Canberra Girls Grammar Aquatic Facility

Heritage Impact Assessment

Report prepared for Construction Control

November 2016
Report Register

The following report register documents the development and issue of the report entitled Canberra Girls Grammar School Aquatic Facility—Heritage Impact Assessment undertaken by GML Heritage Pty Ltd in accordance with its quality management system.

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Issue No.: 2

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Date: 8 November 2016

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1.0 Introduction

1.1 Background to the HIA

Construction Control commissioned GML Heritage (GML) to prepare a Heritage Impact Assessment (HIA) for a proposed development of a ‘multipurpose aquatic facility’ for the Canberra Girls Grammar School (CGGS), on the shore of Lake Burley Griffin.

The development site is managed by ACT Government Territory and Municipal Services Directorate and is specified as Designated Area under the National Capital Plan. The proposed development requires works approval from the National Capital Authority (NCA).

This HIA has been prepared to assess the potential impacts to the identified heritage values of Lake Burley Griffin from the proposed development, and provide mitigation measures to assist in reducing or avoiding impacts. The HIA would accompany the design submission as part of the Works Approval application.

1.2 Site Location

The proposed CGGS Multipurpose Aquatic Facility (CGGS aquatic facility) would be located on Blocks 15 and 16, Section 17, Yarralumla Bay, Westlake, Lake Burley Griffin (refer to Figures 1.1 and 1.2).

Figure 1.1 Aerial view showing the location of proposed CGGS aquatic facility at Yarralumla Bay, Lake Burley Griffin. (Source: GML overlay on Google Earth image)
1.3 Methodology

The HIA methodology follows the self-assessment process included in the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) (the EPBC Act), Significant Impact Guidelines 1.2 for Actions on, or impacting upon, Commonwealth land, and Actions by Commonwealth Agencies (Significant Impact Guidelines 1.2).

These guidelines, prepared by the former Department of Sustainability, Environment, Water, Population and Communities (now the Department of the Environment), are for a proponent undertaking a self-assessment of a proposed action to help them decide whether or not an action is likely to have a significant adverse impact on Commonwealth Heritage values. The guidelines also help to determine if a referral needs to be submitted for an approval decision by the Australian Government Environment Minister.1

The Australia ICOMOS Burra Charter, 2013 (the Burra Charter) is an essential document for any conservation works, has informed the preparation of this HIA, and is referred to as relevant throughout this report.

1.4 References

Reference documents reviewed for this HIA include:
1.5 Limitations

This HIA assesses the potential impact of the proposed development on the heritage values of Lake Burley Griffin. These values are identified Commonwealth Heritage values.

The HIA is based on available information, predominantly the reference documents listed in Section 1.4.
2.0 Site Context and Heritage Values

2.1 Background

According to the EPBC Act Significant Impact Guidelines 1.1, it is necessary to identify the environmental context of an action and the general features or components of the environment in the area where the action will take place. This section provides a description of the relevant components and features of the proposed development site and the heritage values of the area.

A history of Lake Burley Griffin is provided in the 2009 HA, and in brief in the HMP. In brief, the development site is identified in the National Capital Plan as ‘Open Space’ adjacent to ‘Development Nodes’ which are positioned on both sides of Yarralumla Bay (in the location of existing recreational facilities).

There is a group of recreational buildings around Yarralumla Bay, belonging to various organisations including universities and schools. Yarralumla Bay was designated for use by junior boat clubs that were not in a position to build to a high standard, and a project was devised whereby they could lease buildings erected by the Commonwealth. In 1965 a Water Police headquarters was also built in Yarralumla Bay and a tourist ferry terminal was built in West Basin near Hotel Acton.

The shoreline in this area is a combination of steep rocky embankment and natural edge with some beaches.

2.2 Description of the Site

The proposed development site comprises Blocks 15 and 16, Section 17, Yarralumla Bay, Westlake, Lake Burley Griffin, is currently unbuilt with a gentle slope to the lake edge—an extension of the existing development node around Yarralumla Bay. Refer to Figures 1.1 and 1.2.

The development site is positioned on the eastern side of Yarralumla Bay, opposite the Canberra Rowing Club, the ANU Sailing Club and the Australian Federal Police Water Facility. The site bordered by the existing CGGS Rowing Club and YMCA Sailing Club to the south, parkland to the north and a carpark and toilet block to the east.

The combined site area (of Blocks 15 and 16) is 1363sqm, and underwent service works in 2013 by the LDA which included the removal of trees and a picnic table, and hard treatment to the lake edge for boat access. This involved the construction of a concrete pad and rubber buffer along the natural lake edge.
Figure 2.1: Existing site condition, showing cleared area and constructed lake edge. (Source: GML, 2016)

Figure 2.2: View toward the site from the existing CGGS pontoon. (Source: GML, 2016)

Figure 2.3: Lake edge showing recently constructed path, and the reeds. (Source: GML, 2016)

Figure 2.4: Lake edge showing existing vegetation. (Source: GML, 2016)
2.2.1 Heritage Values of Lake Burley Griffin

The Commonwealth and National Heritage values of Lake Burley Griffin were identified in the 2009 HA. ‘Lake Burley Griffin and Adjacent Lands’ is a nominated place to the Commonwealth Heritage List (CHL) (Place ID 105230) and the ‘Lake Burley Griffin and Lakeshore Parklands’ is a nominated place to the National Heritage List (NHL) (Place ID 106206). The lake has identified heritage values, but not published official Commonwealth Heritage values, or listing.

The 2009 HA report found that ‘the Lake Burley Griffin Study Area (which includes land components of Stirling Ridge, Attunga Point and Yarramundi Peninsula) possesses a broad array of natural and cultural heritage values which meet the threshold for National Heritage listing relating to creative, technical and aesthetic heritage values, and meets the threshold for Commonwealth Heritage listing under all criteria’.5

The lake possesses heritage values which meet the threshold for Commonwealth Heritage value under criteria A (historic), B (rarity), C (scientific), D (representative), E (aesthetic), F (creative and technical), G (social) and H (associative).

2.2.2 Heritage Values of the CGGS Site

The heritage values associated with the CGGS site (study area) includes:

- the landscape setting at Westlake/Yarralumla Bay:

- soft, unbuilt edge and reedy habitat of the lake (reed beds). These are associated with the natural values of the wetlands and aquatic habitat provided by the lake; and

- open parklands, with mature trees as the backdrop and recreational activities.
Further the heritage values relate to the shape and form of the lake as a designed landscape; its foreshore plantings; designed foreshore parklands; its role as the setting for the surrounding national institutions; its reflective qualities; lake-based activities and uses; and the relationship to views and vistas of surrounding land, particularly Mount Ainslie, Black Mountain and the Parliament House Vista (land axis). 6

The attributes of Westlake which contribute to the heritage values of Lake Burley Griffin include the naturalistic form of the lake water body and draw-down zone (foreshore); the lake edge properties and lake edge and parkland plantings (exotic and native) and the characteristic contained foreshore views which contrast with the expansive views from other parts of the lake. 7

2.2.3 Site Specific Assessment of the Landscape Setting

The study area is on the southern shore of the lake and the earliest aerial photograph of the site (refer to Figure 2.7) shows it to be grassland at that time. Prior to the formation of the lake, the site was part of the Limestone Plains formed by the Molonglo River terraces. Most foreshore areas were subject to some land-forming activities in the period leading up to the flooding of the lake, but in this area involved only final shaping for shoreline contours (refer to Figure 2.7).

