ENVIRONMENTAL ASSESSMENT REPORT

Prepared pursuant to Part 3A of the Environmental Planning and Assessment Act 1979.

hamptons
property services

PROJECT PARTICULARS

Project No.:	HPS 2010.039
Project Address:	3 Bank Street, Pyrmont
Local Government Area:	City of Sydney
Client:	Sydney Maritime Museum Ltd, trading as Sydney Heritage Fleet
Report Reference:	REP 001-EA V2.doc
Prepared By:	Melissa MacGregor, Kristy Lee
Reviewed By:	Kristy Lee
Final Approval:	Kristy Lee
Date:	27 November 2012

Head Office: Suite 404, Level 4,

Edgecliff Centre,

203-233 New South Head Road,

PO Box 954

EDGECLIFF NSW 2027

Phone +61 2 9386 7000 Fax +61 2 9386 7001

Web www.hamptonspropertyservices.com.au

STATEMENT OF VALIDITY

SUBMISSION OF ENVIRONMENTAL ASSESSMENT

Prepared pursuant to Part 3A of the Environmental and Assessment Act 1979.

PROPOSED RELOCATION OF THE SYDNEY HERITAGE FLEET TO BANK STREET, PYRMONT

Environmental Assessment prepared by Hamptons Property Services Pty Ltd.

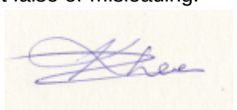
Name	Kristy Lee – Hamptons Property Services
	Director
Qualifications	BTP (Hons), UNSW
Address	Suite 404, Level 4 203-233 New South Head Road
	EDGECLIFF, NSW 2027
In respect of	Sydney Heritage Fleet
	Bank Street
	PYRMONT, NSW

APPLICANT AND LAND DETAILS

Applicant	Sydney Maritime Museum Ltd, trading as Sydney Heritage Fleet
	C/o Hamptons Property Services
	As above
Subject Site	Sydney Heritage Fleet
	Southern side of Bank Street
	PYRMOUNT, NSW
Property Description	Lot 19 and Part Lot 20 in Deposited Plan 803159
	Parish of St Andrew, County of Cumberland
Project Summary	Relocation of the Sydney Heritage Fleet to the site at Bank Street, Pyrmont.

DECLARATION

I certify that I have prepared the contents of the SYDNEY HERITAGE FLEET ENVIRONMENTAL ASSESSMENT in accordance with the requirements of the Environmental Planning and Assessment Act 1979 and Environmental Planning and Assessment Regulation 2000 and that, to the best of my knowledge, the information contained in this report / documentation is not false or misleading.



Signature	
Name	Kristy Lee
Date	06.02.2013

EXECUTIVE SUMMARY

Hamptons Property Services Pty Ltd (Hamptons) has been retained by the Sydney Maritime Museum Ltd, trading as the Sydney Heritage Fleet (herein referred to as 'the Fleet'), to prepare an Environmental Assessment for the proposed relocation of the public activities associated with the Fleet from their existing facility at Rozelle Bay, to the site at 3 Bank Street, Pyrmont (herein referred to as the site).

The Fleet is a community-based maritime museum, founded in 1965, that plays a unique role in the preservation of Australia's maritime heritage. By preserving, restoring, maintaining and operating a collection of significant historic vessels and artifacts, the Fleet not only presents its collection as 'objects' in the conventional museum tradition, but provides the added dimension of preserving and presenting to the public, the skills and social structures related to those objects, through their operation. To enable this unique museum role to be properly showcased to the public requires water and shore-based facilities which, in its almost 50 year history, the Fleet has never managed to acquire, despite a number of 'near misses'.

Against all odds, the Fleet has contributed to the cultural fabric of Sydney throughout its near 50-years, not just through its maritime collections but also through its direct community involvement in education, training and community support. Working with schools, youth groups, the disadvantaged and volunteers, both men and women of all ages, the Fleet maintains a vibrant connection with the community.

To take the museum on into its next 50 years it is essential that the Fleet find a location for its operations that will enable its activities to take place, and be properly presented, now and in the future. The Fleet needs a permanent home to consolidate its ability to continue to contribute meaningfully as a custodian of a significant portion of the nation's maritime heritage, and to share it with the community. A permanent home will also enable the Fleet to continue to share and preserve the special skills and seafaring traditions associated with its collection before they are lost forever. These are the things that help to enrich our community, increase our skills and interests, and enhance our lives. The Fleet's proposal is a rare opportunity to do this, which is why it should be supported and encouraged.

The Bank Street site has been identified because it is easily and safely publicly accessible and it has a waterfront location which is essential if the Fleet is to publicly display its significant historic collection of vessels in their natural setting and in quiet, safe water. This site selection is a result of significant research and consultation with maritime and government stakeholders and is eminently suitable for the intended purpose. Site approval was also sought from the local community and other local interested parties. A lengthy consultation process initiated by (then) NSW Maritime and involving the Sydney City Council, management committees of nearby residential buildings, local community associations, potential neighbouring users of other areas of the site and passive water sports groups, resulted in general agreement to the use and location of the Bank Street sites land and water areas. It was on the basis of this agreement that the fleet prepared this application.

The proposed development involves both a land and water component. The land component involves a three-storey building, terraced across the site, from the waterway towards Bank Street. It is intended that this will house a variety of uses including small vessel storage; amenities; a community-based maritime skills centre; museum display and community space; an exhibition pavilion and kiosk.

The water component comprises the installation of a fixed wharf, and associated floating pontoon structures to berth the variety of vessels that comprise the Fleet's operating fleet.

24-hour public access along the water's edge is also a key feature of the proposal, with a new foreshore walk around the southern and western sides of the site. This will provide public access to both the foreshore and the facility itself from a future parkland to the east and from Bank Street to the north. It will enable public viewing of the Fleet's vessels at their berths and specially placed signage interpreting the vessels and the history of the site.

Recent detailed discussions with the Department of Planning (DoP) and Sydney City Council have led to an amendment which removes the more 'heavy duty' restoration activities from the site. The Sea Heritage Dock and the shore-side associated workshops have been deleted from the plans as all restoration work will be carried out at an alternative location. This means that in future all 'heavy duty' restoration and maintenance work on the Fleet's vessels – such as the current restoration project on the steamer , John Oxley – will take place elsewhere. It will mean that 'heavy duty' work such as metal riveting and boilermaking, and the storage of heavy equipment and materials are no longer required at Bank Street. This change, in turn, has enabled a reduction in the length of the proposed fixed wharf by 23 metres and a subsequent reduction in the water based works and structures. This will have a corresponding overall reduction in the impact of the development on the environment.

