Description:	The site of the former Caretaker's Cottage contains a low drystone retaining wall on the western side of the existing driveway, originally used to create the level ground. The area currently contains a brick storage shed that has been built on a floating slab, and a driveway. Underground water and telecommunication lines have also been installed on the western side of the driveway. The area as a whole does not appear to have been significantly disturbed. As such, there is a high potential for archaeological relics associated with the former Caretaker's Cottage to be present. A mature date palm is located to the west of the former cottage site, with another low drystone wall to the north of the site. Based on the 1904 plan, no other buildings were constructed in this area. Aerial photographs from 1930 show formal gardens present to the north, west and south of the cottage are still there. It is possible that additional ancillary buildings may have been added to the site, such as sheds, however, these do not appear on any plans or aerials. (Figures 3.4.2 and 3.4.3)
Condition:	Archaeological relics associated with the former Caretaker's Cottage site are likely to be present and in good condition.
Integrity	The archaeological site is expected to contain foundation and possible subfloor deposits. These archaeological deposits are considered to be relatively intact, with minor impacts from the construction of the current driveway and brick storage building.
Significance Notes:	The Caretaker's Cottage is associated with the historical early establishment of the Fisheries site at Hungry Point. Relics are likely to be present on the site, and would relate to the household and works of the former caretaker and his family at the site. As such the area is an archaeological site and the relics are considered to be significant.
Recommended Management:	The archaeological site of the former Caretaker's Cottage should be included in the Heritage Schedule of the LEP. Any development or landscaping works at the site is to be undertaken in accordance with the Archaeological Policies of this plan to prevent impacts to the identified archaeology and potential relics.

8.2. MA1 – 1904 BOATSHED (BUILDING 11) MARITIME INFRASTRUCTURE

Inspection Date:	11/09/2014
Date Range:	c1904-1960
Photo Index:	Figure 3.4.4
Latitude/Longitude:	-34.072741361 151.147606135
Current Use:	No longer present
Former Use:	1904 Boatshed Maritime Infrastructure – used to service, load and repair Fisheries boats.
Proposed Use Short-Term:	N/A
Proposed Use Long-Term:	N/A

Historical Notes:	One of two boatsheds present in 1904, the boatshed (Building 11) extant, included two slipways, one built on the southern side of the building (still present at the time of this survey) and another built on the western side of the shed. During the 1940s mooring dolphins and a short jetty were added to this western side of the boatshed on the southern side of the slipway. All maritime infrastructure items built on the western side of the boatshed were removed by 1960.
Physical Description:	Maritime infrastructure associated with the 1904 boatshed (Building 11) were removed by 1960 and are no longer present. The slipway and short jetty present on the western side were built over a natural rock platform. This survey was conducted during low tide and did not find any evidence of posts or postholes present. It is possible that remains of the mooring dolphins are present on the seabed only. (Figure 3.4.4)
Condition:	No physical remains of the former slipway or short jetty are present on the site. Potential remains of the mooring dolphins (timber piles) may exist on the seabed and would be expected to be in poor condition.
Integrity	Not Applicable

Significance Notes:	Limited archaeological remains are expected to be present associated with the maritime infrastructure sites associated with the western side of the boatshed (Building 11), specifically with the mooring dolphin. This infrastructure and any associated relics are not considered to have scientific or research value.
Recommended Management:	Any repair or maintenance works required for the boatshed (Building 11) that may include disturbance to the rock platform or seabed along the western side can be carried out without the need of any maritime archaeological assessment. Assessment required prior to work to clarify significance and management.

8.3. MA2 – CURRENT C1920 SLIPWAY

Inspection Date:	11/09/2014
Date Range:	c1920 to present
Photo Index:	Figures 3.4.9 + 3.4.10
Latitude/Longitude:	-34.072741361 / 151.147606135
Current Use:	1904 Boatshed slipway – still present but no longer in use.
Former Use:	1904 Boatshed slipway – used to raise one of three Fisheries boats out of the water. Remained in use after the 1904 Boatshed (MA3) was removed.
Proposed Use Short-Term:	Retain.
Proposed Use Long-Term:	Can be altered or removed if redevelopment in this area is proposed.

Historical Notes:	The 1904 plan of the site indicates that there were two boatshed present, one located to the northeast of the Hatchery Building (Building 11) and one located between the Hatchery Building and the Tidal Pond (annotated as *"Old Boat Shed"* and known as MA3 in this inventory). The slipway was added sometime around c1920.
Physical Description:	The slipway consists of two iron girders spaced 1.8m (6 ft) apart running on an east-west orientation. The remains of the slipway extend into the water and the visible extent of the slipway is approximately 16m long. The eastern end of the slipway has been built over with the current walkway surrounding the Diving Store (Building 19). Between the girders are timber sleepers, 0.18m wide that are irregularly spaced between 0.4m and 0.7m apart. Recent repairs to the slipway has seen both the inside and outside sections of the slipway encased in aggregate concrete, including sections that were underwater at the time of the survey. The girders are still present above the concrete repair work, but have degraded. (Figures 3.4.9 and 3.4.10)
Condition:	The slipway appears to be in poor condition.
Integrity	The slipway appears to be intact.
Significance Notes:	The slipway is a significant element dating back to the period of the original establishment of the Fisheries Site.

Recommended Management:	Retention or reinstatement of the slipway on the site should be considered as it is a significant item related to the early Fisheries complex. Consideration for the removal of the slipway can only be done if further maritime archaeological (including archival photographic) recording of the site is undertaken prior to any development work to clarify significance and management.

8.4. MA3 – FORMER 1904 BOATSHED

Inspection Date:	211/09/2014
Date Range:	c1902-1904
Photo Index:	Figure 3.4.5 + 3.4.12
Latitude/Longitude:	-34.072741361 / 151.147606135
Current Use:	Former 1904 Boatshed – no longer present.
Former Use:	Former 1904 Boatshed – used to house a skiff associated with the initial Fisheries establishment.
Proposed Use Short-Term:	N/A.
Proposed Use Long-Term:	N/A.

Historical Notes:	The 1904 plan of the site indicates that there were two boatsheds present, one located to the northeast of the Hatchery Building (Building 11) and one located between the Hatchery Building and the Tidal Pond (annotated as *"Old Boat Shed"*). This boatshed was built between 1902 and 1904, but was removed in 1904.
Physical Description:	The former Boatshed was demolished in 1904, and was situated at the eastern end of the slipway, underneath the Dive Store (Building 19). The ground level around the Dive Shop building has been raised by approximately 0.9m, with the Dive Shop likely to have been built on the ground level similar to the ground level of the Former Boatshed. The 1904 Boatshed was likely a timber framed structure that was present over the top of the eastern end of the slipway, indicating that it was a light-weight structure. No archaeological remains associated with this boatshed are expected to be present underneath the Dive Shop building. (Figure 3.4.5)
Condition:	No archaeological remains are likely to be present relating to this boatshed.
Integrity:	Incomplete.
Significance Notes:	No archaeological remains are expected to be present associated with the 1904 Old Boatshed.

Recommended Management:	Any future work associated with the Dive Store (Building 19) would not require any further archaeological assessment related to this Boatshed. Assessment prior to work to clarify significance and management.

8.5. MA4 – 1920S POLICE BOATSHED

Inspection Date:	11/09/2014
Date Range:	c1920s-1978
Photo Index:	Figures 3.4.11 + 3.4.12
Latitude/Longitude:	-34.072741361/151.147606135
Current Use:	c1920s Police Boatshed – no longer present.
Former Use:	c1920s Boatshed – Used as part of the Fisheries site until the 1940s where it is described as the *"Police"* boatshed.
Proposed Use Short-Term:	No archaeological potential exists on the site of the former c1920s boatshed. As such, the site can be used for any short-term use.
Proposed Use Long-Term:	No archaeological potential exists on the site of the former c1920s boatshed. As such, the site can be used for any long-term permanent or temporary use.

Historical Notes:	After the initial construction of two boatsheds in 1904, this additional boatshed was built during the c1920s. This boatshed was built immediately on the northern side of the 1904 boatshed (Building 11) and included a slipway and shed built directly on top of the natural rock outcrop present. This boatshed is later associated in the 1950s as being a weatherboard police boatshed, and was removed from the site by 1978.
Physical Description:	The c1920s boatshed and slipway was constructed on the northern side of the boatshed (Building 11), between this building and the slipway, and was removed from the site by 1978. The structure was likely a ceramic and concrete pile built directly onto the rock platform present. No archaeological remains of the boatshed were visible during the survey of this site (conducted at low tide). The slipway was present in front of (to the west of) the building and extended out into the rock rubble area in front of this rock platform. No physical remains of piling or other structural remains associated with a slipway were visible. (Figures 3.4.11 and 3.4.12)
Condition:	No archaeological relics are expected to be present on this site.
Integrity	N/A
Significance Notes:	No archaeological remains are expected to be present associated with the c1920 boatshed and slipway.

Recommended Management:	Any future proposed plans that takes place within this area can be carried out without the need of any maritime archaeological assessment associated with this site to clarify significance and management.

8.6. MA5 – 1945 AND CURRENT WEST JETTY

Inspection Date:	11/09/2014
Date Range:	1945
Photo Index:	Figures 3.4.13
Latitude/Longitude:	34.072741361 / 151.147606135
Current Use:	1945 West Jetty – No longer present. West Jetty – Still in use for Marine Rescue
Former Use:	1945 West Jetty – First jetty built on the site and later modified.
Proposed Use Short-Term:	Current Jetty to continue its current use.
Proposed Use Long-Term:	Current Jetty can be upgraded/modified/replaced as required or as necessary. Area between the wet lab and current 1904 boatshed (Building 11) could be used for future maritime structure.

Historical Notes: The first jetty constructed on the site was at the same time as the wet laboratory (Building 10) in c1945. By 1978 the jetty had been upgraded to include six mooring dolphins (three each side) were added to the end of the jetty to create a "T" head. This allowed for larger vessels to moor off the end of the jetty in deeper water. The jetty was demolished and replaced between 1985 and 1994 with the Current Jetty.

Physical Description:	Very few physical remains of the c1945 to c1990s jetty are present on the site. A section of cut down piles are visible from the current jetty on the seabed. There is the potential for maritime archaeological remains associated with this Former jetty, being cut down piles, and possibly relics that have been accidently dropped or discarded from this jetty to be present, however, these are likely to be limited in regards to quantity and research value given the limited use of this jetty. (Figure 3.4.13) The present day jetty is "T" shaped and consists of a combination of concert (landward end) and metal (seaward end) piles. The metal piles have been cast into a concrete headstock that supports the 1.5m wide concrete deck. A timber panel breakwater system is present along the northern side of the walkway and on the outside (western side) of the "T" section underneath the deck. The "T" section of the jetty includes 11 "Koppers" pile bollards, six on the inside of the "T" section and five on the outside of the jetty. The six inside piles support the mooring system for vessels that berth inside the "T" section and act as fenders. The five outside piles also have additional timber attached to them to act as a fender system. Timber steps are also present on the inside of the "T" section of the jetty. (Figure 3.4.8)
Condition:	The jetty appears to be in good condition. The remains of the cut down piles associated with the earlier 1945 to c1960s jetty are likely to be in poor condition.
Integrity	The jetty appears to be substantially intact.
Significance Notes:	The current jetty is not considered to be significant as it was built between 1984 and 1994. Limited archaeological potential associated with the c1945 jetty is expected to be present but is not likely to have any archaeological research value.
Recommended Management:	The existing jetty can be repaired, modified or removed as it is not considered to be significant. Future construction of any maritime structures, such as new jetty, could be constructed in the area between the Boatshed (Building 11) and the Wet Lab (Building 10). Care should be taken to retain the remains of the Former slipway where possible (MA2).Assessment prior to work to clarify significance and management.

8.7. MA6 – HEADER TANK FORMER WATER WHEEL/PUMP (REFER ALSO BUILDING 21)

Inspection Date:	11/09/2014
Date Range:	1961
Photo Index:	Figures 3.46 + 3.4.7
Latitude/Longitude:	-34.072877999 / 151.148050041
Current Use:	
Former Use:	Used to supply seawater to the necessary buildings
Proposed Use Short-Term:	To be retained.
Proposed Use Long-Term:	To be retained with the option to remove the modern above ground structure.

Historical Notes:	The structure referred to as the header tank appears to be the original storage tank shown on the 1904 survey. The tank was used to store sea water which had been pumped from the bay. It was then distributed around the site to various locations where it was required. A valve associated with the tank is located down the slope from the tank. It has been refurbished and enclosed but is not in current use.
Physical Description:	The header tank is an open, rectangular, concrete tank of 8.57 x 7.1m in size. It is built into the ground with a low wall (approximately 0.5m) projecting about the ground level. A colorbond clad shed with a flat roof, no windows and roof ventilation covers over the header tank. Towards the southeast, between the storage tank and the Hatchery Building and immediately above the cutting for the access road, are the remains of a brick and timber inspection portal that houses a valve for the former 3" overflow pipe. This pipe connects with the water pipe to the Hatchery Building. The portal is approximately 1.2m long and 0.6m wide and is cut back into the slope of the hill. The location of the former water wheel at the back of the header tank behind the *"1904 Boat Shed"* (MA3), is currently overgrown with grass and vegetation and was not visible. (Figures 3.4.6 and 3.4.7)
Condition:	The header tank is considered to be in good condition. The water wheel structure, if present, is not likely to be intact due to tree root damage.

Integrity	The header tank can be considered to be intact, beneath the colorbond shed. The water wheel, if present, is less likely to be intact due to the number of tree roots present in the locality.
Significance Notes:	The header tank and former water wheel/pump are key functional structures of the former fisheries complex c1904.
Recommended Management:	The header tank should be included in the Heritage Schedule of the LEP, and should be retained and interpreted on site. The supporting structure on top of the header tank is a modern addition and is not considered to be significant, and removal is desirable. Any proposed works in the vicinity of the water wheel, including landscaping or tree removal, should be done with care so as to not cause any damage to potential remains of the water wheel. In the event that landscape works is to occur in the vicinity of the water wheel location, an archaeological monitoring plan should be prepared in case remains are uncovered during the work. Assessment prior to work to clarify significance and management.

8.8. MA7 – MARINE STRUCTURE

Inspection Date:	11/09/2014
Date Range:	1960
Photo Index:	Figure 3.4.16
Latitude/Longitude:	-34.073143496 / 151.147458613
Current Use:	Recreational spot used by local workers.
Former Use:	Possible gantry/jetty used to load and unload vessels at high tide.
Proposed Use Short-Term:	To be retained on site.
Proposed Use Long-Term:	These items could be removed from the site after adequate archival recording.

Historical Notes:	This structure first appears on a 1961 aerial photograph. Built over the rocky outcrop to the east of the boatshed (Building 11), the structure may have been associated with a trolley system or a narrow jetty/gantry used to load or unload boats at high tide.
Physical Description:	The remnant marine structure comprises of three still standing concrete-filled earthenware pipes and one that has collapsed. No foundation cut or postholes were present within the rock outcrop, indicating that they were built directly onto the rock outcrop. The earthenware pipes are the same foundation type used in the boatshed (Building 11). The earthenware foundations support two timber bearers with transverse timbers, and possibly with decking timbers on top. (Figure 3.4.16)
Condition:	This structure is in poor condition.
Integrity	This item is considered to be fragmented, with sections of the structure missing or fallen onto the rock platform. Only one section of the timber section of this structure is present.
Significance Notes:	This structure relates to the mid Twentieth Century development of the site associated with the CSIR and CSIRO and hence contributes to the interpretation of the CSIR/CSIRO occupation of the site. The site does not contain any research value and is not considered to have any associated relics.

Recommended Management:	The item does not meet the threshold for inclusion onto the Heritage Schedule of the LEP. The remains of this item can be considered to be removed after the remaining elements have been appropriately recorded. Assessment prior to work to clarify significance and management.

8.9. MA8 – STONE STEPS

Inspection Date:	11/09/2014
Date Range:	1904
Photo Index:	Figure 3.4.8
Latitude/Longitude:	-34.073045740 / 151.147597000
Current Use:	This site has no current uses.
Former Use:	Steps used to access the boatshed from the Hatchery Building
Proposed Use Short-Term:	To be retained.
Proposed Use Long-Term:	To be retained under existing vegetation.

Historical Notes:	The steps are indicated on the 1904 survey and provided access from the hatchery to the boatshed and aquaria.
Physical Description:	The stone steps are carved out of the rock platform to the east of the boatshed building (Building 11). They are covered over by vegetation and are not visible.
Condition:	Unknown.
Integrity	These steps are likely to be intact as they were carved out of stone.
Significance Notes:	The steps are evidence of the 1904 fisheries establishment.
Recommended Management:	The stone steps should be included in the Heritage Schedule of the LEP and be retained. Assessment prior to work to clarify significance and management.

While the steps are not key structures of the former fisheries complex, they have significance at a local level, and are important evidence of the layout and function of the 1904 fisheries establishment.

8.10. MA9 – STONE STEPS, FORMER WHARF

Inspection Date:	11/09/2014
Date Range:	1940s
Photo Index:	Figures 3.4.14 + 3.4.15
Latitude/Longitude:	-34.073521191 / 151.147606135
Current Use:	Used by work staff as a recreational area.
Former Use:	Used for fishing by three local residence
Proposed Use Short-Term:	Site should be retained.
Proposed Use Long-Term:	Memorial and top flight of stairs to be retained, with the lower set of stairs and concrete foundation to be removed.

Historical Notes:	The wharf appears on aerial photos from the 1940s, and it can be assumed that the steps are contemporary with the presence of the wharf. The steps and wharf/landing were used almost exclusively by three friends, Dennis Stratford, Brian McClenaughan and Joseph Hatton. It is not known why these three people were given access to the controlled site. The wharf/landing appears to have been removed by the 1950s.
Physical Description:	The steps have been formed using concrete aggregate and are set into a crevice in the natural rock platform. There are two flights of stairs, the first set consist of 10 concrete formed steps leading from the top of the site down to the top of a rock overhang. A second series of steps leads from the rock landing down to the water's edge. Approximately 3.5m in front of the last step is a concrete footing, used for the wharf platform. (Figures 3.4.14 and 3.4.15)
Condition:	The steps are in good condition, however, the bottom two steps along the water's edge have deteriorated through water and wave action. The concrete foundation is in poor condition.
Integrity	The steps are considered to be intact. The wharf/landing is damaged with the decking missing.

Significance Notes:	The remains of the steps relate to an association between three local residence who were given permission to use the site for recreational purposes and does not relate to the actual running of the Fisheries or later CSIRO site. Two memorials to the three fishermen have been placed into the rock on the first landing. The steps and the concrete footing are not considered to be of research value. Assessment prior to work to clarify significance and management.
Recommended Management:	The steps, two memorials and concrete foundation do not meet the threshold for inclusion onto the Heritage Schedule of the LEP. The first flight of steps and two memorials set in the rock should be retained on the site. The lower flight of steps and the remnant concrete foundation visually dominate the coastline from the water and can be removed.

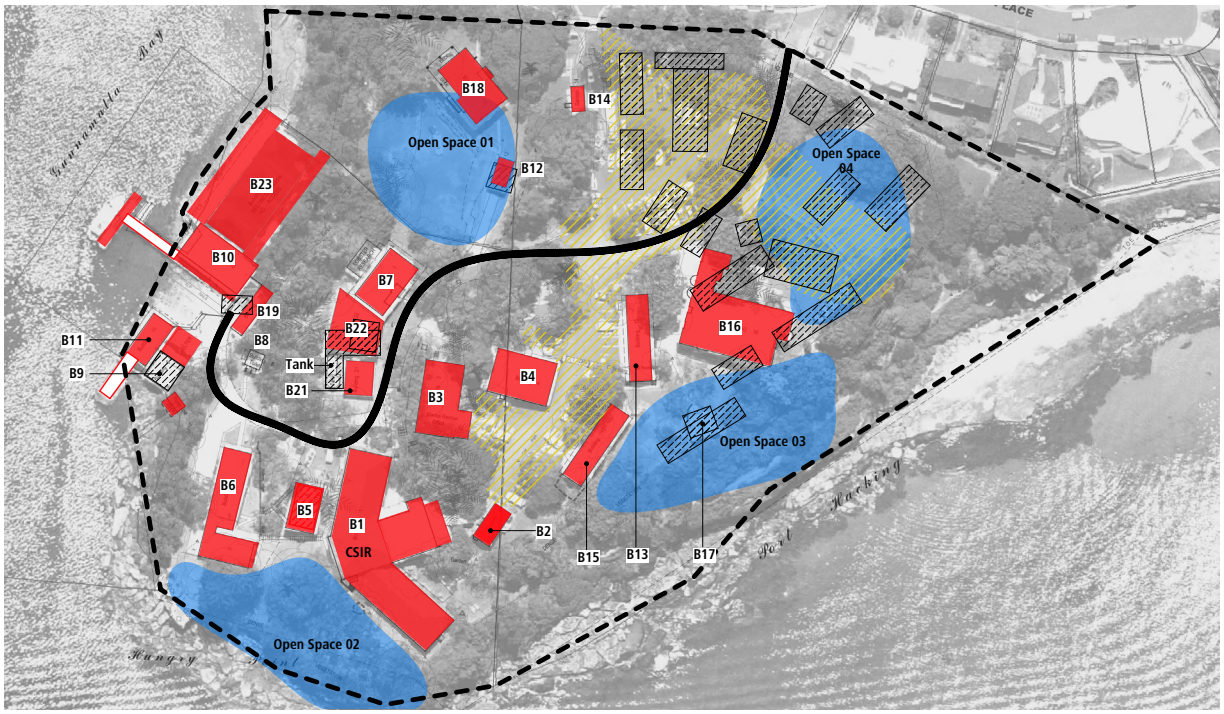
8.11. MA10 – HISTORIC SURVEY MARK

Inspection Date:	11/09/2014
Date Range:	1800s
Photo Index:	Figure 3.4.1
Latitude/Longitude:	34.073632277 / 151.148361177 -34° 04′ 25″.16 151° 08′ 53″.99 (WGS84) The expected accuracy of these coordinates is +/-2m
Current Use:	Landscaped grassed area in front of the main building at Hungry Point
Former Use:	Survey Marker used to record the coastline around Cronulla
Proposed Use Short-Term:	Should be conserved and retained.
Proposed Use Long-Term:	Should be conserved and retained.

Historical Notes:	The survey mark is known by its Roman numeral name XXXII. This mark was placed during the 1800s and is a historic survey mark. There is also another mark located on a rock platform to the south-west of the Bass & Flinders Memorial which is known as XXXIV. There is a number engraved in the rock as "32" and not "XXXII". Some of the marks in the series around Port Hacking shoreline do not display an identifying number.[93]
Physical Description:	The History Survey Mark is located approximately 5m to 6m south-west of the southernmost corner of the main building on Hungry Point. The historic marker indicates the Roman numeral co-ordinates. The historic marker is slowly being covered over by grass. (Figure 3.4.1)
Condition:	The History Survey Mark is considered to be in a poor condition as the engravings have worn away and appear faded.
Integrity	The History Survey Mark is considered to be intact.
Significance Notes:	The History Survey Mark relates to the commencement of the early non-Aboriginal survey and development of Hungry Point and Cronulla during the 1800s, and is considered to be historically significant at a local level.
Recommended Management:	The History Survey Mark should be preserved and retained. Assessment prior to work to clarify significance and management.

9. BUILDING INVENTORIES

Figure 9	2012	Site identification plan	Architectural Projects



Buildings - existing	
Buildings - demolished	
Original 1904 track	
Open Space	
Paved Areas	
Site Boundary	

B1	Former CSIR Fisheries Laboratory 1939
B2	Computer Room 1940
B3	Conference Room/Licensing 1950/1955
B4	Records and Files 1960
B5	Field Store 1940, Demolished Shed 1985
B6	Former Hatchery 1904
B7	Water Police/Fisheries School 1943
B8	Toilet Block 1984
B9	Demolished Cooler Shed 1984
B10	Former Fisheries School, Laboratory 1946
B11	Boat Shed 1904
B12	Garage 1971
B13	Former Migrant Hostel 1949-67
B14	Storage 1961
B15	Former Migrant Hostel 1949-67
B16	Commercial Management 1970
B17	Chemical Store (demolished) 1970
B18	Residence 1971
B19	Dive Store 1994
B20	Pump Shed
B21	Header Tank (Refer Also MA6) 1904
B22	Boat Storage/Generator Slab (Note: 2 buildings)
B23	Aquaria, Fish Pond 1904

9.1. BUILDING 1 – FORMER CSIR FISHERIES LABORATORY

Inspection Date:	22/08/2014
Date Range:	South and Central Wings 1939 North Wing 1940-1955 East Wing 1955-1961
Photo Index:	Figures 3.5.9, DSCO 2396, 2430 + 3.5.10, DSCO 2398, 3029, 2434, 2450, 2454
Current Use:	Under licence to Marine Rescue
Former Use:	Library and Research
Proposed Use Short-Term:	Offices
Proposed Use Long-Term:	Offices, Residential Accommodation







Historical Notes

In 1938 the Headquarters of the Fisheries Investigation Branch of the Council for Scientific and Industrial Research moved from Melbourne to Port Hacking in 1939. The construction of the central block offices, laboratories and library (Building 1) began in 1938. Dr H. Thompson stated the new laboratory would provide accommodation for the New South Wales Fish Biology Branch and for students from the University of Sydney, in addition to the staff of his department. Experimental equipment for the canning, smoking and refrigeration of fish would be provided.

In 1938-39 CSIR Annual Report describes new works on the site:

The [biological laboratory] building contains offices and a strong room, one bacteriological and one chemical laboratory (with common preparation room), five biological laboratories, a dark room, a balance room, a library, a stock room, and a draughting room. Several storage rooms and a workshop are also included in the new works. A small commercial-type smokehouse and a net-storage and fish-processing shed have been built on the foreshore, while a small jetty has been constructed from the end of which certain experimental work can be carried out. The large concrete tidal pond (100 feet x 42 feet) will be reconditioned during the coming year. For estuarial surveys, a 16-vet. 3.p Skiff has been constructed, and, for fieldwork, a 2-ton Bedford mobile unit has been acquired and fitted with the necessary apparatus.

In 1946 January tenders for extensions to the main Laboratory Building (Building 1) called East Extension at CSIR fisheries division.

Two levels of Building 1 were used as offices.
The Image lab, Video lab, Folsum spitler, Seminars room, Balanced table located in east extension
In house copy facilities replaced Victoria CAF (Central Agency Facilities) off site
In 1984 the Library moved to Port Stephens
In 1985 microscopes were relocated from B16 to B1.
From 2013 the building was used as offices for Marine Rescue.

Physical Description:

A one and part two storey freestanding office building that dates from the Interwar period 1939, within a key period of significance of the site (1938-1984). The building is located in an estuarine the setting that has retained much of its historic context. The building setting is informally landscaped and features bitumen drive, paved terrace, concrete path, steps with pipe rail handrail, lawn, mature trees, indigenous vegetation and provides an appropriate setting for the structure. The building displays features of the Interwar style. The façade presents a complex symmetrical elevation and is constructed of blonde face brick and features horizontal brick banding and a projecting balcony. The roof is hipped with a medium pitch, and has broad boxed and boarded eaves. The roof is clad in terracotta tile. The original entry was altered with construction of the east wing. The entry door is an original 5 panes glazed door. Fenestration comprises pairs of vertically proportioned timber two and three pane double hung windows. The addition dates from 1946 (Figure 3.5.10)

The interior was inspected and features: concrete and timber flooring, carpet and set plaster finishes, timber glazed doors with an applied obscure detail, original timber architraves and skirtings, picture rail, decorative angled cornices and a stair with fine timber balustrade with timber stairs. The plan has a central corridor with offices to each side. Some original set plaster ceilings remain and some have been replaced. Internally partitions with highlight glazing light the corridor. No original light fittings survive. The 1950s additions result in a new stair located in front of the original entry windows.

Condition:

The building appears to be in good condition.

Integrity High.

The original building is highly intact but extended.
Alterations and additions include: East entry addition glazed and vertical weatherboard claddings, infill of balcony. Some windows replaced with metal frame, bathrooms refitted, infill under stair.

Significance Notes:

A fine example of Interwar offices in an estuarine setting that has landmark qualities and part of a group. The following elements contribute to the significance of the item:

- Estuarine bush garden setting
- Form of the Building
- The roof form
- Finishes
- The wall finishes
- The fenestration pattern
- Intact interior layout and detail

The building has high significance.

Recommended Management:

The 1939 building is above the threshold for inclusion in the Heritage Schedule of the LEP.
The following items should be included in the Heritage Listing: c1940s addition (north wing).

The c1950s additions (east wing), which detracts from the heritage significance, should be considered for removal when the building is vacated.

Ideally the entry should be reinstated to original detail as evidenced at photo Figure 2.2.23.
The former use of the building as CSIR Fisheries Laboratory should be interpreted.
Alterations should be restricted to the altered façades (east wing).

The interior detail and general plan arrangements should be retained.

Opportunities:

The building provides opportunities to interpret the CSIR Key Period of significance c1938-49.
Ideally, the 1950s east wing addition should be removed and original entry reinstated in accordance with early photographs.

Ideally the original balcony should be reinstated.

The building is suitable for office accommodation.

9.2. BUILDING 2 – COMPUTER ROOM

Inspection Date:	22/08/2014
Date Range:	c1940-1955
Photo Index:	Figures 3.5.11, DSCO 0140, 0143
Latitude/Longitude:	-34.073300129 / 151.148475841
Current Use:	Vacant – IT Hub, Under licence to Marine Rescue
Former Use:	Computer Services
Proposed Use Short-Term:	Retain for service use or demolish
Proposed Use Long-Term:	Retain or remove

Historical Notes:

Summary

Between 1940-49 the building was constructed as an office for scientific research in the CSIR period 1938-1949. The 1955 aerial photograph first indicates the building. Harry Gitt, chemist worked with radioactive isotopy Physio-plankton research 1938-1949. In 1985 the building was reused as a computer room.

Physical Description:

A one-storey freestanding building. The building is located in an estuarine setting that has retained much of its historic context. The building setting is informally landscaped and features a path, indigenous vegetation and exotic vegetation. The building displays features of the Interwar style. The façade presents a simple elevation and is constructed of face brick with attached wood stone. The roof is gabled with a medium pitch, and has broad lined with fibrous cement sheet and is clad in terracotta tile and features a boarded gable end ventilator. The door is offset by a covered awning connecting to Building One additions. Fenestration comprises timber windows. The interior features: tiled floor, plasterboard ceiling and cornice, render wall finishes, some internal, suspended ceiling with raised grid flooring, ducted air conditioning. The plan is rectangular measuring: 7m x 11m. (Figure 3.5.11)

Condition:

The building appears to be in fair condition.

Integrity Medium.

The building is substantially intact.

Alterations and additions include: Interior, windows infilled, sashes rendered (frames intact).

Significance Notes:

The building is a representative example of the mid Twentieth Century development of the site for CSIR and CSIRO. The building has moderate significance.The building does not meet the threshold for individual heritage listing, but contributes to the interpretation of the CSIR/CSIRO occupation of the site.

Recommended Management:

Retain and adapt for service use, given the extent of services within the building; or demolish to open vista; screen generator.

Opportunities:

Ideally, the building should be retained and adaptively reused.

9.3. BUILDING 3 – CONFERENCE ROOM/LICENSING

Inspection Date:	22/08/2014
Date Range:	1955-1961
Photo Index:	Figures 3.5.17, DSCO 0115 + 3.5.18, DSCO 0117, 0124, 0120
Latitude/Longitude:	-34.073013250 / 151.148515404
Current Use:	Crown Lands Licence (Marine Rescue)
Former Use:	Conference Room/Licencing
Proposed Use Short-Term:	Office uses, Conference/Meeting Room, Trust Office
Proposed Use Long-Term:	Retain or Demolish




Historical Notes:

Summary

In 1950 the building was constructed as an office for scientists in the CSIRO period 1949-1984. In 1970 it was reused for computer services. In 1990 it was reused as an open office, and in late 1990 used as a meeting room. The 1961 aerial photograph first indicates the building.

1950 The building was constructed as an office for fisheries and ocean, freshwater and saltwater scientists. It had offices either side of a central corridor.
1970 The building was reused for computer services. Punch card operators/ three programmers, five offices for admin staff and a computer room
1985 entry added by NSW Fisheries; upgrade kitchen

Create meeting room for admin staff
1990 admin staff open plan licencing
Late 1990s – reduced size of meeting room

Physical Description:

The building is located high on the southern slopes of the site but nestles into the site.
A one two storey freestanding office building that dates from the late twentieth century period, The building setting is informally landscaped, which provides an appropriate setting for the structure. The building is utilitarian in style. The façade presents a simple symmetrical elevation and is constructed of weatherboard, fibro and face brick. The building is 1 storey to the carpark (Figure 3.5.17) and 2 storey to the lower drive (Figure 3.5.18). The roof is gabled with a low pitch and is clad in concrete tiles. Fenestration includes aluminium double hung windows. The plan is rectangular measuring: 17m x 11m. The interior was inspected. The interior features new plasterboard fitout of recent construction, ducted air conditioning, and a table.

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the late 1950s.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.

Opportunities:

The building is critical to the commercial viability of the site. Retention is favoured although no restrictions apply to the fabric of the building. Demolition would enhance the setting of significant Building One.

9.4. BUILDING 4 – RECORDS AND FILES

Inspection Date:	22/08/2014
Date Range:	1961
Photo Index:	Figure 3.5.19, DSCO 0099, 0107
Latitude/Longitude:	-34.072959092 / 151.148515404
Current Use:	Vacant
Former Use:	Records & Files
Proposed Use Short-Term:	Demolish
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary

In the 1960s the building was constructed as metal and carpentry workshop in the CSIRO period. In 1985 it was converted to offices. In 1990 it was converted to storage. The 1970 aerial photograph first indicates the building.

1960 Constructed as metal and carpentry workshop
1985 Converted to offices
1990 Converted to storage and records, commercial catch records, cages for fuel
1994 Extension to rear
1990s Reclad asbestos wall and roof removed and reclad

Physical Description:

The building is located on the crest of the site and dominates the site.