No natural temperate grassland values survive today. The eastern point of Yarralumla Bay, including the site, was planted with mainly exotic trees as part of the foreshore planting program by the National Capital Development Commission (NCDC), commenced around 1963 coinciding with the construction of the lake (Figure 2.8).

Figure 2.7: Limestone Plain in 1927 showing the site as grassland, without paddock differentiation. (Source: RAAF, 1927)

Figure 2.8: The same scene with the current lake and road layout superimposed. (Source: 2009 HA)
2.2.4 Historic Analysis of the Landscape Setting/Site

The period between 1963–1972 made use of both native and exotic species, with the emphasis on exotics to take advantage of their spring and autumn displays. The dominant plantings around Yarralumla Bay were oaks groupings (mainly *Quercus macrocarpa* and *Quercus robur*) and pine. Poplars (*Populus nigra*) were also included as a westerly extension of the plantings around West Basin and Lennox Park, where they were intended to enhance the view of national buildings and contrast with the horizontal line of the lake. A stand of *Cupressus macrocarpa* is on the western side of the toilet block, along with the occasional plane tree (*Platanus orientalis*).

Post 1972, native trees came to dominate new landscape plantings around the lake. The only native trees on the foreshores of this part of Yarralumla Bay are planted *Casuarina cunninghamia* trees on the lake side of the toilet block.

Vegetation along the shoreline includes alders (*Alnus glutinosa*), crack willow (*Salix fragilis*) and weeping willow (*Salix babylonica*). Of these, the alders and the crack willow are listed in the Lake Burley Griffin Willow Management Plan, 2006, as species of concern, to be progressively replaced by native species while retaining their bank stabilisation function. Offshore on the Yarralumla Bay side are dense but fragmented stands of cumbungi reeds (*Typha orientalis*).

2.2.5 Recent Changes

Due to work undertaken on the site between January and March 2015, the soft shoreline has been replaced by a concrete seawall with rubber buffer for boats. The adjacent strip of lake has been deepened to facilitate boat launching. All shoreline vegetation has been removed from Blocks 16 and 17 (Figure 2.10). Additionally, the site has been cleared and trees have been removed (Figure 2.11). These comprised four or five young oak (*Quercus* sp.) trees.
2.3 Summary of the Landscape Values

The study area is included in the National Heritage List (NHL) nomination for Central Canberra. Also, as previously noted, the 2009 HA,\(^{12}\) which is cited in the NHL nomination, identifies both natural and cultural (landscape) heritage elements which contributed to the overall heritage value of the lake and its shoreline at Yarralumla Bay, including:

- a soft shoreline where the lake bank was a natural transition from terrestrial to aquatic habitat, where shallows allowed the growth of aquatic plants and algae (refer to Figure 2.12);

- habitats for native wildlife in the near shore vegetation and where the substrate of the lake’s drawdown zone allowed animals to burrow and find shelter;

- oak (*Quercus*) tree groupings which were part of the lakeshore parkland landscaping initiative commenced in 1963 by the NCDC (refer to Figure 2.9); and

- scenic values of the lake as assessed by ‘viewshed’ analysis from major vantage points, high traffic lakeside areas, and the lake surface. These showed Yarralumla Bay to be part of the viewsheds from Parkes Way and the surface of West Lake, but not significant from other vantage points (refer Figure 2.13).

Note that there are no matters of national environmental significance, endangered or protected species listed under the EPBC Act in the study area.
Figure 2.12: The study area at Yarralumla Bay is circled in red. The soft edge terrestrial vegetation and reed beds at the site are described as the ‘natural values’ of western part of Lake Burley Griffin. (Source: 2009 HA and Indesco 2012 (inset photo))

Figure 2.13: Viewshed analysis of Lake Burley Griffin from Parkes Way. (Source: 2009 HA)
2.4 Relevant Heritage Policies—National Capital Plan

The National Capital Plan has specific policies and principles relevant to Lake Burley Griffin and Foreshores. The NCA supports the development of recreational, tourist and National Capital Uses of the lake and foreshores and provides the following relevant policies:13

(a) Lake Burley Griffin and Foreshores should remain predominantly as open space parklands while providing for existing and additional National Capital and community uses in a manner consistent with the area’s national symbolism and role as the city’s key visual and landscape element.

(b) Lake Burley Griffin and Foreshores are intended to provide a range of recreational, educational and symbolic experiences of the National Capital in both formal and informal parkland settings with particular landscape characters or themes. These should be maintained and further developed to create a diversity of landscape and use zones which are integrated in to the landscape form of the city and reflect the urban design principles for the National Capital.

(d) The water quality and hydraulic operation of the lake should be maintained in a manner designed to protect Lake Burley Griffin and Foreshore’s visual and symbolic role and its water uses.

Specific policy statements in the National Capital Plan applicable to the Westlake component of the study area and relevant to the CGGS project include:

- To allow all users of the lake access to all its waters and its foreshores (except as may have been agreed under the provisions of the Lakes Ordinance) while minimising the problem of conflicting demands.

- In Yarramundi and Tarcoola reaches and in Westlake the degree of diverse natural shoreline and good water quality are to be maintained. The shoreline macrophyte areas which are important fish and waterbird habitats in Yarramundi Inlet and Nursery Bay are to be protected.

- Westlake and West Basin are to remain the main areas for sailing, sail boarding and beachside swimming.

- New clubhouses or boatsheds for rowing or canoe clubs may be located on the western side of Black Mountain Peninsula if they cannot be accommodated in Yarralumla Bay. The buildings will be subject to design controls to ensure that they fit in with the landscape of the Lake. 14

- Guideline for Lakeshore Development Sites:
  - Boatsheds, clubhouses and other recreational or community development directly related to the use of the Lake: The placement, form and colour of buildings on any land leased for these developments will be subject to detailed site planning standards to ensure that the development is in harmony with the Lake landscape and does no harm to the environment of the Lake. Public access is to be maintained around such buildings and between the buildings and the lakeshore.15

2.4.1 Relevant Heritage Policies—Lake Burley Griffin Heritage Management Plan

General and specific heritage conservation policies and actions were provided in the HMP for Lake Burley Griffin’s study area and individual components. The conservation policies recognise the diversity of character of Lake Burley Griffin and its components, and also promote a holistic approach to the future management of the study area as a cultural landscape. Through implementing and complying with the policies, new development can be successfully introduced with less risk to the heritage values.

The following general policies from the HMP, applicable to Lake Burley Griffin (referred to as the ‘Study Area’ in the following text) and relevant to the project are as follows:

- Policy 1.8: Conserve and manage the aesthetic values of the Study Area which are particularly valued by the community.
Westlake provides a distinctive contrast to the other more formal parts of the lake and therefore has high integrity in terms of its designed role in the landscape of Lake Burley Griffin. The area’s aesthetic values are in good condition, apart from weed management problems. Management and enhancement of the lake edge and lake edge plantings (exotic and native) is required. Protection and management is also needed for the habitat values provided by the lake water body draw-down zone (foreshore areas). Proposed development at Yarralumla Bay needs to be rigorously managed to conserve an appropriate character and scale.