The subject site is referred to in Schedule 2 of State Environmental Planning Policy (SEPP) (Major Development) 2005. Schedule 2 identifies Part 3A projects on Specified Sites. Clause 10 of Schedule 2 provides for Sydney Harbour Foreshore Sites and states that, where a site is identified on Map 9 of the Schedule, and has a capital investment value greater than $5 million, the Minister for Planning is the consent authority for the purpose of assessing a proposal and granting development consent.

This was confirmed through a declaration of the project, MP11_00001, dated 24 January 2011.

Director-General's Requirements (DGR's) were subsequently issued on 18 February 2011. As a result, the proponent is required to submit an Environmental Assessment (EA) for the purpose of assessing this application. This has been prepared by Hamptons in conjunction with the following consultants:

- Crawford Architects;
- SLR Consulting;
- McLaren Traffic Engineering;
- Sturt Associates; and

- Archaeological and Heritage Management Solutions Pty Ltd (AHMS)[1].

As part of preparing this EA, there have been a number of phases of public consultation undertaken as part of this project to date, including with government agencies, the community, the DoP and the City Council.

Government agency consultation was undertaken with the following agencies by the DoP:

- City of Sydney Council;
- Roads and Traffic Authority (now RMS);
- NSW Transport;
- NSW Industry & Investment;
- Department of Environment, Conservation, Climate & Water;
- NSW Maritime; and
- Sydney Ports.

A public information day was also held by the Proponent on 9 December 2010, inviting members of the local community and stakeholder groups to review the proposal, prior to lodgement of the Preliminary Environmental Assessment. The public information day was attended by all parties involved. The proposal was considered favourably for its architectural resolution of the proposed built form, particularly the green roof which would provide a softer visual outlook; improvements to public access along the foreshore; and significant public benefits to those such as educational groups.

Concerns were raised about the intensity of the continuing use of the site by the dragon boaters and the associated impacts that the proposal may have on car parking arrangements; noise associated with vessel maintenance and repair; and piecemeal redevelopment of Bank Street.

Over recent months, discussions have been undertaken with the DoP in response to issues relating to the application, particularly in terms of the proposed activities at the site involving 'heavy duty' heritage vessel restoration and major maintenance works associated with the proposal.

The City Council and the Lord Mayor (but in her then role as the Member of Parliament for the Sydney electorate) responded to concerns raised by a small number of residents in the vicinity of the site concerning the Fleet's vessel restoration and major maintenance works. Although the concerns raised were, in the opinion of the Fleet, exaggerated, they created public and political misconceptions about the Fleet's activities and the Bank Street proposal. Although efforts were made to respond to these concerns through informed commentary regarding the Fleet's operations, it became clear that such a course of action was unlikely to succeed. This was particularly so when it was publicly suggested that the Fleet should seek another site entirely or, at the very least, separate its restoration activities from its operational, exhibition and community activities.

Discussions took place, at a number of levels, to explore the options open to the Fleet. Despite detailed discussions, it became clear that, as the Fleet had long maintained, there was no viable alternative site available.

The Fleet was faced with the decision to proceed with its Bank Street proposal in the original form, or make amendments to its plans with the concerns raised in mind.

As a community-based organisation and one relying for its success on daily interaction with the community, it was decided, in response to the concerns expressed, that the Fleet would separate its back-of-house restoration activities from its public activities.

As a result, the workshops and the Sea Heritage Dock are no longer included in the proposed development and will be permanently located elsewhere. All 'heavy duty' restoration and maintenance work on the Fleet's vessels will take place away from Bank Street.

This EA has been prepared based on the requirements set out by the Director-General in relation to the proposal. It includes an assessment of the proposal having regard to the relevant environmental planning instruments, as set out in the requirements.

This EA also provides a specific assessment of key issues, relating to the following matters:

- Built form and urban design;
- Public domain and access, particularly to the foreshore;
- Transport and accessibility;
- Berthing of vessels;
- Flora and fauna;
- Water quality;
- Air, noise and odour control;
- Drainage and flooding;
- Waste management;
- Infrastructure;
- Development staging;
- Sustainability;
- Site contamination;

[1] While all due care has been extended in the use of these reports, no responsibilities for any error or omissions is accepted by Hamptons pertaining to these. Each of these works is provided separately as part of this EA and should be relied on accordingly for the purpose of assessing the proposal.

- Climate change and sea level rise;
- Site signage;
- Public consultation;
- Development contributions;
- Heritage (Aboriginal, Archaeological and European)

As a result of the assessment of the proposal, and as necessitated by the Environmental Assessment Guidelines, this EA provides a statement of the commitments prepared by the proponent. These provide details in relation to commitments and actions which will be undertaken as part of the construction and on-going operation of the site to ensure that the facility may harmoniously exist with its neighbours.

The outcomes of this EA are that the proposal will provide a significant public benefit and contribution both to the maritime and broader community, while providing a significant opportunity for relocation of the SHF to accommodate their use as one of a maritime facility within Sydney's waterways.

TABLE OF CONTENTS

APPENDICES

Appendix 1	Declaration – Part 3A Project
Appendix 2	Director-General's Requirements
Appendix 3	Title Certificates – Subject Land
Appendix 3A	Site Survey Information
Appendix 4	Title Certificates – Adjoining Land
Appendix 5	Agency Referrals
Appendix 6	Traffic Impact Assessment
Appendix 7	Flora & Fauna Impact Assessment
Appendix 8	Water Sensitive Urban Design Report
Appendix 9	Air Quality Impact Assessment
Appendix 10	Noise Impact Assessment
Appendix 11	Waste Management Plan
Appendix 12	Contamination Assessment
Appendix 13	Climate Change Induced Sea Level Rise Assessment
Appendix 14	Heritage Impact Assessment

1 INTRODUCTION

Hamptons Property Services Pty Ltd (Hamptons) has been retained by the Sydney Maritime Museum Ltd, trading as the Sydney Heritage Fleet (herein referred to as 'the Fleet'), to prepare an Environmental Assessment for the proposed relocation of the public activities associated with the Fleet from their existing facility at Rozelle Bay, to the site at 3 Bank Street, Pyrmont (herein referred to as the site).