A one storey freestanding building that dates from the late twentieth century period. The building is utilitarian in style. The façade presents a simple symmetrical elevation and is constructed of corrugated asbestos cement cladding above, and face brick to the base. The roof is gabled with a low pitch and is clad in corrugated asbestos cement concrete tile roof and fenestration includes aluminium windows and roller shutter doors. The interior was inspected and features a concrete floor and plaster finishes.

Condition:
The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1960s and is intrusive due to its prominent location on the ridge.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention not required on heritage grounds.
The prominent location of the building detracts from the original landscape setting of the headland, and the site of the Migrant Hostel. (Buildings 13 and 15)
Demolition of the building is recommended.

Opportunities:

Opportunities for reuse are limited.
Opportunity to re-establish former natural landscaped character of the headland with demolition of the building.

9.5. BUILDING 5 – FIELD STORE

Inspection Date:	22/08/2014
Date Range:	1940-1955, Rebuilt 1984-1994
Photo Index:	DSC0 2383-2385, 2377-2378, Figures 3.5.25, DSCO 2378 + 3.5.26, DSCO 02385
Latitude/Longitude:	-34.073309016 / 151.147949458
Current Use:	Crown Lands Licence (Marine Rescue)
Former Use:	Field Store
Proposed Use Short-Term:	Storage or demolition
Proposed Use Long-Term:	Demolish

Historical Notes

Summary

In 1984 the building was constructed as electrician/plumber's site and equipment in the CSIRO period 1949-1984. In 1985 it was converted to storage. The 1984 aerial photograph first indicates the building.

Physical Description:

The building is located on the southern slopes of the site and is prominent on the site. A one storey and part two storey freestanding building that dates from the late twentieth century period, The building is utilitarian in style. The façade presents a simple symmetrical elevation and is constructed of weatherboard cladding with face brick to the base. The roof is gabled with a low pitch. The building is one storey to the carpark (Figure 3.5.17) and two storey to the lower drive (Figure 3.5.26). The roof is clad in corrugated sheet metal. Fenestration includes aluminium sliding windows and two roller shutter doors. The interior was inspected and the interior features an unlined storage facility. The plan is rectangular measuring: 8m x 13m.

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1980s.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds. Demolition of Field store (Building 5) is recommended.
The building could be maintained while under licence. Currently used for storage.

Opportunities:

Opportunities for reuse are limited. Demolition of Field store (Building 5) should be considered when the building is vacated. Demolition will enhance appreciation of significant Buildings One and 6 and enable interpretation of their original relationship in the key period of significance 1938-1949.

9.6. BUILDING 6 – FORMER HATCHERY

Inspection Date:	22/08/2014
Date Range:	c1904
Photo Index:	Figures 3.5.1, DSCO 02338 + 3.5.2, DSCO 02340 + 3.5.3, DSCO 02343, 02342, 02365, 02368, 02366
Latitude/Longitude:	-34.073341231 / 151.1477094
Current Use:	Laboratory – Vacant. Southern portion of building – Maritime Stewardship Council, Trust licence
Former Use:	Fish Hatchery and laboratory
Proposed Use Short-Term:	Research, Education, Accommodation
Proposed Use Long-Term:	Retain, Conserve, Interpret and Adapt for Research, Education, Accommodation







Historical Notes:

Summary

In 1904 the building was constructed as a hatchery in the hatchery period 1902-1914. In 1914 it was decommissioned. In 1916 it was converted to a general laboratory. In 1937 it was restored during the CSIR period 1938-1949. In 2017 it was used for offices. It has a direct functional relationship to B23. The 1930 aerial photograph first indicates the building.

1903 April, the Fisheries Branch was ready with plans and specifications for a fully functional marine hatchery with a hatchery building, fishponds, boatsheds, storage tank, pumping plant, laboratory and residence for the caretaker, at a total cost of 2,125 pounds. Several changes were made to the plans including the addition of a fireplace and verandah to the south side of the laboratory, and louvre shutters to windows on the north and west side of the Hatchery. The project was put to tender in December 1903 and Mr Charles McCarthy of Mosman was the successful tender in with his quotation of 1371 pounds. Construction was to be completed in 26 weeks from January 28, 1904. The Hatchery Buildings and Fish Pond were completed by August 23, 1904. The Hatchery Building and Laboratory was designed in the Government Architects Office c1903. The name *"L. Drew"* appears on drawings. As this was a time when Edward Lambert Drew was in the employment of Government Architect, the Hatchery may represent a rare use of the interlocking brick invented by Drew.

1905 the Hatchery was opened on 29 November by Mr F. Farnell, Chairman of the Fisheries Board. The Sydney Morning Herald described the newly opened Hatchery: The hatching laboratory itself is a high, light building. In it are 10 sets of hatching boxes, with their six inner compartments in which the floating ova is placed. The boxes are made of buoyant wood, and have silken bottoms, through which the water gets away. In the laboratory office microscopes have been fitted up for biological work.
The 1930 aerial photograph first indicates the building.

1937, the hatchery was described as derelict and restoration works were carried out prior to the CSIR moving in. The CSIR Annual Report for 1938-39 describes new works: The pre-existing (hatchery) works have been re-conditioned and adapted. They include a centrifugal pump with pipeline to a 25,000 gallon concrete sea-water reservoir, from which there is gravity feed to the former hatchery buildings, which have been converted to contain two biological laboratories, a projector room, and a large main experimental aquarium. The latter is supplied with ordinary water under pressure, and conditioned (heated or chilled) sea water is also available for experimental work. Extra working space is also available in this room, which is fitted in addition with three thermostatically controlled refrigerating chambers (two maintained at zero and one at 30° F.), and a small canning plant. Chief CSIRO officer Thompson.

1971 Verandah was added
1985 Building was stabilised
2004 Building was upgraded as a dry lab and research areas.
2017 Building used for offices.

Physical Description:

The hatchery comprises two one-storey buildings, attached by infill, that are part of a group that dates from the Federation period (1904), within a key period of significance of the site. The building is located

in a maritime setting that has retained much of its historic context. The building setting is informally landscaped and features lawn, mature trees, including cultural plantings of Araucaria heterophylla, and indigenous vegetation and provides an appropriate setting for the structure. There is a concrete ramp and terrace with brick retaining wall to the west. The building displays features of the Federation style. The façades present a simple asymmetrical elevation and is constructed of face brick with brick pilasters that have been rendered, finish on a rendered masonry base course. The roof is gabled with a medium pitch and has exposed eaves as evidenced in Figure 3.5.1. The roof is clad in corrugated sheet metal and features corbelled brick chimneys, terracotta, chimney pots, timber ventilator, and large ventilating details. A verandah wraps around the southern building, continues in line of the roof and has a straight profile (Figure 3.5.3). It is clad in corrugated sheet metal and timber boarding, lining with ventilation mesh and has been infilled with brick, florous cement sheet, timber frame glazing. The door is centrally located; doors are timber panelled and glazed French doors with fanlights, some converted to single leaf glazed doors. Fenestration comprises vertically proportioned timber 2 x 4 pane casement windows converted to 6 pane and highlights. The interior features: original painted brick walls, high timber boarded ceiling decorative cornices, new timber skirting and carpet. Verandah infill has boarded ceiling and exposed roof structure, fibro, render and paint wall finish and carpet with post-war timber skirting with timber stairs. The plan has a central corridor with offices to each side. Some original set plaster ceilings remain and some have been replaced. Internally partitions with highlight glazing light the corridor. No original light fittings survive. The 1950s additions result in a new stair located in front of the original entry windows.

The interior has been refurbished but retains its laboratory quality. New fluorescent lighting is surface mounted to the ceiling. The verandah has been infilled with glazing.

The Hatchery interior features c2004 lino floor and coved skirting, plasterboard ceiling and coved cornice, post-war timber architraves.

Condition:

The building underwent restoration works in 2004 and is currently in good condition.

Integrity:

Alterations and additions include: c2004 fitout of hatchery, partition walls, verandah infill, roof arched addition connecting fireplaces rendered, window alterations, eaves to hatchery infilled with batten fibrous cement sheet.

Significance Notes:
The building has exceptional/high significance. The following elements contribute to the significance of the item:

- Estuarine bush garden setting
- Form of the Building
- Simple gabled form

Recommended Management:

The building is above the threshold for inclusion in the Heritage Schedule of the LEP.

The building and its landscape setting should be retained, conserved, interpreted and adapted for new use.

The c2004 fitout could be removed or modified.

Opportunities:

The building has high potential to interpret the original development of the site as fish hatchery 1902-1914.

The picturesque setting of the building and spectacular views will enhance desirability of the building for adaptive reuse.

The building is suitable for research, office, accommodation and educational purposes.

9.7. BUILDING 7 – WATER POLICE/FISHERIES SCHOOL

Inspection Date:	22/08/2014
Date Range:	1943-46
Photo Index:	Figures 3.5.12, DSCO 2466, 2467, 2469, 2465, 2461
Latitude/Longitude:	-34.072755803 / 151.148129166
Current Use:	Vacant
Former Use:	Fisheries School, Water Police
Proposed Use Short-Term:	Marine, Education
Proposed Use Long-Term:	Retain and Conserve, Marine, Education, Offices





Historical Notes:

Summary

In 1946 the building was constructed for training courses at the time of establishment of the Fisheries School NSW on the site in the CSIRO period 1949-1984. It had no residential usage. In 1970 it was converted to DRP photographic section. The 1955 aerial photograph first indicates the building.

Physical Description:

A one-storey freestanding cottage that dates from the Post-war period. The building has partially lost its historic context. The building setting includes bitumen roadway, additions of steel frame canopy carports to south and west detract from setting and is informally landscaped and features lawn, indigenous vegetation. While executed post-war, the building displays features of the Interwar style. The façade presents a simple symmetrical elevation and is constructed of weatherboard and battened fibro with

a finish of face brick. The roof is hipped with a medium pitch and has broad, boxed eaves lined with timber. The roof is clad in corrugated asbestos cement. A verandah runs across the façade. It features a pair of timber posts. The door is offset and is timber boarded and glazed. Fenestration comprises pairs of timber double hung windows. The interior was inspected and features: timber frame construction, part fibrous cement and part timber cladding, carpet and lino, simple skirting and architraves plaster board ceiling and cornice. The plan is rectangular measuring: 17m x 11m. (Figure 3.5.12)

Condition:

The building appears to be in good condition.

Integrity High/Medium.

The building is substantially intact despite rear verandah infills.

Significance Notes:

The building contributes to an understanding of the evolution of the site in the key period of significance 1938-49, and particularly the development of the Fisheries School c1946, but does not meet the threshold for individual listing.

The building has moderate significance.

Recommended Management:

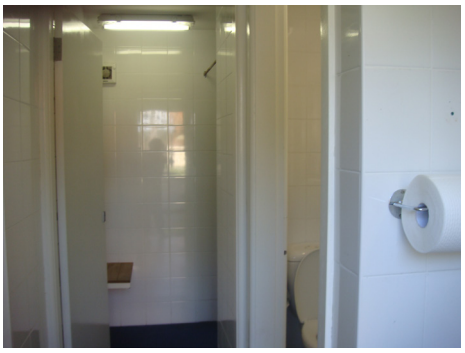
The building should be retained and adapted for new uses.

Opportunities:

The building is suitable for office accommodation.
Demolition of the existing shed to the rear would provide spectacular outlook opportunities.
Potential to open up rear (west) facing verandahs.

9.8. BUILDING 8 – TOILET BLOCK

Inspection Date:	22/08/2014
Date Range:	1984
Photo Index:	Figure 3.5.27, DSCO 2336, 2333
Latitude/Longitude:	34.072966868 / 151.147773773
Current Use:	Toilets
Former Use:	Heat Exchange
Proposed Use Short-Term:	Toilet Facilities
Proposed Use Long-Term:	Demolish



Historical Notes:

Summary
In 2000 the building was constructed as a toilet block in the NSW Fisheries period 1985-2011. The 2006 aerial photograph first indicates the building.

Physical Description:

The building is located on the southern slopes of the site and is prominent on the site. A one storey freestanding toilet building that dates from the late twentieth century period. The building is utilitarian in style. The façade presents a simple symmetrical elevation and is constructed of weatherboarding. The roof is gabled with a low pitch. The roof is clad in corrugated sheet metal. Fenestration includes timber doors. The interior was inspected. The plan is rectangular measuring: 5m x 4m. (Figure 3.5.27)

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the late Twentieth Century and is intrusive in its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.
Demolition of Toilet Block (Building 8) is recommended and should be considered when the building is not in use no longer required.

Opportunities:

Opportunities for reuse are limited. The building currently provides vital toilet services not available in the other buildings.

Demolition of this building which is prominently located on the access road within the c1904 Hatchery Precinct would allow better understanding of the relationships between Aquaria (Building 23) and Header Tank (Building 21) and the Hatchery (Building 6).

Reinstatement of original landscape setting of the 1904 Hatchery precinct could be achieved with demolition of Toilet Block (Building 8).

9.9. BUILDING 9 – COOLER SHED

Inspection Date:	22/08/2014
Date Range:	1984
Photo Index:	Figures 3.5.13, DSCO 2314, 2327
Latitude/Longitude:	-34.073007971 151.147536398
Current Use:	Under licence to Marine Rescue; not in use
Former Use:	Fisheries Uses/Fish processing/ Storage
Proposed Use Short-Term:	Storage
Proposed Use Long-Term:	Demolition

Historical Notes:

Summary

In 1938 a building was constructed as a smokehouse, a net-storage and fish-processing shed in the CSIRO period 1938-1949.

1938-39 CSIR Annual Report describes new works on the site: A small commercial-type smokehouse and a net-storage and fish-processing shed have been built on the foreshore, while a small jetty has been constructed from the end of which certain experimental work can be carried out.

The 1940 aerial photograph first indicates a building which was demolished. In 1984 the building was demolished and a new building constructed around a new large tank.

Physical Description:

A one-storey freestanding boatshed that is part of a group, that dates from after the key period of significance of this part of the site. The building is located in an estuarine setting that has retained its historic context. The building setting is not landscaped, and features concrete hardstand and provides an appropriate setting for the structure. The building is utilitarian in style. The façade presents a simple

elevation and is constructed of weatherboard with a paint finish on a battered concrete base course. The roof is gabled with a medium pitch and has boxed eaves. The roof is clad in galvanised corrugated sheet metal. The door is located to the side and is solid core, painted. Fenestration comprises roller shutters facing hardstand. The interior was inspected. The interior features concrete floor, unlined, timber framed walls and roof, tank on timber stand and as elevated tank. Timber frame construction with asbestos cladding. Large salt water temperature controlled tank. The plan is rectangular measuring: 7m x 8m. (Figure 3.5.13)

Condition:

The building appears to be in good condition.

Integrity Medium.

The building is substantially intact.
Cladding has been replaced yet the form of the building is intact.

Significance Notes:

The building is utilitarian structure from the Post-war period.

The building has little significance with an intrusive tank on timber stand.

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.

Recommended Management:

Removal of the building would allow for a better interpretation of Building 11, the Hatchery Precinct and the key period of significance 1902-1914. Removal of the tank is acceptable.

Opportunities:

The building is suitable for storage.

9.10. BUILDING 10 – FORMER FISHERIES SCHOOL, WATERFRONT LABORATORY

Inspection Date:	22/08/2014
Date Range:	c1946
Photo Index:	Figures 3.5.14, DSCO 2301, 2296, 2290, 2281, 2282
Latitude/Longitude:	-34.072738029 / 51.147654415
Current Use:	Vacant
Former Use:	Fisheries School, Wet Laboratory
Proposed Use Short-Term:	Education use, Function space, Marine uses
Proposed Use Long-Term:	Education use, Function space, Marine uses, Support, Building 23 Use





Historical Notes:

Summary

In 1946 the building was constructed as Fisheries School in the CSIR period 1938-1949. The 1955 aerial photograph first indicates the building. In 1974 it was used for labs offices. In 1990s it was used as a visitors centre. In 2003/2 it was an open plan office and in 2009 it was used as a meeting room. In 2000 36 separate tanks were installed in part of the building.

1946 situated next to the aquaria to accommodate a Fisheries School, part of Commonwealth Reconstruction Training Scheme for ex-servicemen.

1947 The School commenced in January, staffed by officers of the Department of Fisheries. Students lived on site and trained for 4 months and then progressed to subsidised employment.

Dr Geoffrey L. Kesteven, who was biologist at CSIR and later assistant director of Division of Fisheries, Department of Commence and Agriculture, was described as the instigator of the scheme. Kesteven wrote the syllabus and delivered lectures. The school was a unit of Division of Fisheries, Department of

Commence and Agriculture, and was established as *"part of the Hungry Point site that adjoins the CSIR Marine Biology Laboratory"*.

Physical Description:

A one-storey freestanding building that dates from the immediate Post-war period within a key period of significance of the site (1938-1949). The building is located in an estuarine setting that has retained its historic context. The building setting is landscaped and features indigenous vegetation to the rear. The building is sympathetic in style to earlier buildings, with some Post-war detail. The façade presents a simple elevation and is constructed of weatherboard. The roof is gabled and has broad boxed eaves. The roof is clad in corrugated sheet metal. A concrete jetty runs across the south façade and extends beyond the building. A skillion awning runs across the entry and there is a roller shutter accessing the aquaria. The fascia is wide and features contemporary signage. The door is located to the rear and is solid core timber. Fenestration comprises horizontally proportioned timber windows, in groups of three and glazed French doors. Windows facing the aquaria have been enclosed. The interior was inspected and features: tiled /lino floor, raked ceiling to aquaria, plasterboard ceiling and cornices in main room and battened fibrous cement sheet, wall and ceiling linings, timber skirtings, timber window framing and timber sashes, carpet, and contemporary kitchen fitouts. The plan is rectangular measuring: 18m x 10m.

Condition:

The building appears to be in good condition.

Integrity:

The building is substantially intact.

Significance Notes:

The building provides evidence of the Cronulla Fisheries School c1946 and the Commonwealth Reconstruction Training Programme for ex-servicemen.

A good representative example of the mid Twentieth Century development of the site by CSIR, in the second key period of significance 1938-1949.

The building has high significance.

Recommended Management:

The building is above the threshold for individual heritage listing in the Heritage Schedule of the LEP, as it contributes to a understanding of the Post-war development of the site for Fisheries School. The building should be retained, interpreted and adaptively re-used.

Opportunities:

Ideally, the building should be retained and adaptively reused.
The building would lend itself to use as an educational facility or commercial, in conjunction with the aquaria, hatchery, boatshed, slipway and jetty.
The building could provide facilities to support the adaptive reuse of the aquaria such as a function area/café/restaurant.

9.11. BUILDING 11 – BOAT SHED

Inspection Date:	22/08/2014
Date Range:	c1904
Photo Index:	Figures 3.5.4, DSCO 2306 + 3.5.5, DSCO 2308, 2309 ,2318
Latitude/Longitude:	-34.072941318 / 151.147814120
Current Use:	Marine rescue training/Boat crew ready room. Under licence to Marine Rescue.
Former Use:	Boatshed, Engine shed, Store room
Proposed Use Short-Term:	Marine Uses
Proposed Use Long-Term:	Marine Uses, Boatshed




Historical Notes:

Summary

In 1904 the building was constructed as a boat shed in the Hatchery period 1902-1914. The 1930 aerial photograph first indicates the building.

The building was one of two boatsheds present on the site in 1904 and included two slipways and a short jetty. Refer MA1.

1904 Following construction of the Aquaria and Hatchery, further work was undertaken by McCarthy in October including a combined engine shed, store room and boat house, constructed in weatherboard

with an iron roof, boat slip and platform.

1935 Contracts for repairs and painting of boatshed were accepted in November and February 1936.
1960 A slipway, mooring dolphins and a short jetty on the western side of the boatshed were removed.

Physical Description:

A one-storey freestanding boatshed and boat ramp that dates from 1904 (Figure 3.5.4). The building setting is not landscaped and features a concrete hardstand, Cooler Shed (Building 9) boatshed and a canopy which detracts from the setting for the structure. The façade presents a simple elevation. The roof is gabled with a steep pitch and has exposed eaves. The roof is clad in corrugated sheet metal. A covered gabled structure adjoins with minimal attachment. The door is timber boarded, braced. Another timber door facing water. Fenestration comprises pairs of vertically proportioned timber 2-panel casement windows. There are two roller shutters. The interior features concrete floor, timber roof framing, colorbond corrugated sheet metal. Interior is divided, and clad in fibrous cement sheet/ battened, timber skirting, no ceiling, kitchenette contemporary, tiling, dividing wall clad in plywood, pair of hollow core doors. Timber frame construction and weatherboards (Figure 3.5.5). The plan is rectangular measuring: 6m x 12m.

Condition:

The building appears to be in good condition.

Integrity High.

The building is substantially intact.
Alterations and additions include: partition wall, kitchen fitout, roller shutters, reclad.

Significance Notes:

The building has high significance as of a Federation boatshed that is part of the original 1904 development of the site by Dannevig.
The external conopy is intrusive.

Recommended Management:

The building has high significance. The building is above the threshold for inclusion in the heritage schedule.
The building and its setting should be retained and conserved in its c1904 form.
The boat ramp should be included in the listing.
No additions to the building or new development within the visual setting of the building should occur.

Opportunities:

Removal of the external canopy is desirable.
Removal of Building 9 would enhance the setting and interpretation of the more significant Building 11.

9.12. BUILDING 12 – GARAGE

Inspection Date:	22/08/2014
Date Range:	c1971
Photo Index:	Figure 3.5.20, DSCO 0149, 0150
Latitude/Longitude:	-34.07248586 / 151.148426891
Current Use:	Garage
Former Use:	Storage
Proposed Use Short-Term:	Demolish unless retention assists short-term renting of Building 18
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary

In 1971 the building was constructed as garage in the CSIRO period 1950-1984. In 1990 the building was used as offices. It has a direct functional relationship to Residence (Building 18). The 1978 aerial photograph first indicates the building.

1971 Plans for Residence and Garage at Fisheries Office Cronulla were prepared. The former Caretaker's Cottage c1904 was demolished to make way for the new residence and garage.

Physical Description:

The building is located on the crest of the site and is prominent on the site. A one storey freestanding garage that dates from the late twentieth century period. The façade presents a simple symmetrical elevation and is constructed of face brick. The roof is gabled with a low pitch and is clad in concrete tile. The door is a metal roller shutter. The interior was inspected and features and unframed storage facility. The plan is rectangular measuring: 5m x 8m.
(Figure 3.5.20)

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1970s and is intrusive in its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.
Demolition of Garage (Building 12) is recommended.

Opportunities:

Opportunities for reuse are limited.

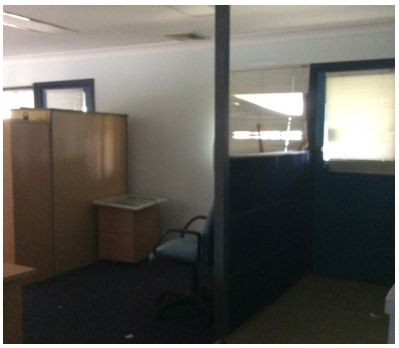
Opportunities to interpret the 1904 Caretaker's Cottage through archaeological remains exists.
Refer A1 – site of former Caretaker's Cottage.

Demolition of the garage would allow better understanding of the key period of significance of the site c1904, and would allow enhanced linkages to Darook Park to enhance understanding of Pre-1902 key period of significance.

9.13. BUILDING 13 – FORMER MIGRANT HOSTEL

Inspection Date:	22/08/2014
Date Range:	c1946-1950
Photo Index:	Figures 3.5.15, DSCO 0028, 0019, 0037, 0043, 0031
Latitude/Longitude:	-34.072852449 / 151.148837269
Current Use:	Vacant
Former Use:	Hostel Accommodation
Proposed Use Short-Term:	Office
Proposed Use Long-Term:	Short-term accommodation, office





Historical Notes:

Summary

In 1949 the building was constructed as a migrant hostel in the Migrant Hostel period 1949-1967. In 1967 the building was used as offices by NSW Fisheries. It has a direct functional relationship to Building 15, also a Migrant Hostel. The 1955 aerial photograph first indicates the building.

1949 the building one of eighteen buildings that made up the Cronulla Hostel. The Hostel may have included ex-naval huts erected for the Fisheries School in 1946-47. Cronulla Hostel provided accommodation for migrants to be trained in Fisheries Work. The building was used as Accommodation.

Paths were constructed between buildings.
1967 The Hostel closed
1967 NSW Fisheries CEP reclad/ new roof/ restumping Building 15 and 13 under Commonwealth Employment Plan
Used as a Stationary store/Deliveries Catch Records/Water Police.
1970 the buildings excluding Building 15 and 13 were demolished.
Security guard torched building

Physical Description:

A one-storey freestanding building that is one of a matching pair of buildings remaining from the 18. buildings that formed the migrant camp and date from the Post-war period, within a key period of significance of the site. The building is located in an estuarine, bushland setting that has partially lost its historic context due to the extensive bitumen/car parking on one side and the proximity of Commercial Management (Building 16) which blocks views to and from the water. The building setting is informally landscaped and features a path, lawn, indigenous vegetation and provides an appropriate setting for the structure. The building displays features off the utilitarian Post-war style. The façade presents a simple elevation punctuated by a series of door/window openings and is constructed of weatherboard with a paint finish on a brick base course. The roof is gabled with a medium pitch and exposed eaves. The roof is clad in corrugated sheet metal. A narrow verandah runs across the long façades and continues the roof line and has a straight profile. It is clad in corrugated sheet metal and features simple timber columns and balustrading. The doors are spaced along the verandah and are timber boarded and glazed. Fenestration comprises horizontally proportioned timber double hung windows. The interior was inspected. The interior features: plasterboard ceilings and coved cornices, plasterboard wall finishes, carpet, new partitions. The plan is rectangular measuring: 9m x 20m. (Figure 3.5.15)

Condition:

The building appears to be in good condition.

Integrity Medium.

The building is substantially intact.

Alterations and additions include: interior refit, ramp access, some openings altered, some door leafs replaced, roof/guttering replaced.

Significance Notes:

The building has high significance as a rare example of Post-war Migrant Hostel accommodation wing in an estuarine setting that is one of a pair, surviving from a larger complex. The building has high significance.

Recommended Management:

The building is above the threshold for inclusion in the Heritage Schedule.
Retain, conserve, interpret former hostel uses and adaptively reuse.

Provide landscape buffer to Building 16.

Opportunities:
Adaptive reuse options include office and residential accommodation.

Demolition of Building 16 and relocation of adjacent car parking would improve the setting of the building.

Interpret original division of dormitory rooms.

Enhance physical and visual relationship to Building 15

9.14. BUILDING 14 – STORAGE

Inspection Date:	22/08/2014
Date Range:	1961-1970
Photo Index:	Figure 3.5.21, DSCO 0156, 0157
Latitude/Longitude:	-34.072288124 / 151.148611963
Current Use:	—
Former Use:	Storage/Garage
Proposed Use Short-Term:	Demolish or retain for storage
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary

In 1961 the building was constructed as a store in the CSIRO period 1950-1984. The 1970 aerial photograph first indicates the building.

Physical Description:

A one storey freestanding garage that dates from the late twentieth century period. The building is utilitarian in style. The façade presents a simple symmetrical elevation and is constructed of weatherboard, fibro and face brick. The roof is gabled with a low pitch and is clad in corrugated sheet metal and concrete tile. The door is a roller shutter. The window is an aluminium sliding window. The interior features an unlined storage area. The plan is rectangular measuring: 5m x 7m. (Figure 3.5.21)

Condition:

The building appears to be in good condition.

Integrity

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1960s.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP. Demolition is recommended to better interpret key periods of significance of the site.

Opportunities:

Opportunities for reuse are limited.

9.15. BUILDING 15 – FORMER MIGRANT HOSTEL

Inspection Date:	22/08/2014
Date Range:	c1946-1950
Photo Index:	Figures 3.5.16, DSCO 0051, 0091 0081 0075
Latitude/Longitude:	-34.073103505 / 151.148746074
Current Use:	Vacant
Former Use:	Hostel Accommodation
Proposed Use Short-Term:	Office
Proposed Use Long-Term:	Short-term accommodation, office





Historical Notes:

Summary

In 1949 the building was constructed as a migrant hostel in the Migrant Hostel period 1949-1967. In 1967 the building was used as offices by NSW Fisheries. It has a direct functional relationship to Building 13, also a Migrant Hostel. The 1955 aerial photograph first indicates the building.

1949 the building one of eighteen buildings that made up the Cronulla Hostel. The Hostel may have included ex-naval huts erected for the Fisheries School in 1946-47. Cronulla Hostel provided accommodation for migrants to be trained in Fisheries Work. The building was used as Accommodation.

Paths were constructed between buildings.

1967 The Hostel closed
1967 NSW Fisheries CEP reclad/ new roof/ restumping Building 15 and 13 under Commonwealth Employment Plan
Used as a Stationary store/Deliveries
1970 the buildings excluding Building 15 and 13 were demolished.
Security guard torched building
Aquarium/Laboratory – meeting room, reception area and administration

Physical Description:

A one-storey freestanding hostel that is one of a group that dates from the Post-war period, within a key period of significance of the site. The building displays features of the Post-war utilitarian style in a maritime bushland setting that has retained much of its historic context. The building setting is informally landscaped. Car parking detracts and is not screened. The surrounds feature lawn, mature trees, indigenous vegetation and provides an appropriate setting for the structure. The façade presents a simple elevation and is constructed weatherboard with a paint finish on a brick piers. The roof is gabled with a medium pitch, and has exposed eaves. The roof is clad in corrugated sheet metal. A narrow verandah runs across each long façade and continues line of roof. It is clad in corrugated sheet metal and features simple timber columns and balustrade and is unadorned. Door/windows are regularly spaced along each façade. The door is timber boarded and glazed. Fenestration comprises timber double hung windows with central double doors. The interior is contemporary and fitout for offices. It retains dividing internal walls. It features carpet and timber skirtings, plasterboard ceilings and coved cornices, timber architraves and timber construction. The plan is rectangular measuring: 22m x 9m. (Figure 3.5.16)

Condition:

The building appears to be in good/fair condition.

Integrity High/Medium.

Alterations and additions include: some contemporary partitions, some windows replaced, air conditioning units.

Significance Notes:

The building has high significance as a rare example of Post-war Migrant Hostel accommodation wing in an estuarine setting that is one of a pair surviving from a larger complex. The building has high significance.

Recommended Management:

The building is above the threshold for inclusion in the Heritage Schedule.
Retain, conserve, interpret Former Hostel uses and adaptively reuse.

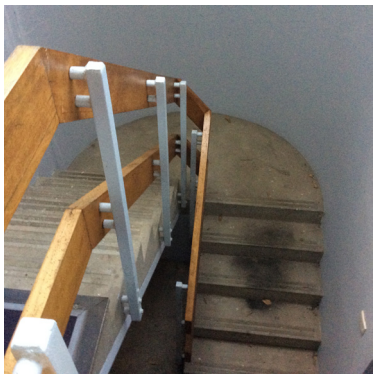
Opportunities:

Adaptive reuse option includes office/accommodation.
Enhance physical and visual relationship with Building 13.

9.16. BUILDING 16 – COMMERCIAL MANAGEMENT

Inspection Date:	22/08/2014
Date Range:	1970-1978
Photo Index:	Figure 3.5.22, DSCO 0177, 0173, 0181, 0186, 0183
Latitude/Longitude:	-34.072790240 / 51.149086714
Current Use:	Vacant
Former Use:	Commercial Management and Licensing
Proposed Use Short-Term:	Offices, Function Space
Proposed Use Long-Term:	Demolish




Historical Notes:

Summary
In 1976 the building was constructed as offices and purpose built laboratory in the CSIRO period 1950-1984. The 1978 aerial photograph first indicates the building.

1970 The building was designed to have a second storey by Commonwealth Architect, CSIRO
Curved shape WC was designed for future stair
The building provided drive in loading bay to bring bay fish in
Four laboratories

Lab one microscope odalisque
Lab two wet laboratories
Lab three chemical labs
Lab four freshwater lab
And offices
Basement damp problems and library stack/store freezers
1988/90 extended by NSW Fisheries
2001 portable buildings located on northern side
2002/3 costed to add second floor too costly and not proceeded

Physical Description:

The building is located on the northern slopes of the site and dominates the site.

An overly large one storey and basement freestanding office building that dates from the late twentieth century period. It is located in close proximity to the setting of Building 13, which is a more significant building.

The building setting is informally landscaped, which provides an appropriate setting for the structure. The façade presents a complex asymmetrical elevation and is constructed of face brick and concrete with basement with rendered panels and circular rendered elements, which house showers. The roof is concealed with a low pitch. The roof is clad in corrugated sheet metal. Fenestration includes aluminium windows and doors. The building is brick and concrete construction. The interior was inspected and features a standard rendered office fitout.
The plan has a central corridor with offices to each side. The plan is rectangular measuring: 15m x 27m. (Figure 3.5.22). The building has some specific features such as articulated curved toilet surroundings. The plan is restrictive for additions which were previously considered. The building has a large basement which has damp problems. The stair is concrete with a substantial timber rail supported on metal brackets. The plan

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a representative building dating from the 1970s and is intrusive in its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage ground.

Demolition of Commercial Management (Building 16) is recommended in the long term and returns the site to a natural topography. Suitable short-term uses may be accommodated with minor upgrade.

Opportunities:

Demolition of Commercial Management (Building 16) would provide opportunities to improve the setting of Former Migrant Hostel Accommodation Building 13.
Opportunities for reuse are limited to office accommodation and a function centre subject to conversion costs.

9.17. BUILDING 17 – CHEMICAL STORE (DEMOLISHED)

Inspection Date:	22/08/2014
Date Range:	1970-1978
Photo Index:	Figure 2.2.44
Latitude/Longitude:	
Current Use:	Demolished
Former Use:	Chemical Store, Explosive Store
Proposed Use Short-Term:	
Proposed Use Long-Term:	

Historical Notes:

Summary

In 1974 the building was constructed as chemical store and demolished in 2013. The 1978 aerial photograph first indicates the building. The building replaced portable offices.