The following specific policies from the HMP, applicable to Westlake, which are relevant to this project are as follows:

- Policy C1-1.4 Conserve the informal, river-like form of Westlake as a contrast to the more formal basins.
- Policy C7-1 Conserve and manage the aesthetic and other heritage values of Westlake.
- Policy C7-1.1 Conserve the naturalistic, river-like form of Westlake, including its characteristic ‘intimate’ views of water and foreshore precincts (compared to the broad vistas available in other parts of the lake).
- Policy C7-1.2 Control use of motorised watercraft in this area to retain the quiet qualities of the water and avoid negative impacts on the natural values and habitat areas.
- Policy C7-1.3 Conserve and maintain the combination of natural and introduced vegetation on the foreshores of Westlake and retain its densely vegetated, ‘naturalistic’ setting in open space areas.
- Policy C7-1.4 Control the introduction of further permanent infrastructure on the lake such as buoys, booms, pontoons or jetties.
- C7-1.6 Ensure new development at Yarralumla Bay is designed in sympathy with the heritage values of Westlake. In particular, ensure the character and scale of development reflects the surrounding residential area and provides an appropriate contrast to foreshore development in other parts of the lake such as that in Central, West or East Basin.
- Policy C7-1.8 Ensure all proposals for development around Westlake are developed in sympathy with the identified heritage values of the place and that the significance of their potential impacts on heritage values are assessed, in line with the EPBC Act.
- Policy C7-2.1 Manage the lakeside vegetation to retain the current high density and foliage colour and form mixtures.
3.0 Indigenous Heritage Values

3.1.1 Background

The Indigenous heritage values of the Lake Burley Griffin surrounds were broadly assessed as part of an assessment of all of the heritage values of the lake in the 2009 HA. This assessment below draws mainly from that earlier assessment with specific reference to the current study area.

In undertaking this assessment updated Aboriginal archaeological site data was sought from ACT Heritage through a database search, a site inspection was conducted and consultation was undertaken with the Representative Aboriginal Organisations (RAOs). Outcomes of these aspects of the project are outlined below.

3.1.2 Consultation

Consultation was undertaken with the Indigenous community as a means of establishing their views of the heritage values of the site. This practice is standard for assessments under the EPBC Act and serves to draw out the intangible heritage values that cannot be readily assessed through research and site inspections.

The guidelines for identifying and managing Commonwealth Heritage values recommend that the local Indigenous community be engaged in accordance with Ask First: a guide to respecting Indigenous heritage places and values, prepared by the Australian Heritage Commission, 2002.

In the ACT the Indigenous community is generally represented by four designated Representative Aboriginal Organisations (RAOs):

- Buru Ngunawal Aboriginal Corporation;
- King Brown Tribal Group;
- Little Gudgenby River Tribal Council; and
- Ngarigu Currawong Clan.

In undertaking the consultation each group was contacted by phone to establish whether or not they had an interest in being part of the project. Each of the groups nominated an interest and were invited to discuss the project on site, walk around the site to identify heritage values, and also discuss the project and its potential impacts. Letters were sent to each of the organisations.

The following individuals attended the site:

- Wally Bell, Buru Ngunawal Aboriginal Corporation; and
- Joe House, Little Gudgenby River Tribal Council.

3.1.3 Background Research

Background research into the cultural values of the site included a search of the Aboriginal sites database held by ACT Heritage and a review of available documentation and consultant reports for other projects and studies in the area. Search results and background information are outlined below.

The background research assisted in predicting the likely location of archaeological sites within the study area.
3.2 Indigenous Heritage Site Assessment

The proposed location for the new CGGS aquatic facility was inspected by each of the RAO groups. Indigenous heritage values for the area were discussed with the groups, along with a general discussion of the landforms, investigating the site history and background research.

3.2.1 Cultural Background

An assessment of the heritage values of Lake Burley Griffin and its surrounds presented the following statement of cultural background:

A reconstruction of clan boundaries based on Tindale indicates that the southern Canberra area was close to the tribal boundaries of the Ngunnawal and Walgalu people. According to Tindale, the territories of the Ngunawal, Ngarigo and Walgalu peoples coincide and meet in the Queanbeyan area. Horton's map shows a Ngarigo tribe in the southern Canberra area. Cooke believes that considerable mingling between the Northern Ngarigo and the Southern Ngunawal would have occurred. Flood claims this area of the ACT as Ngarigo territory.

Bluett states that the Aboriginal group which camped at Pialligo was referred to by early settlers as the ‘Pialligo Blacks’, and the larger group which camped near Black Mountain was called the ‘Canburry or Ngunbra Blacks’.

Jackson-Nakano notes that Aboriginal family groups within the Canberra-Queanbeyan district and surrounds were known by many names in the early nineteenth century, but local Europeans who knew them best referred to them as Kamberri—also spelled Kamberry, Kamber and even Ngunbra (Ngambru). She says the heart of their country was centred on the area now referred to as the Acton Peninsula. Some Kamberri individuals, she says, intermarried with neighbouring Ngunawal families from the 1880s, and some descendants of such marriages re-identify in modern times as Ngunnawal. While maintaining their distinct association with the ACT and surrounds, members of Kamberri-Ngunnawal families might also identify personally as Ngunawal, Walgalu or even Wiradjuri through their familial links to these other groups.

3.2.2 Archaeological Background

Stone artefact scatters have been found to be the most frequently occurring Aboriginal archaeological site type in the Canberra region. Artefact scatters range considerably in size and density and are often interpreted as an indication of intensity of the Aboriginal land use. They provide a range of information about Aboriginal technology and resource procurement. Open scatters are defined as spatially concentrated occurrences of two or more flaked stone artefacts. Isolated finds are artefacts that occur without any apparently associated archaeological materials or deposit.

The following statement of broad archaeological patterning as outlined in the Lake Burley Griffin Heritage Assessment and is relevant to the assessment of the current study area in Yarralumla:

The wider regional pattern of Aboriginal occupation site occurrence within the ACT is one of higher site size and frequency in areas in close proximity to major permanent water bodies, with a reduction in site size and frequency around less permanent water sources. While sites have been found to occur throughout topographic and vegetation zones, there is a tendency for more of the larger sites to be located in proximity to creeks, wetlands and parts of valley floors. A trend for larger sites to be near major water sources, but avoiding frost drainage hollows, was noted at a regional level by Flood. Elsewhere in the Canberra region, high site and artefact frequencies have also been correlated with the geographic occurrence of specific resources, particularly stone procurement (lithic outcrop) locations.