The Fleet is a community-based maritime museum, founded in 1965, that plays a unique role in the preservation of Australia's maritime heritage. By preserving, restoring, maintaining and operating a collection of significant historic vessels and artifacts, the Fleet not only presents its collection as 'objects' in the conventional museum tradition, but provides the added dimension of preserving and presenting to the public, the skills and social structures related to those objects, through their operation. To enable this unique museum role to be properly showcased to the public requires water and shore-based facilities which, in its almost 50 year history, the Fleet has never managed to acquire, despite a number of 'near misses'.

To take the museum on into its next 50 years it is essential that the Fleet find a location for its operations that will enable its activities to take place, and be properly presented, now and in the future. The Fleet needs a permanent home to consolidate its ability to continue to contribute meaningfully as a custodian of a significant portion of the nation's maritime heritage, and to share it with the community. A permanent home will also enable the Fleet to continue to share and preserve the special skills and seafaring traditions associated with its collection before they are lost forever. These are the things that help to enrich our community, increase our skills and interests, and enhance our lives. The Fleet's proposal is a rare opportunity to do this, which is why it should be supported and encouraged.

The Bank Street site has been identified because it is easily and safely publicly accessible and it has a waterfront location which is essential if the Fleet is to publicly display its significant historic collection of vessels in their natural setting and in quiet, safe water. This site selection is a result of significant research and consultation with maritime and government stakeholders and is eminently suitable for the intended purpose. Site approval was also sought from the local community and other local interested parties. A lengthy consultation process initiated by (then) NSW Maritime and involving the Sydney City Council, management committees of nearby residential buildings, local community associations, potential neighbouring users of other areas of the site and passive water sports groups, resulted in general agreement to the use and location of the Bank Street sites land and water areas. It was on the basis of this agreement that the fleet prepared this application.

The proposed development involves both a land and water component. The land component involves a three-storey building, terraced across the site, from the waterway towards Bank Street. It is intended that this will house a variety of uses including small vessel storage; amenities; a community-based maritime skills centre; museum display and community space; an exhibition pavilion and kiosk.

The water component comprises the installation of a fixed wharf, and associated floating pontoon structures to berth the variety of vessels that comprise the Fleet's operating fleet.

24-hour public access along the water's edge is also a key feature of the proposal, with a new foreshore walk around the southern and western sides of the site. This will provide public access to both the foreshore and the facility itself from a future parkland to the east and from Bank Street to the north. It will enable public viewing of the Fleet's vessels at their berths and specially placed signage interpreting the vessels and the history of the site.

Recent detailed discussions with the Department of Planning (DoP) and Sydney City Council have led to an amendment which removes the more 'heavy duty' restoration activities from the site. The Sea Heritage Dock and the shore-side associated workshops have been deleted from the plans as all restoration work will be carried out at an alternative location. This change, in turn, has enabled a reduction in the length of the proposed fixed wharf by 23 metres and a subsequent reduction in the water based works and structures. This will have a corresponding overall reduction in the impact of the development on the environment.

The subject site is referred to in Schedule 2 of State Environmental Planning Policy (SEPP) (Major Development) 2005. Schedule 2 identifies Part 3A projects on Specified Sites. Clause 10 of Schedule 2 provides for Sydney Harbour Foreshore Sites and states that, where a site is identified on Map 9 of the Schedule, and has a capital investment value greater than $5 million, the Minister for Planning is the consent authority for the purpose of assessing a proposal and granting development consent.

This was confirmed through a declaration of the project, MP11_00001, dated 24 January 2011.

Director-General's Requirements (DGR's) were subsequently issued on 18 February 2011. As a result, the proponent is required to submit an Environmental Assessment (EA) for the purpose of assessing this application. This has been prepared by Hamptons in conjunction with the following consultants:

- Crawford Architects;
- SLR Consulting;
- McLaren Traffic Engineering;
- Sturt Associates; and
- Archaeological and Heritage Management Solutions Pty Ltd (AHMS)[2].

[2] While all due care has been extended in the use of these reports, no responsibilities for any error or omissions is accepted by Hamptons pertaining to these. Each of these works is provided separately as part of this EA and should be relied on accordingly for the purpose of assessing the proposal.

Hamptons would like to expressly acknowledge the work of Mr. Alan Edenborough, Relocation Project Director of the Fleet, Mr. John Crawford, Director and Mr. Paul Godsell, Director, of Crawford Architects, in the preparation of the EA. The works contained within this EA are a collaborative effort in preparing this submission.

The EA is lodged prior to the deadline of 30 November 2012, at which point no further projects will be accepted pursuant to Part 3A of the Environmental Planning & Assessment Act 1979 (the Act).

The EA comprises the following:

- Chapter 2 describes Sydney Heritage Fleet;
- Chapter 3 explains the objectives of the project;
- Chapter 4 provides a description of the site;
- Chapter 5 describes the surrounding locality and context of the site;
- Chapter 6 describes the opportunities and constraints associated with relocation the Fleet and the proposed site;
- Chapter 7 details the proposed development;
- Chapter 8 establishes the legislative position as to its status as a Part 3A project;
- Chapter 9 details the consultation requirements;
- Chapter 10 provides a justification of the considered alternatives;
- Chapter 11 provides an assessment of the proposed development in accordance with the relevant environmental planning instruments, as specified by the Director-General;
- Chapter 12 addresses the Director-Generals Requirements for the project;
- Chapter 13 provides the draft Statement of Commitments; and
- Chapter 13 concludes this EA.

The outcomes of this EA are that the proposal, as amended and as a direct response to community concerns relating to the potential impact on neighbouring land uses, will provide a sound public benefit and make a significant contribution both Sydney's maritime heritage and to the broader community, while simultaneously providing the opportunity for the Fleet, to broaden the scope of its community interaction and contribution to maritime history and activities in Sydney.

2 WHO IS SYDNEY HERITAGE FLEET?

The Fleet is a community-based, not-for-profit, public maritime museum that is limited by guarantee.