Purpose built brick explosives store that was redeveloped as chemical store. The roof would blow out if an explosion occurred. It was demolished in 2013.

9.18. BUILDING 18 – RESIDENCE

Inspection Date:	22/08/2014
Date Range:	c1971
Photo Index:	Figure 3.5.23, DSCO 0160, 0161
Latitude/Longitude:	-34.072288142 / 151.148314238
Current Use:	Vacant
Former Use:	Recreation and Licensing
Proposed Use Short-Term:	Short-term residential accommodation or Demolish
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary

In 1971 the building was constructed as a residence. The 1978 aerial photograph first indicates the building.

1971 Plans for Residence and Garage at Fisheries Office Cronulla were prepared
1971 Local NSW Fisheries Inspector house provided cheap rent in a fantastic location
1985 Director and families moved in and extended the building, Bob Carrey
2003 Visiting scientists sabbatical leave, Norwegian Roger Larson, Tony Pitcher
2017 The building was demolished under a Section 60 approved.

Physical Description:

The building is located on the crest and dominates the site. A one storey four bedroom freestanding house with basement that dates from the late twentieth century period. The building setting is informally landscaped, which provides an appropriate setting for the structure. The building is utilitarian in style. The façade presents a simple asymmetrical elevation and is constructed of face brick. The roof is hipped with a low pitch and is clad in concrete tiles. Fenestration includes aluminium sliding windows and timber doors. The interior was inspected and features typical plasterboard fitout. The plan is rectangular measuring: 12m x 18m. (Figure 3.5.23)

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the early 1970s and is intrusive to its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.
Demolition of Residence (Building 18) is recommended.

Opportunities:

Opportunities for reuse are limited to residential accommodation.
Demolition of the residence Building 18 would allow enhanced linkages to Darook Park, and enhance an understanding of the pre-1902 key period of significance.

9.19. BUILDING 19 – DIVE STORE

Inspection Date:	22/08/2014
Date Range:	1994-2001
Photo Index:	Figure 3.5.28, DSCO 2322, 2329
Latitude/Longitude:	-34.072861336 / 151.147750974
Current Use:	Vacant
Former Use:	Dive Store/Refrigeration
Proposed Use Short-Term:	Demolish
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary

In 1994 the building was constructed as a Dive Store in the vicinity of the Former 1904 water wheel associated with Header Tank (Building 21). The 2006 aerial photograph first indicates the building.

Physical Description:

The building is located on the waterside of the site and is dominant on the waterfront. A one storey freestanding building that dates from the late twentieth century period. The building setting is concreted. The building is utilitarian in style. The façade presents a simple utilitarian elevation and is constructed of rendered block work. The roof is gabled with a low pitch and is clad in corrugated sheet metal. It has a metal roller shutter. The interior was inspected and features rendered and unrendered block work. The plan is rectangular measuring: 14m x 4m.
(Figure 3.5.28).

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1990s and is intrusive to its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.
Demolition of Dive Store (Building 19) is recommended.

Opportunities:

Opportunities for reuse are limited.
Demolition of Dive Store (Building 19) will enhance an appreciation of the 1904 Hatchery precinct and of significant Buildings 10, 23 and 11, and enable re-establishment of their original landscape setting.
(Winch for slipway location to be confirmed.)

9.20. BUILDING 20 – PUMP SHED

Inspection Date:	22/08/2014
Date Range:	1955-1961
Photo Index:	Figures 3.5.24, DSC0 2320,2332
Latitude/Longitude:	-34.073076742 / 151.14756206
Current Use:	
Former Use:	Pump Shed
Proposed Use Short-Term:	Demolition
Proposed Use Long-Term:	Demolition

Historical Notes:

Summary

In 1955 the building was constructed as a Pump Shed in the CSIRO period. The 1955 aerial photograph first indicates the building.

Physical Description:

The building is located on the waterfront of the site and nestles into the site. A one storey freestanding building that dates from the Post-war period. There is evidence of an earlier timber jetty below. The building setting is informally landscaped and features a rock escarpment, Ficus specimen and foreshore vegetation, concrete path and timber steps and deck. The building is utilitarian in style. The façade presents a simple symmetrical elevation and has a timber frame construction with compressed cement wall cladding. The roof is gabled with a low pitch. The roof is clad in corrugated sheet metal and concrete tile. The interior was inspected. The interior features unlined studwork. (Figure 3.5.24)

Condition:

The building appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from the 1950s.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.
Retention is not required on heritage grounds.
Demolition of Pump Shed(Building 20) is recommended.

Opportunities:

Opportunities for reuse are limited due to the requirements for the pump shed. Demolition of the Pump Shed would allow better interpretation of the 1904 Hatchery precinct and the key period of significance.

9.21. BUILDING 21 – HEADER TANK (REFER ALSO MA6)

Inspection Date:	22/08/2014
Date Range:	c1904 altered 2000
Photo Index:	Figure 3.5.6
Latitude/Longitude:	-34.072992418 / 151.148072839
Current Use:	Not in use
Former Use:	Header Tank
Proposed Use Short-Term:	None
Proposed Use Long-Term:	Retain concrete tank for interpretation of 1904 Hatchery, Demolish superstructure




Historical Notes:

Summary

In 1904 the structure was constructed as an open tank in the Hatchery period 1902-1914. The 1930 aerial photograph first indicates the building.

The structure referred to as the header tank contains the original storage tank shown on the 1904 survey.

In April 1903 the Fisheries Branch was ready with plans and specifications for a fully functional marine hatchery with a hatchery building, fishponds, boatsheds, storage tank, pumping plant, laboratory and residence for the caretaker, at a total cost of 2,125 pounds. The project was put to tender in December 1903 and Mr Charles McCarthy of Mosman was the successful tender in with his quotation of 1371 pounds. Construction was to be completed in 26 weeks from January 28, 1904. The tank was used to store sea water which had been pumped from the bay. It was then distributed around the site

to the various locations where required. A valve associated with the tank is located down the slope from the tank

1930 – Aerial photograph indicates the structure.
1990 – Concrete slab from waterwheel
1992 – 2011 Storage tank used 1992 to 2011
2000 – Water tank roofed
2001 – Car hoists installed

Physical Description:

A one-storey freestanding tank that is part of a group that dates from the Federation period, within a key period of significance of the site. The building is located adjacent to the access road, in a bushland setting that has partially lost its historic context. The building setting is informally landscaped. It is an open, rectangular, concrete tank 8.57 x 7.1m, located mostly underground with a low wall (approximately 0.5m) projecting about the ground level. A superstructure of timber-framed walls and a flat roof encloses the tank. Two large openings for viewing/ventilation are located on the east side of the enclosure with a number of other openings, and evidence of Former openings around the other sides. The interior was not inspected. Tank below comprises a concrete retaining wall with altered brick piers supporting timber beams. The building is utilitarian in style. (Figure 3.5.6)

Condition:

The structure appears to be in fair/poor condition.

Integrity Low.

The tank is substantially intact yet the structure has been altered. Alterations and additions include: structure above the tank.

Significance Notes:

The storage tank has high exceptional significance as a key functional structure of the 1904 fisheries works.

Recommended Management:

The Header Tank should be included in the Heritage Schedule of the LEP.

Retain, conserve and interpret the original fabric of the 1904 tank. Demolition of superstructure and further investigation of the original fabric of the tank is recommended.

Opportunities:

The tank offers the opportunity to interpret the c1904 Hatchery and its water supply.

The enclosing super structure has little significance and should be removed to better interpret the tank, and improve views to the 1904 precinct.
The concrete tank could be retained, infilled and interpreted.

9.22. BUILDING 22 – BOAT STORAGE/GENERATOR SLAB

Inspection Date:	22/08/2014
Date Range:	c2010
Photo Index:	Figures 3.5.29, DSCO 2471 + 3.5.30, DSCO 2469
Latitude/Longitude:	34.072876888 151.147761703 MARGIN NOTES: B Generator slab
Current Use:	Boat Storage – Under licence to Marine Rescue
Former Use:	Generator/Boat Storage
Proposed Use Short-Term:	Demolish, Boat Storage
Proposed Use Long-Term:	Demolish

Historical Notes:

Summary
In 2006 the building was constructed in the post closure period. The 2006 aerial photograph first indicates the building.

Constructed circa 2006 on the site of an earlier structure which was demolished in the 1960s.
1960s L shaped plan electronic laboratory CSIRO
DATE aerial photograph indicates the earlier building.

Physical Description:

The structure is located on the southern slopes of the site and is prominent on the site. A one storey open shed structure attached between Fisheries School (Building 7) and Header Tank (Building 21) (the header tank) that dates from the late twentieth century period. (Figure 3.5.29). The structure is utilitarian in style (Figure 3.5.30). The building is part skillion with a low pitch and clad in corrugated sheet metal. The structure is steel. The plan is trapezoidal in shape measuring approximately 12m x 15/8m.

Condition:

The structure appears to be in good condition.

Integrity Substantial.

The building is substantially intact.

Significance Notes:

The building has little significance as a utilitarian building dating from c2010 and is intrusive to its setting.

Recommended Management:

The building is below the threshold for inclusion in the Heritage Schedule of the LEP.

Retention is not required on heritage grounds.

Demolition of Building 22 (Boat Storage) should be considered when the building is vacated.

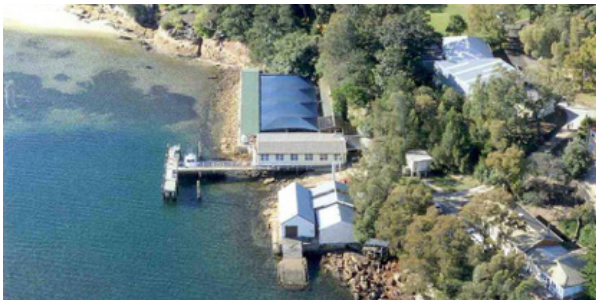
Opportunities:

Opportunities for reuse are limited.

Demolition would allow improved setting and interpretation of Building 21 (Header Tank), adjacent, and thereby enhance interpretation of c1904 key period of significance. Demolition should be considered when the building is vacated. Demolition would allow improved setting and interpretation of Fisheries School (Building 7) (Water Police/Fisheries School) and thereby enhance interpretation of c1938-49 key period of significance.

9.23. BUILDING 23 – AQUARIA, FISH POND

Inspection Date:	22/08/2014
Date Range:	c1904
Photo Index:	DSC02268-2272, 2274-2276, 2302-2303, Figures 3.5.7 + 3.5.8
Latitude/Longitude:	-34.072563622 / 51.147761703
Current Use:	Vacant
Former Use:	Fish Pond, Research
Proposed Use Short-Term:	
Proposed Use Long-Term:	Pool, Aquaria, Interpretation, outdoor recreation area, reversible floor cover






Historical Notes:

Summary

In 1904 the building was constructed as an Aquaria in the Hatchery period 1902-1914. It was converted to a fish pond. It has a direct functional relationship to Hatchery (Building 6). The 1930 aerial photograph first indicates the building.

In November 1902, plans were prepared for 'proposed fish tank at Hungry Point' by Thomas Keele, Principal Engineer for Harbours and Rivers. The plans show a rectangular pool 40 feet x 100 feet constructed as 1:6" thick concrete wall with concrete footway surround, and battered concrete seawall with "ballast" facing. A timber balustrade comprising 4"x4" handrail, 3"x2" midrail, 6"x4" and 6"x6" posts surrounded the pool. A gabled roof structure is indicated for further consideration. The project was put to tender in December 1903 and Mr Charles McCarthy of Mosman was the successful tender with his quotation of 1371 pounds. Construction was to be completed in 26 weeks from January 28, 1904. The Hatchery Buildings and Fish Pond were completed by August 23, 1904. Further work was undertaken by McCarthy in October 1904 including open roofing of the Aquarium, with galvanised wire and lattice on hardwood posts. The following description appeared in the Sydney Morning Herald, 20.11.1905 *"The spawning pond is 100ft x 40ft and takes in tidal water to the depth of 6ft. Basin shaped at the bottom, it can be emptied as desired. Water generally allowed to partly run out every second tide. Inflow sea water runs through a filter chamber. The pond and lattice roof were designed by Messrs L. Drew and Dannevig"*.

In 1929 the Aquaria was used for experiments on the effect of electrical fields on sharks.
The CSIR Annual Report for 1938-39 describes planned works on the site: The large concrete tidal pond (100 feet x 42 feet) will be reconditioned during the coming year.
DATE aerial photograph indicates the building.
1985 12 individual pens to separate fish

Physical Description:

A concrete rectangular pool that dates from the Federation period, within a key period of significance of the site, located on the water's edge. The pool is surrounded by concrete apron in a bush setting. The early concrete apron has been extended to the. Concrete platforms and retaining walls step up the hill. A timber structure and gabled roof formerly accommodated a series of tanks (since removed). The pool is fenced with later colorbond and wide mesh/barbed wire. Concrete block retaining walls, corrugated sheet metal and corrugated fibre glass upper structure steel pipe rail and timber are later structures that detract from the character of the original concrete rectangular pool.
The plan is rectangular measuring: 13m x 30m. (Figure 3.5.7 and 3.5.8).

Condition:

The structure appears to be in fair condition. The storm event of 16 December 2015 damaged the pool cover and structure.

Integrity Medium.

The pool is substantially intact, however, the surrounds have been altered and extended to

accommodate tanks (now removed). New sea wall replaced original rubble retaining embankment. Original timber framed shading was replaced with a steel canopy (now removed). Storm event on 16 December 2015 caused damage to pool cover and structure. Insurance managed.

Significance Notes:

An important surviving element of the c1904 hatchery, which continued in its use in fisheries research throughout the Twentieth Century. The aquaria has exceptional/high significance.

Significant fabric is the concrete rectangular pool and apron. The extensions of the apron to the west are not significant.

Recommended Management:

The aquaria is above the threshold for inclusion in the Heritage Listing.

It should be retained, conserved, and interpreted.

Opportunities:

The structure ideally should be retained as a pool. Alternatively, it could be retained, infilled, and interpreted at ground level.

A horizontal pergola to interpret earlier shade structure from the key period of significance 1902-14 could be considered.

10. LIST OF ILLUSTRATIONS

FIGURE	DATE	DESCRIPTION	SOURCE	PAGE
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2.2.14	c1910	Subdivision of Defence Reserve to create Fish Hatchery on 3 acres, 1 rod and 20 perches	Thematic History of NSW Fisheries, 1997	30
2.2.15	No date	Harald Dannevig	Picture Sutherland Shire MF005058	31
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2.2.40	1987	CSIRO, Hungry Point, Cronulla – Seawall	Sutherland Shire Council files	56
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11. BIBLIOGRAPHY

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12. LIST OF APPENDICES AND ATTACHMENTS

APPENDIX A THE BRIEF

APPENDIX B THE BURRA CHARTER

APPENDIX C ORIGINAL PLANS

APPENDIX D SUTHERLAND COUNCIL LEP 2015 AND DCP 2015 – RELEVANT CLAUSES

APPENDIX E BUILDING PLANS

ATTACHMENT A HUNGRY POINT RESERVE CONSERVATION MANAGEMENT PLAN: ABORIGINAL HERITAGE ASSESSMENT,
PREPARED BY AUSTRALIAN MUSEUM CONSULTING
FOR ARCHITECTURAL PROJECTS PTY LTD

APPENDIX A THE BRIEF

HUNGRY POINT RESERVE TRUST

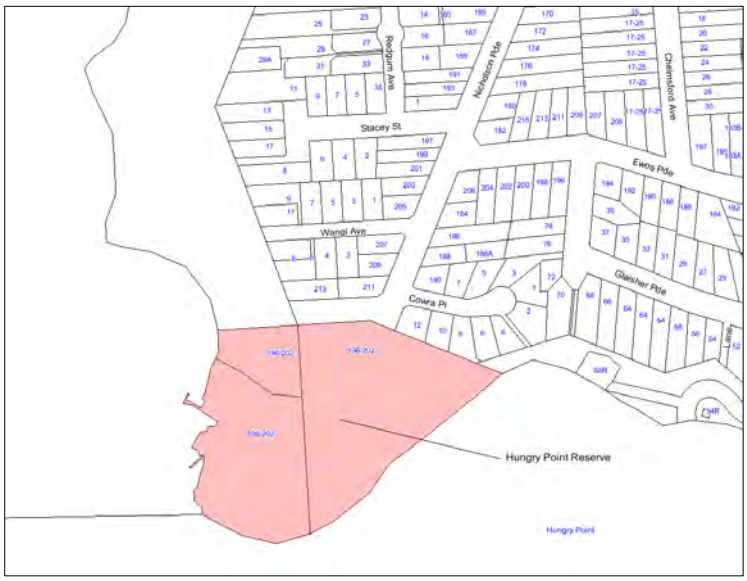
Conservation Management Plan

Consultant Brief

1. Introduction

1.1 Background

The three hectare Fisheries site is a spectacular piece of land jutting out into Gunnamatta Bay. It holds precious Aboriginal heritage, historic buildings and classic landscape features. The whole site is heritage listed as a site of national and state significance and there are also specific heritage listings on the site; the hatchery building, the boatshed, the aquarium facility and surrounds. There are recorded Aboriginal objects on the site. It sits adjacent to a residential area in South Cronulla (see map below).



The site has been described as follows:

> *" The Fisheries site has a wonderful history of excellence in marine scientific research. It was established at the beginning of the last century and been home to the CSIRO, used as a centre for refugees during and after World War II but most importantly has shaped and determined some of the greater scientific output in marine science in Australia."*
>
> Harley D. (2012): Cronulla Fisheries Site: Recommendations for Future Use

1.2 History of the Site

Hungry Point is a site of great historical significance. The site was held as a reserve for defence purposes from 1895 until 1902, when an area on the western side (Gunnamatta Bay side) was transferred to the NSW Government for the purpose of fish culture. Under various names and organizations, the Cronulla Fisheries Research Centre was the site from which fisheries resources in Australia have been explored and the fishing industry developed. It was the first fisheries research centre in Australia , and probably the southern hemisphere, with the buildings dating from 1904 having been purpose built for fisheries research. The site also has associations with notable scientists e.g. Harald Dannevig and Dr Keith Sainsbury, a Japan Prize laureate (the highest prize in science).

In 1947, a migrant hostel was built on the eastern side of the site. Many of the migrants housed there were from the Balkans and most of the children attended South Cronulla Public School.

The site has indigenous cultural significance. It has three listed middens, and indigenous leaders involved in an education programme at the Cronulla Fisheries Research Centre , spoke to high school students about the importance of this land to the Aboriginal people.

The site has landmark and scenic qualities, with mature canopy trees and natural rock formations.

In 2011 the State Government took a decision to close the Cronulla Fisheries Research Centre of Excellence. Since that time the staff of Fisheries have been relocated.

The State Government made a commitment that the site would not be sold and engaged Mr David Harley to make recommendations on the future use of the site. Mr Harley's recommendations are included in the document "*Cronulla Fisheries Site: Recommendations for Future Use, A report prepared for the NSW Department of Primary Industries*" by David Harley AM November 2012.

The State Government has confirmed that the site will remain in public ownership and be managed by a site specific Trust. The Hungry Point Reserve Trust has been appointed.

The Trust has embarked on one of its first tasks – the preparation of a Master Plan so that it can pursue the opportunities the site provides. As the site is heritage listed, a Conservation Management Plan is also required.

2. Scope of work

2.1 The Project

This brief calls for suitably qualified team to undertake the drafting of a Conservation Management Plan(CMP) to cover the conservation of all places and items of cultural significance (Aboriginal and non-Aboriginal (European) within the reserve and to review future development opportunities within the reserve.

In response to this brief it is anticipated that, as a minimum, the outcomes of the project will be a Conservation Management Plan for Hungry Point Reserve, endorsed by the NSW Heritage Office.

2.2 Objectives of the project

In preparing the Conservation Management Plan (CMP) the objectives are to:

- Understand the Heritage item through investigation of its historical and geographical context, its history, fabric, research potential, and importance to the community,
- Prepare a statement of significance – the plan will analyse documentary and physical evidence to determine the nature, extent and degree of significance of the Fisheries site (former),
- Develop a conservation policy, arising out of the statement of heritage significance, to guide current and future owners of the site, on the development potential of the site and its ongoing maintenance. Constraints and opportunities are to be examined,
- Consider current proposals for re-use or development, and how they can best be achieved in accordance with conservation policy. Where proposals may have adverse impact on the heritage significance of the site or individually listed buildings or Aboriginal items, this is to be detailed. Where development proposals have not been finalised, several likely options are to be discussed,
- The Conservation Management Plan is to take into consideration the objectives of the draft Masterplan currently in the course of preparation.

2.3 Previous reports / Available information

The Conservation Management Plan is to be a concise document. Information on the item or its site included in previous reports is not to be repeated, unless of particular relevance. Rather, simply refer to the other documentation available in the plan.

These documents include:

- Architectural Projects (2013): Sutherland Shire Community Based Heritage Study Review
- AHIMS site record cards: 52-3-0188 (Glaisher Point, Gunnamatta Bay); 45-6-2490 (Enclosed shelter with midden); 45-6-2491 (Open site with midden)
- Godden Mackay Logan/ NSW Fisheries (1997): Heritage and Conservation Register
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- NSW Parliament, Legislative Council, Select Committee on the Cronulla Fisheries Research Centre (2012): (inquiry into the) Closure of the Cronulla Fisheries Research Centre of Excellence – Report – October 2012
- Pollen, F & Healy, G (ed) (1988): 'Cronulla' entry in The Book of Sydney Suburbs
- Reid D (2008): Proposal for the future use of the site of the Cronulla Fisheries Research Centre

2.4 Background Material

The following documents are to be used to develop the statement of significance, conservation policy and management guidelines:

- Australia ICOMOS 2000, Australia ICOMOS Charter for the Conservation of Cultural Significance (Burra Charter) and Guidelines to the Burra Charter: Cultural significance, conservation policy, and undertaking Studies and Reports, Australia ICOMOS, ACT.
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The Trust will provide to the consultant the following information:

- Survey plan in DWG format
- Aerial photography of the site
- David Harley (2012): Cronulla Fisheries Site: Recommendations for Future Use
- Architectural Projects (2013): Sutherland Shire Community Based Heritage Study Review incl. draft Inventory sheets for Fisheries Research Institute.

2.5 Site Inspections

Site visits can be arranged by contacting Stacey Tannos 0411 508 473 stacey.tannos@marinerescuensw.com.au

2.6 Consultation

As a minimum it is anticipated that the following consultation will be required to be included in the scope of work:

- Consultation with Sutherland Historical Society, La Perouse Aboriginal Land Council representatives, government agencies and interested stakeholders
- Provide a draft of the CMP to the Heritage Office for review,
- Send a copy of the final CMP to the NSW Heritage Office, within the timeframe identified in this brief.

3. Approach

3.1 Principal disciplines

The Consultant team is required to be fully integrated in its methodology and approach.

3.2 Program

It is anticipated that the Hungry Point Reserve Conservation Management Plan consultancy will commence on the issue of a letter from the Trust accepting the fees quotation and be completed within 12 weeks of that date.

The Plan is to be finalised within 4 weeks of receiving comments from the client.

The consultant is to provide a preliminary program to reflect the program phases outlined above as part of the fee submission.

3.3 Project Phases

The project is to be developed in phases as detailed in subsequent sections of this document.

The phases applicable to this project will be:

Phase 1 Establish Site Significance: Gather and analyse written and graphic information (including photographs and drawings) to

establish the historic context of the site and individual heritage items. Review and update (if necessary) Statement of Significance, State Heritage Inventory listing and draft Sutherland Shire Local Heritage Inventory listing.

Phase 2 Manage Significance - Outline constraints & opportunities, prepare a succinct statement of conservation policy, review draft masterplan proposals in light of established heritage significance of the site.

Phase 3 Management Strategies - Outline management strategies, statutory approval processes, maintenance requirements and available exemptions.

Phase 4 Development of draft Conservation Management Plan.

Phase 5 Finalisation of the Conservation Management Plan, including endorsement by the NSW Heritage Office.

3.4 Client Co-ordination

For the Hungry Point Reserve Conservation Management Plan, the Client will be Hungry Point Reserve Trust represented by a Trust Project Control Group.

The process of guiding the project will be co-ordinated through the Trust Project Control Group. The appointed consultant will be expected to confirm the scope of works, services to be provided, fees and schedule of payments with this group prior to the commencement of the project. Regular progress discussion meetings with the Project Control Group will need to be allowed within the proposal and are to be set up under the chairmanship of the primary consultant.

3.5 Outputs

The following is to be provided to the Trust:

- One (1) unbound copy of the draft report
- Three (3) copies of the final report (1 unbound)
- One (1) copy of all written material including the final report in electronic form in a format (PDF unless otherwise specified)

4. Anticipated Response to the Brief

The consultant's brief will the following information, with the respective weightings for each criteria attached within the brackets:

- Information relating to experience and qualifications of the project team **(15%)**;

- Demonstrated experience in investigation, assessment and management of heritage items **(20%)**;
- Methodology - description of the manner in which you would provide the services as set out, including a proposed program and reporting schedule for the whole project **(25%)**;
- Referees - list of minimum 3 clients for whom you have recently carried out similar consultancies, together with a contact for reference in each instance; **(10%)**
- Proposed project fee **(30%)**

5. Terms and Conditions

Consultants are to be appointed for all phases described above. Consultants will only proceed from one phase to the next following approval of the Trust's Project Control Group.

Unless expressed to the contrary in this Brief the general conditions of the consultancy shall be in accordance with AS 4122 -2000 "*General Conditions for the Engagement of Consultants*".

For the purposes of item 5 in AS 4122 -2000 AS 4122 -2000 "General Conditions for the Engagement of Consultants" the consultancy contract will comprise:

- This brief; and
- Trust's letter of acceptance of fee submission
- Purchase order

The Agreed cost for the project will be fee submission accepted by the Trust and advised to the Consultant in writing.

For the purposes of item 15(a) of AS 4122 -2000 AS 4122 -2000 "General Conditions" the consultants are to provide Professional Indemnity Insurance of $5 million. Item 15(a) would provide that Professional Indemnity Insurance would be set at an amount of $5 million in the aggregate (no automatic reinstatement). And under item 16 Public Liability insurance of $10 Million.

The Trust elects alternative 1 in clause 8 of in AS 4122 -2000 AS 4122 -2000 "General Conditions relating to Copyright and Intellectual Property Rights"

For the purposes of item 13 in AS 4122 -2000 AS 4122 -2000 "General Conditions" the Trust may use the information provided in this study in any subsequent plans or studies for the Trust.

6. Work Health and Safety

The Consultant will comply with Sutherland Shire Council's Work Health and Safety requirements for Contractors and acknowledge the following summary of responsibilities applies:

Every contractor, their employees and sub-contractors as part of contract conditions must:

1. Hold all relevant licences, permits, certificates, and Workers' Compensation 'Certificate of Currency'
2. Have a documented and living OHS management system based on the principles of risk management
3. Have a safety management plan and/or safe work method statements (SWMS), where required
4. Report all work-related incidents, injuries and illness, any unsafe behaviours or conditions that are required by law to be reported
5. Work safely, giving full attention to the task being carried out and follow all reasonable instructions
6. Be free of the influence of alcohol or other drugs that cause impairment to the ability to perform work safely; and must also not use tobacco products under some circumstances
7. Include emergency preparedness and response procedures as part of a safety plan and/or SWMS
8. Not work on or near a live electrical circuit or installation; and must be qualified, licensed and permitted to carry out electrical work
9. Tag and label all electrical cables so they can be identified in a circuit
10. Give prior notification, and obtain approval from Council, before any fire detection, prevention or suppression system, or related device, is to be deactivated or isolated
11. Correctly label, store, use, handle or dispose of any dangerous good or hazardous chemical in accordance with the MSDS and not in breach any applicable environmental statute or local by-law
12. Issue and require their employees use their personal protective equipment, as needed
13. Not enter or perform work in a 'Confined Space' unless qualified and permitted to do so
14. Use the proper tools, equipment, chemicals, processes and safe working methods for the job or project
15. Maintain plant, equipment and tools in accordance with the manufacturer's specifications
16. Conduct planned and regular physical workplace hazard inspections, plant and equipment safety checks and implement remedial action on any found hazards and defects as soon as possible
17. Maintain good housekeeping standards and keep work areas clean and tidy
18. Control any dust, fumes, vapours, mists or other pollutants that pose a risk to health and safety or the environment; know the relevant spill clean-up procedure, and clean up spills as soon as possible
19. Secure and protect access and egress points from the place of work and for pedestrians, and maintain the access and egress points free of any foreseeable risk to a persons health and safety, at all times

20. Placard and follow all relevant safety, danger or warning signs, and hold all relevant material safety data sheets (MSDS) for chemicals, and be aware of WorkCover Safety Alerts and change in legislation
21. Be security conscious. Ensure property, records and personal belongings are secure
22. Be mindful Council's 'Safety Rules for Safe Behaviour at Work' may also apply, from time to time

END OF BRIEF

ICOMOS

ICOMOS (International Council on Monuments and Sites) is a non-governmental professional organisation formed in 1965, with headquarters in Paris. ICOMOS is primarily concerned with the philosophy, terminology, methodology and techniques of cultural heritage conservation. It is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 11,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists, scientists, engineers and heritage administrators. Members in the 103 countries belonging to ICOMOS are formed into National Committees and participate in a range of conservation projects, research work, intercultural exchanges and cooperative activities. ICOMOS also has 27 International Scientific Committees that focus on particular aspects of the conservation field. ICOMOS members meet triennially in a General Assembly.

Australia ICOMOS

The Australian National Committee of ICOMOS (Australia ICOMOS) was formed in 1976. It elects an Executive Committee of 15 members, which is responsible for carrying out national programs and participating in decisions of ICOMOS as an international organisation. It provides expert advice as required by ICOMOS, especially in its relationship with the World Heritage Committee. Australia ICOMOS acts as a national and international link between public authorities, institutions and individuals involved in the study and conservation of all places of cultural significance. Australia ICOMOS members participate in a range of conservation activities including site visits, training, conferences and meetings.

Revision of the Burra Charter

The Burra Charter was first adopted in 1979 at the historic South Australian mining town of Burra. Minor revisions were made in 1981 and 1988, with more substantial changes in 1999.

Following a review this version was adopted by Australia ICOMOS in October 2013.

The review process included replacement of the 1988 Guidelines to the Burra Charter with Practice Notes which are available at: australia.icomos.org

Australia ICOMOS documents are periodically reviewed and we welcome any comments.

Citing the Burra Charter

The full reference is *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Initial textual references should be in the form of the *Australia ICOMOS Burra Charter, 2013* and later references in the short form (*Burra Charter*).

Cover photograph by Ian Stapleton.

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APPENDIX B *THE BURRA CHARTER*

The Burra Charter

(The Australia ICOMOS Charter for Places of Cultural Significance, 2013)

Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, 26 November 1999 and 31 October 2013.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent.

The Charter consists of:

- Definitions — Article 1
- Conservation Principles — Articles 2–13
- Conservation Processes — Articles 14–25
- Conservation Practices — Articles 26–34
- The Burra Charter Process flow chart.

The key concepts are included in the Conservation Principles section and these are further developed in the Conservation Processes and Conservation Practice sections. The flow chart explains the Burra Charter Process (Article 6) and is an integral part of the Charter. Explanatory Notes also form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained, in a series of Australia ICOMOS Practice Notes, in *The Illustrated Burra Charter*, and in other guiding documents available from the Australia ICOMOS web site: australia.icomos.org.

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the *Australian Natural Heritage Charter*, *Ask First: a guide to respecting Indigenous heritage places and values* and *Significance 2.0: a guide to assessing the significance of collections*.

National and international charters and other doctrine may be relevant. See australia.icomos.org.

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

Articles

Explanatory Notes

Article 1. Definitions

For the purposes of this Charter:

1.1 *Place* means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.

1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Places may have a range of values for different individuals or groups.

The term cultural significance is synonymous with cultural heritage significance and cultural heritage value.

Cultural significance may change over time and with use.

Understanding of cultural significance may change as a result of new information.

1.3 *Fabric* means all the physical material of the *place* including elements, fixtures, contents and objects.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Natural elements of a place may also constitute fabric. For example the rocks that signify a Dreaming place.

Fabric may define spaces and views and these may be part of the significance of the place.

1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.

See also Article 14.

1.5 *Maintenance* means the continuous protective care of a *place*, and its *setting*.

Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.

Examples of protective care include:
- maintenance — regular inspection and cleaning of a place, e.g. mowing and pruning in a garden;
- repair involving restoration — returning dislodged or relocated fabric to its original location e.g. loose roof gutters on a building or displaced rocks in a stone bora ring;
- repair involving reconstruction — replacing decayed fabric with new fabric

1.6 *Preservation* means maintaining a *place* in its existing state and retarding deterioration.

It is recognised that all places and their elements change over time at varying rates.

1.7 *Restoration* means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

1.9 *Adaptation* means changing a *place* to suit the existing *use* or a proposed use.

1.10 *Use* means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Use includes for example cultural practices commonly associated with Indigenous peoples such as ceremonies, hunting and fishing, and fulfillment of traditional obligations. Exercising a right of access may be a use.

Articles

1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

1.12 *Setting* means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.

1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.

1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.

1.15 *Associations* mean the connections that exist between people and a *place*.

1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses to people.

1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

Explanatory Notes

Setting may include: structures, spaces, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds. Setting may also include historical and contemporary relationships, such as use and activities, social and spiritual practices, and relationships with other places, both tangible and intangible.

Objects at a place are encompassed by the definition of place, and may or may not contribute to its cultural significance.

Associations may include social or spiritual values and cultural responsibilities for a place.

Meanings generally relate to intangible dimensions such as symbolic qualities and memories.

Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

Conservation Principles

Article 2. Conservation and management

2.1 *Places* of *cultural significance* should be conserved.

2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.

2.3 *Conservation* is an integral part of good management of *places* of *cultural significance*.

2.4 *Places* of *cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

3.1 *Conservation* is based on a respect for the existing *fabric*, *use*, *associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.