Based on the brief records and observations made by a limited number of interested local individuals and artefact collectors, it appears that the larger sites in the central Canberra area were associated with the sand bodies situated within, and adjacent to, the fluvial corridor of the Molonglo River.
It may be assumed that the Molonglo River corridor was an important prehistoric Aboriginal resource zone that attracted a considerable level of hunter-gatherer occupation. This importance may have paralleled that of the Murrumbidgee River corridor, where over 200 Aboriginal sites, including open camp sites, stone quarries, scarred trees and ceremonial sites, had been recorded by the early 1990s.30

Archaeological surveys carried out along sections of the lower Molonglo suggests that gentle slopes, spurs and alluvial flats along the river will exhibit the highest archaeological potential.31 These areas are sheltered climatically and located close to resources. The Molonglo River valley was the prime source of water and food resources, and provided access to the Limestone Plains for local and visiting Aboriginal groups.32

Among the collections noted above was that of HP Moss. Moss collected Aboriginal stone tools in Canberra in 1929 and the 1930s, concentrating on areas under threat of immediate development. His search was initiated by having found a stone axe head near the Acton offices in 1919.

Moss collected artefacts from the following locations:

- on a sandy ridge between the Provisional (Old) Parliament House and the Molonglo River—a few scrapers and points;
- the sandy spur running down from Black Mountain towards the forestry school (Black Mountain Peninsula);
- the lawns of the Provisional (Old) Parliament House—an axe head;
- between Scotts Crossing and Duntroon—flint scrapers and other evidence of stone age occupation;
- the area bounded by the Institute of Anatomy (National Film and Sound Archive) and Sullivans Creek and the (old Canberra) Hospital—a large grinding stone and two pounding stones; and
- sandpits near the Royal Military College at Duntroon (Pialligo) and between Scotts Crossing and Commonwealth Avenue—material was obtained at depths up to five feet.

While most of the collection consists of surface finds, Moss noted in his 1939 article, ‘… a considerable amount was recovered from depths ranging from two or three to six feet below the surface’.33

When it was still in the possession of the Institute of Anatomy, the HP Moss collection comprised 268 artefacts and 442 items of ‘waste material’ from Canberra.

WHP Kinsela also collected artefacts in the ACT between 1932 and 1933, recovering objects from near Sullivans Creek, Acton, Mount Pleasant at Duntroon and from the sandpits near Parliament House.

Some sites and artefacts have been recovered from areas adjacent to the Molonglo River which, after the formation of the lake, have become submerged. Given that these sites were recorded prior to the inundation of the lake, they now remain only as locations on the map. Among these are sites that were collected by both Moss and also by Kinsella, from the sand ridges between Parliament House and the Molonglo River. There are also two locations described ethnographically which lie within the lake borders which are remembered by the current Indigenous community as important. There are also two ceremonial gathering (Corroboree) sites, one at Acton on the site of the old Acton racecourse34 and the other at the foot of Mt Pleasant35 both of which were submerged by the lake. These two sites are listed at ACT Heritage but are not registered.
3.2.3 Recent Surveys around the Lake

During the project work for the 2009 HA a range of specific surveys were undertaken around the lake. These included parts of Black Mountain Peninsula, Acton Peninsula, Yarramundi Reach, Stirling Park, Springbank and Spinnaker Islands.

Key findings of this previous work was the recording of a scarred tree in Stirling Park, Yarralumla, and the confirmation of sites in the Yarramundi Reach area. The scarred tree (SP ST1) was recorded on the crest of a hill near the southwestern end of the park. The recording of this tree was among the results of the register search.

3.2.4 Heritage Register Search

The heritage register search of the ACT Heritage Aboriginal site database for this project included a 2km diameter buffer around the study area. Search results included 12 sites recorded in the broad area around the lake at Yarramundi Reach, Stirling Park and Black Mountain and Sullivans Creek.

In Stirling Park current recordings include: CC-YAR-001, CC-YAR-002, CC-YAR-003, “Cultural Tree (Women’s Business)”, and another Women’s Cultural Tree.

One site is noted on the Sullivans Creek (’Sullivans Creek site 1’) and another on Black Mountain (BM4). Previous research in this area also indicates that Black Mountain has a number of artefact scatter sites on it and that the Sullivans Creek area was recorded in the early to mid-nineteenth century as an area of high cultural activity including as a well-used meeting area when different clans and tribal groups came together for ceremonies and trade.

Twelve Aboriginal sites have been recorded in the Yarramundi Reach area. These sites were identified during an archaeological survey for a proposed museum site at Yarramundi Reach and the Stromlo Forest Cultural Resource Survey. The sites include small artefact scatters and isolated stone artefacts—quartz and silcrete are the dominant raw materials identified for these objects. Sites included YR 1–3, YR5 and YR6, YR8–11, and CLB1, YR11, 11N1, 11N2 and PADYA1—all of which were identified in the ACT Heritage database search for this project.

3.3 Conclusions

3.3.1 General Predictions

Ethnographic recordings, archaeological surveys and artefact collections indicate that the valley of the Molonglo River now inundated by Lake Burley Griffin was occupied by Aboriginal people in the past. The river would have provided an important source of water while the slopes and valleys of Black Mountain, Mount Ainslie, Capital Hill and Red Hill would have provided a variety of ecological and resource zones, sheltered camping locations and viewpoints.

The study area is located on a landform that previously constituted the lower slopes of the southern side of the Molonglo River valley, approximately 300m to the south of the original river alignment, before the lake’s inundation and approximately 13m higher than the river. This north to northwest facing area was one of the Molonglo River terraces just above the alluvial flats and would have provided Aboriginal people with an open occupation area on slightly elevated dry land with close water access. The presence of artefacts on the nearby lower slopes of areas such as Yarramundi Reach, Black Mountain, Acton/Sullivans Creek and also on the lower slopes to the north of Old Parliament House (areas now inundated as well) suggests that the site area has the potential to have been used for occupation by Aboriginal people in the past. The nearby presence of a scarred tree in Stirling Park also indicates the general use of the area by Aboriginal people in the past.
Of Lake Burley Griffin and its surrounds, the 2009 HA notes that ‘... significant historical evidence exists that this landscape was rich in evidence of the Indigenous past prior to its development and alteration for the development of Canberra’.40

On this basis the study area is predicted to have some potential for the presence of archaeological artefacts.

### 3.3.2 Site consultation

Consultation and site inspection was conducted on 19 July 2016 in conjunction with the RAOs.

The site comprises an area of land approximately 60m x 40m with a gentle westerly slope to the lake edge. The ground surface is partially covered with grass and weeds with a number of areas of ground surface exposure with good visibility. The ground surface is exposed in up to 40 per cent of the site area with visibility as high as 90–100 per cent in those exposures. The remaining 60 per cent of the site area had low visibility. The proposed development area had been cleared of trees.

The exposed ground surface revealed a heterogeneous sandy soil comprising light coarse-grained sand, darker fine-grained sand and gravels. This soil appears to be a mixed deposit of sand-based fill either imported onto the site or perhaps spread over the site from nearby earthworks for landscaping. The surrounding landscape has been reshaped for a carpark (to the east), Elizabeth McKay Aquatic Centre (to the south) and a recently installed concrete seawall along the shoreline.

The general shape of the landform is fairly uniform indicating no obvious major ground surface disturbance. However, as most of the Lake Burley Griffin foreshore areas were subject to some landform reshaping prior to inundation it is possible that the current landform is a modification of the original slope and shape of this site.