The mission of the Fleet is to *build and maintain an internationally recognised centre of excellence in maritime heritage for the benefit of all Australians by presenting through research, acquisition, conservation, restoration, education and operation, our continuing maritime history.*

Founded in 1965, the museum began building its historic fleet by acquiring for preservation the 1902 VIP and Vice-Regal steam launch, *Lady Hopetoun*. Operating under the name of the Sydney Maritime Museum Ltd, trading as Sydney Heritage Fleet, the organisation is classified as a 'public museum', with Australian Taxation Office Deductible Gift Recipient status.

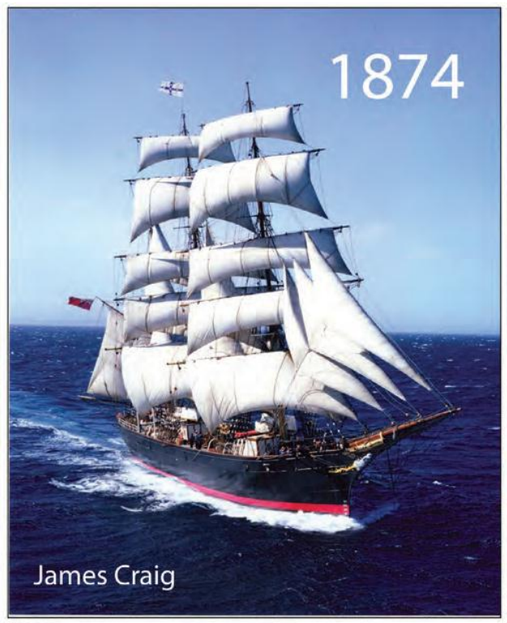
There are nine directors of the Fleet, seven of whom are elected from and by the membership. Two directors are appointed annually by the board of Governors, which advises the Board.

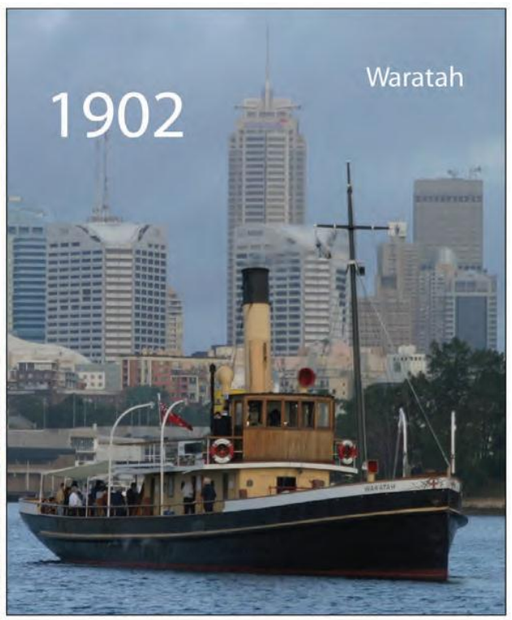
There are various Fleet committees which take ownership of particular projects and the Fleet's volunteers work with the staff to ensure efficient management of the organisation.

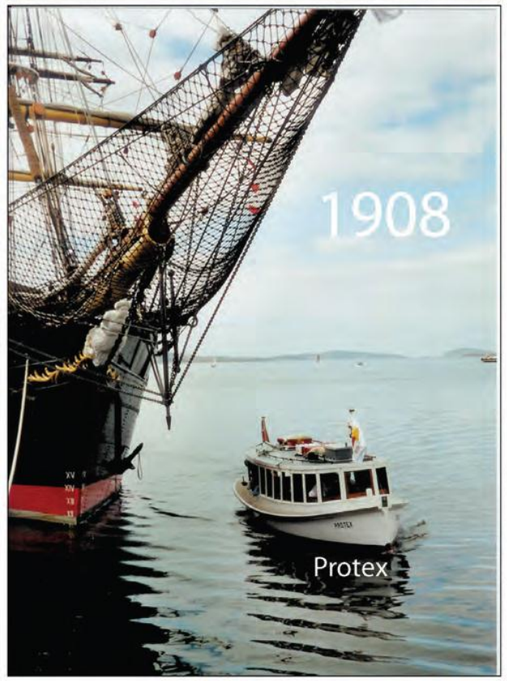
The small team of paid staff operates under a General Manager and is responsible for the day-to-day administration of the Fleet.

The Fleet has approximately 1,400 members. Of this, in the order of 550 people are active volunteers, and they clock-up an average 100,000 hours of volunteer work annually. The Fleet does not receive any direct Government funding at a Federal, State, or Council level. It relies on its own trading activities for the generation of funds, together with fundraising activities and the generosity of its members and benefactors.

- The Fleet currently has in its collection the following historically significant vessels: Tall Ship or Barque, *James Craig* (1874)
  - Steam Launch, *Lady Hopetoun* (1902)
  - Steam Tug, *Waratah* (1902)
  - Gentleman's Schooner, *Boomerang* (1903)
  - Motor Launch, *Protex* (c1908)
  - Sydney Harbour Ferry, *Kanangra* (1912)
  - Pilot Vessel, *John Oxley* (1927)
  - Motor Launch, *Harman* (1943)
  - Motor launch, *Berrima* (1955)
  - Classic Speedboat, *Kookaburra II* (1960s)







In addition, the Fleet has a significant collection of historic Sydney Harbour small craft, and a Maritime Records and Research Centre which houses one of Australia's major collections of maritime books, pictures and other records with particular reference to Sydney. The Fleet also runs popular education courses and works with schools, youth groups and other community organisations.

Further information may be found on the Fleet website at www.shf.org.au.

3 THE OBJECTIVES OF THE PROJECT

As referred to in Chapter 1, for almost fifty years the Fleet has sought a permanent home on Sydney Harbour at which it can engage with, contribute to, educate, inform and become involved with, the wider community, showcasing its maritime museum collections in an attractive setting, with safe and accessible public viewing opportunities and easy access for those experiencing the Fleet's vessels as passengers. Very few of these objectives are possible under present circumstances.

An inspection of the existing facility at Rozelle Bay is evidence that the organisation is rapidly outgrowing this location and allows for limited, if any, opportunity for public access to this.

In addition, due to the poor level of accessibility by both public and private transport, along with its location in a waterfront industrial area, it is not one that is attractive and is largely akin to an industrial operation that is unappealing to the public.