3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

Article 4. Knowledge, skills and techniques

4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

Articles

4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

Explanatory Notes

The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Article 5. Values

5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biodiversity and geodiversity for their existence value or for present or future generations, in terms of their scientific, social, aesthetic and life-support value.

In some cultures, natural and cultural values are indivisible.

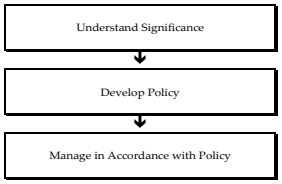
5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

Article 6. Burra Charter Process

6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.

The Burra Charter Process, or sequence of investigations, decisions and actions, is illustrated below and in more detail in the accompanying flow chart which forms part of the Charter.



6.2 Policy for managing a *place* must be based on an understanding of its *cultural significance*.

6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

6.4 In developing an effective policy, different ways to retain *cultural significance* and address other factors may need to be explored.

Options considered may include a range of uses and changes (e.g. adaptation) to a place.

6.5 Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.

Article 7. Use

7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.

7.2 A *place* should have a *compatible use*.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of activities and practices which contribute to the cultural significance of the place.

Articles

Explanatory Notes

Article 8. Setting

Conservation requires the retention of an appropriate *setting*. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Setting is explained in Article 1.12.

Article 9. Location

9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other element of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

9.2 Some buildings, works or other elements of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other elements do not have significant links with their present location, removal may be appropriate.

9.3 If any building, work or other element is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

For example, the repatriation (returning) of an object or element to a place may be important to Indigenous cultures, and may be essential to the retention of its cultural significance.

Article 28 covers the circumstances where significant fabric might be disturbed, for example, during archaeological excavation.

Article 33 deals with significant fabric that has been removed from a place.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, interpretation and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict.

For some places, conflicting cultural values may affect policy development and management decisions. In Article 13, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.

Articles

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance, preservation*, *restoration*, *reconstruction, adaptation* and *interpretation*; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that *related places* and *related objects* make to the *cultural significance* of a *place*.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* and its *use* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation*. Maintenance should be undertaken where *fabric* is of *cultural significance* and its maintenance is necessary to retain that *cultural significance*.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Explanatory Notes

Conservation normally seeks to slow deterioration unless the significance of the place dictates otherwise. There may be circumstances where no action is required to achieve conservation.

When change is being considered, including for a temporary use, a range of options should be explored to seek the option which minimises any reduction to its cultural significance.

It may be appropriate to change a place where this reflects a change in cultural meanings or practices at the place, but the significance of the place should always be respected.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

Maintaining a place may be important to the fulfilment of traditional laws and customs in some Indigenous communities and other cultural groups.

Preservation protects fabric without obscuring evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered; or
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

Articles

Explanatory Notes

Article 18. Restoration and reconstruction

Restoration and *reconstruction* should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In some cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

Places with social or spiritual value may warrant reconstruction, even though very little may remain (e.g. only building footings or tree stumps following fire, flood or storm). The requirement for sufficient evidence to reproduce an earlier state still applies.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

Adaptation may involve additions to the place, the introduction of new services, or a new use, or changes to safeguard the place. Adaptation of a place for a new use is often referred to as 'adaptive re-use' and should be consistent with Article 7.2.

21.2 *Adaptation* should involve minimal change to significant *fabric*, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions or other changes to the *place* may be acceptable where it respects and does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

New work should respect the significance of a place through consideration of its siting, bulk, form, scale, character, colour, texture and material. Imitation should generally be avoided.

22.2 New work should be readily identifiable as such, but must respect and have minimal impact on the *cultural significance* of the *place*.

New work should be consistent with Articles 3, 5, 8, 15, 21 and 22.1.

Article 23. Retaining or reintroducing use

Retaining, modifying or reintroducing a significant *use* may be appropriate and preferred forms of *conservation*.

These may require changes to significant fabric but they should be minimised. In some cases, continuing a significant use, activity or practice may involve substantial new work.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

For many places associations will be linked to aspects of use, including activities and practices.

Some associations and meanings may not be apparent and will require research.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Articles

Explanatory Notes

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and engagement, and be culturally appropriate.

In some circumstances any form of interpretation may be culturally inappropriate.

Conservation Practice

Article 26. Applying the Burra Charter Process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

The results of studies should be kept up to date, regularly reviewed and revised as necessary.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

Policy should address all relevant issues, e.g. use, interpretation, management and change.

A management plan is a useful document for recording the Burra Charter Process, i.e. the steps in planning for and managing a place of cultural significance (Article 6.1 and flow chart). Such plans are often called conservation management plans and sometimes have other names.

The management plan may deal with other matters related to the management of the place.

26.3 Groups and individuals with *associations* with the *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in identifying and understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

26.4 Statements of *cultural significance* and policy for the *place* should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

Monitor actions taken in case there are also unintended consequences.

Article 27. Managing change

27.1 The impact of proposed changes, including incremental changes, on the *cultural significance* of a *place* should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance.

27.2 Existing *fabric, use, associations* and *meanings* should be adequately recorded before and after any changes are made to the *place*.

Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

Articles

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility

The organisations and individuals responsible for management and decisions should be named and specific responsibility taken for each decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Keeping a log

New evidence may come to light while implementing policy or a plan for a *place*. Other factors may arise and require new decisions. A log of new evidence and additional decisions should be kept.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

Article 34. Resources

Adequate resources should be provided for *conservation*.

Words in italics are defined in Article 1.

Explanatory Notes

New decisions should respect and have minimal impact on the cultural significance of the place.

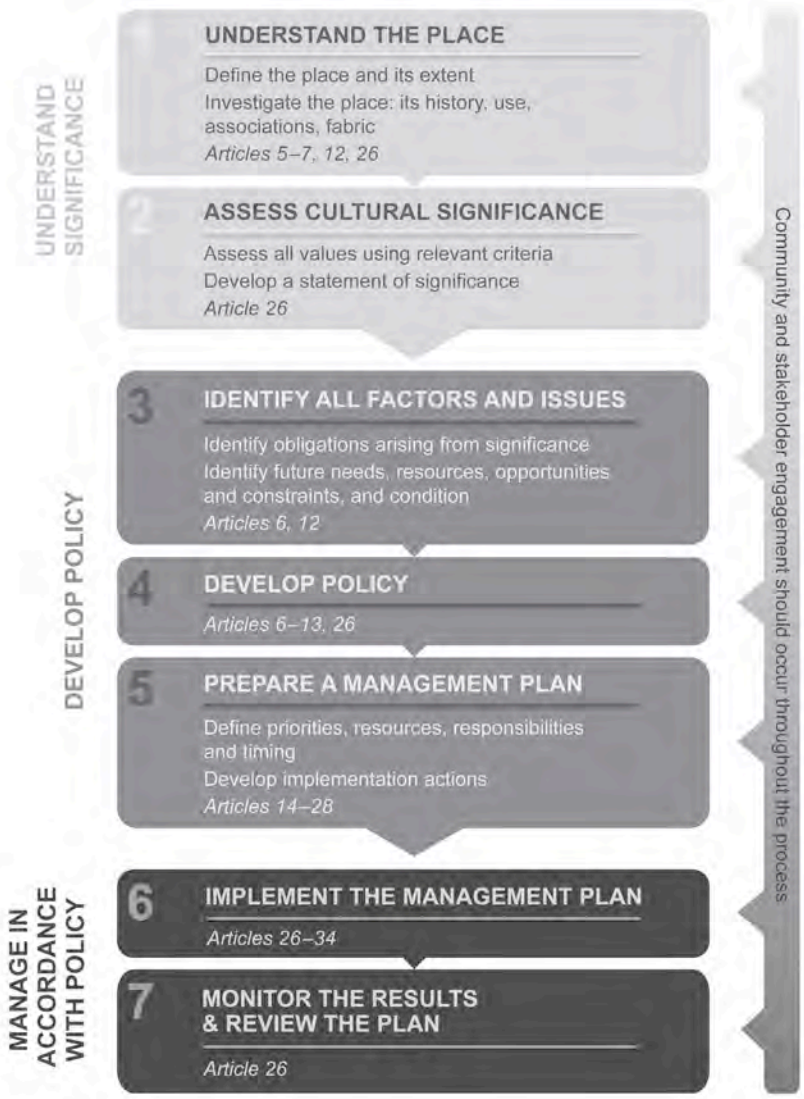
The best conservation often involves the least work and can be inexpensive.

The Burra Charter Process

Steps in planning for and managing a place of cultural significance

The Burra Charter should be read as a whole.

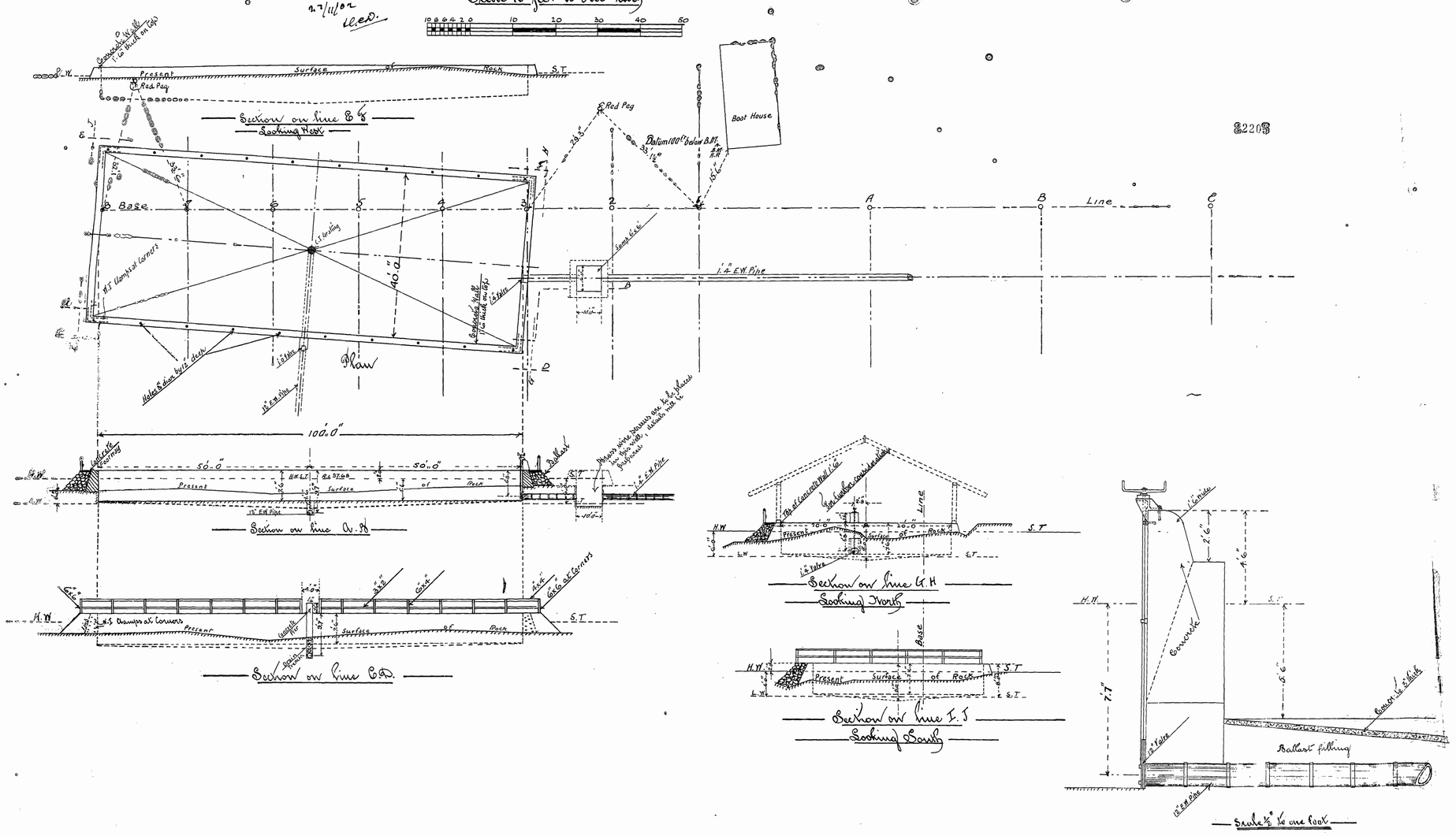
Key articles relevant to each step are shown in the boxes. Article 6 summarises the Burra Charter Process.

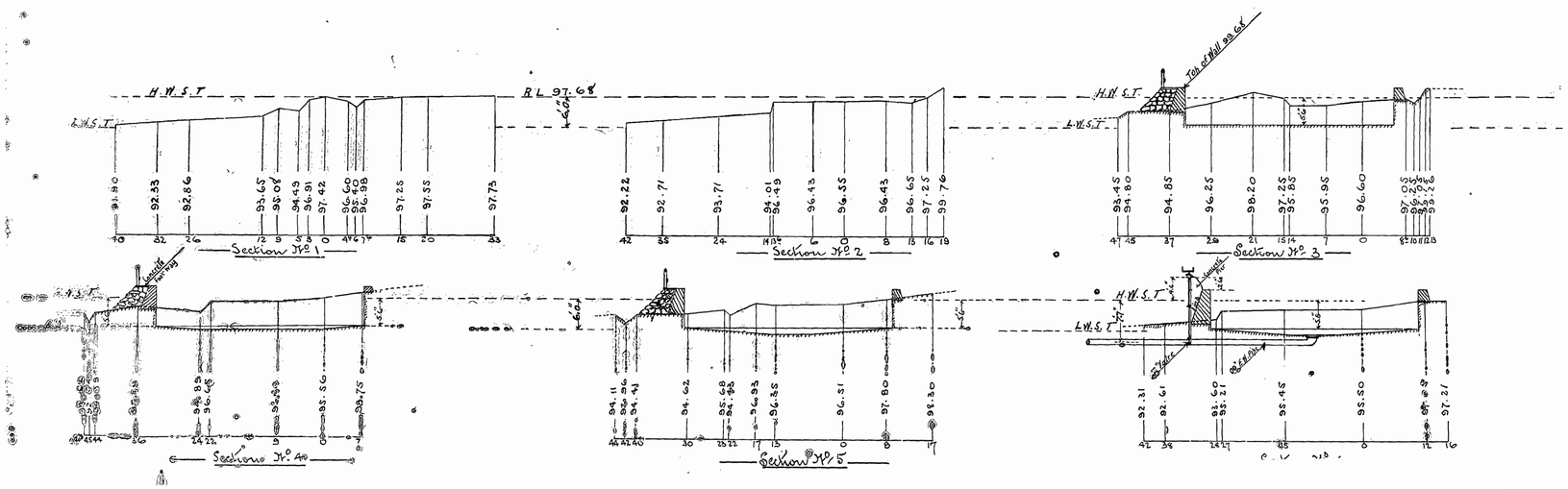


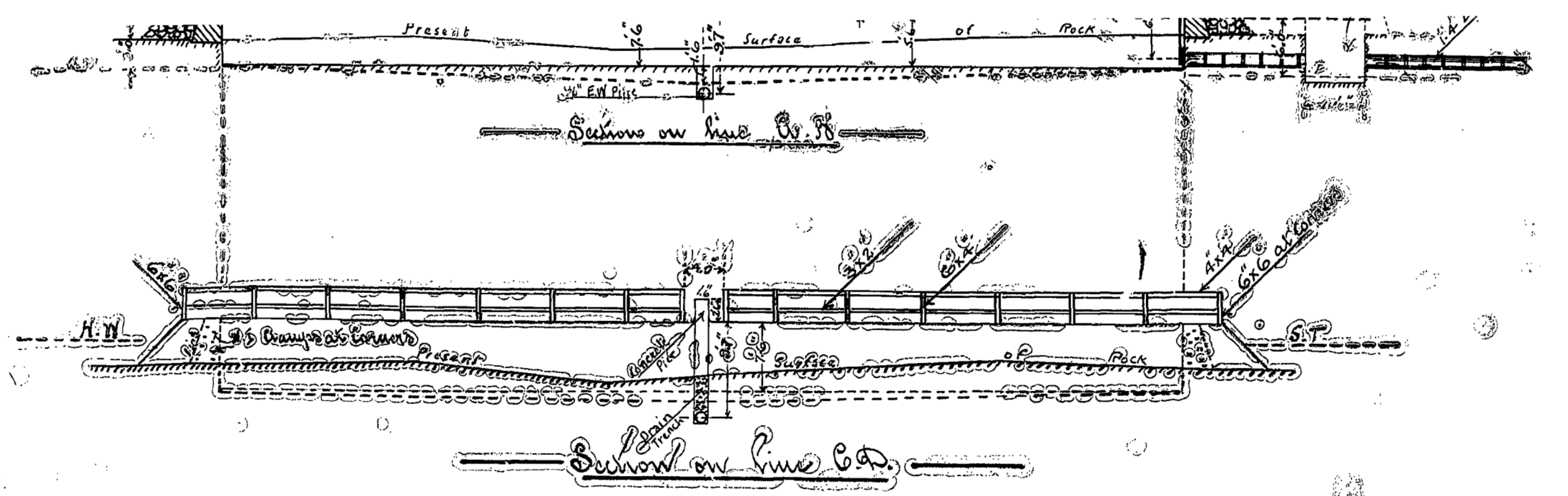
APPENDIX C ORIGINAL PLANS

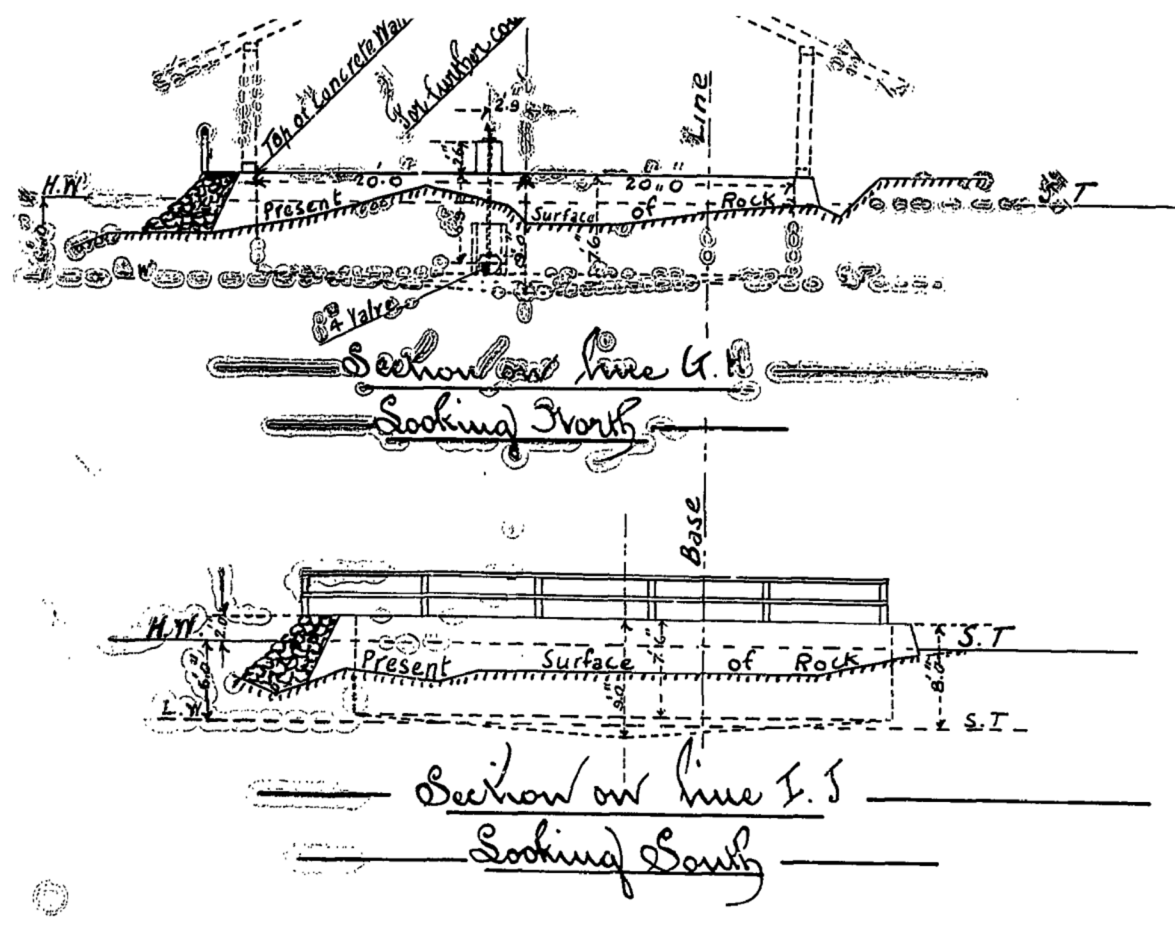
Plan shewing proposed Fish Tank at Hungry Point, Port Hacking

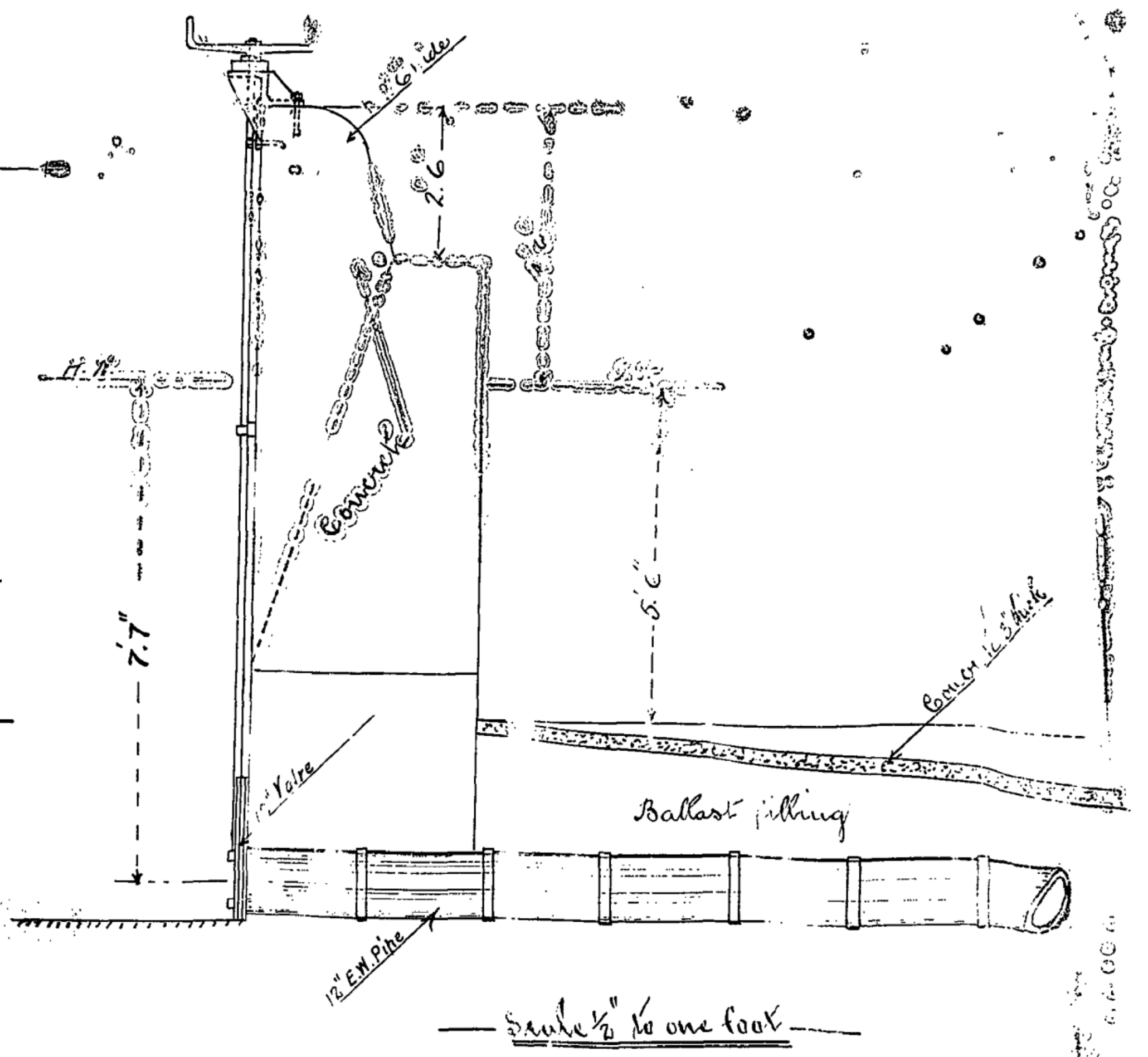
Scale 10 feet to one inch

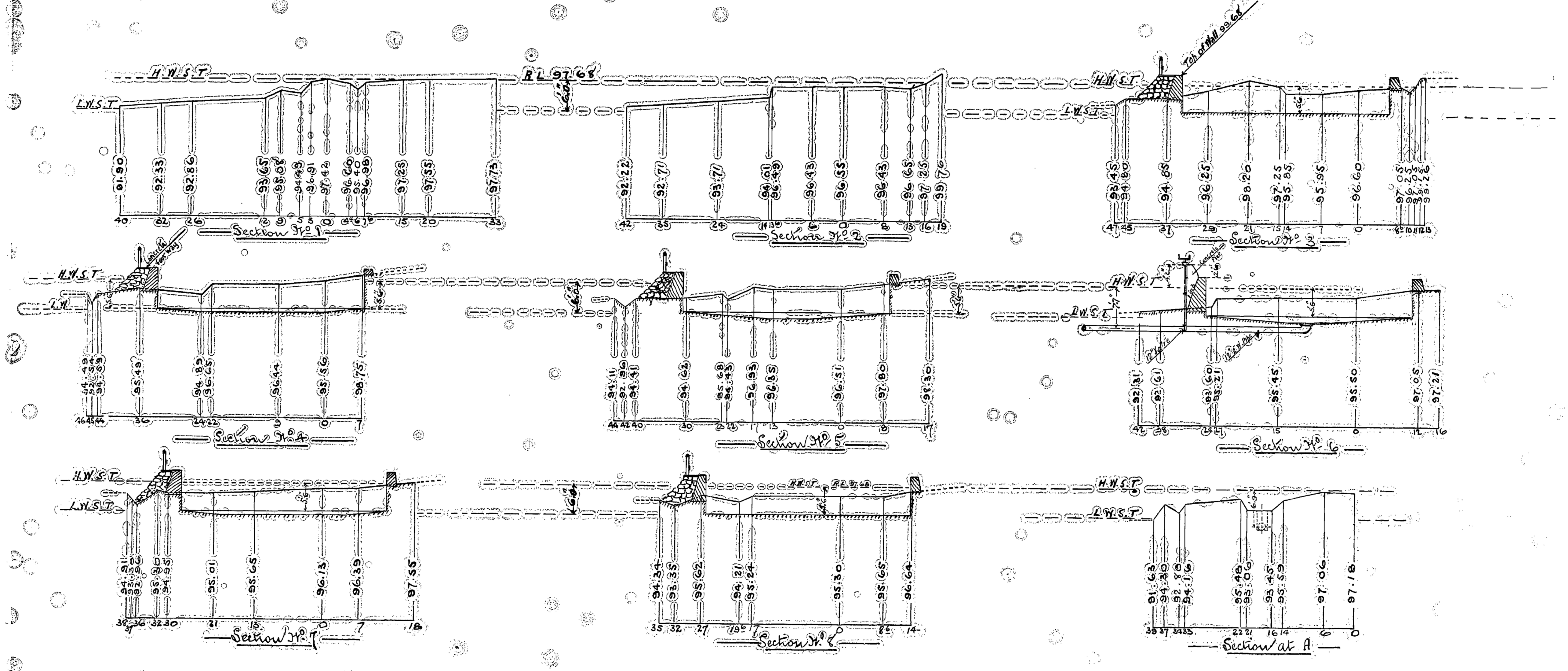


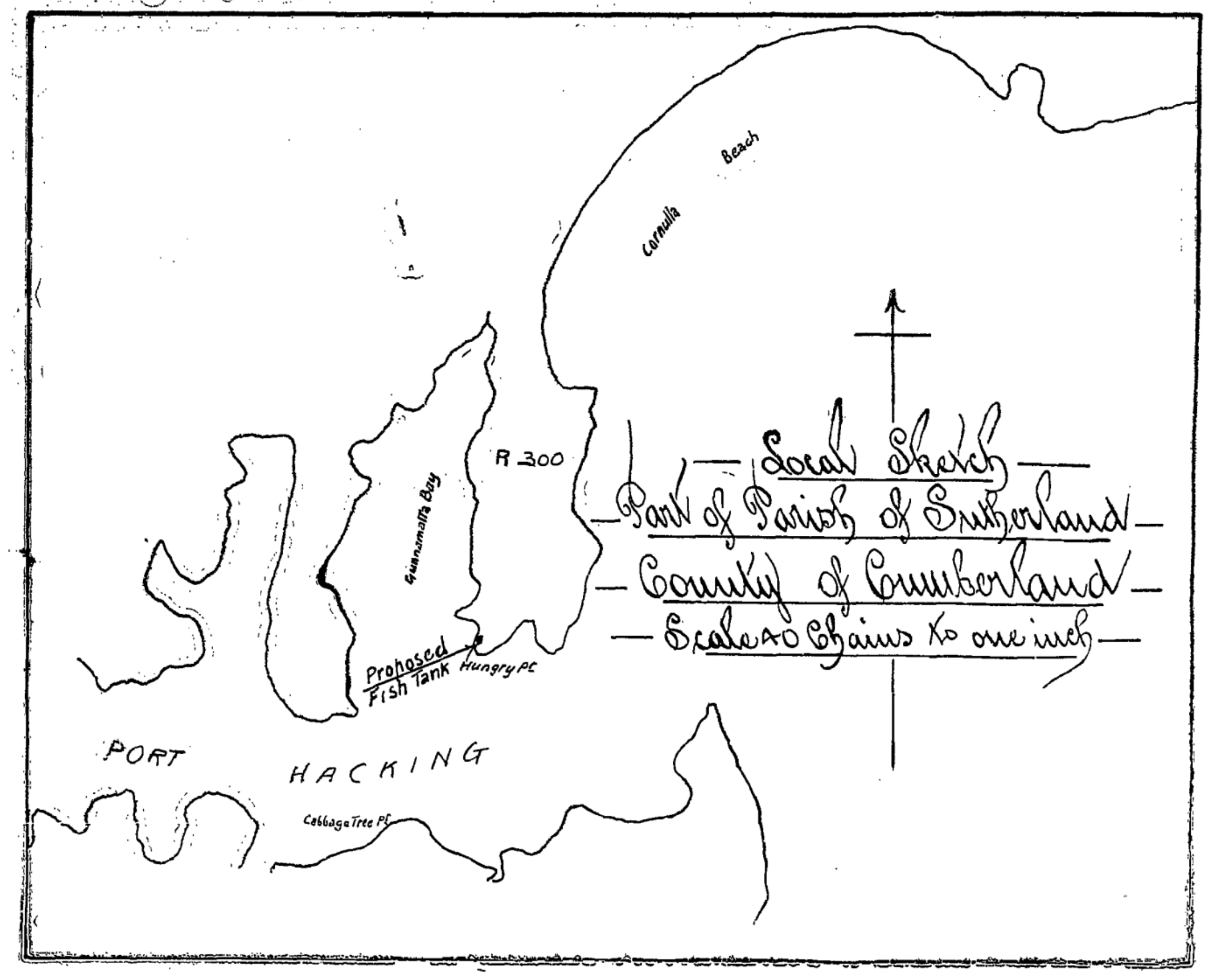












Local Sketch
Part of Parish of Sutherland
County of Cumberland
Scale 40 Chains to one inch

32205

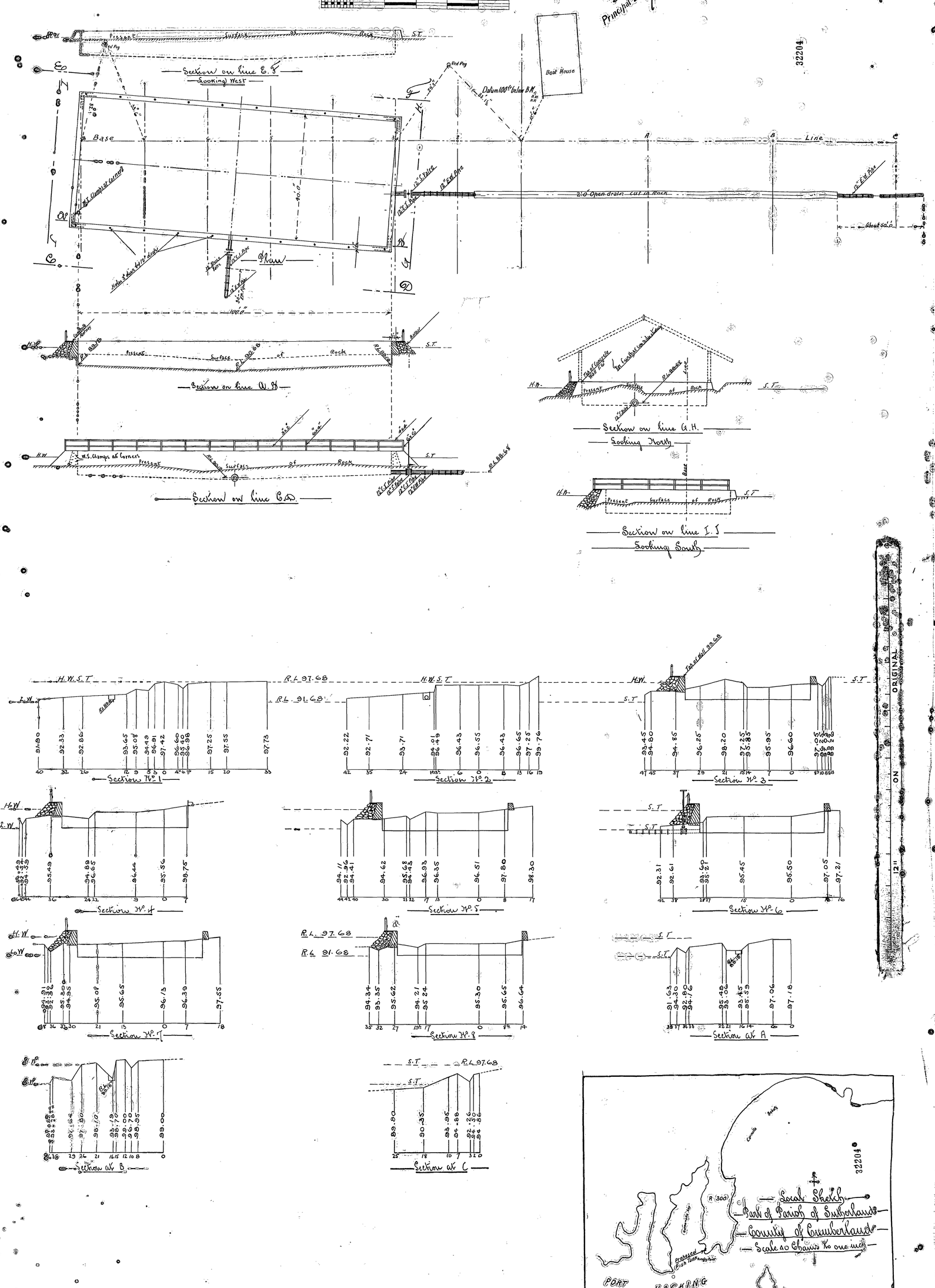
F2

Plan showing Proposed Fish Tank at Hungry Point, Port Hacking

Scale 10 feet to one inch

Principal Engineer for Harbours and Rivers
7. 11. 02

32204



APPENDIX D SUTHERLAND SHIRE LEP 2015 AND SUTHERLAND SHIRE DCP 2015 – RELEVANT CLAUSES

Sutherland Shire LEP 2015

1.2 Aims of the Plan

The aims of this plan are as follows:

(1) This Plan aims to make local environmental planning provisions for land in Sutherland Shire in accordance with the relevant standard environmental planning instrument under section 33A of the Act.