Noted disturbances include the services located approximately 5m in from the eastern side of the site aligned north-south parallel to the eastern property boundary. Also evident were eight soil testing bore hole locations.

### 3.3.3 Bore Logs

Bore logs from this work indicate that the site has up to 200mm of ‘fill’ across the top, mainly concentrated towards the southern end. This fill is generally described as fine to coarse sand, ranging in colour from yellow to dark brown and with various degrees of gravels. This fill layer was found to sit on top of alluvium down to a depth of approximately 500mm.

The northern end bore logs show up to 200mm of topsoil over 400mm of slopewash and then the alluvium layer. The topsoil was a brown silty sand ranging from fine to coarse in texture while the slopewash was described as a clayey silty sand.

Generally, these bore logs show that the potential for disturbance appears to be confined to the upper 200mm of the soil profile, and that there is a body of clayey silty sand under it which may remain undisturbed.

### 3.3.4 Indigenous Cultural values

The Aboriginal community of Canberra, as represented by the RAOs, considers that much of the pre-lake landscape remnants around central Canberra have some significance in demonstrating the shape of the environment as it was used by Aboriginal people in the past. These are remnants of a landscape that once supported Aboriginal people in their traditional way of life.
The general site area was once part of the landscape. It would have been in close proximity to the access tracks linking Black Mountain with the Capital Hill area, both of which were important landforms associated with ceremonies and stories.

The study area itself is not considered to be of specific cultural value but is associated with a landscape that has meaning to the Aboriginal people of Canberra.

### 3.3.5 Archaeological Potential

While ACT Heritage has few records of archaeological sites in the immediate area around the study site, those sites that have been recorded, including the artefacts on Yarramundi Reach and the scarred trees in Stirling Park, indicate that the Molonglo River valley was once used by Aboriginal people as they occupied the landscape prior to the arrival of European settlers.

The proximity of the study site to the Molonglo River and its gentle slope suggest that it would have been a reasonably favourable habitation site.

Bore log data indicates that alterations to the soil profile have been limited in the study area suggesting that the landform of the site has been only modestly modified as part of the reshaping of the landscape for the lake and the surrounding features such as the carpark to the east. Known disturbances are confined to the western and eastern edges of the site.

On that basis, the site is considered to have some potential for the existence of archaeological deposits, although the upper 100–200mm of the site may be fill derived from elsewhere. Archaeological deposits may occur in the topsoil, slopewash or alluvium deposits. Given the limited amount of data on archaeological sites around the edge of the lake, there is no definitive evidence available at present to suggest that any archaeological deposits that may occur within this zone will be dense, or particularly significant.

### 3.4 Indigenous Heritage Values and Archaeological Potential

The study area has some archaeological potential, and therefore may have some capacity to contribute to an understanding of the cultural history of the area. However, it is anticipated that this potential will be limited. The potential archaeological deposits of Blocks 15, 16 in Section 17, Yarralumla meets criterion C of the Commonwealth Heritage criteria: 'The place’s potential to yield information that will contribute to an understanding of Australia’s natural or cultural history'. However, the degree to which the site meets this criterion is unknown until further information is known through a formal individual project assessment (not part of this project brief).

The alienation of this land by the Commonwealth would have impacted any traditional use of the site by the local Aboriginal community and as such does not meet criterion I, which is ‘importance as part of indigenous tradition’. Note that the interpretation applied to the concept of Indigenous tradition is one of knowledge handed down from generation to generation and that the tradition must apply to a specific place, usually one that is sacred.41
4.0 The Project Proposal

4.1 Proposed Works

The proposed works involves the amalgamation of Blocks 15 and 16, Section 17 Yarralumla Bay, and the construction of a new CGGS aquatic facility. This section lists and describes the design proposal by Stewart Architecture.

4.1.1 Documentation Reviewed

The architectural documentation and planning report by Stewart Architecture in August and September 2016 and reviewed by GML for the HIA include:

- Blocks 15 + 16, Section 17 Yarralumla Bay CGGS Multipurpose Water Sports Facility, Planning Report, August 2016;
- DA000, Location Plan, Revision H, 16 September 2016;
- DA002, Site Analysis and Demolition Plan, Revision E, 16 September 2016;
- DA004, Site Plan, Revision H, 16 September 2016;
- DA101, Lower Ground Floor, Revision J, 16 September 2016;
- DA102, Upper Ground Floor, Revision J, 16 September 2016;
- DA106, Roof Plan, Revision E, 16 September 2016;
- DA201, Elevations, Revision I, 16 September 2016;
- DA202, Elevations, Revision I, 16 September 2016;
- DA203, Signage Plan, Revision A, 16 September 2016
- DA301, Sections, Revision J, 16 September 2016;
- DA901, Perspective, Revision A, 16 September 2016;
- DA902, Perspective, Revision C, 16 September 2016;
- DA903, Perspective, Revision B, 30 August 2016;
- DA910, Internal Perspectives, Revision B, 30 August 2016; and
- 1575 perspectives from Yarralumla Bay West, Revs A and C, 14 September 2016.

4.1.2 Description of the Proposed Works—Design Intent

Stewart Architecture provided the following text for this HIA. The text describes the design intent, function and characteristics of the proposed aquatic facility development, developed to meet the client’s brief for the project.42
Design and form

The design of the new water facility comprises a two-storey structure providing aquatic storage, multipurpose educational space and a café. The design makes use of the natural slope of the site, presenting as a single storey structure when viewed from Alexandrina Drive, and a two-storey structure from Yarralumla Bay. It would present a 3–5m high frontage from the east (Alexandrina Drive) with direct pedestrian access to the upper floor containing an educational area and café. From the west (Yarralumla Bay) the facility would present as an 8m high structure, with the lower floor comprising the storage area with a sequence of roller doors providing access at the lake edge level.

Location and footprint

The proposed building would cover 947sqm of the combined 1363sqm site and would have a considerably larger footprint than the existing neighbouring facilities. It would be screened in part from the north by the established trees in the parkland at the rear, and proposed additional planting on site.

The building is a single floor from the street side (the upper floor), and two storeys on the waterfront side, housing boats on the lower floor.

Character

The proposed robust base is composed of high-quality precast concrete of a light grey, offset slightly from the upper form to suggest depth. In order to dilute the repetition of the roller doors on the western façade, the precast form has four punctures in its face, each puncture containing two roller doors and a lightweight infill partition. This creates a sense of weight, proportionality and balance to the grounding precast base.

The upper floor comprises a combination of expressed structural framing and lightweight cladding. The vertical alignment of the cladding gives height and counterbalances the length of the façade, while a semi-opaque ribbon wraps around the top portion of the façades and terminates at the underside of the eaves. This treatment gives the roof a sense of buoyancy; a gentle gesture to the activity on the lake. The main entry (eastern) façade is punctuated at the upper ground floor by natural timber screening, external covered foyers and an accent precast panel adjacent to the CGGS entry. Beyond the lower roof is a secondary façade defined by the semi-opaque glazed ribbon that wraps around the building and provides natural light to all internal spaces.