Therefore, the objectives of this relocation project are as follows:

- To create a significant and landmark site for the public exhibition of a significant collection of Australia's maritime heritage;
- To ensure that the Fleet's collection is accessible to the public and is located in an ideal, community-based setting;
- To provide the opportunity for educational and skills transfer opportunities for school children, individuals and maritime interest groups, along with the general public;
- To create curriculum-related tours, provide day-long learning activities and enable a location for specialist maritime skills training;
- To value and build upon volunteering within maritime heritage;
- To provide opportunities for the Fleet, as maritime history custodians, to share skills and experience with future generations of volunteers and maritime enthusiasts;
- To establish a site that becomes a tourist destination within Sydney Harbour; and
- To locate a facility that will exist harmoniously in the context of surrounding land uses, so as not to cause adverse impacts to its surroundings, having particular regard to matters of visual impact, traffic generation and noise.

Having regard to the above project objectives, the intent of this relocation is to establish a community-based museum and maritime skills centre that is publicly accessible and identifiable to the maritime and broader community. In so doing, this will allow for an array of land and water-based activities, including, but not limited to:

- Opportunities to display vessel, artefact, library and research collections;
- Mount exhibitions, such as the 'Story of Sydney Harbour';
- Provide daily site tours, both self-guided and escorted;
- Integrate maritime heritage activities with the Wharf 7 Heritage Centre, *James Craig* and the Australian National Maritime Museum at Pyrmont, through boat and walking tours between the facilities;
- Co-ordinate tours with the nearby Sydney Fish Market to take advantage of their visitor base;
- Arrange regular school tours;
- Provide harbour cruises on Fleet vessels;
- Provide public viewing facilities to volunteer skills spaces within the complex;
- Undertake skills demonstration workshops;
- Provide educational and training programs that are curriculum-based and hands-on to enable practical training;
- Provide courses and activities for disadvantaged groups;
- Provide multi-use spaces that may be adapted for community meetings and training events;
- Establish a volunteer-run waterside coffee kiosk for visitors and users of the foreshore promenade;
- Enable the use of the Fleet's smaller, on-water craft for activities, particularly for youth programs, including training courses for handling, sailing and water safety;
- Facilitate boating activities, involving both dragon boats and rowers;
- Provide small boat workshops for amateur boat builders, enabling the transfer of tools, skills and knowledge;
- Undertake training days for wooden boat building skills and techniques;
- Facilitate a periodic boating bazaar where people are able to buy, sell and trade boat parts and marine-related goods, involving the general public, local Rotary, sea scouts, navy cadets and other youth organisations.

It is with these activities in mind that the location, design and layout of the proposed facility have been developed.

4 THE SITE

4.1 Site Description

The land side of the site is located at 3 Bank Street, Pyrmont. The site also incorporates a water-based element to the south and west of the land.

The land is legally described as Lot 19 and part Lot 20 in Deposited Plan 803159.

Within the land component of the site exists Lot 21 and Lot 22 in Deposited Plan 803159, which are owned by the Roads & Traffic Authority (RTA) of New South Wales, now known as Roads and Maritime Services (RMS). These lots incorporate a pylon that supports the Anzac Bridge (Figure 1). These lots do not, however, form part of the application, other than by way of facilitating certain access arrangements.

The land component is 4,642m^2 in area (with 154m^2 being water-based), with a north-eastern frontage to Bank Street of 43.6 metres and side boundaries to the south-east and north-west of 58.4 metres and 57.9 metres. The rear boundary fronts the water; the site has a 37.2 metre western boundary and a 65.2 metre south-western boundary (Figure 1).

The water component extends to the west, into Blackwattle Bay, with an area of 11,210m^2

The northern boundary is 108.14 metres in length and the western boundary is 83 metres in length. The southern boundary is 174 metres and the eastern boundary, adjacent to the passive boat ramp, is 36 metres in length.

This water component will be the subject of separate lease arrangements with RMS.

The site slopes down from Bank Street to the waterfront, with a fall of approximately two metres.

The site has, until recently, been vacant. It is, however, currently being used by RMS for the purpose of essential maintenance works to the Anzac Bridge (Figure 2).

4.2 Site Ownership details

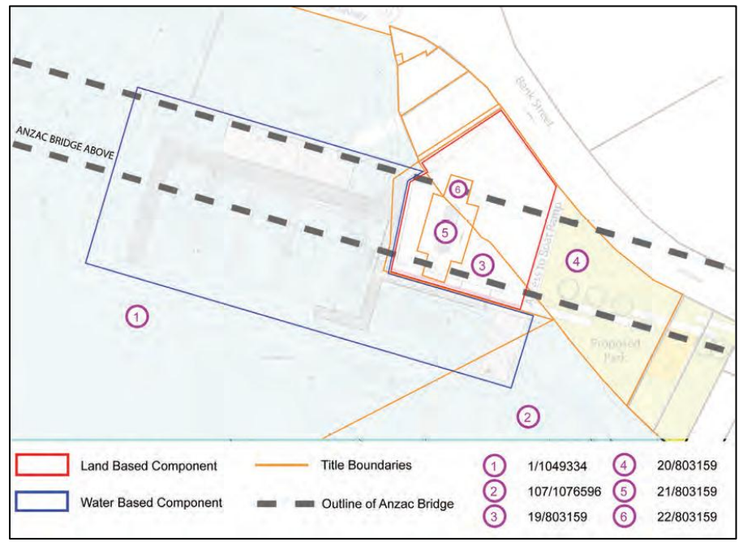
The ownership of the land and water based components of the site are summarised at Table 1.

Table 1: Ownership Summary

Reference:	Legal Description	Ownership
1	Lot 1 DP 1049334	NSW Maritime
2	Lot 107 DP 1076596	NSW Maritime
3	Lot 19 DP 803159	NSW Maritime
4	Lot 20 DP 803159	NSW Maritime

For reference, the applicable Title Certificates for the relevant parcels of land accompany this EA.

Figure 1: Site Plan



Source: Crawford Architects and http://imagery.maps.nsw.gov.au/

Figure 2: Aerial Photograph of Site Conditions

Source: Sydney Heritage Fleet and www.google.com.au

4.3 Soil & Wind Conditions

In accordance with the 'Soil Landscapes of Sydney 1:100,000 sheet' 1989, the site is located within a 'disturbed' soil landscape and may also be partially within the Gymea soil landscape[3]. The disturbed soil landscape is characterised as terrain, which has been disturbed by human activity, including fill materials for reclamation, whereas the Gymea soil landscape is characterised by undulating rolling rises and low hills on Hawkesbury sandstone[4].