(2) The particular aims of this Plan are as follows:

(a) to deliver the community's vision for Sutherland Shire by achieving an appropriate balance between development and management of the environment that will be ecologically sustainable, socially equitable and economically viable,

(b) to establish a broad planning framework for controlling development, minimising adverse impacts of development, protecting areas from inappropriate development and promoting a high standard of urban design,

(c) to protect and enhance the amenity of residents, workers and visitors in all localities throughout Sutherland Shire,

(d) to minimise risk to life, property and the environment from hazards, particularly bush fires, flooding and climate change,

(e) to concentrate development in localities with adequate infrastructure that is accessible to transport and centres,

(f) to protect and enhance the natural environment and scenic quality of the Sutherland Shire through the retention and rehabilitation of wildlife habitats, wildlife corridors, bushland, foreshores and waterways,

(g) to conserve, protect and enhance the environmental and cultural heritage of Sutherland Shire,

(h) to provide leisure and recreation opportunities to suit the needs of the changing population,

(i) to meet the future housing needs of the population of Sutherland Shire.

2.3 Zoning

The property is zoned

- *Zone SP1 – Special Activities (Psiculture and Recreation).*
- *Zone W1 – Natural Waterways.*

Zone SP1

1. *Objectives of zone*
   - *To provide special land uses that are not provided for in other zones.*
   - *To provide for sites with special natural characteristics that are not provided for in other zones.*
   - *To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimizes any adverse impacts on surrounding land.*

2. *Permitted without consent*
   Nil

3. *Permitted with consent*
   Roads: The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose.

4. *Prohibited*
   Any development not specified in item 2 or 3.

Zone W1 – Natural Waterways Objectives

1. *Objectives of zone*
   - *To protect the ecological and scenic values of natural waterways.*
   - *To prevent development that would have an adverse effect on the natural values of waterways in this zone.*
   - *To provide for sustainable fishing industries and recreational fishing.*
   - *To protect and preserve beaches and ensure they are free from man-made structures.*
   - *To protect and enhance remnant natural features, aquatic habitat, public access and the navigability of waterways.*
   - *To allow for a range of water recreation structures if their size, siting and form will not diminish the natural scenic character of the waterways, intertidal areas and aquatic reserves.*
   - *To ensure that the natural scenic qualities of waterways are not diminished through the cumulative impact of man-made structures.*
   - *To enable uses authorised under the Marine Estate Management Act 2014.2.*

2. *Permitted without consent*
   Moorings.

3. *Permitted with consent*
   Aquaculture; Boat launching ramps; Environmental facilities; Environmental protection works; Flood mitigation works; Passenger transport facilities; Water recreation structures.

4. Prohibited
Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Restricted premises; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3.

5.10 Heritage Conservation
(1) Objectives The objectives of this clause are as follows:
(a) to conserve the environmental heritage of Sutherland Shire,
(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
(c) to conserve archaeological sites,
(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

The property is identified as a heritage item of local significance.
(4) Effect of proposed development on heritage significance
The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).

(5) Heritage assessment The consent authority may, before granting consent to any development:
(a) on land on which a heritage item is located, or
(b) on land that is within a heritage conservation area, or
(c) on land that is within the vicinity of land referred to in paragraph (a) or (b), require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.

(6) Heritage conservation management plans The consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.

(7) Archaeological sites The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the Heritage Act 1977 applies):
(a) notify the Heritage Council of its intention to grant consent, and
(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

(8) Aboriginal places of heritage significance The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance:

(a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and

(b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.

(9) Demolition of nominated State heritage items The consent authority must, before granting consent under this clause for the demolition of a nominated State heritage item:

(a) notify the Heritage Council about the application, and

(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

(10) Conservation incentives The consent authority may grant consent to development for any purpose of a building that is a heritage item or of the land on which such a building is erected, or for any purpose on an Aboriginal place of heritage significance, even though development for that purpose would otherwise not be allowed by this Plan, if the consent authority is satisfied that:

(a) the conservation of the heritage item or Aboriginal place of heritage significance is facilitated by the granting of consent, and

(b) the proposed development is in accordance with a heritage management document that has been approved by the consent authority, and

(c) the consent to the proposed development would require that all necessary conservation work identified in the heritage management document is carried out, and

(d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, or the heritage significance of the Aboriginal place of heritage significance, and

(e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.

6.1 Acid Sulphate Soils
The site is identified in Class 5.

6.14 Landscaped Areas in certain Zones – N/A
The objectives of this clause are:

(a) To ensure adequate opportunities exist for the retention or provision of vegetation that contributes to biodiversity and, in the case of trees, enhances the tree canopy of Sutherland Shire,

(b) To minimise urban run-off by maximising permeable areas on the sites of development,

(c) To ensure that the visual impact of development is minimised by appropriate landscaping and that the landscaping is maintained,

(d) To ensure that landscaping carried out in connection with development is sufficient to complement the scale of buildings, provide shade, screen parking areas and enhance workforce amenities.

Sutherland Shire DPC 2015 (DRAFT)

12.23.1.

12.23.2. Chapter 9 – Foreshores and Waterways Development – W1 Natural Waterways

1. *Objectives*
    1. *Ensure that development visible from the foreshore, waterways and public domain makes a positive contribution to the foreshore and natural setting of the area.*
    2. *Ensure development is compatible with the scale, character and landscape setting of the foreshore, natural setting and scenic quality and that the environment's natural qualities dominate.*
    3. *Retain and enhance existing natural features, trees and bushland in the foreshore area.*
    4. *Minimise the impact of development on the natural landform of the foreshore and waterway by integrating structures into the site with minimal change to the natural topography.*
    5. *Integrate developments in the foreshore and waterfront environment by using design and materials which complement the natural landscape..*
    6. *Minimise adverse environmental impacts from development and where possible, improve environmental qualities along the foreshores.*
    7. *Minimise the visual impact of foreshore and waterway structures when viewed from adjacent land, foreshores and waterways.*
    8. *Achieve an appropriate balance between private development and the public use of waterways.*
    9. *Maintain and improve public access to the intertidal area of the waterfront.*

8. *Controls for Landscaping within the Foreshore Area*

    A landscape plan is to be submitted for any development between FBL and MHWM. The level of detail required will depend on the level of works being undertaken. Where a landscape plan is submitted it should indicate the existing and proposed changes in contours, existing trees/ vegetation to be retained and removed, measures to protect vegetation during construction and proposed indigenous planting including species and common names.

    1. *Landscaping works including retaining walls, stairs, paths and driveways are not permitted below the deemed MHWM.*
    2. *Natural features within the foreshore such as rock ledges and outcrops must be retained and the removal of natural rock, trees and vegetation to enable the construction of terraces will not be supported.*
    3. *Natural ground levels are to be retained with minimal use of retaining walls. Where retaining walls are constructed the maximum wall height is 1m and materials, methods and colours that blend with the character and natural landscape of the area shall be used, such as dry sandstone walls or gabions filled with sandstone.*
    4. *Endemic native Indigenous plant species must be used in areas where native vegetation is present or has the potential to be regenerated.*
    5. *Exotic species that have the potential to spread into surrounding bushland are not permitted.*
    6. *Existing mature trees should be retained where possible and incorporated into the design of the new development.*

7. *A minimum of 2 indigenous canopy trees that will obtain a mature height of 5m must be planted within the foreshore area.*
8. *Landscaping should be undertaken in line with Council's Greenweb map which is a tool to manage natural resources by identifying key areas of habitat and strengthening linkages between these areas.*

Note: All indigenous tree species must be selected from Council's Native Plant Selector available on Council's website. The Native Plant Selector is a tool that recommends plants suitable for Sutherland Shire's ecosystems based on the specific address of the site locality. The tool is available online at http://www.sutherlandshire.nsw.gov.au/MyPlace/Trees/NativePlant_Selector.

For additional guidance on landscape design and implementation refer to Sutherland Shire Environmental Specifications – Landscape 1-5. Applicants should also refer to Greenweb map and controls in Chapter 38 Natural Resource Management. For development application submission requirements refer to Council's DA Guide.

12.23.3. Chapter 35 Roads, Vehicular Access, Traffic, Parking and Bicycles

2. *Objectives Design of Car Parking Areas*
   1. *Objectives*
      Provide safe and easy access to and from the site for all vehicles and active transport modes.
      Minimise pedestrian and vehicle conflicts.
      Ensure access where pedestrians and/ or drivers may have a disability or mobility constraint (e.g., accompanied by young children).
      Provide adequate turning areas for manoeuvring into and out of car parking spaces and/or garages.
5. *Ensure minimal disruption of vehicles on public roads.*

1.1 *Controls*
   1. *The dimensions of on-site car parking spaces shall be in accordance with Australian Standard – AS 2890.1 (as amended) and Australian Standard – AS 2890.6.*
   2. *All parking spaces shall be designed to comply with the dimensional and manoeuvring requirements of the 85th percentile vehicle as defined by AS2890.1 (as amended).*
   3. *Parking spaces shall have a minimum clearance of 2.2m from the finished floor level of a parking space and adjacent driveway area to any structure over a parking space.*
   4. *Parking spaces adjoining walls and other structures or within single garages shall be 5.5m long and 3.0m wide with a clear garage opening of 2.75m. The garage opening (doorway width) may be reduced to 2.4m wide where the driveway leads straight into the garage (as shown in Figure 1). A double garage in a residential development shall be 5.5 metres long and 5.7m wide with a clear garage opening of at least 5m.*

1.2 *Driveway Design Controls for All Developments*
   1. *The dimensions of on-site driveways giving access to parking spaces shall be in accordance with Australian Standard – AS 2890.1 (as amended), except where otherwise provided by this chapter. A driveway is classified as a circulation roadway as described by AS 2890.1 (as amended).*

1.3 Additional Driveway Design Controls Where Waste Service Vehicle Access to Site is Proposed

1. Where an internal driveway is a through driveway with entry and exit on separate streets and waste service vehicles are to enter the site, all manoeuvring and passing bays must be designed to accommodate the swept manoeuvring area of Council's standard waste service vehicle.

1.4 Pedestrian Access Controls for All Development, Within the Site

1. Where a proposed pathway/footpath pavement gradient is more than 12.5% and less than 20%, provision for steps and/or handrail shall be made. Where a proposed pathway/ footpath pavement gradient equals or exceeds 20% a separate pedestrian access stair with handrails shall be provided.

2. Paths and steps shall be a minimum 1.0m wide within development sites.

3.8 Additional Pedestrian Access Controls for All Development, Within the Site, Except Dwelling Houses

1. The design of footpaths within car parking areas shall be in accordance with Australian Standard – AS 2890.1 (as amended) except where otherwise provided by this chapter.

3. The use of contrasting pavement material shall be used to define pedestrian access and vehicular areas.

4. The pedestrian access path of travel shall be compliant with AS2890.6/ AS1428.1 and shall be separate from all other activities, and shall allow uninterrupted travel by people with a disability.

3.9 Public Domain Pedestrian Access Controls for All Development, Except Dwelling Houses

1. Paved pedestrian footpaths shall be provided within road reserves. Such footpaths shall have a minimum width of 1.2m.

5. Where footpath pavement is along a mapped off road cycle route, as mapped on the Sutherland Shire Bicycle Network Map, then the minimum width to be provided is 2m.

6. Proposed pathways/footpaths shall have a gradient of l2.5% or less. The maximum gradient applies to the inner curve radius.

7. A formal footpath width may be reduced or not required where a non-residential use (e.g., bushland) abuts the development site and services are not required along that footpath.

12.23.4. Chapter 37 Stormwater and Groundwater Management

1. Permitted Off-Site Disposal

1.1 Objectives

1. To minimise the impacts of excessive stormwater runoff and flooding of downstream properties.

2. To control the volume of stormwater runoff from any site to reasonable pre-development levels.

3. To preserve and enhance water bodies and riparian zones as natural systems.

2.3 Controls for All Other Built Development or Works that Increase Impervious Surfaces On-site

1. *Having satisfied Clause 1.2, any stormwater permitted to be discharged off-site will require either:*
   i. *a legally created easement and associated formal drainage systems if it is to be directed across other lands, or*
   ii. *a formal piped connection to Council's stormwater drainage network.*
2. *Overland flow paths shall remain safe for vehicles, people, and in particular, children and the less mobile in all storms up to and including the 1% AEP event. The velocity and depth of overland flow paths shall not exceed a velocity depth product of 0.4.*
3. *Any exposed pipe work shall be designed and treated so as to minimise its visual impact.*
4. *Diverting flows from one drainage sub-catchment to another is not permitted. The levels of a site may not be changed to redirect stormwater to another drainage sub-catchment.*
5. *Charged stormwater drainage systems are not permitted.*
6. *Overland flow paths shall not be obstructed by development.*
7. *Residual stormwater shall be discharged within the same drainage sub-catchment as the site. Formal piped connection to the public stormwater drainage network is required where a pipeline or pit exists within 35m of the site, or an easement exists adjacent to the site.*
8. *Despite subclause 7, Council may require formal piped connection to a greater distance if it can reasonably be achieved having regard to the scale of the project, the extent of work required, or where direct connection to the kerb and gutter would result in adverse impacts.*
9. *The design of a formal piped connection shall prevent damage to street trees, infrastructure or impacts to public stormwater drainage infrastructure. It shall comply with Council's engineering and construction requirements. If this cannot be achieved Council may specify alternative disposal methods.*
10. *Water quality control devices shall be designed, constructed and maintained in accordance with the provisions of the Sutherland Shire Environmental Specification – Stormwater Management.*

4.1 Objectives for All Development that Involves the Construction of Buildings or Work that Increases Impervious Surfaces on Site

1. *To promote the recharge of groundwater resources.*
2. *To maintain stormwater runoff in its natural catchment.*

To ensure that Water Sensitive Urban Design techniques are incorporated into

3. *development proposals.*
4. *To limit the volume of stormwater runoff from any site.*
5. *To ensure that stormwater management is integrated with the design of development.*

4.5 Controls for All Other Development that Involves the Construction of Buildings or Work that Increases Impervious Surfaces on Site in Areas of High Soil Infiltration Potential

1. *Within areas of high infiltration potential (as shown on the Soil Infiltration Potential map), these sites are best suited to infiltration systems. In these areas, infiltration systems are a cost-effective and desirable environmental solution which can be explored before on-site detention is considered.*
2. *Within areas of high infiltration potential, a soil infiltration field test must be carried out to determine the exact rate of infiltration which exists on the site. This test must be carried out in accordance with the Soil Infiltration Field Test which is reproduced in Appendix A of the Sutherland Shire Environmental Specification – Stormwater Management. The results of the soil infiltration field test shall be used to determine the design and capacity of the on-site infiltration system.*
3. *Infiltration systems may only be proposed on sites with adequate soil permeability, which is defined as over 15mm/hour.*
4. *Any overflow from storm events greater than the 1% AEP event is not to be concentrated across a boundary.*
5. *Infiltration is to be maximised by utilising natural surfaces and landforms to act as natural controls on overland flow paths.*
6. *Non-porous paving shall be graded to direct runoff onto adjoining grassed or landscaped areas.*
7. *Where porous paving forms part of an infiltration strategy, sediment traps, vegetated filter strips or similar control mechanisms are to be installed upstream of the porous paving to reduce sediment inputs and minimise likelihood of clogging.*

5. On-site Detention

1.1 Objectives

To ensure that the peak discharge rate of stormwater flow from development is no greater than that of the Permissible Site Discharge rate established by Clause 1.2 or Clause 1.3.

To reduce the impacts of stormwater discharge on down stream properties and natural systems.

B. Groundwater Management

Controls for All Development in Areas Identified Wetland and/or Flood Prone Land

1. *Development shall not adversely impact on groundwater on site and in the vicinity.*
2. *To ensure that there is no adverse impact on the environment and no threat to human health, a precautionary approach is to be taken and an Environmental Controls and Management Plan developed for all developments where groundwater is intercepted, extracted or where discharge to groundwater is proposed.*
3. *Water discharged from a development shall be treated appropriately to avoid adverse impacts on receiving surface waters and groundwater.*
4. *Development shall comply with the requirements of ANZECC (Australia and New Zealand Environment and Conservation Council) set guidelines for limits for contaminants for the protection of aquatic ecosystems.*

5. *Ground water monitoring may be required to be undertaken where a redevelopment requires a stormwater quality improvement device, including infiltration ponds and/or constructed wetlands, monitoring bores are required to demonstrate the effectiveness of controls. Provision shall be made for quarterly monitoring of groundwater level and quality determination for the first two (2) years, then annually thereafter. Monitoring shall be undertaken for the following analytical suite at a minimum:*
   Electrical conductivity, total dissolved solids, pH, alkalinity, turbidity, dissolved oxygen, iron, manganese, major cations/anions, heavy metals, oil and grease, nutrients, total petroleum hydrocarbons.
   Copies of the results of this monitoring are to be provided to Council within two months of each round of monitoring.
6. *Remaining indigenous vegetation shall be protected to enhance water quality of groundwater resources. Clearing of indigenous vegetation is not permitted within the wetland buffer areas and riparian zones.*
7. *Developments shall maintain groundwater hydrology so as to not detrimentally impact on the location and nature of the freshwater, saline water interface that exists along the foreshores.*

12.23.5.

12.23.6. Chapter 38 Natural Resource Management

1.1 Objectives for All Greenweb Areas

1. *Prevent direct loss of habitat in core and support areas by requiring the retention or restoration of areas of habitat in a size and configuration that will enhance long term sustainability.*
2. *Prevent fragmentation of bushland by requiring the landscaped component of a site to function as a wildlife corridor, linking proximate areas of habitat.*
3. *Improve the function of riparian zones and foreshores as natural areas so that they provide linkages and corridors between areas of habitat.*
4. *Minimise weed invasion and spread by requiring appropriate landscape treatment within Greenweb areas.*
5. *Require revegetation of habitat or corridor, so as to compensate for detrimental impacts accruing from the development of land.*
6. *Utilise landscaped area to re-establish corridors in urban areas through the establishment of canopy and groundcover links across properties.*

1.2 Controls for All Greenweb Areas

1. *Greenweb areas are to be landscaped with species indigenous to the Sutherland Shire. Trees and landscaping should be provided in a form and configuration that maintains and enhances the core habitat and vegetated linkages.*
   Note: All indigenous tree species must be selected from Council's Native Plant Selector available on Council's website. The Native Plant Selector is a tool that recommends plants suitable for Sutherland Shire's ecosystems based on the locality. Plants selected are Australian natives only. The tool is available online at http://www.sutherlandshire.nsw.gov.au/My_Place/Trees/Native_Plant_Selector
2. *Development should contribute to the maintenance of local habitats and connectivity between bushland remnants.*

3. *Bushfire asset protection zones must not be in identified area of key habitat and corridors except in the case of development or redevelopment of single dwellings and secondary dwellings on existing lots or alterations and additions to existing dwellings.*
4. *Development should ensure that off site impacts into adjoining bushland are minimised, such as weed invasion, increased runoff and stormwater pollutants.*

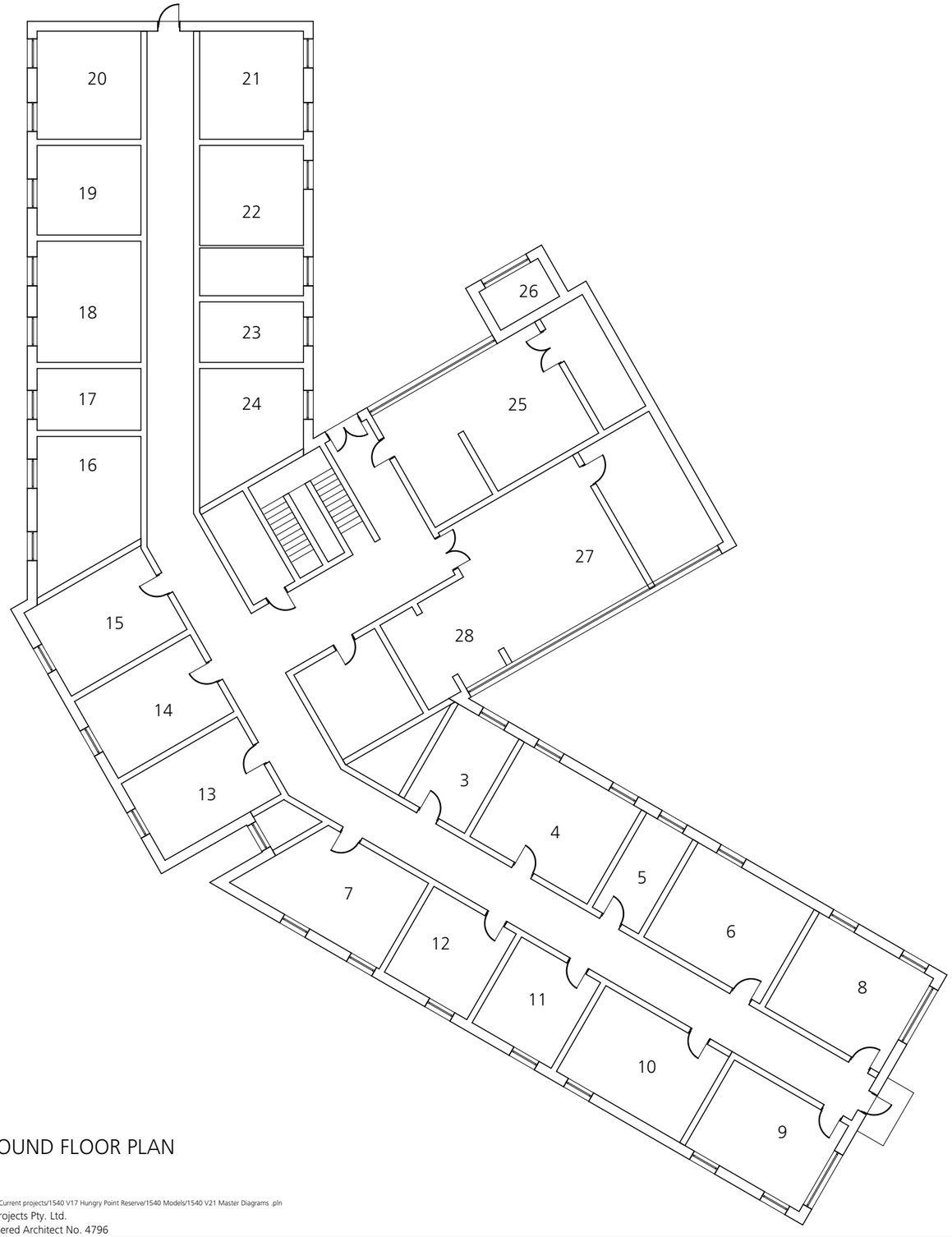
1.3 Controls for Greenweb Core Areas

1. *Development should maintain habitats in a size and configuration that ensures their ongoing viability and sustainability.*
2. *Development should ensure connectivity between bushland remnants. To achieve this, corridors should be of a scale commensurate with the habitats they connect.*

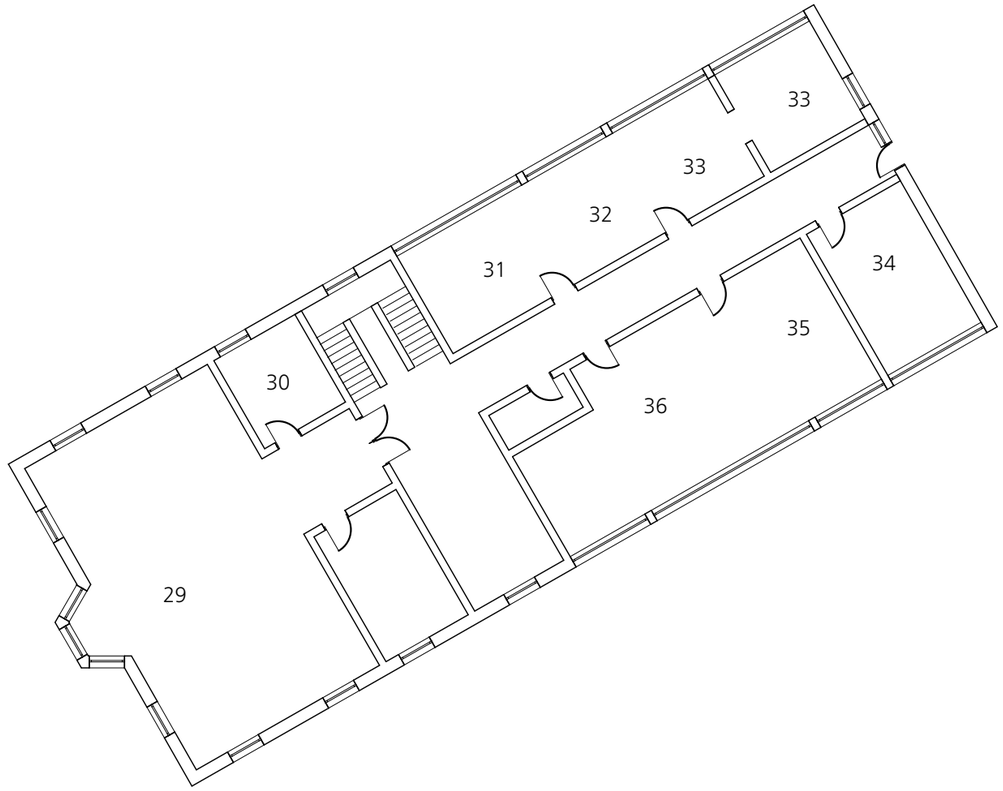
2.1 Objectives for All Development on Land Marked on the Wetlands and Waterways Map

1. *Protect, restore and maintain ecological processes, natural systems and biodiversity within wetlands and waterways.*
2. *Minimise sedimentation and pollution of wetlands and waterways.*
3. *Restore degraded wetlands, wetland buffer areas, waterways and riparian zones.*
4. *Ensure appropriate fire management regimes and hazard reduction techniques for wetlands, wetland buffer areas, waterways and riparian zones.*
5. *Encourage best practice environmental design measures so that the sustainability of wetlands and waterways is maintained or improved.*

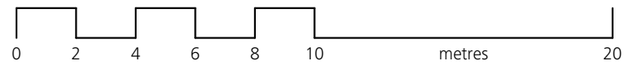
APPENDIX E BUILDING PLANS



GROUND FLOOR PLAN



FIRST FLOOR PLAN



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Gary O'Reilly - Registered Architect No. 4796

Architectural Projects

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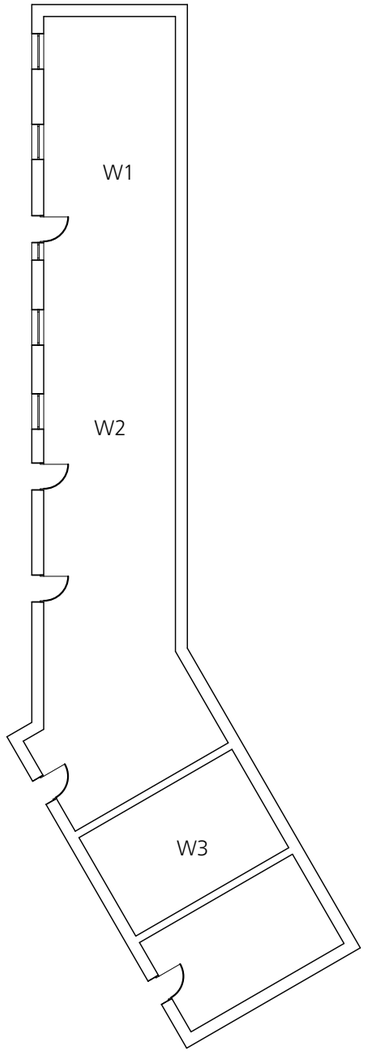

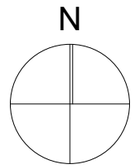

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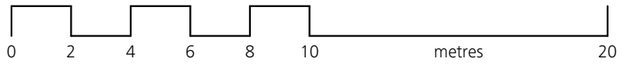

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Gary O'Reilly - Registered Architect No. 4796

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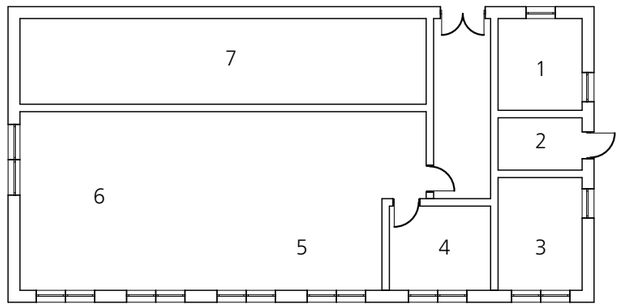

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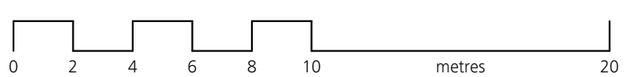

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Gary O'Reilly - Registered Architect No. 4796

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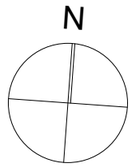

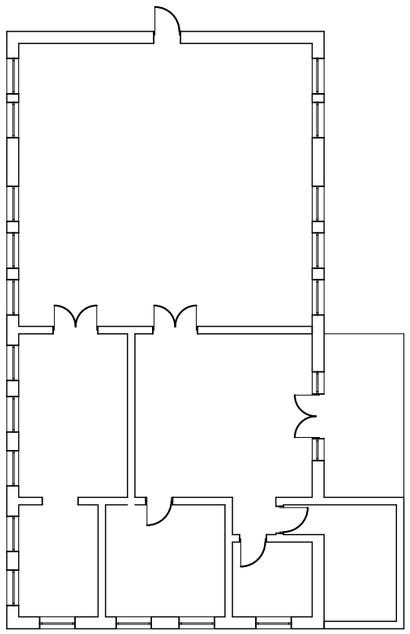

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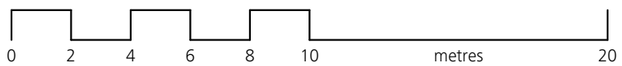

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Gary O'Reilly - Registered Architect No. 4796

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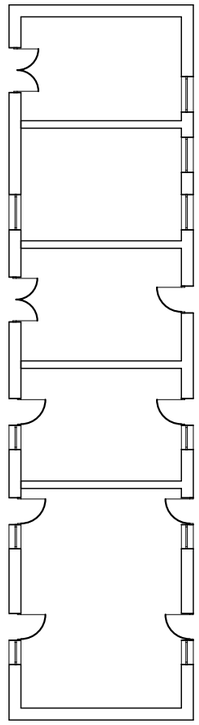

Building 15
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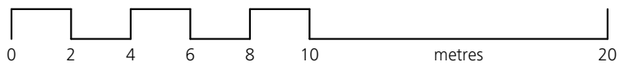

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Gary O'Reilly - Registered Architect No. 4796

Architectural Projects

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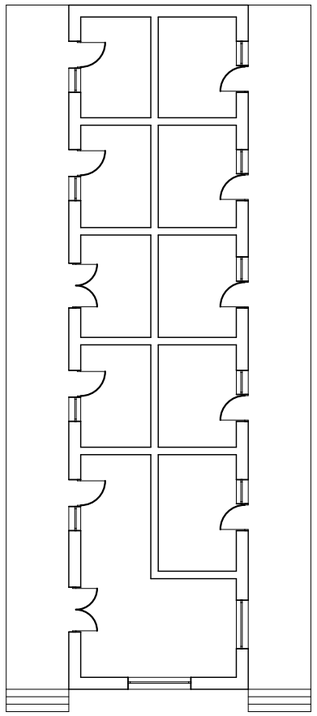

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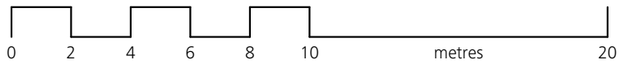