Materials

The external material and colour palette of the upper floor is proposed to comprise lightweight cladding (ie Weathertex boards) in a light, off-white colour, accented by natural finished timber battens, dark grey (ie Colorbond Monument) structural details, and a semi-opaque fixed glazing. The proposed floating pavilion style roof would sit above the semi-opaque glazing and be a dark navy coloured metal (ie Colorbond Deep Ocean).

The upper floor would consist predominantly of glazing to allow views out from the café and educational spaces, with a balcony overlooking Yarralumla Bay on the north and west sides. The lower floor would comprise of dark grey precast concrete panels with metal roller doors, proposed to be a similar dark navy colour to the roof.

Stewart Architecture has selected materials they believe are complementary with the ‘nautical’ design intent (blues and whites) and in harmony with the heritage values of the lake. Stewart Architecture states that:
• The use of white at the upper level is integral to the design solution of providing a 'light' upper portion, reducing the visual bulk of the building. It is also vital to create the notion of the floating roof, again reducing visual bulk.

• Lighter tones (in conjunction with material selection) are suggestive of the nautical nature of the building.

• Approximately two-thirds of the front façade (lake-side) at the upper level is glazed, which would generally be read as the reflection of the lake and tree context, rather than white.\footnote{43}

Figure 4.1: Perspective view (3d rendering) of the proposed CGGS aquatic facility—according to Stewart Architecture the rendering is not accurate and appears an overly ‘bright and light coloured building’ in the landscape setting. To rectify this, Stewart Architecture provided an improved rendering to give a more accurate appearance of the materials, particularly the glazing which would be reflective rather than white.\footnote{44} refer to the Figure 4.2 below. (Source: Stewart Architecture, 30 August 2016)
Figure 4.2: Perspective view (3D rendering) of the CGGS Aquatic Facility from the opposite side of Yarralumla Bay. (Source: 1575 from Yarralumla Bay West Rev C, Stewart Architecture, 14 September 2016)

Figure 4.3: View from Weston Park. The site of the new facilities is to the left of the white water marker. (Source: GML, 2016)

Figure 4.4: View from Weston Park. The site of the new facilities is to the left of the buildings on the distant shoreline. (Source: GML, 2016)
4.2 Landscape—Plantings on Site

The existing landscape and plantings in the study area include:

- **two Quercus macrocarpa** (Burr oak) bordering the southeast corner of the site (on the verge of the access road), which potentially date from the NCDC’s lakeshore planting of the 1963–72 period (refer to Figures 4.7 and 4.8; these are numbered 12 and 13 in the 2012 Indesco report);45

- reed beds of *Typha orientalis* approximately 60m² off-shore. These provide habitat for waterbird and aquatic habitats and linking with existing reed beds to the north of the site (Figure 4.9); and

- *Quercus robur* (English oak) and *Platanus orientalis* (Oriental plane) on site (Figure 4.10)
4.3 Exploration of Alternatives

4.3.1 Legislative Background

Under the EPBC Act a ‘significant impact’ is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted.

The EPBC Act Section 341ZC requires avoiding and minimising significant impacts on heritage values. A Commonwealth agency must not take an action that has, will have or is likely to have a significant impact on the National or Commonwealth Heritage values of the places, unless:

- there is no feasible and prudent alternative to taking the action; and
- all measures that can reasonably be taken to mitigate the impact of the action on those values are taken.

4.3.2 Exploring Alternatives

Location

The location of the aquatic facility is confined by the size of the site. As such there is no alternative location for the proposed development.

Materials and colours

GML reviewed the design documentation (revision August 2016) and raised concerns about the brightness and high level of reflectivity of the materials palette of the proposed design. The light-coloured materials palette, when viewed from points around Yarralumla Bay and Weston Park, would be highly visible. A light-coloured building would be emphasised by the dominant white boat shed adjacent to the development site and the existing, adjacent CGGS aquatic facility which is also white.

Stewart Architecture altered the 3D rendering (refer to Figure 4.2) to reduce the appearance of a large area of the façade which was white. The revised 3D rendering shown in Figure 4.1 provides a more accurate demonstration of the area of glazing instead of white.

Further consideration should be given to changing the light, off-white Weathertex cladding of the façade to a darker colour. Instead of off-white, grey tones would help to ensure the proposed building will recedes into the landscape setting.
4.3.3 Discussion of Landscape Plantings

Only part of the reed beds identified in the 2009 HA remain. Site preparation works undertaken between 2010 and 2016 have reduced the natural values of the reed beds identified in the HA. The soft edge of the lake shoreline and the reed beds have been partially removed and habitats lost in the drawdown zone of the lake edge.

The proposal requires the removal of a young *Quercus robur* on the southeast corner of the site and a young *Platanus orientalis* on the northern boundary. It is also likely that trees bordering the access road along the southern boundary will be affected (removed) (refer Figures 4.7–4.10).

These impacts will be relatively low in magnitude and significance when compared with the recent site changes—although efforts should be made to retain the single *Quercus robur* tree remaining on the building site (Figure 4.10 [left]).

The contribution of the Yarralumla Bay headland to the cross-lake view shed is the least disturbed, due to the continued existence of trees on the shoreline north of the site.
5.0 Heritage Impact Assessment

5.1 Introduction

The heritage impact assessment of the proposed works is outlined in Tables 5.2 and 5.3. The methodology used for ascribing relative levels of heritage impact and the actual impact assessment of the proposal is described in this section.

A new building at Yarralumla Bay which has a recreational use associated with sailing and boating is acceptable under the HMP for the lake. The construction of building, which is larger than the adjacent water facilities/boat sheds, will physically change the immediate environment/landscape setting and will have a minor impact, rather than a significant or adverse impact on the heritage values of Lake Burley Griffin. Refer to Section 5.3.

Recommendations for mitigating the heritage impacts are summarised in Table 5.4.

5.2 Assessing the Heritage Impact

5.2.1 Relative Levels of Heritage Impact

A ‘significant impact’ is an impact which is important, notable, or of consequence, having regard to its context or intensity. The factors to be taken into account to determine whether or not an action is likely to have a significant impact depend upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration and magnitude of the impacts.

The following graded scale of impact has been adopted and applied for this impact assessment. To assist in distinguishing between different relative levels of severity of potential heritage impacts, the Significant Impact Guidelines 1.2 provide a scale to refer to, which is as follows:

- **Severe:** Severe impacts generally have two or more of the following characteristics: permanent/irreversible; medium–large scale; moderate–high intensity. Note: A severe impact would be considered ‘significant’ as defined by the EPBC Act Significant Impact Guidelines 1.2 and would require an EPBC Act referral to the Minister for the Environment.

- **Moderate:** Moderate impacts generally have two or more of the following characteristics: medium-long term; small-medium scale; moderate intensity.

- **Minor:** Minor impacts generally have two or more of the following characteristics: short term/reversible; small-scale/localised; low intensity.

5.2.2 General Note about Relative Impact Levels

The severity of impacts alone does not necessarily indicate an adverse (or significant) impact on the overall heritage values of a place. The potential impacts of the action must be considered in the context of the environment or the place in which the action will take place.