The local wind conditions come from all directions, with strongest winds originating from the south, southeast and the west[5].

[3] SLR. Water Sensitive Urban Design Report. Page 9

[4] AHMS. Heritage Impact Assessment page 36

[5] SLR. Air Quality Assessment. Page 13

4.4 Current and Historic Use of the Site

The site has remained vacant for a number of years and consists largely of unsealed hardstand areas with miscellaneous grassed areas closer to the interface with the waterway.

It has been used informally by Dragon Boats NSW, who store dragon boats and equipment on the site and in storage containers. More recently, the site has been taken over by RMS, on a temporary basis, for a period of approximately two years. The purpose is for essential maintenance works to the Anzac Bridge. These works are due for completion by 2014.

The Heritage Impact Statement has identified the following with respect to previous uses:

- The first major development near the site was the 1853 establishment by Charles Saunders of a sandstone quarry. This sandstone quarry was within the escarpment to the north-east of the site;
- By 1867 the City Iron Works Company had built an engineering shop to the north of the subject site and in 1875 the Colonial Sugar Refinery (CSR) built a complex adjacent to the sandstone quarry. It was likely that CSR purchased the majority of the land down to the water;
- By 1911, narrow allotments had been established between Blackwattle Bay and Bank Street and by 1913 a tramline ran along Bank Street that linked Glebe Island to the central part of Sydney, *via* Miller Street;
- The sandstone quarry then became a Council garbage incinerator that was known as the Pyrmont Incinerator;
- Through the mid-twentieth century, the site was considered to be largely vacant with a part of the site being occupied by CSR, which had occupied the entire site by the 1980s; and
- The ANZAC Bridge was opened in 1995 and its construction required the extension of the shoreline to the west to accommodate the footing for the eastern pylon.

Land reclamation has been undertaken within the area during the aforementioned history[6].

[6] AHMS. Heritage Impact Assessment page 13

Image - Figure 11 of AHMS Report: Portion of 1917 map with the study area indicated.

Source: National Library of Australia

Image - Figure 18 of AHMS Report: 1949 Aerial photo of the site which remains vacant**.**

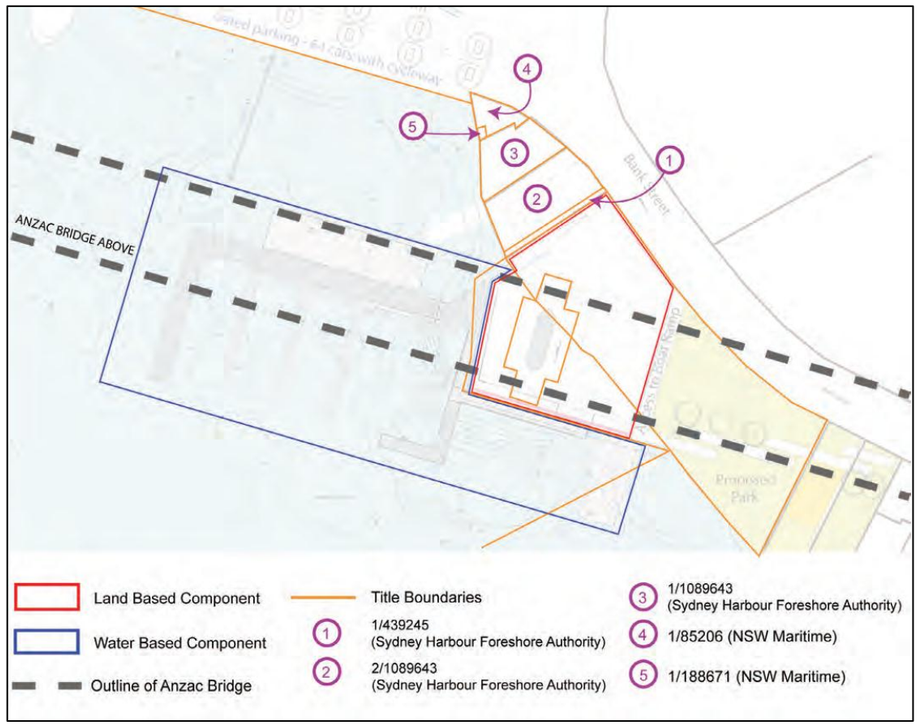
Source: Sydney City Archives

5 THE LOCALITY

5.1 Surrounding Land Ownership

The site is surrounded by several parcels of land owned by a number of different government agencies, as illustrated below at Figure 3.

Figure 3: Surrounding Land Ownership Arrangements



Source: Crawford Architects and http://imagery.maps.nsw.gov.au/

For reference, the applicable Title Certificates for the relevant parcels of land detailed above accompany this EA.

5.2 Direct Context and Nearby Uses

Land uses within the vicinity of the site are varied, including a mix of residential, industrial, commercial and retail development, as well as various open space areas.

To the north and north-east of the site are medium and high density residential developments, some of which are currently under construction (Figure 4).

Directly east of the site is a public open space area, which is adjoined by Poulos Bros Seafood and the Hymix Concrete Plant (Figure 4).