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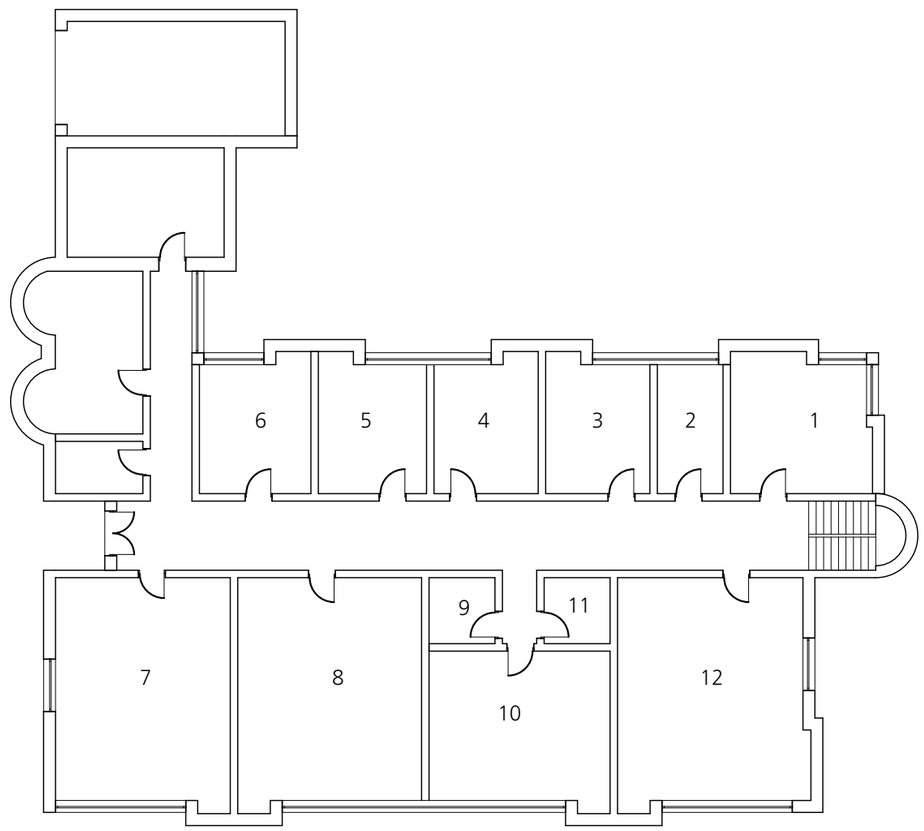
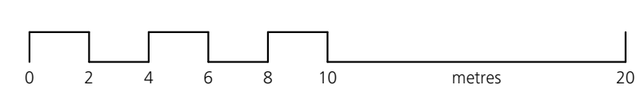


GROUND FLOOR PLAN

LOWER GROUND FLOOR PLAN



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Gary O'Reilly - Registered Architect No. 4796

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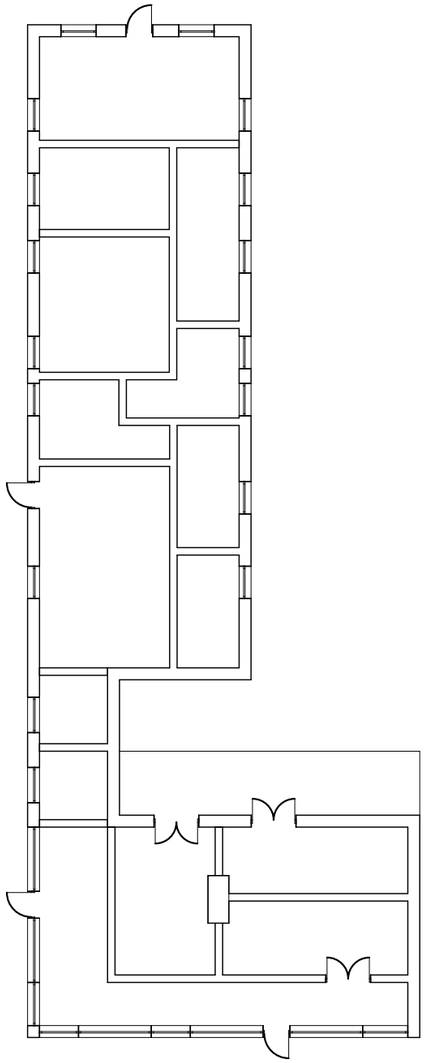

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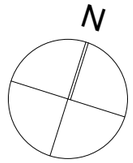

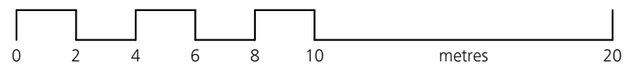

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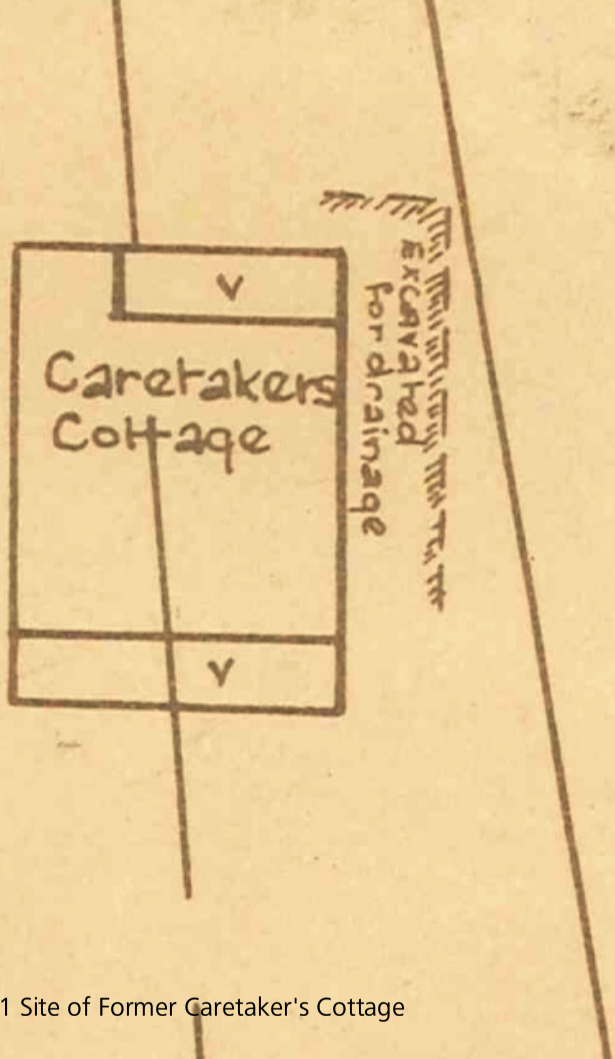
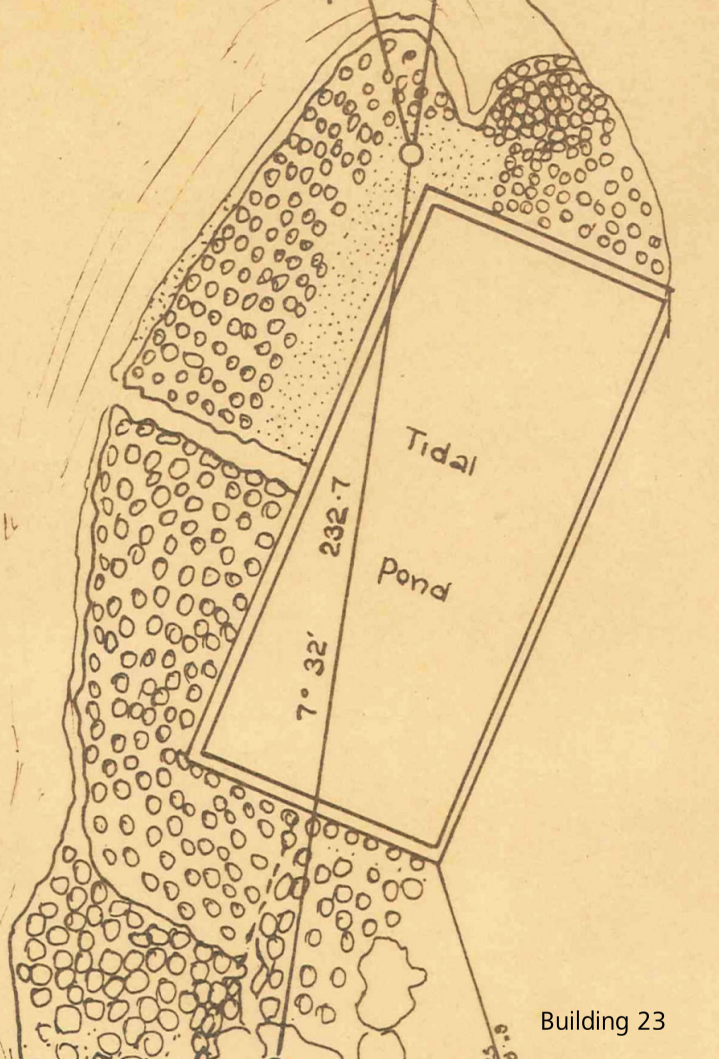


A1 Site of Former Caretaker's Cottage

Building 21



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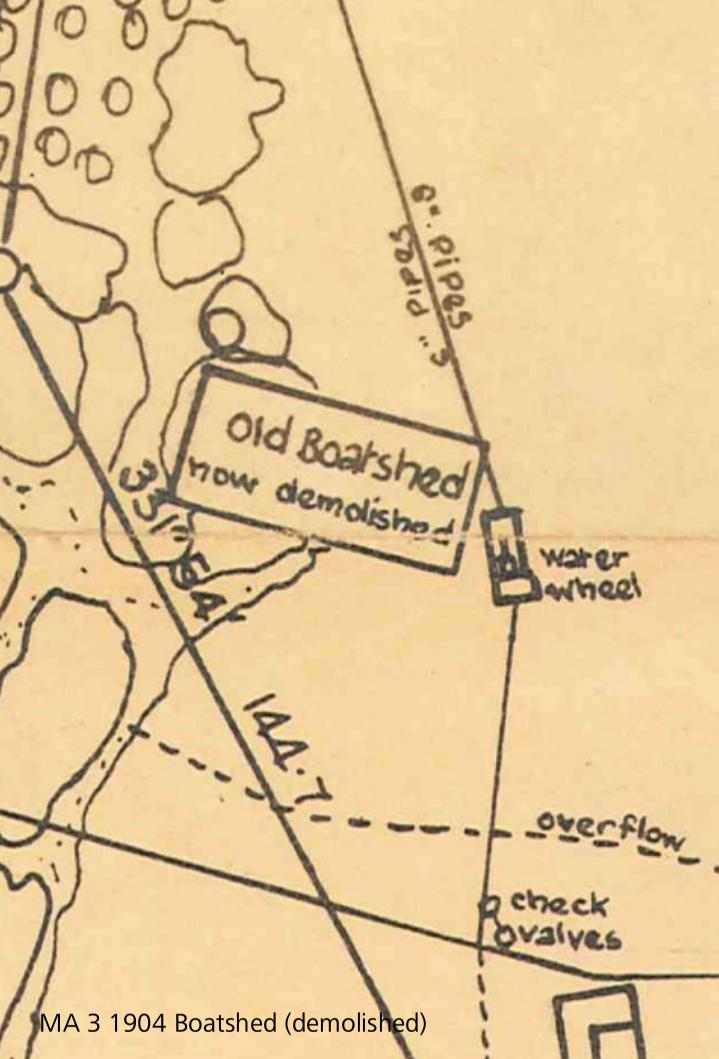
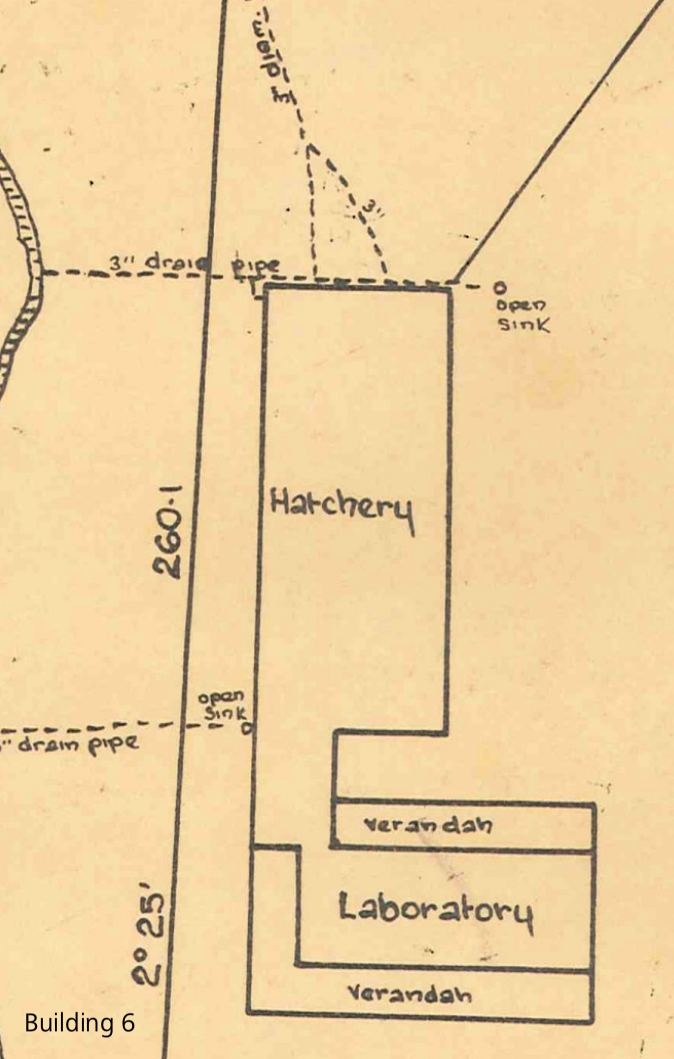
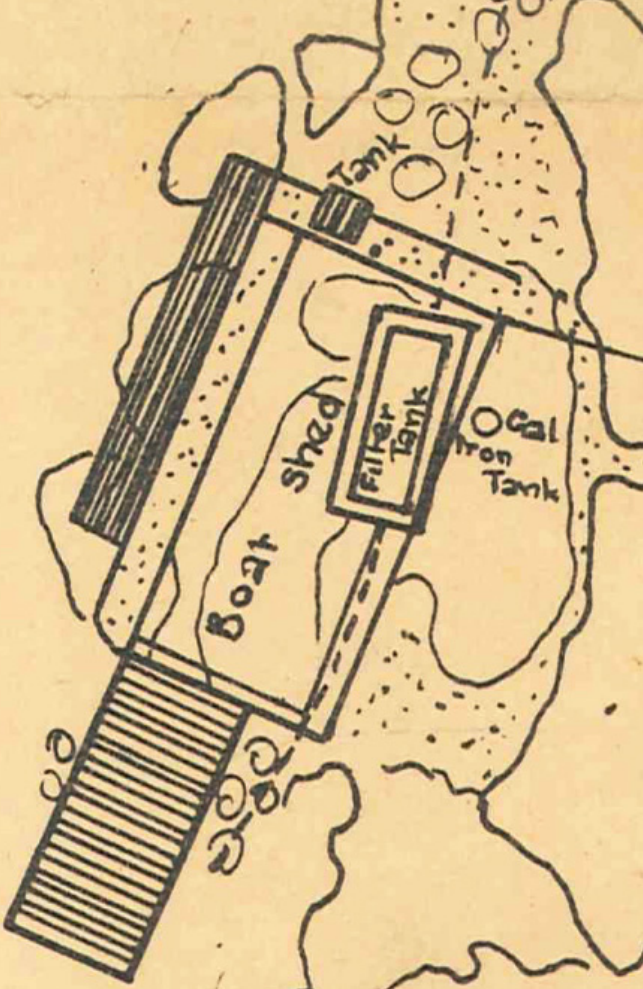


MA 3 1904 Boatshed (demolished)


3" drain pipe
open sink
Hatchery
260·1
open sink
" drain pipe
verandah
Laboratory
2° 25'
verandah

Building 6



Building 11

ATTACHMENT A HUNGRY POINT RESERVE CONSERVATION MANAGEMENT PLAN: ABORIGINAL HERITAGE ASSESSMENT,

PREPARED BY AUSTRALIAN MUSEUM CONSULTING
FOR ARCHITECTURAL PROJECTS PTY LTD

Hungry Point Reserve Conservation Management Plan: Aboriginal Heritage Assessment

Prepared by Australian Museum Consulting
for Architectural Projects Pty Ltd

Final

March 2015

1400744

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Document Information 1400744

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LGA:	Sutherland Shire
Versions:	Version 1: Draft Report issued October 2014 Version 2: Final Report issued March 2015
Recipient:	Elizabeth Gibson, Associate, Architectural Projects Pty Ltd
Approved by:	Jennie Lindbergh, AM Consulting Senior Project Manager
Primary Authors:	Chris Langeluddecke, AM Consulting Project Manager Laressa Berehowyj, AM Consulting Project Officer

Executive Summary

Australian Museum Consulting (AM Consulting) has been commissioned by Architectural Projects Pty Ltd (Architectural Projects), on behalf of the Hungry Point Reserve Trust, to provide Aboriginal heritage input in the preparation of a Conservation Management Plan (CMP) for the Hungry Point Reserve (the study area). The CMP is required to address the Aboriginal cultural heritage significance of the site and consider the implication of use and development of the Reserve.

Archaeological survey has shown that Aboriginal midden material is present throughout Hungry Point Reserve, in varying degrees along the foreshore, in rockshelters, in garden beds, and beneath buildings in both disturbed and undisturbed contexts. The shell midden deposits are experiencing ongoing impacts from garden maintenance activities and erosion. One Aboriginal burial has been identified during past archaeological excavations on the eastern foreshore of the study area, and it is possible that additional undisturbed and undetected burials are present within the Reserve. A purported Aboriginal Birthing Cave has not been substantiated by the historic research or Aboriginal community consultation undertaken for this study.

The management of the Hungry Point Reserve study area should consider the future requirements of the stakeholders and users of the Reserve, and the Aboriginal cultural heritage values of the place. Broader management issues for consideration are:

- ongoing degradation of midden deposits leading to erosion;
- ongoing impacts on the rockshelter in Area 3; and
- ongoing degradation and destruction of exposed middens beneath building foundations.

Future development of the Reserve must consider the Aboriginal Cultural heritage values of the place, and ensure that potential impacts to Aboriginal sites and places are minimised. Management and development strategies developed for the Hungry Point Reserve should aim to:

- conserve the condition and integrity of Aboriginal places within Hungry Point Reserve; and
- incorporate Aboriginal community recommendations, where possible, to ensure that the cultural values and significance of the Reserve is upheld.

The Aboriginal sites within the Hungry Point Reserve and their legislative protection constrain further development within the Reserve likely to impact upon Aboriginal cultural heritage objects. However, protection and conservation of the sites provide opportunities for the preservation of important cultural resources within a wider, layered heritage area. Any ground breaking works within the Hungry Point Reserve have potential to impact on *in situ* Aboriginal midden sites. Future masterplanning and development of the Reserve should seek to avoid significant in-ground impacts, and should consider development options that do not require large scale or intrusive works on the site.

Should future development be required within Hungry Point Reserve that has potential to impact on Aboriginal cultural heritage, the proponent will be required to undertake a formal Aboriginal Cultural Heritage Assessment in support of an application for an Aboriginal Heritage Impact Permit (AHIP) issued under Section 90 of the *National Parks & Wildlife Act 1974* prior to undertaking the proposed works. The assessment and consultation process must be undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010) and in consultation with Aboriginal community stakeholders, as per the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

Contents

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1 Introduction

1.1 Preamble

Australian Museum Consulting (AM Consulting) has been commissioned by Architectural Projects Pty Ltd (Architectural Projects), on behalf of the Hungry Point Reserve Trust, to provide Aboriginal heritage input in the preparation of a Conservation Management Plan (CMP) for the Hungry Point Reserve (the study area). The CMP is required to address the Aboriginal cultural heritage significance of the site and consider the implication of use and development of the Reserve.

1.2 Study Area

The study area is located in the suburb of Cronulla, in the Sutherland Shire Local Government Area (LGA). It is located approximately 22km southwest of the Sydney CBD, on land that is managed by the Hungry Point Reserve Trust. It is defined as Lots 257, 1129 and 1187 of DP 752064, and is bound to the north by Darook Park, residential properties fronting Nicholson Parade and Cowra Place, and Salmon Hall Reserve (Figure 1.1).

1.3 Methodology

This assessment is consistent with the principles and guidelines of the *Burra Charter: The Australian ICOMOS Charter for the conservation of places of cultural significance* (2013). The report has been prepared in accordance with current heritage best practice and the requirements of the Office of Environment and Heritage, Department of Premier and Cabinet (OEH) as specified the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011), *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* and associated supplementary publications.

The key heritage requirements for this assessment are to:

- undertake a review of existing information on the Aboriginal heritage values and archaeology of the area;
- consult with representatives of the La Perouse Local Aboriginal Land Council (LALC) to ensure their involvement and input into the Aboriginal heritage assessment, description of Aboriginal heritage values, and heritage impact management and mitigation;
- undertake an inspection of the Reserve to identify and assess Aboriginal heritage sites, and areas of Aboriginal cultural heritage significance and sensitivity; and
- develop provisional recommendations for the management and conservation of Aboriginal heritage resources, based on an understanding of scientific and cultural heritage significance, in line with OEH guidelines and archaeological best practice.

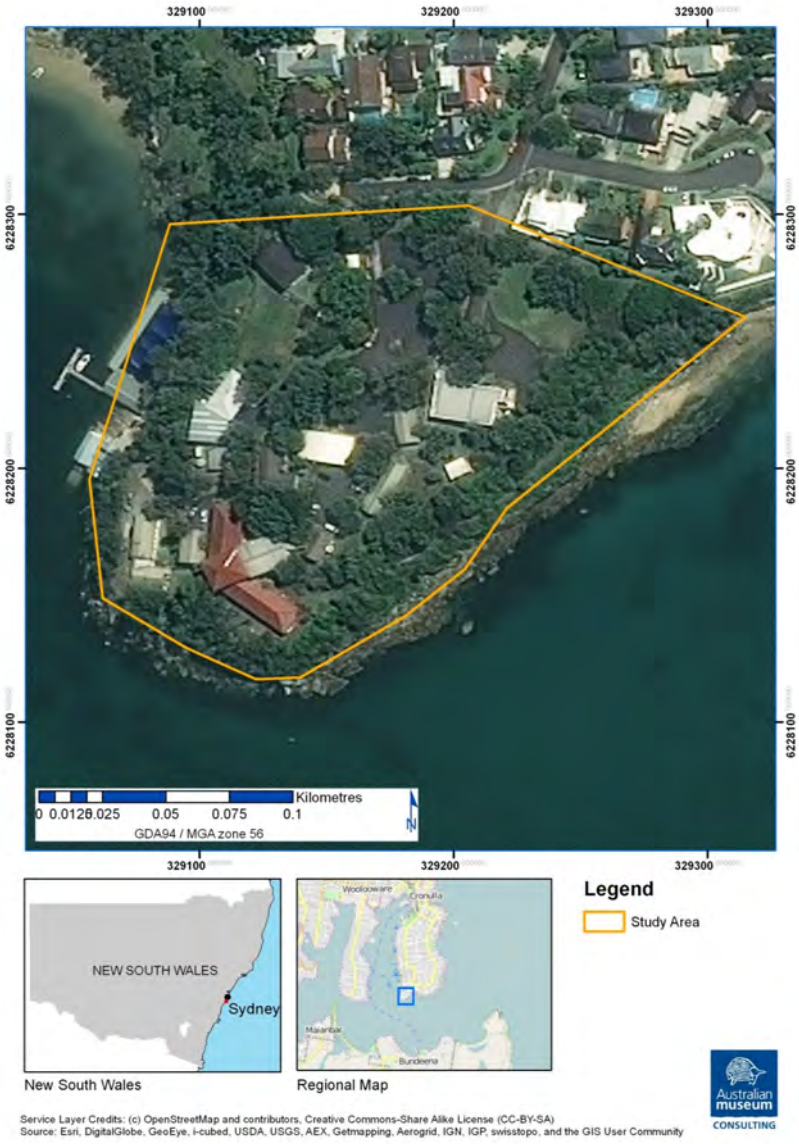

Figure 1.1 The Hungry Point Reserve study area.

1.4 Aboriginal Consultation

La Perouse Local Aboriginal Land Council (LALC) was contacted and a representative was invited to attend the site visit. The La Perouse LALC representative who attended the site visit was Shane Ingrey, Aboriginal Site Officer. Following contact with the Hungry Point Reserve Trust, informal consultation was also undertaken with Mr Les Bursill. La Perouse LALC considered that there was potential for subsurface Aboriginal midden material and artefacts to occur in the vicinity of the Hungry Point Reserve due to its location on a high but sheltered point in the local landscape. Further information regarding Aboriginal consultation undertaken for the preparation of this report is provided in Section 3.

Information provided by La Perouse LALC has been integrated into the assessment, where appropriate, and the draft assessment will be provided to La Perouse LALC for their review and comment prior to finalisation. However, the Aboriginal consultation undertaken for this CMP was limited in scope, and should be regarded as preliminary only. For any future development within the study area, further consultation will be needed to satisfy OEH requirements as specified in the *Aboriginal cultural heritage consultation requirements for proponents 2010*.

1.5 Authorship and Acknowledgements

This report has been prepared by AM Consulting Project Officer Laressa Berehowyj and AM Consulting Project Manager Aboriginal Heritage, Christopher Langeluddecke. AM Consulting Senior Project Manager, Jennie Lindbergh, reviewed the report for quality and consistency.

The authors would like to thank Ms Laila Haglund for her assistance during the preparation of this Aboriginal Heritage Assessment.

2 Statutory Context

The conservation and management of heritage items takes place in accordance with relevant Commonwealth, State or local government legislation. Non-statutory heritage lists, ethical charters, conservation policies, organisational policies, and community attitudes and expectations can also have an impact on the management, use, and development of heritage assets. Listings relevant to the study area are summarised below.

2.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework for the protection and management of places of national environmental significance. Several heritage lists are addressed by the EPBC Act, including the National Heritage List (NHL) and the Commonwealth Heritage List (CHL). The NHL protects places that have outstanding value to the nation. The CHL protects items and places owned or managed by Commonwealth agencies. The Australian Government Department of the Environment is responsible for the implementation of national policies and programs to protect and conserve the environment, water and heritage and promote climate action. The Minister's approval is required for controlled actions which would have a significant impact on items and places included on the NHL or CHL.

There are no Aboriginal heritage items or places listed on the NHL or CHL within the vicinity of the study area.

2.2 National Parks and Wildlife Act 1974

Under the provisions of the *National Parks & Wildlife Act 1974* (NPW Act), the Director-General of the National Parks and Wildlife Service (NPWS; now OEH) is responsible for the care, control and management of all national parks, historic sites, nature reserves, state conservation areas, karst conservation reserves and regional parks. The Director-General is also responsible, under this legislation, for the protection and care of native fauna and flora, and Aboriginal places and objects throughout NSW.

All Aboriginal Objects are protected regardless of their significance or land tenure under the NPW Act. Aboriginal Objects can include pre-contact features such as scarred trees, middens and open camp sites, as well as physical evidence of post-contact use of the area such as Aboriginal built fencing and fringe camps. The NPW Act also protects Aboriginal Places, which are defined as a place that 'is or was of special significance with respect to Aboriginal culture'. Aboriginal Places can only be declared by the Minister administering the NPW Act. There are no Declared Aboriginal Places within the study area.
Under Section 86 of the Act, it is an offence for a person to destroy, deface, damage or desecrate an Aboriginal Object or Aboriginal Place without the prior issue of an Aboriginal Heritage Impact Permit (AHIP) issued under Section 90 of the Act. The Act requires a person to take reasonable precautions and due diligence to avoid impacts on Aboriginal Objects. AHIPs are issued by the Chief Executive of OEH, on submission of an AHIP application to the nearest OEH regional office.

2.2.1 National Parks and Wildlife Amendment Regulation 2010

The *National Parks and Wildlife Amendment Regulation 2010* commenced on 1 October 2010. This Regulation excludes activities carried out in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* from the definition of harm in the Act. That is, test excavations may be carried out in accordance with this Code of Practice, without requiring an AHIP.

The Regulation also specifies Aboriginal community consultation requirements (*Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*). In addition, the Regulation adopts a Due Diligence Code of Practice which specifies activities that are low impact, providing a defence to the strict liability offence of harming an Aboriginal object.

Aboriginal Heritage Information Management System (AHIMS)

Part of the regulatory framework for the implementation of the NPW Act is the Aboriginal Heritage Information Management System (AHIMS), maintained by OEH. AHIMS includes a database of Aboriginal heritage sites, items, places and other objects that have been reported to the OEH. Also available through AHIMS are site cards, which describe Aboriginal sites registered in the database, as well as Aboriginal heritage assessment reports, which contribute to assessments of scientific significance for Aboriginal sites. The AHIMS is not a comprehensive list of all Aboriginal heritage sites in NSW; rather, it reflects information which has been reported to OEH. As such, site co-ordinates in the database vary in accuracy depending on the method used to record their location. Heritage consultants are obliged to report Aboriginal sites identified during field investigations to OEH, regardless of land tenure, or whether such sites are likely to be impacted by a proposed development.

The results of a site search for the local area are presented in Section 5.3.2.

2.3 Heritage Act 1977

The *Heritage Act 1977* provides protection for heritage places, buildings, works, relics, moveable objects, precincts and archaeological sites that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal heritage significance. Where these items or places have particular importance to the State of NSW, they are listed on the State Heritage Register (SHR).

The Hungry Point Reserve is listed on the SHR as the Cronulla Fisheries Centre and includes three heritage listed Aboriginal middens within the study area. Their general locations are described as:

ABORIGINAL MIDDENS (three):

1) *Rockshelter with midden deposits which extend downslope for a distance of at least 5m below the shelter.*
2) *Small area of midden down near holding pens on western side of complex.*
3) *Large area of midden along the southeastern edge of the flat area at the top of the complex between building 15 and the fuel store beyond.*

2.4 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the principal act regulating land use planning and development in NSW, and requires consideration to be given to the environment as part of the land use planning process. The EP&A Act also controls the making of environmental planning instruments (EPIs). Two types of EPIs can be made: Local Environmental Plans (LEPs), covering local government areas; and State Environment Planning Policies (SEPPs), covering areas of State or regional environmental planning significance. LEPs commonly identify and have provisions for the protection of local heritage items and heritage conservation areas.

2.4.1 Draft Sutherland Shire Local Environmental Plan 2013

Part 5, Clause 5.10 'Heritage Conservation' of the Draft Sutherland Shire Local Environment Plan (LEP) is consistent with current heritage best practice guidelines, providing for the protection of heritage items, places, conservation areas, and archaeological sites. While Schedule 5 'Environmental

heritage' lists the Fisheries Research Institute as a local item (#A1073), it does not include any Aboriginal objects or places of heritage significance within the study area or its vicinity.

2.5 Register of the National Estate

The Register of the National Estate (RNE) was originally established under the *Australian Heritage Commission Act 1975* (AHC Act). Since the establishment of the NHL and CHL, there is now a significant level of overlap between the RNE and heritage lists at the national, state and territory, and local government levels. From February 2012, all references to the Register have been removed from the EPBC Act and the AHC Act. The RNE is now being maintained on a non-statutory basis as a publicly available archive.

There are no Aboriginal heritage items or places listed on the RNE within the vicinity of the study area.

3 Aboriginal Consultation

While Aboriginal community consultation is an integral part of the Aboriginal cultural heritage assessment process, this project has not been undertaken in accordance with the requirements of the OEH *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. However, archaeological and heritage management best practice requires that representatives of the local Aboriginal community are included as stakeholders in decisions concerning any heritage objects, archaeological places or Sacred Sites within the study area. In addition, assessments of cultural significance, the values of a site to the Aboriginal community itself, can only be carried out by the relevant Aboriginal communities.

The aims of the Aboriginal community consultation process for this project were to:

- afford the opportunity for the La Perouse Local Aboriginal Land Council (LALC) to provide input into identifying cultural heritage values and be involved in the heritage assessment process;
- provide the opportunity for representatives of the La Perouse LALC to inspect the study area with the aim of identifying Aboriginal sites and areas of archaeological and cultural sensitivity;
- identify the Aboriginal cultural heritage significance of the study area;
- integrate Aboriginal heritage values into the heritage assessment; and
- provide an opportunity for the local Aboriginal community to comment on the heritage management strategy and proposed outcome.

La Perouse LALC was invited to send a representative to participate in a survey and assessment of the study area on 4 September 2014. During the site inspection carried out with La Perouse LALC Aboriginal Site Officer Shane Ingrey, it was noted that there had been reports of a possible Aboriginal women's birthing cave located on the Fisheries site. Mr Ingrey declined to inspect the area and suggested that AM Consulting contact the La Perouse LALC in order to speak with female Gweagal Elders who might have knowledge of a particular area. It was agreed that, should any Gweagal Elders be contacted, further consultation or additional second site inspection may be required to confirm its presence or absence, and to discuss appropriate management recommendations for the birthing cave.

Telephone contact was made with La Perouse LALC Chief Executive Chris Ingrey on 17 September 2014, and he agreed to act on AM Consulting's behalf by directly consulting with female Gweagal Elders. It was agreed that, should any Gweagal women wish to be consulted during the project, their details would be passed on to AM Consulting and a second site survey would be conducted, with Architectural Projects' approval. On 1 October, Mr Ingrey confirmed that the Gweagal Elders he had contacted would like the opportunity to visit the possible birthing cave, and to establish its status.

During the project, AM Consulting was also contacted by Mary Jacobs of the Hungry Point Reserve Trust, who suggested that Mr Les Bursill be consulted given his knowledge of the study area. Telephone contact was made with Mr Bursill on 19 September 2014, where he iterated that the Hungry Point peninsula, with its abundant watercourses and marine resources, would have been a significant Aboriginal occupation area that could have supported between 15 and 20 people at any one time. He was also of the opinion that the cave was unlikely to have been an Aboriginal women's birthing cave given its exposed position and close proximity to other occupation sites.

A draft of this assessment was provided to La Perouse for their review on 30 June 2015. No additional comments or feedback was received.

4 Environmental Context

An understanding of environmental factors within the local landscape provides a context for past human occupation and history of an area. The analysis of environmental factors contributes to the development of the predictive modelling of archaeological sites, but it also is required to contextualise archaeological material and to interpret patterns of past human behaviour. In particular, the nature of the local landscape including topography, geology, soils, hydrology and vegetation are factors which affect patterns of past human occupation.