The scale of an action and its impacts requires consideration when predicting the severity of impacts; generally, a larger-scale action with widespread impacts is more likely to have a significant impact on the heritage values than a smaller-scale action with localised impacts. Considering the scale in conjunction with the intensity and duration/frequency of the impacts is important. Intensity refers to the strength and concentration of potential impacts.
5.2.3 Method for Assessing Potential Heritage Impacts

The methodology used for assessing potential heritage impacts of the proposed CGGS aquatic facility is outlined in Table 5.1 which includes an outline of the relevant heritage values and attributes, a discussion of the potential impacts, the questions applied to determine the degree of impact, a statement of heritage impact including degree and intensity, and recommended mitigation measures to reduce or avoid potential impacts.

Table 5.1 Methodology for Assessing Potential Heritage Impacts.

<table>
<thead>
<tr>
<th>Identified heritage values and attributes: The heritage values and attributes specific to the space or area of the development proposal to be described.</th>
<th>Potential Impact Analysis</th>
<th>Heritage Impact Statement</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion: Discussion of potential impacts on the heritage values. Is the design complementary to the heritage values?</td>
<td>Heritage Impact: Heritage impact statement.</td>
<td>Degree and intensity of impacts: What is the relative level of severity of the potential impacts in terms of scale, intensity, timing, duration and frequency?</td>
<td>Mitigation Measures: Are there any measures which can be explored or introduced to avoid or mitigate impacts?</td>
</tr>
</tbody>
</table>

5.3 Heritage Impact Assessment

The design of a new building in a significant landscape, such as Lake Burley Griffin and its setting, should respect the qualities and characteristics of the landscape and avoid adversely or significantly impacting the heritage values.

In this case, the impact of the proposed CGGS aquatic facility has been assessed against the heritage values of the lake as a designed landscape, its shape and form.

Table 5.2 Assessment of Heritage Impacts of the proposed CGGS aquatic facility.

<table>
<thead>
<tr>
<th>Heritage Values and Attributes</th>
<th>Open parklands and recreational activities around the lake contribute to its historic heritage values. Further, the heritage values relate to: the shape and form of the designed landscape of Lake Burley Griffin; its foreshore plantings; designed foreshore parklands; its role as the setting for the surrounding national institutions; its reflective qualities; lake based activities and uses; and the relationship to views and vistas of surrounding land. Key attributes of Westlake (and Yarralumla Bay which is part of Westlake) include the:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• the shape and form of the lake as a designed landscape;</td>
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<tr>
<td></td>
<td>• soft lake edge and reed beds providing bird habitat;</td>
</tr>
<tr>
<td></td>
<td>• naturalistic form of the lake water body and draw-down zone (foreshore);</td>
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<tr>
<td></td>
<td>• combination of natural and introduced vegetation on the foreshores with a ‘naturalistic’ setting in open space areas;</td>
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<td></td>
<td>• high density foliage, colour and form of plantings;</td>
</tr>
<tr>
<td></td>
<td>• lake edge properties and lake edge plantings (exotic and native); and</td>
</tr>
<tr>
<td></td>
<td>• characteristic ‘intimate’ views of water and foreshore precincts compared to the expansive vistas available in other parts of the lake.</td>
</tr>
</tbody>
</table>
Excerpted Heritage Policy Relevant to the Design Proposal | Discussion—Response Integrated in the Design Proposal
---|---
**Conservation of Heritage Values**
Policies associated with the conservation and maintenance of the heritage values of Westlake/Yarralumla Bay:
- the aesthetic and other heritage values of Westlake (refer to above);
- the naturalistic, river-like form of Westlake, including its characteristic ‘intimate’ views of water and foreshore precincts (and compared to the broad vistas available in other parts of the lake);
- the natural and introduced vegetation on the foreshores of Westlake to retain its densely vegetated, ‘naturalistic’ setting in open space areas; and
- lakeside vegetation to retain the current high density and foliage colour and form mixtures.

**Design Development**
Development control policies for Westlake/Yarralumla Bay include (existing policies):

**Function**
- New development and permanent infrastructure on the lake such as buoys, booms, pontoons or jetties should be controlled.
- Public access should be maintained around and between the buildings and the lakeshore.

**Design**
- Ensure new development at Yarralumla Bay is designed in sympathy with the heritage values of Westlake.

**Character/Scale/Placement/Colour**
- Character: ensure the character and scale of development reflects the surrounding residential area and provides an appropriate contrast to foreshore development in other parts of the lake such as that in Central, West or East Basin.
- The placement, form and colour of buildings and/or structures should be in harmony with the lakeside setting.

**Landscape Values (Setting and Location)**
The proposed location for the new aquatic facility on Yarralumla Bay adjacent to an existing CGGG aquatic facility.

The building set back from the existing lake edge is in line with the other adjacent facilities and is positioned above the 100-year flood level.

A pontoon would be introduced between the already open area of the reed beds. The partial ‘natural’ lake edge would be retained in its current form, noting that a built edge has already been undertaken prior to the sale of the site to the CGGS. A second potential pontoon may impact the existing reed beds.

**Indigenous Heritage Values**
There are no reported Indigenous cultural values associated with the site.

**Function**
The function of the proposed facility is in keeping with the existing uses of recreational clubhouses and boatsheds for rowing and sailing at Yarralumla Bay.

The construction of the new facility extends the recreational, boating activities of the adjacent sites and in Yarralumla Bay into the unbuilt ‘open space’ site.

Public access around the building, and potentially to the proposed café at the northern end of the building is part of the development.

**Design**
The proposed facility has a large footprint and two-storey structure. The design takes advantage of the sloping site and the overall height is slightly lower than the ‘YMCA’ facility and would read as a single storey from the road.

Design considerations to reduce the impression of a large building mass include the use of full height glazing along the façade at the upper level and the ‘floating’ pavilion style roof above the semi-opaque (‘Dampalon’) panels.

**Character/Materials/Finishes**
The proposed structure is complementary to the other facilities at Yarralumla Bay. For example, the form of the new building is contemporary yet functional, responding to boating and educational needs. The use of lightweight cladding, precast concrete, metal and textured accent materials is appropriate for the type of facility.
Excerpted Heritage Policy Relevant to the Design Proposal

<table>
<thead>
<tr>
<th>Heritage Impact Statement</th>
<th>Discussion—Response Integrated in the Design Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of light reflectivity is important—the use of Weathertex in off-white would be highly visible and not reduce the impact of the building in the landscape setting.</td>
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</tbody>
</table>

Summary discussion

The aesthetic values of the Lake’s setting will be changed marginally with the introduction of the proposed building to Yarralumla Bay, noting that the bay is already built-up with recreational facilities.

The large building form does not recede in the landscape setting and the removal of trees from the site further exposes the scale of the building in its landscape setting. Reduction of light reflectivity is important—the use of white Weathertex would not reduce the impact of the large building form in the landscape setting.

The naturalistic soft edge was altered prior to the site being sold to the CGGS. The introduction of one pontoon will not impact the existing reed beds or habitat. A second potential pontoon may impact the reed beds.

Public access to the lake edge would be accessible around the proposed building, and potentially to the proposed café at the northern end of the building is part of the development.