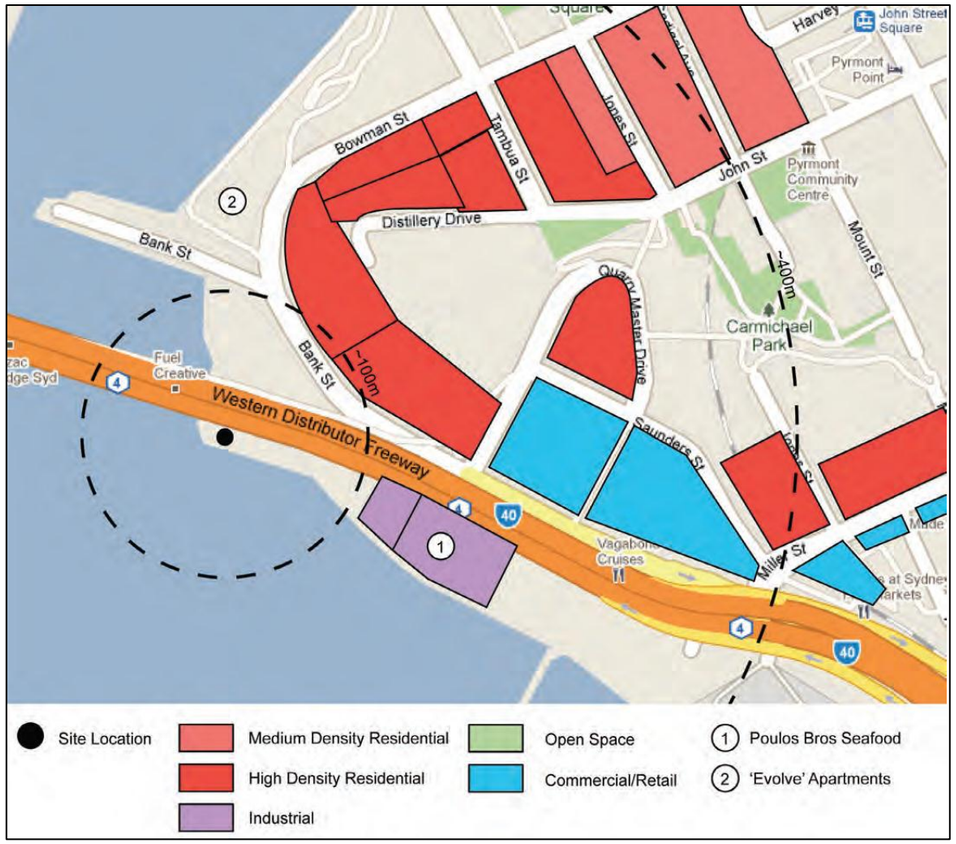
Commercial and retail land uses are located to the east of the site, along Bank Street, with these continuing along Miller Street (Figure 4).

To the south of the site is Blackwattle Bay. On the opposite side of the Bay, land uses vary between maritime, industrial and residential uses.

To the west of the site is Rozelle Bay, which is dominated by 'working harbour' marine activity, including the new Sydney City Marine shipyard under the Anzac Bridge on the opposite shore. Rozelle Bay also hosts the Superyacht Marina and construction of a major dry-stacking boat storage facility is imminent.

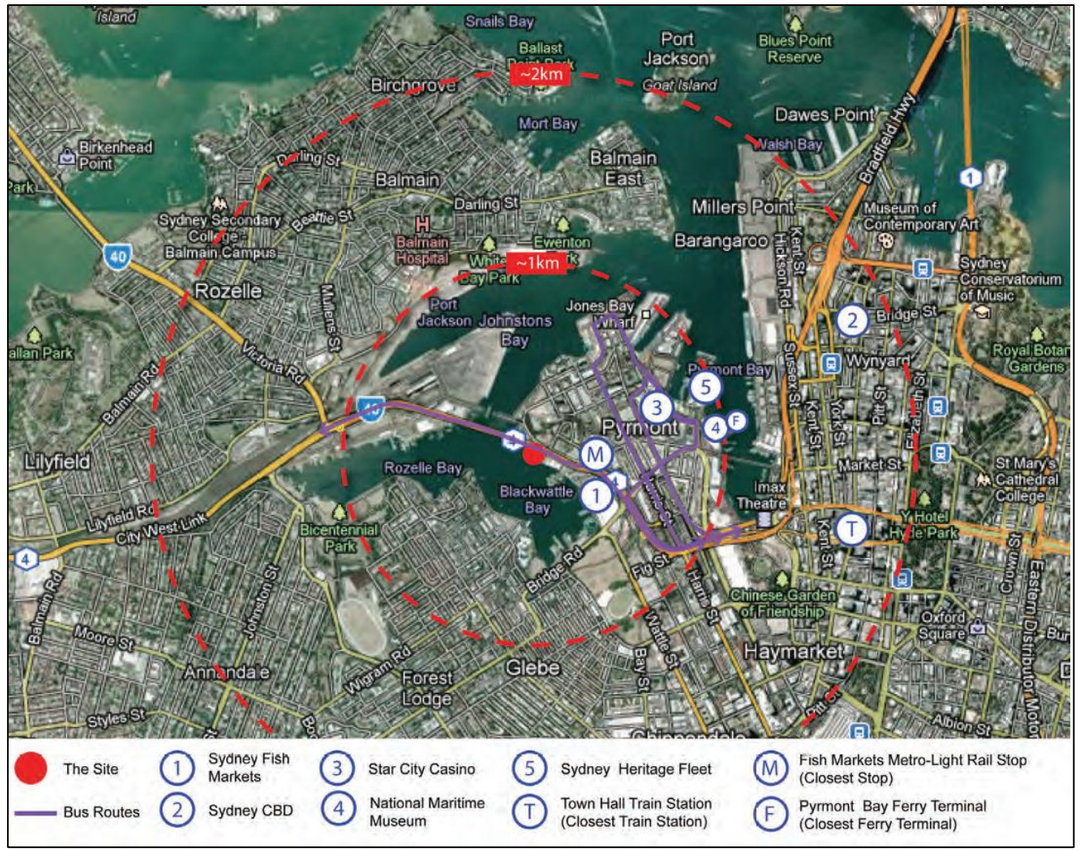
Public transport alternatives within the vicinity of the site are varied and include train, bus, ferry and light rail alternatives.

Figure 4: Direct Context Map



Source: www.google.com.au

Figure 5: Broader Context Map



Source: www.google.com.au

6 THE OPPORTUNITIES AND CONSTRAINTS PRESENTED BY THE SITE & THE PROPOSAL

As stated previously, some concerns were raised about the proposal, particularly through Sydney City Council (the Council). These related to one of the intended uses of the site, being 'heavy duty' restoration work on two historic vessels intended for the operational vessel fleet.

Concerns were also raised in respect to the zoning of the land in relation to the restoration element of the proposal; the footprint of the proposed water development; and potential amenity impacts associated with the restoration activity.

Whilst believing that the concerns were overstated, as a community-based organisation, the Proponent pursued discussions with a number of government agencies to explore the possibility of alternative locations for the Fleet's restoration activities. The need for 'quiet', safe water for the Fleet's historic vessels and the small craft collection, means that relocation of the operational Fleet, small craft and accompanying berthing, boatsheds and museum exhibition areas from Bank Street is problematic. Additionally, the Fleet has undertaken to provide secure boatshed accommodation for the craft of Dragon Boats NSW and the boatshed is included in the Fleet's proposed development at the head of the existing new Blackwattle Bay passive boating launching ramp.