Current land use practices have the potential to affect the visibility of archaeological material; they may obscure, or expose archaeological sites. In addition, previous disturbances may have also exposed archaeological material, such as excavation for dams or other ground disturbing works. It is important that such factors are also considered in making assessments of archaeological resources in an area and understanding the distribution of observed sites.

4.1 Geology & Topography

The study area is underlain by Hawkesbury Sandstone slopes and ridges of the Woronora Plateau, which consists of medium to coarse-grained quartz sandstone and minor shale and laminite lenses laid down during the Middle Triassic (Halzelton and Tille 1990:66). Hawkesbury Sandstone geology may result in stone outcroppings suitable as surfaces for art (such as engraving and drawing/painting) and sharpening stone axes/tools, or shelters for camping. As such, rock engravings/art sites, axe grinding grooves and shelter sites may be present in the study area, although stone quarry sites are unlikely, as these geologies are unsuitable for artefact manufacture.

The region is characterised by undulating to rolling low hills, broad convex crests, moderately inclined sideslopes with wide benches and localised rock outcrop on low broken scarps. Slopes of between 10-25% and a local relief of between 20 and 80m are typical of the area (Halzelton and Tille 1990:66).

4.2 Soils & Vegetation

The study area is located within the Gymea Soil Landscape (Figure 4.1). These soils comprise shallow to moderately deep yellow earths and earthy sands on crests and insides of benches; shallow siliceous sands on leading edges of benches; localised gleyed and yellow podzolic soils in shale lenses and shallow to moderately deep siliceous sands and leached sands along drainage lines (Hazelton and Tille 1990:66-69). Limitations of this soil landscape are high soil erosion hazard, shallow and highly permeable soil, localised steep slopes and rocky outcrops, and very low soil fertility. Such limitations have resulted in predominantly residential land use around the region, with urban development along the Port Hacking foreshore. Steeper sections often remain uncleared and are used for recreational purposes (Hazelton and Tille 1990: 66-67). It has been shown that severe episodic sheet erosion often occurs during storms after ground cover has been removed by bushfires in the area (Atkinson 1981). Minor gully erosion, often to bedrock, commonly occurs along unprotected or poorly maintained tracks and fire trails, especially those used regularly (Hazelton and Tille 1990:67).

In residential areas the native Sydney Coastal Dry Sclerophyll forest has been partially cleared, while low open-woodland dominates ridges and upper slopes (Hazelton and Tille 1990:66; Keith 2006:146-147). Common species include red bloodwood (*Corymbia gummifera*) and scribbly gum (*Eucalyptus haemastoma*), while on more sheltered slopes silvertop ash (*Eucalyptus sieberi*), Sydney peppermint (*Eucalyptus piperita*) and Sydney red gum (*Angophora costata*) dominate. Shrub species include Christmas bush (*Bursaria spinulosa*), broad-leaved geebung (*Persoonia levis*) and old man banksia (*Banksia serrata*) (Hazelton and Tille 1990:67; Keith 2006:147; Harley 2012:18).

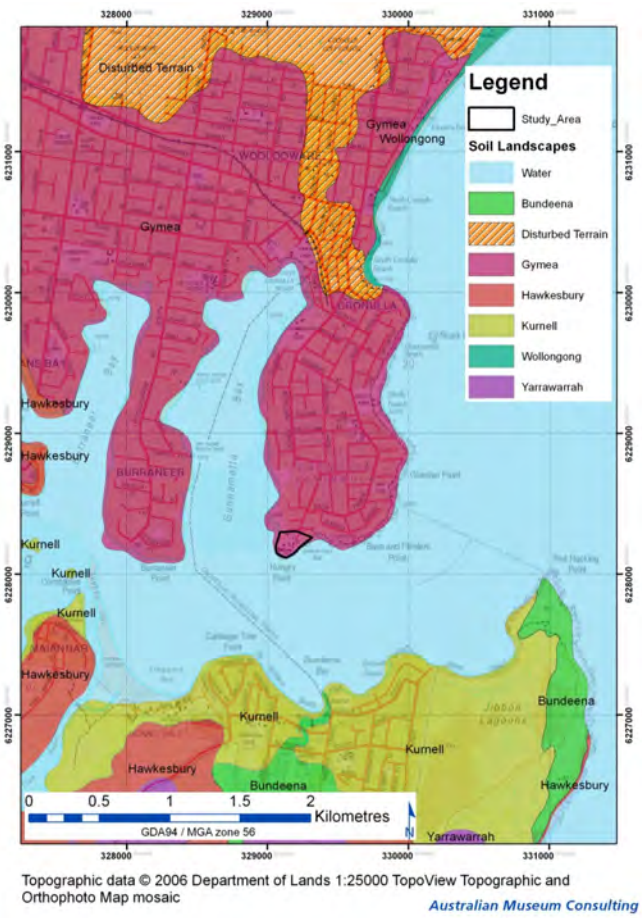

Figure 4.1 Soil landscapes in the vicinity of the Hungry Point Reserve.

4.3 Hydrology & Drainage

The main waterways of the Sydney region include estuaries and associated waterways, mainly Port Jackson, Broken Bay and Port Hacking. Other rivers and creeks flow through the sandstone plateau, creating rugged valleys with steep ridgesides, cliffs and sandstone outcrops. The foreshores are a complex of alternating cliffs, small bays and inlets with sandy beaches, tidal mudflats with mangroves, intertidal rock platforms and rocky, bouldered areas.

The study area is located on the immediate foreshore of Port Hacking. From its exposed position on the southernmost portion of the Cronulla headland, the neighbouring peninsulas of Burraneer, Maianbar, Cabbage Tree Point and Bundeena, as well as the open Pacific Ocean, would have been visible from the study area.

4.4 Land Use & Disturbance

The earliest landowner of the area was John Connell, who received a 1000 acre grant on Quibray Bay in 1821, and purchased a further 860 acres of land on the Kurnell Peninsula in 1828. When granted an additional 380 acres at the head of Gunnamatta Bay in 1835, the majority of the land between Botany Bay and the Port Hacking River was under the ownership of John Connell. Connell commenced extensive land clearance, transporting ironbark, turpentine, blackbutt, and red cedar from the Port Hacking and Kurnell areas to the Sydney market in the 1840s. Following his death in the late 1840s, Connell's Estate was subdivided and auctioned in 1856. Thus began settlement of the Cronulla Peninsula; though 300 acres on the Cronulla peninsula at Hungry Point were reserved by the Government for defence purposes in 1861. Though the study area remained largely undeveloped, it is possible that illegal squatting occurred along the peninsula. Historian Pauline Curby noted that the huts of fishermen and shell gatherers would have been scattered around the foreshores of Cronulla, Dolans Bay and Maianmar (Curby 1993:19).

Reserved land at Hungry Point was revoked in 1902, and 1.37 hectares on the Gunnamatta Bay side were transferred to the NSW Government for the purpose of fish culture and research. A fish hatchery, experimental pool and laboratory worth £1371 were constructed along the western foreshore in 1904 and remained in operation until the outbreak of World War 1, when operations ceased until the late 1920s. Aerial photographs held by the Sutherland Shire Council reveal that the eastern portion of the study area retained native vegetation until 1947, when it was partially cleared for the construction of a migrant hostel. The hostel and its associated buildings were demolished in the 1970s and new fisheries laboratories and offices were constructed in 1976, along with areas for parking vehicles and cleared lawn areas. While the majority of the study area has been stripped of its native vegetation, comparatively few buildings have been constructed; aerial photographs suggest that large portions of the study area have not been significantly disturbed.

5 Aboriginal Heritage Context

This section describes the nature of the known Aboriginal archaeology and ethnography of the study area, based upon a review of relevant archaeological reports and publications, and a search and review of previously recorded sites in the OEH AHIMS. This review and discussion allows for the development of a predictive model for potential Aboriginal sites within the study area. Summary descriptions of site types are provided in Table 5.1.

Table 5.1 Summary description of Aboriginal site features referred to in this report.

Site Feature	Description
Artefact (Open camp sites/ artefact scatters/ isolated finds)	Open camp sites represent past Aboriginal subsistence and stone knapping activities, and include archaeological remains such as stone artefacts and hearths. This site type usually appears as surface scatters of stone artefacts in areas where vegetation is limited and ground surface visibility increases. Such scatters of artefacts are also often exposed by erosion, agricultural events such as ploughing, and the creation of informal, unsealed vehicle access tracks and walking paths. These types of sites are often located on dry, relatively flat land along or adjacent to rivers and creeks. Camp sites containing surface or subsurface deposit from repeated or continued occupation are more likely to occur on elevated ground near the most permanent, reliable water sources. Flat, open areas associated with creeks and their resource-rich surrounds would have offered ideal camping areas to the Aboriginal inhabitants of the local area. Isolated finds may represent a single item discard event, or be the result of limited stone knapping activity. The presence of such isolated artefacts may indicate the presence of a more extensive, in situ buried archaeological deposit, or a larger deposit obscured by low ground visibility. Isolated artefacts are likely to be located on landforms associated with past Aboriginal activities, such as ridgelines that would have provided ease of movement through the area, and level areas with access to water, particularly creeks and rivers.
Midden	Shell middens result from Aboriginal exploitation and consumption of shellfish, in marine, estuarine or freshwater contexts. Middens may also include faunal remains such as fish or mammal bone, stone artefacts, hearths, charcoal and occasionally, burials. They are usually located on elevated dry ground close to the aquatic environment from which the shellfish has been exploited and where fresh water resources are available. Deeper, more compacted, midden sites are often found in areas containing the greatest diversity of resources, such as river estuaries and coastal lagoons.
Modified tree (scarred or carved)	Tree bark was utilised by Aboriginal people for various purposes, including the construction of shelters (huts), canoes, paddles, shields, baskets and bowls, fishing lines, cloaks, torches and bedding, as well as being beaten into fibre for string bags or ornaments. The removal of bark exposes the heart wood of the tree, resulting in a scar. Over time the outer bark of the tree grows across the scar (overgrowth), producing a bulging protrusion around the edges of the scar. Trees may also have been scarred while gaining access to food resources (e.g. cutting toe-holds so as to climb the tree and catch possums or birds), or to mark locations such as tribal territories. Carved trees generally marked areas for ceremonial purposes, or the locations of graves. The location of modified trees often reflects historical clearance of vegetation. Unless the tree is over 150 years old, scarring is not likely to be of Aboriginal cultural origin; therefore, these sites most often occur in areas with mature, remnant native vegetation.
Grinding grooves	Grinding grooves are the physical evidence of the manufacture of stone tools (such as ground edge axes) or food processing activities undertaken by Aboriginal people. The manual rubbing of stones against each other creates grooves in the rock, which are usually found on flat areas of soft rock such as sandstone, in areas of creek beds and other water sources. They are often associated with rock pools in creek beds and on platforms to enable the wet-grinding technique.
Quarries	Aboriginal quarry sites are sources of raw materials, primarily for the manufacture of stone tools, but also for ochre procurement. They are only found where raw materials (stone or ochre) occur within the landscape, and where these have been exploited in the past. Such sites are often associated with stone artefact scatters and stone knapping areas. Loose or surface exposures of stone or cobbles may be coarsely flaked for removal of portable cores. Raw materials can be sourced to these sites and provide evidence for Aboriginal movement and/or exchange.

Rock engravings	Rock engravings are a type of Aboriginal art, and are often located on high vantage points along ridge lines at the headwaters of creeks, but can be located on any suitable fine grained stone surface.
Shelter sites with art (engraving, painting or drawing) or occupation deposit	These are art or occupation sites located in areas where suitable rock outcrops and surfaces occur, where weathering has resulted in suitable overhangs or recesses in boulder outcrops or cliff-lines.
Ceremonial ring	Aboriginal ceremonial sites are locations that have spiritual or ceremonial values to Aboriginal people. Aboriginal ceremonial sites may comprise natural landforms and, in some cases, will also have archaeological material. Bora grounds are a ceremonial site type where initiations occurred, usually consisting of a cleared area around one or more raised earth circles, and often comprised two circles of different sizes, connected by a pathway, and accompanied by ground drawings or mouldings of people, animals or deities, and geometrically carved designs on the surrounding trees. The raised earth features can be easily destroyed by agricultural and pastoral activities, vegetation growth and exposure to weather.
Stone arrangements	Stone arrangements usually consist of geometric arrangements of portable stone on prominent rock outcrops, such as vantage points along escarpments where other key landmarks are visible. Some stone arrangements also include circles and pathways. They are thought to be ceremonial in nature, and may have also sometimes been used for corroborees (dances), fights or judicial meetings. Stone arrangements are often isolated from known camp site areas.
Aboriginal Ceremony and Dreaming	These types of sites are usually identified by the local Aboriginal community as locations of cultural significance, and they may not necessarily contain material evidence of Aboriginal associations with the place.
Burial sites	Aboriginal burial of the dead often took place relatively close to camp site locations. This is due to the fact that most people tended to die in or close to camp (unless killed in warfare or hunting accidents), and it is difficult to move a body long distances. Soft, sandy soils on, or close to, rivers and creeks allowed for easier movement of earth for burial; and burials may also occur within rock shelters or middens. Aboriginal burial sites may be marked by stone cairns, carved trees or a natural landmark. Burial sites may also be identified through historic records, or oral histories.
Contact/ historical sites	These types of sites are most likely to occur in locations of Aboriginal and settler interaction, such as on the edge of pastoral properties or towns. Artefacts located at such sites may involve the use of introduced materials such as glass or ceramics by Aboriginal people, or be sites of Aboriginal occupation in the historical period.
Potential Archaeological Deposit (PAD)	An area where subsurface cultural material is likely to be present. Artefacts may not be visible on the ground surface.

5.1 Historical & Ethnographic Context

At the time of European settlement, the Aboriginal people of the greater Sydney region were organised into named territorial groups. Those groups local to the study area are likely to have spoken the Dharawal (Tharrawal) language. Speakers of the Dharawal language extended from the south side of Botany Bay along the coast as far as the Shoalhaven River, from the coast to the Georges River and Appin, and possibly as far west as Camden (Attenbrow 2010:34; Dallas 2004:37; AMBS 2007:13; Harley 2012:19).

The earliest description of the study area from a European perspective was given by explorer Matthew Flinders, who in April 1814 spent time navigating the shores of Port Hacking:

> *April 1st, was employed in the examination of the port. It is something more than one mile wide in the entrance; but soon contracts to half that space, and becomes shallow. The shores of the port are mostly rocky, particularly on the north side; but there is no want of grass or wood; and without doubt there are many culturable spots on the sides of the streams which descend, apparently from the inland mountains, into the uppermost branch. Two natives came down to us in a friendly manner, and seemed not to be unacquainted with Europeans. Their language differed somewhat from the Port*

> *Jackson dialect; but with the assistance of signs, we were able to make ourselves understood (Flinders 1814).*

The study area would have provided rich marine resources for the inhabitants, in terms of both food resources and shelter. Shellfish and fish such as Sydney Rock Whelk and Sydney Rock Oyster were integral to the diet of coastal tribes, as were snapper and bream (Attenbrow 2010:63; Therin 2005:13). Both men and women spent considerable time fishing from bark canoes with hooks made from ground Turban (*Turbo torquate*) shell, and line made from twine of the cabbage leaf palm (Dallas 2004:39). The diet of Dharawal people within the study area could have also included rhizomes of the Bracken Fern, seeds of the wattle, fruit of the Geebung, and terminals and buds of the Cabbage Palm (Brayshaw McDonald Pty Ltd 1987:2).

Hawkesbury sandstone geology provided ample rock platforms and overhangs for sheltering from inclement weather and for art production.

5.2 Regional Aboriginal Archaeological Context

Study of Aboriginal archaeology in the Shire region was largely pioneered by F.D. McCarthy, who undertook the excavation of rockshelter sites, first at Lapstone Creek and later in the Capertee Valley (McCarthy 1948, 1964). On the basis of this work, McCarthy was able to establish a tripartite system known as 'The Eastern Regional Sequence' which could be used to interpret the Aboriginal past of the region based on stone tool indicators.

McCarthy's sequence divided the material past into three phases, beginning with the Capertian, a phase characterised mainly by scrapers and pebble tools. The earliest date for this phase was established from rockshelter excavation at Burrill Lake where radiocarbon dates have indicated an occupation phase from around 20,500 years Before Present (BP). While this site is located adjacent to the coastline, at the time of first occupation, the site would have been approximately15km inland away from the coast and overlooking river valleys. Most other sites excavated on the south coast of NSW date from after 8,000 years ago when sea levels had risen, and the vast majority of sites date from the last 3,000 years (Poiner 1974:29; Roy and Crawford 1981:Table 1; Brayshaw McDonald Pty Ltd 1987:3; Therin 2005:9). The middle phase of the Eastern Regional Sequence is known as the Bondaian and is characterised by small microlithis (backed blades) that have been termed 'Bondi Points' after their initial discovery near Bondi Beach in Sydney. The final, most recent phase is known as the Eloueran and is characterised by the 'elouera' type stone adze flake.

Radiocarbon dates have been obtained for a number of Aboriginal occupation sites in the region (Table 3.1). Charcoal samples obtained from Trench F4 Square BB4, toward the base of the midden deposit, returned a date of 1293 ±120 years BP (ANU-721) (Irish 2010 18-19).

Table 5.2 Earliest radiocarbon dates for excavated Aboriginal sites in the vicinity of the study area (after Attenbrow 2010:18-20)

Site name	Radiocarbon date (years BP)	Sample material
Captain Cooks Landing Place BB4	1,293 ±120 (ANU-721)	charcoal
Quibray Bay 2	4,130 ±111 (SUA-518)	shell
McCue Midden	1,840 ±40 (Beta-165771)	charcoal
260 Captain Cook Drive	2,262 ±38 (Wk-22797)	shell
Quibray Bay 1	2,210 ±360 (ANU-261)	bone
Cronulla STP1	3,240 ±70 (Wk-8845)	charcoal
Potter Point	5,620 ±70 (Wk-ANU-402)	charcoal
Doughboy Head 1	12,190 ±110 (Beta 36920)*	charcoal
Botany Cone Swamp 5	1,520 ±90 (SUA-2857)	charcoal
Boat Harbour 1	1,953 ±70 (ANU-895)	charcoal
Bate Bay BHW	2,402 ±88 (NZA-2323)	charcoal

*The early date from Doughboy Head 1 has been questioned, because of inadequate documentation of

the stratigraphy and sample retrieval process, and the similarity of the artefact typology to other sites on the Peninsula that date to within the last 5,000 years (Dallas 1996:9).

The existence of these three phases was confirmed by excavations at one of seven rock shelters, Curracurrang Cove in the Royal National Park, from where the first sequence of radiocarbon dates for the Sydney region were produced. Here the basal date of approximately 8,000 years BP is very similar to those dates produced from similar material at Capertee. The middle levels of the Curracurrang rockshelter site have been dated as ranging between 2,500 and 850 years BP, and were rich in artefacts with over 1,000 microliths recovered (Megaw 1997:9).

The uppermost levels of the Curracurrang shelter were rich in faunal material such as single and double ended spear barbs made from animal bone. These artefacts, as well as shell and bone debris, are valuable evidence for local Aboriginal exploitation of the marine and inshore environment prior to European settlement. The site also contained human burials with associated artefacts which indicate contact between the local Aboriginal community and Europeans. Studies of stone waste flakes from the site included geological thin sectioning of tools which indicated distant sources of raw material, particularly chert from the Bateman's Bay.

Excavations at three sites around Wattamolla Lagoon, immediately north of Curracurrang, provided a variation on this pattern (Megaw and Roberts 1974). Prey such as fish, shellfish, seals and marine birds were exploited. The earliest radiocarbon sample from the site dates to 2,000 B.P. and the stone tool technology was consistent with this date. The site also contained evidence of the complex manufacture of worked bone and shell fishing implements, showing parallels with other sites of the last phase of Aboriginal coastal settlement.

Surrounding Wattamolla and Curracurrang are several engravings of animal figures of the type best represented in the Ku-ring-gai Chase/Hawkesbury vicinity. Excavations at one painted rock shelter located above the Hacking River at Audley contained a midden, where valuable contextual evidence had been destroyed by looting. A handful of artefacts were recovered; however, dating of these was impossible. Audley nevertheless retained Aboriginal art, including depictions of local fauna and hand stencils.

Research undertaken at Captain Cook's Landing Place, Kurnell (Megaw 1968) utilised a multi-disciplinary approach to interpret the latter periods of archaeology. The site has been recognised by archaeologists from the 1960s onwards as a large open midden and camp site used over at least 500 years. Archaeological investigations in the region indicated that the area had Aboriginal occupation history going back to at least 5,000 BP. The midden demonstrated utilisation of the coastal food resources, including Sydney cockle, oysters, turban shells, mussels, and snapper and bream fish varieties, collected from the rocky platforms around head lands, sandy beaches and from mud flats around mangroves. The presence of fish bones in middens correlates with early ethnographic accounts of the importance of fishing to Aboriginal people, both from boats and the shore (Attenbrow 2010). Evidence of more widespread hunting was demonstrated in remnants of seal, dolphin, whale, a range of marsupials, and the remains of dingo and marine bird species (Megaw 1997:10; Hutton Neve 2000:1).

5.3 Local Aboriginal Archaeological Context

5.3.1 Previous Archaeological Investigations

The number of sites or quantity of archaeological evidence found in any specific area varies. Further, the distribution of presently recorded sites in some areas is unlikely to be indicative of the original distribution of Aboriginal sites and therefore may not be a reliable guide to the occupation history of

that area. A number of archaeological investigations have been undertaken in the general vicinity of the study area. The information summarised in Table 5.3 is based on reports that have been registered with the OEH AHIMS, and which are most relevant and informative to archaeological background of the current project.

Table 5.3 Summary of Previous Local Aboriginal Heritage Investigations.

Report Author/ Date	Location	Reason for Investigation	Findings	Approximate Distance from study area
Haglund (1977)	CSIRO Division of Fisheries and Oceanography, Cronulla	Archaeological test excavation to investigate reported Aboriginal sites	A series of auger holes and three test pits were excavated to identify distribution of shell midden on Division of Fisheries land. Midden material included shell (Sydney Cockle, Tapestry shell, Hercules whelk, Rock Oyster, Triton and Turban) as well as fish bone and terrestrial animal bone, 35 stone artefacts and glass artefacts. Grinding grooves and an Aboriginal burial were encountered along the eastern foreshore. Midden material was recovered between depths of 20 and 40cm below the surface.	On site
Brayshaw (1987)	Cabbage Tree Point, Port Hacking	Archaeolgical Survey for proposed development	Identified one engraving site (52-3-0337) on rocky cliff at eastern end of the headland as well as two shelters with PAD partway down the rocky slope of the headland.	1.1km south west
Therin (2005)	31 Neil Street, Bundeena	Archaeological survey for proposed residential development	Identified one midden site (BNS1) in north eastern corner of the property and extending east onto neighbouring property. Shell (predominantly Sydney Rock Whelk and Sydney Rock Oyster) was eroding from sandstone shelf though it was considered possible the midden continues below surface.	1.2km south east
Therin (2006)	31 Neil Street, Bundeena	Section 87 Archaeological excavation for proposed residential development	Seven stone artefacts (chert and quartz), 7.2kg of shell (Triton, Small Turban, Sydney Cockle and Rock Oyster) and 18g of fish bone were recovered from thirteen 30x30cm test pits in the northern third of the property. Identified the extent of site BNS1 and an area of archaeological potential in the remaining southern portion of the site, noting that in situ midden was overlain by redeposited midden from up slope in the north eastern corner.	1.2km south east
AMBS (2007)	Bonnie Vale Camping Area, Royal National Park	Archaeological test excavation for proposed development	Recovered 551 stone artefacts and approximately 40kg of cultural shell from twenty 1x1m pits, though 93% of the shell assemblage was recovered from two squares. The most dominant shell species were Sydney Cockle and Rock Oyster. Cultural material was concentrated on elevated areas set back from the recent dune formations, while the remainder was a low density spread or background scatter. Layering suggested the material was deposited over multiple phases.	1.6km south west

Report Author/ Date	Location	Reason for Investigation	Findings	Approximate Distance from study area
AMBS (2011)	Shiprock Reserve, Port Hacking	Archaeological survey for proposed boardwalk development	The previously identified Shiprock Reserve Midden (#52-3-1420) was relocated and reworked midden material was observed in nearby garden beds. It was proposed that a boardwalk would have a partial impact on the midden but, if also stabilised with new plantings, would help to protect the midden from further damage.	1.7km west
Darwala-Lia and Therin Archaeological Consulting (2000)	Fisherman's Bay, Maianbar	Archaeological test excavation for proposed development	Auger holes revealed undisturbed and disturbed midden material in the area of the proposed pumping station. It was recommended that the location of the pumping station be altered to avoid impacts to the undisturbed midden.	2.3km south west
Oakley (1998)	Great Turriell Bay, Dolan's Bay, Lilli Pilli	Archaeological survey for proposed sewer rehabilitation	Identified no new sites or areas of archaeological potential along the 2km route.	2.6km west
Dallas (2002)	Sutherland Shire	Aboriginal Cultural Heritage Study	Study noted that over 1,300 known Aboriginal sites were recorded in the Sutherland Shire LGA boundaries. However due to public recreation, urban expansion and development, many of these sites were under pressure, degraded or damaged.	Shire-wide

5.3.2 Registered Aboriginal Sites

An extensive search of the OEH AHIMS database was undertaken on 22 July 2014 (AHIMS client service ID # 142276), and 64 registered Aboriginal sites were identified with a search area centred on the study area and bounded by the following geographic co-ordinates: Eastings: 328000 - 330500, Northings: 6227000 - 6230000 (GDA, Zone 56). The search results are summarised in Table 5.4 and presented in Figure 5.1.

Table 5.4 Summary of Aboriginal sites previously recorded near the study area.

Site Feature	Number of Sites Present	Percentage (to 2 decimal places)
Art (Pigment or Engraved)	29	45.31
Shell	14	21.88
Shell, Artefact	11	17.19
Grinding Groove	2	3.13
Potential Archaeological Deposit (PAD)	2	3.13
Artefact	2	3.13
Aboriginal Ceremony and Dreaming	1	1.56
Art (Pigment or Engraved), Burial, Shell, Artefact	1	1.56
Shell, Artefact, Burial	1	1.56
Waterhole	1	1.56
Total	**64**	**100.00%**

Two Aboriginal shell middens (#45-6-2491, #52-3-0188) as well as a shelter with occupation deposit (#45-6-2490) were identified in the northern portion of the study area. Site 45-6-2491 was identified as a sparse midden occurring below a sandstone rock face on the westward facing slope directly above Gunnamatta Bay. Shell with less than 5% ground surface coverage was observed in soil below the rock face, which contained a small cave rock shelter of dimensions 1.5 x 1 x 0.75m. Site 52-3-0188 was identified as a midden deposit immediately adjacent to building 16 though no further details were provided. Site 45-6-2490 was identified as a westward facing rockshelter with a sloping floor containing midden deposit. This rockshelter formed part of a formal garden bed and its associated midden deposit was deemed to have been partially disturbed by gardening activities.

Figure 5.1 Location of Aboriginal sites previously registered near the Hungry Point Reserve.

CSIRO Division of Fisheries and Oceanography Archaeological Test Excavation (1977)

Research has indicated that the sites identified as part of Haglund's archaeological investigation were not entered into the AHIMS database. The investigation was commissioned to incorporate site information into the Fishery Department's Heritage and Conservation Register after it was reported that Aboriginal shell middens existed on site. Investigation consisted of the drilling a series of auger holes across the site to identify the distribution of Aboriginal material, followed by manual excavation of three trenches (two 1x0.6m and one 1x0.5m) along the eastern foreshore in front of Building 15, and two test pits along the southern foreshore in front of Building 1 (Figure 5.2-Figure 5.3). The locations for the test pits were selected as *likely to give information about the extent, depth and nature of the deposit without causing too much disturbance which would interfere with future archaeological studies* (Haglund 1977:10).

Trenches along the eastern foreshore (CB 15) uncovered midden material between depths of 8 and 40cm and included shell, bone (aquatic and terrestrial), stone and glass artefacts. Shell species recovered included Sydney cockle (*Anadara trapezia*), tapestry shell (*Tapes watlingi Iredale*), Hercules whelk (*Pyrazus ebeninus*), rock oyster (*Crassostrea commercialis*), triton (*Cabestana spengleri*) and turban (*Ninella torquate*). Fish species identified included bream (*Acanthopagrus australis*), tarwine (*Rhabdosargus sarba*), snapper (*Chrysophrys auratus*), catfish and stingray. Thirty-five stone tools were recovered; raw materials included quartz, quartzite and chalcedonic silica. Artefact types included cores, flakes, a fabricator, two Bondi points and a possible fish-hook file. A small retouched piece of bottle glass was also recovered. A friable but otherwise undisturbed skeleton was uncovered in Trench TM along with parallel grinding grooves on a sandstone slab. The skeleton was located approximately 17cm from the surface and appeared to have been deliberately laid facing the sea with shell and stone lying across the abdominal area (Haglund 1977:11-12). The trench was backfilled and skeleton left *in situ*.

Test pits excavated along the southern foreshore (CB 1) showed evidence of midden disturbance from the laying of services up to a depth of 15cm, at which point a 15cm thick horizon of undisturbed midden deposit was encountered. This deposit rested on rock slabs and comprised fish bone, cockle and whelk shells, quartz, chalcedony and siliceous wood artefacts and red ochre (Haglund 1977:17-18).

5.3.3 Summary

AHIMS data, coupled with archaeological research, indicates that Aboriginal cultural heritage sites , objects and places in the Port Hacking River region in the vicinity of the study area predominantly feature art sites, rockshelters and extensive midden material with artefacts and occasional burials. These sites appear to be clustered along the foreshores and bays of Port Hacking or on elevated positions above rock shelves on headlands. This site distribution suggests that site location is influenced by proximity to water, geology and availability of resources. However, this model is likely to be influenced by the past history of disturbance to the area, the visibility and exposure of sites in the urban environment, and the limited number of archaeological excavations undertaken in the region. As such, it may be indicative of the original distribution of Aboriginal sites and may not be a reliable guide to the occupation history of the area.

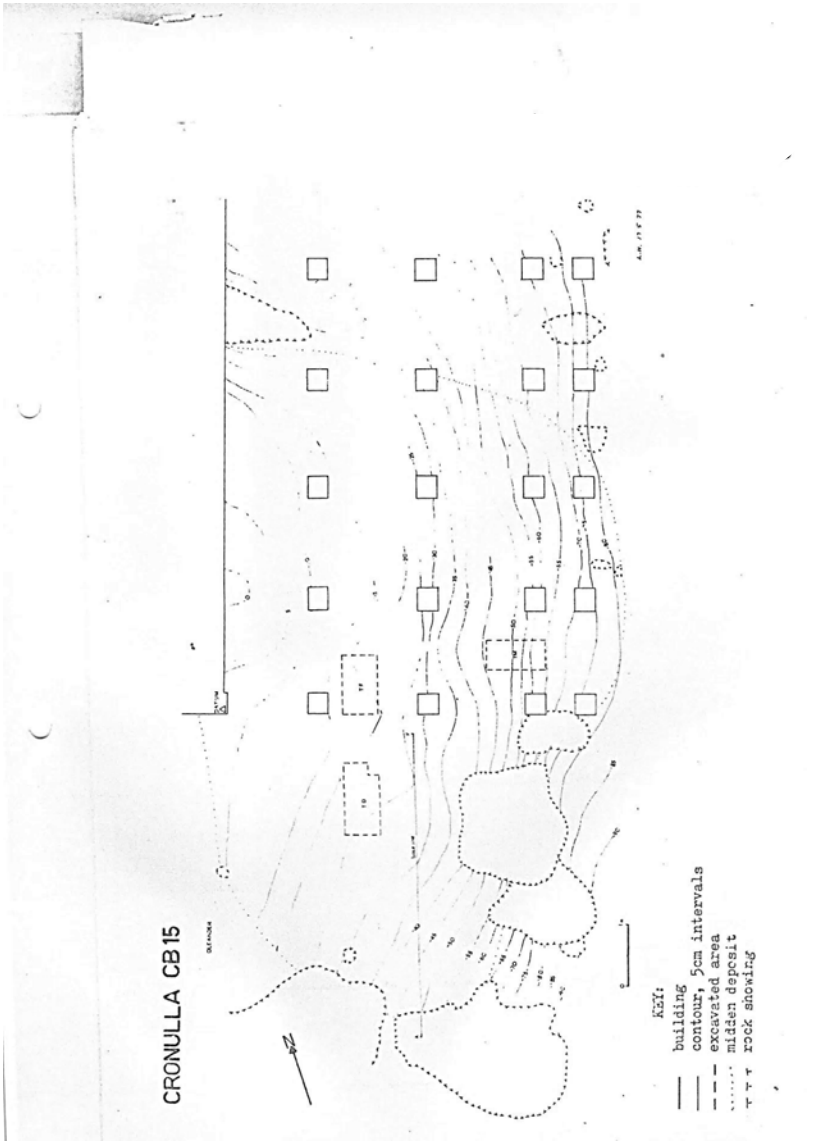

Figure 5.2 'Plan of site CB 15 Excavation', undertaken to the east of Building 15. Note location of Trench TM, where burial and grinding grooves were observed (Source: Haglund 1977: Figure 3).