Table 5.3 Heritage Impact Statement for the CGGS aquatic facility

Heritage Impact Statement

Heritage Impact on the Heritage Values

- The overall development would not impact the shape and form of the designed landscape of Lake Burley Griffin.
- The proposed CGSS aquatic facility would have a minor impact on the lake’s landscape setting and aesthetic values for its large footprint and form.
- The previous construction of the concrete footpath along the lake edge has already impacted the heritage values of the ‘naturalistic’ setting and former soft edge of the lakeshore line.

Indigenous Heritage values

- Cultural values: The project will not affect or impact any known Indigenous/Aboriginal cultural values.
- Archaeological potential: The site has some archaeological potential although there is insufficient evidence to suggest that this would be a high level potential. The excavation of the land for the formation of the basement of the new facility will remove any potential archaeological deposits on the site. That noted, some impact would be anticipated on archaeological deposits, although this impact would be considered minor.

Degree and Intensity of the Impact

- The degree and intensity of the impact arising from the proposed development would be minor. While it is noted that the construction of a building on the lakeshore at Yarralumla Bay is not reversible; the physical impacts are localised to the development site.

Summary Statement of Heritage Impact

A referral under the EPBC Act is not required as the overall heritage impacts are not significant or adverse on the identified heritage values described in this report.
Table 5.4 Mitigation measures and recommendations.

### Mitigation Measures and Recommendations

Mitigation measures include:

- revision of the materials palette to include the selection of a darker colour for the Weathertex cladding, rather than the proposed white. The aim of this would be to reduce potential visual impacts of the large building form so that it is recessive in the landscape;
- retention of the two *Quercus macrocarpa* trees bordering the southeast corner of the site;
- retention, if possible, of the single *Quercus robur* tree on the southwest of the building site;
- retention, expansion and enhancement of reed beds offshore. Ensure the boat launching lanes and pontoon are between reed beds;
- encourage further reed growth (noting that increased site usage will reduce the waterbird nesting sites, but aquatic habitats can be maintained within the reeds);
- establish visual screening of site buildings along the northern boundary. Evergreen low trees and shrubs should be used to maintain the view of a landscaped foreshore from vantage points along Parkes Way; and
- potential minor impact on archaeological deposits should be monitored by the construction team during site works.

Implementation of these mitigation measures would assist with reducing the identified minor level impact of the development.

### Indigenous Heritage Recommendations

Based on the Indigenous heritage assessment in this report, it is not considered likely that further detailed archaeological investigation would reveal a substantial level of new archaeological information.

The following recommendations are made in order to address the potential for unanticipated archaeological finds during the construction process:

- Monitoring of the construction excavation works should be undertaken by the RAOs including soils to a depth of approximately 500mm.

- A stop work procedure should be put in place so that any unanticipated finds of archaeological artefacts can be managed during the construction process. The following stop work procedure should apply:
  - if Aboriginal archaeological artefacts, sites or remains are found during construction work all work in the immediate area of the find would cease;
  - the study area would be secured by the construction site manager;
  - the RAOs and an archaeologist must be called to the site to assess the nature and significance of the find;
  - the RAOs and the archaeologist will assess the required management of the find based on its significance and in conjunction with the construction site manager; and
  - construction work would resume after the implementation of appropriate mitigation measures.
6.0 Conclusion

6.1 Summary Heritage Impacts

The CGGS aquatic facility would not impact the overall heritage values of Lake Burley Griffin; the designed landscape or its shape and form. The proposed development is in keeping with other recreational facilities at Yarralumla Bay.

The proposed CGGS aquatic facility would have a minor impact on the lake’s landscape setting and aesthetic values of the open parkland and mature treed backdrop arising from the large footprint and form of the proposed structure.

The previous construction of the concrete footpath along the lake edge has already impacted the heritage values of the ‘naturalistic’ setting and former soft edge of the lakeshore line.

The project will not affect or impact any known Indigenous/Aboriginal cultural values.

The site has some archaeological potential although there is insufficient evidence to suggest that this may have high level potential.

In conclusion a referral under the EPBC Act is not required as the overall heritage impacts are not significant or adverse on the identified heritage values described in this report.

Provided the mitigation measures and Indigenous heritage recommendations outlined in Section 5.0, Table 5.4 are implemented, the identified minor level impacts arising from the proposed CGGS aquatic facility development would be reduced.
7.0 Endnotes

5 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Assessment, p 190.
7 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Management Plan Vol 1, p 44.
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9 Taylor K 2007, Canberra City in the Landscape, ACT Planning and Land Authority, Canberra.
10 Greening Australia 2006, Lake Burley Griffin Willow Management Plan, Molonglo Catchment group and NCA, Canberra.
11 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Assessment, report prepared for the National Capital Authority, Canberra.
15 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Management Plan Vol 1, p 44.
16 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Management Plan Vol 1, p 45.
17 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Assessment, p 43.
23 Bleutt, WP 1954, The Aborigines of the Canberra District at the Arrival of White Man. Manuscript held at the Library of the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra, p 1.
26 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Assessment, p 44.
28 Robinson, FW 1927, Canberra's first hundred years and after. Penfold, Sydney, 2nd ed.
30 Moss, HP 1939, Evidence of Stone Age Occupation of the Australian Capital Territory, ANZAAS Vol 24, pp 163–166.
31 Bluett, WP 1954, The Aborigines of the Canberra District at the Arrival of White Man, manuscript held at the Library of the Australian Institute of Aboriginal and Torres Strait Islander Studies.
34 English, WB 1985, Where the Molonglo Runs, unpublished BA (Hons) Thesis, Department of Prehistory and Anthropology, Australian National University, Canberra, ACT, p 73.
33 Moss, HP 1939, Evidence of Stone Age Occupation of the Australian Capital Territory, ANZAAS Vol 24, p 165.


35 Huys, S and D Johnston (Australian Archaeological Survey Consultants Pty Ltd), 1997, An Aboriginal Archaeological Investigation of Lower Acton Peninsula including consultation with the Ngun(n)awal Aboriginal community regarding the heritage of the study area, report prepared for the National Environmental Consulting Services (NECS), Canberra ACT, p 8.

36 Bluett, WP 1954, The Aborigines of the Canberra District at the Arrival of White man, Manuscript held at the Library of the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.


38 Huys, S and D Johnston (Australian Archaeological Survey Consultants Pty Ltd), 1997, An Aboriginal Archaeological Investigation of Lower Acton Peninsula including consultation with the Ngun(n)awal Aboriginal community regarding the heritage of the study area, report prepared for the National Environmental Consulting Services (NECS), Canberra ACT, p 8.

39 Bluett, WP 1954, The Aborigines of the Canberra District at the Arrival of White man, Manuscript held at the Library of the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.

40 Godden Mackay Logan, ANU Acton Campus Indigenous Heritage Study, 2012


43 Canberra contour survey map, 22 May 1909. Nla.map-vn113044-e.

44 Godden Mackay Logan 2009, Lake Burley Griffin Heritage Assessment, p 52.


47 Email correspondence between Stewart Architecture and GML 9 September and 20 September 2016.

48 Email correspondence between Stewart Architecture and GML 20 September 2016.

49 Indesco 2012, Site Investigation Report for Yarralumla Section 17 Block 15, unpublished report for LDA, Canberra.