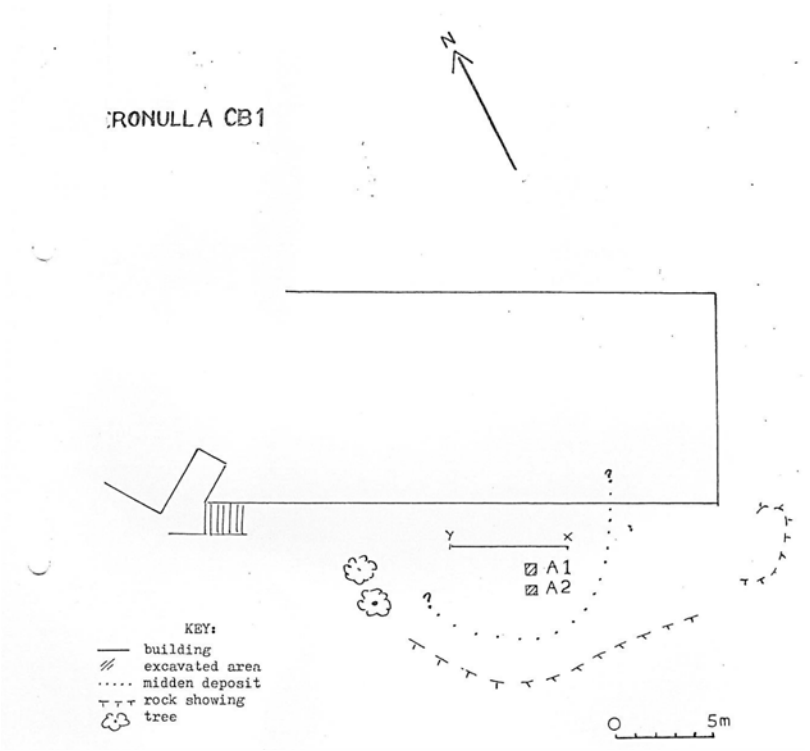

Figure 5.3 'Plan of site CB 1 Excavation', undertaken to the south of Building 1. The possible extent of the midden deposit is indicated by dotted line (Source: Haglund 1977: Figure 4).

5.4 Aboriginal Heritage Site Prediction Modelling

On the basis of the registered archaeological sites in the region, and review of previous archaeological studies and the environmental context, the following conclusions can be drawn regarding the potential location, and presence or absence, of Aboriginal heritage sites within the landscape of the study area:

- Sites most likely to be present within the vicinity of the study area include shell midden sites and rockshelters with occupational deposits, as well as isolated finds. These sites are most likely to occur within both disturbed and undisturbed contexts, in areas with natural ground surface, and in redeposited contexts as fill material. Two Aboriginal shell middens and a rockshelter with occupational deposit have previously been recorded within the study area (#45-6-2491, #45-6-2491, #52-3-0188);
- As the study area is located on the foreshore of the Cronulla peninsula in Hawkesbury Sandstone country, it is likely that rock cliffs, overhangs and rockshelters with potential pigmented and engraved art sites, as well as grinding grooves may be present. Grinding grooves and engravings are likely to be found on flat, exposed rock along the foreshore and on sandstone outcrops;
- Burials in the Port Jackson, Botany Bay and Port Jackson area commonly occur in rockshelters and sand dune contexts, and elsewhere in relatively deep, soft, sandy soil. An Aboriginal skeleton has been previously recovered in the study area along the eastern foreshore

(Trench TM, Site CB 15). It is highly possible that additional burials have occurred throughout the study area;

- Culturally modified trees may be present in areas where remnant old growth vegetation survives, and may be located throughout the study area particularly along the foreshore. Culturally modified trees may be present within the study area.
- It is unlikely that stone arrangements and Bora grounds will be present within the study area owing to partial clearing of the land; and
- Stone quarry sites are highly unlikely to be found in the study area due to a lack of suitable stone outcrops.

6 Archaeological Survey

6.1 Survey Methodology

An Aboriginal archaeological survey and assessment of the study area was undertaken on 4 September 2014 by AM Consulting Project Manager Chris Langeluddecke and AM Consulting Project Officer Laressa Berehowyj, accompanied by La Perouse LALC representative Shane Ingrey.

The fieldwork methodology, the context of the Aboriginal heritage assessment, results of previous archaeological excavation and areas of cultural significance within the study area were discussed with Mr Ingrey during fieldwork. Photographs of potential sites within the Hungry Point Reserve were made available to guide the survey.

The aims of the survey were to:

- identify the location and extent of the midden sites and rock shelter with Aboriginal occupation previously identified within the study area;
- record any additional Aboriginal objects identified within the study area;
- determine any areas of potential Aboriginal heritage sensitivity; and,
- develop recommendations for options on how to manage identified Aboriginal sites and heritage values.

Photographs of the study area were taken using a Fuji Finepix HS 20 EXR digital camera. Track logs and site co-ordinates were recorded using a Garmin Oregon 300 handheld GPS unit. Where Aboriginal artefacts or midden material was encountered, notes were made regarding their type, size, and material; and descriptions of the site were recorded including the environmental setting and details of any disturbance to archaeological material in the site's vicinity.

The pedestrian survey focused on areas of ground exposure adjacent to stone shelves, beneath building foundations, in and around rock shelters and on sandstone outcrops and in areas where the ground surface had been partially exposed due to vegetation clearance. All landforms, including hill slopes, ridgelines, level slopes and rock cliffs within the study area were sampled during the survey; and the area covered was considered adequate for the purposes of this heritage assessment. A tracklog of the survey and plotted waypoints, recorded by the GPS, is provided in Figure 6.1.

6.2 Survey Results

Despite the construction of various buildings and car parking areas across the Hungry Point Reserve, a high quantity of shell material was observed throughout the site. This included Aboriginal midden material in both disturbed and undisturbed contexts, as well as redeposited shell in garden beds and as reintroduced fill for the installation of services.

Survey of the Hungry Point Reserve area revealed that midden deposits are present along the entire foreshore of the Point, with minor concentrations associated with rockshelters along the western foreshore. Although discussion will focus on the four main areas identified below, where extensive midden deposits are visible beneath building foundations, it should be noted that midden deposits are visible in surface exposures and soil profiles to varying degrees along the entire foreshore area.

Midden deposits have been extensively disturbed and destroyed in some places, with evidence of significant ongoing threat from natural and human-induced erosion. The midden deposits are particularly concentrated and visible on top of sandstone shelves overlooking the Port Hacking River and the coves of Salmon Haul Bay and Gunnamatta Bay.

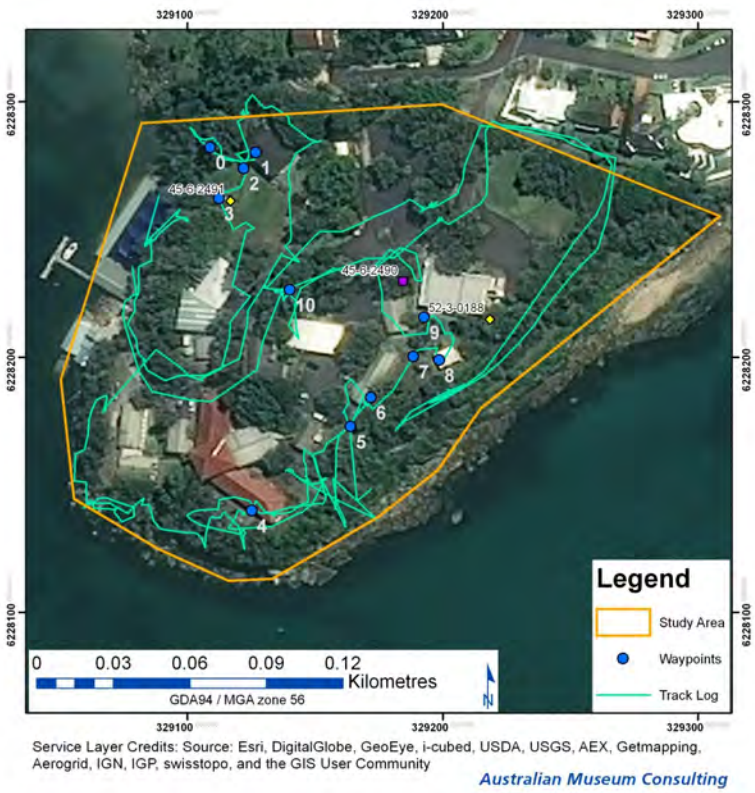

Figure 6.1 Track log and waypoint data recorded during Aboriginal heritage survey.

6.2.1 AHIMS Site 45-6-2491

The previously recorded Aboriginal midden site (AHIMS Site #45-6-2491) was identified below a small cave rock shelter in a rock face looking west towards Gunnamatta Bay. Sparse shell was observed at the base of the rock face though it should be noted that visibility in this area was poor and the ground surface was obscured by mulch and leaf litter. It has been purported that this small 1.5 by 1m hollowed out depression may have been used as an Aboriginal women's birthing cave, though these claims have not been substantiated by consultation with the local Aboriginal community or historic research.

6.2.2 AHIMS Site 45-6-2490

The previously recorded westward facing rockshelter with Aboriginal occupational deposit (AHIMS Site #45-6-2490) was identified during the pedestrian survey; though it should be noted that its currently mapped AHIMS position is incorrect. It is located within a formalised garden bed to the north of Building 3, approximately 45m west of its mapped position to the north of Building 13 (Waypoint 10). The rockshelter features an even, bare sandstone floor devoid of occupational material,

though minimal shell material was observed in front of the shelter within a dark brown/black sandy soil matrix (Figure 6.2-Figure 6.4). This shell material is obscured by introduced soil, mulch and leaf litter. It is likely that the midden deposit has been partially disturbed during construction of garden beds.

Figure 6.2 View east of the rockshelter in a garden bed, adjacent to Building 3.

Figure 6.3 View south of bare rockshelter floor.

Figure 6.4 Detail of isolated cockle shell amongst leaf litter on floor of garden bed.

6.2.3 AHIMS Site 52-3-0188

The previously recorded Aboriginal midden (AHIMS Site #52-3-0188) was not located during the field survey, though it may form part of the large shell midden along the eastern rock shelf overlooking Salmon Haul Bay, and identified below in Area 3 (see Section 6.2.6 below).

6.2.4 Area 1: Stone Shelf, looking west towards Gunnamatta Bay

Aboriginal shell midden and artefact material was observed above a western-facing rock shelf in the north-western portion of the Fisheries site, overlooking Gunnamatta Bay. The area comprises a two-

storey building with balcony and terraced lawn sloping down to a heavily vegetated area along the Gunnamatta Bay foreshore (Figure 6.5). Aboriginal shell material was observed in patches of exposed ground surface above stone shelves (Waypoints 0, 2); and continued beneath the first storey balcony of the adjacent building (Waypoint 1; Figure 6.6). It is likely that this midden material was disturbed during the construction of the adjacent building and reintroduced as fill, where it was mixed with modern shell, glass and ceramic fragments (Figure 6.7). Scattered shell material was observed further down the slope in areas of exposed ground surface within the terraced lawn area (Waypoint 3; Figure 6.9). A 9x7mm silcrete flake was also observed at the base of the sloping lawn area in a patch of exposed soil (Figure 6.8).

Figure 6.5 Two-storey building, constructed on an Aboriginal shell midden contained above rock shelf. View to south east.

Figure 6.6 View to south, beneath first storey balcony of disturbed midden.

Figure 6.7 Disturbed shell midden material beneath balcony, mixed with modern shell, glass and ceramic fragments.

Figure 6.8 Detail of silcrete flake in exposed patch of soil below stone shelf.

Figure 6.9 Scattered shell material was observed in exposed patches of lawn downslope from rock shelf. View to north east.

6.2.5 Area 2: Site CB 1

Site CB 1 was initially identified by Laila Haglund as a partially disturbed Aboriginal midden deposit on top of a south-facing rock shelf overlooking the Port Hacking River. This area is characterised by a brick building and manicured lawn interspersed with mature trees (Figure 6.10). During the current survey, it was confirmed that the midden was confined to the top of the stone shelf on an even grassy knoll (Waypoint 4). No obvious midden material was observed on the hillslope below the rock shelf.

It is clear that the shell material has been disturbed by the construction of Building 1 and the installation of associated services. Eroding shell is visible along the eave dripline immediately adjacent to the building, and in the roots of an upturned tree stump (Figure 6.10 to Figure 6.12). The most

frequently observed shell species was Sydney cockle, though at least one heavily eroded Hercules whelk was noted. No faunal or lithic material was observed.

Figure 6.10 Area 2, comprising shell midden site CB 1. Shell is contained above rock shelf. View to east.

Figure 6.11 Sydney cockle, Hercules whelk and snail shell fragments visible in roots of upturned tree. View to south.

Figure 6.12 Midden material, visible in exposed ground along eave dripline, truncated by Building 1 and other services. View to east.

6.2.6 Area 3: Site CB 15

A substantial rockshelter was observed along the eastern foreshore overlooking Salmon Haul Bay (Waypoint 5). The shelter is located amongst dense vegetation at the base of a rock shelf in close proximity to Building 15 (Figure 6.13). No midden material was visible on the surface of the rockshelter floor; though refuse in the form of glass bottles, plastic and modern shell suggests the shelter was used recently. A thick deposit of rich black soil was noted however, and it is possible that the shelter retains subsurface archaeological deposits (Figure 6.13-Figure 6.15).

Figure 6.13 East facing rockshelter amongst dense vegetation, near Building 15. View to north east.

Figure 6.14 Floor of rockshelter with evidence of recent use. View to south west.

Figure 6.15 Thick deposit of soil along rockshelter floor. View to southwest.

Site CB 15 was initially identified by Laila Haglund as an 11x7m shell midden that included shell, bone (aquatic and terrestrial), stone and glass artefacts and at least one human burial. Extensive midden material was observed in the exposed ground surface beneath Building 15. The deposit comprises densely packed shell in a black sandy soil matrix, and is predominantly made up of Sydney cockle with occasional Hercules whelk. During the current survey, it was confirmed that the midden, though partially disturbed by the setting of brick pillars and the dumping of surplus concrete, appears to have been relatively undisturbed at its southern extent (Figure 6.16-Figure 6.17). However, it should be noted that modern Abalone shells were clustered to the north of the midden (Waypoint 7) and should not be confused with Aboriginal midden material. To the east of Building 15, the area is characterised by sloping lawn and formal garden planter boxes; and thus no evidence of previous archaeological investigation or midden material could be seen (Figure 6.18).

Figure 6.16 Area 3, characterised by shell midden site CB 15. View to north west.

Figure 6.17 Extensive shell midden material beneath Building 15, comprising mostly cockle. View to north.

Figure 6.18 Sloping lawn area to east of Building 15, which includes planter boxes. View to south east.

6.2.7 Area 4: Stone Ridgeline, east of Building 13

Shell midden material was also observed in the exposed ground surface beneath Building 13 (Waypoint 9), though it should be noted that this material appears to have been partially disturbed by the dumping of modern building material and refuse, including timber stakes, stone pebbles and coarse river sand. The midden is characterised by moderate concentrations of Sydney Cockle in a black sandy matrix. Eroded, fragmentary shell material was also observed at the base of a slope leading down from Building 13, in an area of exposed ground surface at the top of a stone ridgeline (Waypoint 8). The extent of the midden below Building 13 is difficult to determine, though it is likely to be confined to the top of the ridgeline.

Figure 6.19 Area 4, comprising midden material above a stone ridgeline. View to north west.

Figure 6.20 Disturbed shell midden material beneath Building 13. View to west.

Figure 6.21 Eroded shell at base of slope above stone ridgeline

6.3 Discussion of Survey Results

Three rockshelters with possible occupation deposits, as well as at least four distinct midden deposits are present within the study area. Although both *in situ* and disturbed exposures of midden are visible, in areas of exposed ground surface beneath buildings and in areas where the ground surface had been partially exposed due to vegetation clearance, it is likely that these middens extend horizontally across the site, and are currently obscured by vegetation. Reworked midden material beneath the two storey building (Area 1) and within garden beds suggest that midden deposits may have extended some distance above the stone ridgeline prior to formal landscaping and construction of the Fisheries facilities. These midden deposits, coupled with documented recording of at least one burial and some

grinding grooves, confirm that the Hungry Point Reserve was a significant and highly utilised area of Aboriginal occupation.

No pigmented or engraved art was observed during the site survey, though it should be noted that rockshelters, cliffs and stone overhangs below the Reserve's boundaries were not inspected. It is likely that several more rockshelters exist below the property's boundaries along the rocky line of foreshore above the high water mark. This area is relatively inaccessible from the walking track around the Reserve, but could be accessed at low tide from the shoreline.

Limited numbers of mature trees with potential to contain cultural scarring were present within the study area, and none of the mature trees inspected contained evidence of cultural scarring by Aboriginal peoples.

The Hungry Point peninsula represents a significant resource zone, showing intensive exploitation of available coastal marine resources over a significant period of time by Aboriginal peoples. The relationship of the individual archaeological sites to each other, and resulting implications for the intensive use of the peninsula by Aboriginal people, is a fundamental factor in determining the archaeological significance of the Reserve area.

Occupation sites such as shell middens and rockshelters represent significant archaeological research potential due to their potential to provide dateable archaeological occupation sequences and information on dietary subsistence habits. They represent direct and visible evidence of Aboriginal occupation of a specific area over time, and are culturally significant in allowing Aboriginal communities to connect with that heritage.

Given the profusion of midden and other sites within the study area and surrounds, and the likelihood that further subsurface archaeological evidence is present throughout the landform, the entire peninsula is considered to be an area of cultural and archaeological significance in which recorded sites are visible and interacting indicators of this significance.

7 Assessing Heritage Significance

A primary step in the process of Aboriginal cultural heritage management is the assessment of significance, which involves assessing the heritage values present across the subject area and identifying why they are archaeologically and culturally important (OEH 2010:21; 2011:7). 'Heritage value' is a term used to express the tangible and intangible values of an item, place or archaeological site, and the response that it evokes in the community. Archaeological significance relating to Aboriginal sites, objects and places in NSW is assessed in accordance with the OEH Code of Practice using criteria reflecting best practice processes as set out in the Burra Charter (OEH 2010:21), and cultural significance is identified by Aboriginal communities. The Burra Charter criteria encompass aesthetic, historic, scientific, social or spiritual value, for assessing cultural significance for past, present and future generations (Article 1.2). The guidelines for assessing significance also require consideration of the following aspects of heritage places:

- *Research Potential: does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?*
- *Representativeness: how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?*
- *Rarity: is the subject area important in demonstrating a distinctive way of life, custom process, land-use, function or design no longer practiced? Is it in danger of being lost or of exceptional interest?*
- *Education potential: does the subject area contain teaching sites or sites that might have teaching potential? (OEH 2011:10)*

Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a site is not fixed for all time; what is considered as significant at the time of assessment may change as similar items are located, more research is undertaken and community values change. This does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, may change over time (Pearson and Sullivan 1995:7).

7.1 Assessment against Criteria

This assessment of heritage values against the OEH criteria is informed by the results of the environmental and Aboriginal heritage context, the predictive model for Aboriginal sites in the region, and the results of the Aboriginal archaeological survey. Aboriginal heritage sites are considered to have heritage significance if they meet one or more of the following criteria:

Does the subject area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons? – Social value (equivalent to SHR criterion d)

Extensive Aboriginal shell middens and multiple rockshelters with occupational deposits, located along the eastern, western and southern foreshores of the Hungry Point Reserve, suggest that the area is representative of past activity by Aboriginal people. Although such sites retain cultural significance, a sense of place, and heritage value for local Aboriginal people, individually they are not rare at a local or regional level. However, consultation with La Perouse LALC and Mr Les Bursill during the project identified that the subject area is significant to the Aboriginal community for the following reasons:

- Sites identified within the Hungry Point Reserve are material evidence of past Aboriginal occupation, and it was considered likely that additional evidence of occupation would be found with improved ground surface visibility;

- The landscape of the foreshore area was considered significant due to its association with Port Hacking and the neighbouring areas of Burraneer, Cabbage Tree Point Bundeena, and an abundance of food and water resources;
- Rockshelters within the Hungry Point Reserve were considered to offer occupants protection and privacy whilst affording sweeping views of the waterways and surrounding land. Such prized vantage points were *vigorously defended* from neighbouring groups; and
- It is considered to be part of the area where Matthew Flinders camped and made contact with Aboriginal people.

In addition, the area contains one known Aboriginal burial site, and midden deposits within the study area have potential to contain additional burials. Such burials have very high cultural significance to the Aboriginal community.

As such, the collective midden sites and rockshelters meet the social value criterion.

Is the subject area important to the cultural or natural history of the local area and/or region and/or state? – Historic value (equivalent to SHR criterion a)

When Matthew Flinders described the rocky shoreline along the northern bank of the Port Hacking River, with its multiple habitation spots and hospitable groups, it is possible that the area he was referring to included Hungry Point. However, contact sites are common throughout Sydney, and there is no conclusive historic or archaeological evidence directly linking the Hungry Point Reserve with Matthew Flinders' navigation activities. As such, the Hungry Point Reserve does not meet the historic value criterion.

Does the subject area have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state? – Scientific (archaeological) value (equivalent to SHR criterion e)

Aboriginal shell midden sites are the second most common site type in the region, and therefore the midden sites are not considered to have archaeological rarity. However, portions of the study area, particularly in Area 2 and 3, and in the rockshelter below CB 15, have the potential to retain intact sub surface archaeological deposits, beneath buildings and above rock shelves below lawn and topsoil. Areas 2 and 3 are considered to have moderate archaeological significance, given their potential to contribute archaeological information relating to Aboriginal diet and occupation patterns. Area 3 may also contribute archaeological information relating to burial customs and is considered, along with Area 2, to have moderate archaeological research potential and meet the scientific (archaeological) value criterion.

Portions of Area 1 beneath the two storey building's foundations, as well as AHIMS sites 45-6-2490 and 45-6-2491, have been partially disturbed by past development, vegetation clearing and the creation of formal gardens. As such, it appears unlikely that significant undisturbed *in situ* archaeological material remains in these areas. Analysis of the midden's shell material has some potential to contribute archaeological information relating to Aboriginal diet and occupation patterns, although given the high level of disturbance experienced by these areas, it is likely that the shell material has been extensively reworked and damaged. AHIMS sites 45-6-2490 and 45-6-2491, as well as Area 1, are therefore considered to be of low archaeological research potential and do not meet the scientific (archaeological) value criterion.

Is the subject area important in demonstrating aesthetic characteristics in the local area and/or region and/or state? – Aesthetic value (equivalent to SHR criterion C)

Although the Hungry Point Reserve landscape has visual appeal, landform elements within the subject area are typical of those found within the Sutherland Shire, and are not aesthetically distinctive. No pigmented or engraved art was observed during the site survey. As such, the Hungry Point Reserve does not meet the aesthetic value criterion.

7.1.1 Summary Statement of Significance

Extensive Aboriginal shell middens and multiple rockshelters with occupational deposits, located along the eastern, western and southern foreshores of the Hungry Point Reserve, suggest that the area is representative of past activity by Aboriginal people. The landscape of the foreshore area was considered significant due to its association with Port Hacking and the neighbouring areas of Burraneer, Cabbage Tree Point Bundeena, and an abundance of food and water resources. Portions of the study area, particularly in Area 2 and 3, and in the rockshelter below CB 15, have the potential to contribute archaeological information relating to Aboriginal diet, occupation patterns and burial customs. Portions of Area 1 beneath the two storey building's foundations, as well as AHIMS sites 45-6-2490 and 45-6-2491, have been partially disturbed by past development, vegetation clearing and the creation of formal gardens; and it is likely that the shell material has been extensively reworked and damaged in these areas. The Hungry Point Reserve has local significance.

8 Management Recommendations

The background research, archaeological survey and consultation with Aboriginal community representatives have contributed to an understanding of the value of the Hungry Point Reserve, which has local heritage significance. The Burra Charter has established conservation principles and processes for the management of heritage places. The Burra Charter process also recognises that the development of useful conservation and heritage management policies requires consideration of a range of other factors which could affect the future of a place. These include:

- the owner's and users' requirements;
- requirements imposed by external factors, such as statutory obligations or issues related to health and safety;
- the physical condition of the place; and
- the protection and conservation of the heritage significance and values of the place.

Archaeological survey has shown that Aboriginal midden material is present throughout Hungry Point Reserve. Exposures are visible in varying degrees along the foreshore, in rockshelters, in garden beds, and beneath buildings in both disturbed and undisturbed contexts. Shell midden deposits are particularly concentrated and visible on top of sandstone shelves overlooking the Port Hacking River and the coves of Salmon Haul Bay and Gunnamatta Bay, and are experiencing ongoing impacts from garden maintenance activities and erosion.

A review of past archaeological research at the Reserve and in the local region has identified that one Aboriginal burial has been identified during archaeological excavations conducted on the eastern foreshore. Given the nature of the study area, its position on the foreshore and the presence of extensive Aboriginal midden sites, it is possible that additional undisturbed and undetected burials are present within the Hungry Point Reserve.

The potential Aboriginal Birthing Cave associated with AHIMS Site #45-6-249, is likely to be very important to the local Aboriginal community, and of high cultural significance if real. However, the claim that the small rock depression is an Aboriginal women's site has not been substantiated by the historic research or Aboriginal community consultation undertaken for this study.

The management of the Hungry Point Reserve study area should consider the future requirements of the stakeholders and users of the Reserve, and the Aboriginal cultural heritage values of the place. The Reserve is currently used as the premises for the NSW Water Police, and informal tracks around the Reserve's perimeter, from Salmon Haul Bay Reserve to Darook Park, are used by local residents and others for walking, jogging, fishing, picnicking and dog walking. Broader issues for consideration are:

- ongoing degradation of midden deposits between the grassed and vegetated garden areas, leading to erosion;
- ongoing impacts of informal use of the rockshelter in Area 3, given its potential to retain subsurface archaeological deposits; and
- ongoing degradation and destruction of exposed middens beneath building foundations by the dumping of refuse material.

Future development of the Reserve must consider the Aboriginal Cultural heritage values of the place, and ensure that potential impacts to Aboriginal sites and places within the Reserve are minimised. Management and development strategies developed for the Hungry Point Reserve should aim to:

- conserve the condition and integrity of Aboriginal places within Hungry Point Reserve; and

- incorporate Aboriginal community recommendations, where possible, to ensure that the cultural values and significance of the Reserve is upheld.

The following recommendations have been developed to provide guidance for the appropriate future management of this significant place.

8.1 Conservation of Aboriginal Sites, Objects & Places

Conservation of Aboriginal cultural heritage sites within the Reserve will require minimisation of surface exposures in midden areas, arising from loss of groundcover due to intensive mowing, spraying of herbicides, pedestrian traffic, and construction activities. Control of erosion and measures to address any potential groundcover loss is recommended in those areas to limit impacts and ensure the effective long-term conservation of these sites.

Significant Aboriginal sites within the Reserve include rockshelters, a burial and middens that should be protected from harm. Protective measures should include stabilisation of exposed midden material, and access limited to the rockshelter in Area 3.

8.1.1 Midden Deposits

The management of Aboriginal midden deposits along the foreshore requires their protection from degradation and destruction. The loss of groundcover in midden areas through pedestrian traffic and herbicide spraying has led to degradation of exposed midden deposits. These destructive processes should be addressed as a primary short-term threat to midden site stability. Conservation in the Reserve should be considered to minimise this destruction.

Stabilisation of midden erosion in areas where current practices are causing accelerated erosion and rapid midden deterioration should be considered. Patches of bare soil to the south of the two storey building (Area 1), and to the south of Building 15 (Area 3) are areas of concern (see Figure 8.1). Herbicide spraying and intensive lawn mowing should cease in these areas to prevent any further immediate impacts, and to allow natural regrowth of groundcover to occur.

Recommendation 1

Direct impacts to Aboriginal midden sites exposed in Area 1, Area 2 (CB 1), Area 3 (CB 15) and Area 4 should be limited, and the use of herbicide and intensive mowing in areas where midden materials are not covered and stabilised by limited ground cover should cease until vegetation can re-establish naturally.

Figure 8.1 Examples of areas in which planting is recommended to prevent erosion and stabilise the midden.

Long term protection of the exposed midden areas may be achieved by the re-establishment of vegetation cover, preventing further erosion from occurring. Under the NPWS Act, any impacts to Aboriginal heritage sites, objects or places require an AHIP approved by OEH prior to works proceeding, including impacts arising from conservation works.

To prevent ongoing erosion and degradation of exposed midden areas, the following conservation works should be considered, following AHIP approval. A dense layer of locally native sedge and grass species including *Dianella* spp. and *Lomandra longifolia* (Spike Matrush) could be planted on the exposed midden areas, which should stabilise the midden profiles, and in previously sprayed areas, prevent exotic grasses and weeds from further growth. The tubestock to be planted should be of the minimum size possible, such as Grow-Cells and other multi-cell tray types in order to minimise disturbance to the midden.

Recommendation 2

Where exposed middens cannot naturally revegetate due to erosion, the exposed portions of the sites should be stabilised and rehabilitated through planting locally native sedge and grasses. Any such limited rehabilitation impacts must be carried out under an AHIP granted by OEH.

In areas where it is not possible to establish new vegetation on exposed midden deposits due to significant loss of natural soils, clean fill should be introduced as part of the AHIP approved conservation works, and a more natural and sustainable soil profile created. Such large erosion tends to occur on steep slopes where anchoring vegetation has been removed, and stabilisation of the introduced fill may require the laying of geotextile, followed by plantings.

Recommendation 3

Where erosional impacts to middens are such that vegetation cannot re-establish, clean fill should be introduced to cover the exposure and prevent further erosion, followed by plantings to stabilise the fill. Any such limited rehabilitation impacts must be carried out under an AHIP granted by OEH.

8.1.2 Extant Demolition Material

Demolition material scattered beneath Building 13 is associated with the construction of the former CSIRO Fisheries facilities. The demolition material comprises timber stakes, stone pebbles and coarse river sand, and has an adverse effect on the aesthetic values and integrity of the midden it overlies. Removal of such contaminants is in the best interests of all Reserve users in maintaining a safe, clean, and visually pleasing environment. These works would not require application for an AHIP, providing care is taken during removal of the modern refuse to ensure that there are no impacts to the underlying midden or nearby native vegetation.

Recommendation 4

Modern demolition material and rubbish beneath Building 13 should be removed from the site, with due care taken to ensure that no impacts to the Aboriginal midden site occur during works.

8.1.3 Rockshelters

Midden deposits associated with the past Aboriginal use of rockshelter sites AHIMS 45-6-2490 and 45-6-2491, although already considerably degraded, are still considered to hold importance as cultural heritage resources for the local Aboriginal community, and to have archaeological research potential. During the current survey it was not possible to assess the nature and extent of any midden deposit in the rockshelter in Area 3, though the thick deposit of soil suggests that sub surface deposits may

survive (See Section 6.2.6 above). The isolated, near inaccessible location of the rockshelter would usually serve to protect any archaeological deposits from disturbance, it is clear that the site has been recently accessed and used as a dumping ground for modern refuse. Access to the rockshelters should be limited through the installation of fencing within the formal gardens around the sites, preventing ease of access. In addition, it is recommended that a significant layer of mulch is introduced to protect these middens from further erosion.

Recommendation 5

Access to rockshelter sites AHIMS 45-6-2490 and 45-6-2491 should be controlled by the installation of fencing within the formal gardens around the sites, and mulch material should be introduced to the sites to control erosion impacts.

8.1.4 Aboriginal Burials

The Hungry Point Reserve is known to contain on Aboriginal burial along its eastern foreshore, and may contain additional human remains of significance to the local Aboriginal community. Although ongoing natural erosion on the site has limited potential to expose Aboriginal burials, should any suspected human remains be identified during ongoing management and use of the site, OEH protocols as per the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010: 34-35) should be followed.

Recommendation 6

If any human remains are disturbed during the demolition works, do not further disturb or move the remains, all work in the vicinity must stop immediately, and the NSW Police and OEH's Environment Line (131 555) must be notified as soon as practicable and provided available details of the remains and their location. Works should not proceed without the written consent of OEH.

Should any additional Aboriginal burials be identified within Hungry Point Reserve, their significance should be revaluated and appropriate management strategies should be developed in close consultation with the local Aboriginal community.

8.2 Future Development Recommendations

The Aboriginal sites within the Hungry Point Reserve and their legislative protection constrain further development within the Reserve likely to impact upon Aboriginal cultural heritage objects. However, protection and conservation of the sites provide opportunities for the preservation of important cultural resources within a wider, layered heritage area.

Any ground breaking works within the Hungry Point Reserve have potential to impact on *in situ* Aboriginal midden sites. Future masterplanning and development of the Reserve should seek to avoid significant in-ground impacts, and should consider development options that do not require large scale or intrusive works on the site.

Recommendation 7

Future masterplanning and development within Hungry Point Reserve should seek to avoid potential impacts to Aboriginal Cultural Heritage that may arise from intrusive ground-breaking works.

Should future development works with potential to impact on Aboriginal cultural heritage be required, the proponent will be required to undertake a formal Aboriginal Cultural Heritage Assessment in support of an application for an AHIP prior to undertaking the proposed works, with the support of the Aboriginal community stakeholders. The assessment and consultation process must

be undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

Recommendation 8

Any future development with potential to impact on Aboriginal cultural heritage will require the approval of an AHIP by OEH, supported by an Aboriginal Cultural Heritage Assessment carried out in formal consultation with the Aboriginal community in accordance with OEH guidelines.

8.2.1 Potential Birthing Cave Site

The potential Aboriginal women's birthing cave associated with AHIMS site 45-6-2491 may represent a highly significant cultural site to the local Aboriginal community; however, historic research and consultation with the Aboriginal community to date has indicated that there is no definite evidence suggesting that the site is an Aboriginal place. Prior to initiation of any action with potential to impact on the potential cultural site, such as demolition and removal of the adjacent fish holding tanks and pool, the proponent should consult with the representatives of the traditional owners of the area, the Gweagal people, to determine the status and legitimacy of the site. Consultation should be facilitated by the La Perouse LALC,

Recommendation 9

Consultation should be initiated with representatives of the Gweagal people female members of the La Perouse LALC and, in particular, female Gweagal community representatives to establish the status and legitimacy of the possible Aboriginal women's birthing cave associated with AHIMS site 45-6-2491.

8.2.2 Interpretation

The Hungry Point Reserve has been identified as having Aboriginal cultural heritage values which should be conserved for present and future generations. The association and relationship with the waters of Port Hacking makes a significant contribution to an understanding of the values of this place. Opportunities for the conservation of the heritage and natural values of the place that could be explored may include the preparation of an interpretation strategy for the Reserve. A meaningful interpretation would contribute to an understanding of its significance and the continuity of its use by Aboriginal and European communities.

Recommendation 5

Consideration should be given to developing an interpretation of the area that is readily accessible and makes a meaningful contribution to the dissemination of the Aboriginal values of the Hungry Point Reserve and its relationship with Port Hacking.

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