As a result of these discussions, positive steps are being taken to enable the Fleet to respond to the restoration activity concerns about the Bank Street proposal. Without these positive steps, the Fleet would find itself in the invidious position of finding its ongoing viability in jeopardy, along with the likelihood that its historic vessels may be lost to the nation through an inability to maintain and preserve them.

The outcome is that, after discussions with the DP&I, the Fleet has amended its proposal to reflect a modified layout and usage that responds to the concerns raised in response to the application.

The uses and works **excluded** from the amended application include:

- the Sea Heritage Dock will not be located to Bank Street;
- major restoration of the two vessels in the Fleet's long term restoration project plans will not occur at the Bank Street facility;
- Running maintenance on the Fleet's operational vessels will take place at Bank Street. 'Running maintenance' is the day-to-day, light work necessary to enable the Fleet's operational vessels to continue their charter and harbour cruise activities. Any significant maintenance, and work carried out during a vessel's annual lay-up, will not take place at Bank Street.
- Given that the Sea Heritage Dock will not be located at Bank Street, the overall length of the water-based development will be reduced by 23 metres in an east-west direction.

For clarity, the figure on the following page demonstrates the proposal, as lodged as part of the Preliminary Environmental Assessment and the now lodged proposal. This overall site plan demonstrates the significant changes that are proposed, as part of the modified application.

It is considered that the amended proposal for use of the site should alleviate previously expressed concerns with respect to:

- the use of the land, now restricted to activities relating to the Fleet's operational historic vessels and small craft, which will enhance the recreational and amenity potential of the site, thus addressing zoning concerns.
- the overall footprint of the water-based development; and
- the perceived amenity impacts associated with the proposal.

The amended proposal seeks to pursue development of the site in the most suitable location for the Fleet's amended uses and without adverse impact on neighbouring uses. It is consistent with the zoning of the land and this is reinforced by the development being a community facility, with considerable benefits to the local and broader public.

With these points in mind, the opportunities and constraints of relocating the Fleet to the Bank Street site are identified in the table below.

Table 2: Opportunities & Constraints associated with relocation

Opportunities	
Integration & Connectivity	It provides an ideal opportunity for an integrated facility to be established at the land-water interface, to ensure connectivity between the uses.
Public Purpose Facility	The site is in public ownership and therefore is accessible to the community. The proposal represents an excellent opportunity to utilise the site for a public purpose with a longstanding community-supported working museum focused upon maritime heritage.
Appropriate Use in Difficult Physical Context	The site is hindered, with respect to solar access, due to the location of the Anzac Bridge (the Bridge) overhead. Therefore, the proposal provides an ideal opportunity for use of this land in what is a difficult physical environment that has few other opportunities for its use.

Figure 5a: Preliminary Environmental Assessment: Site Masterplan

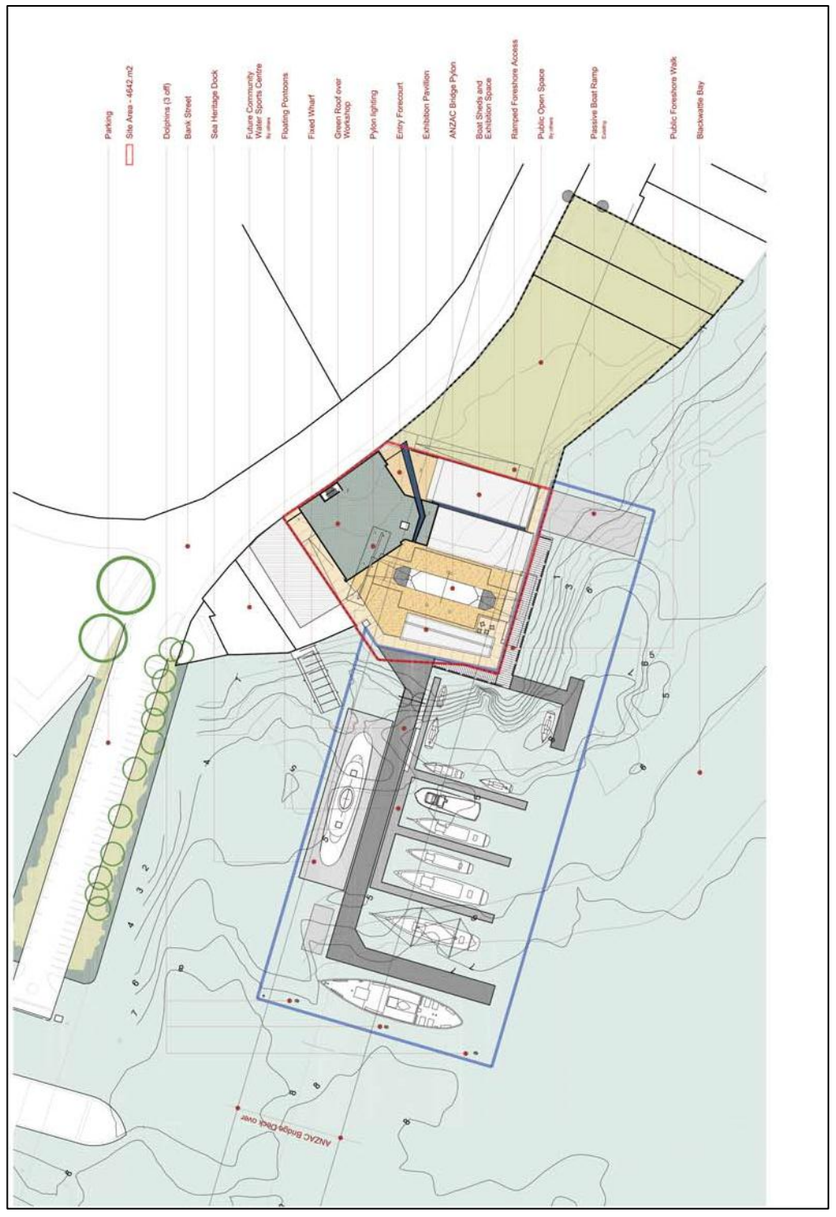
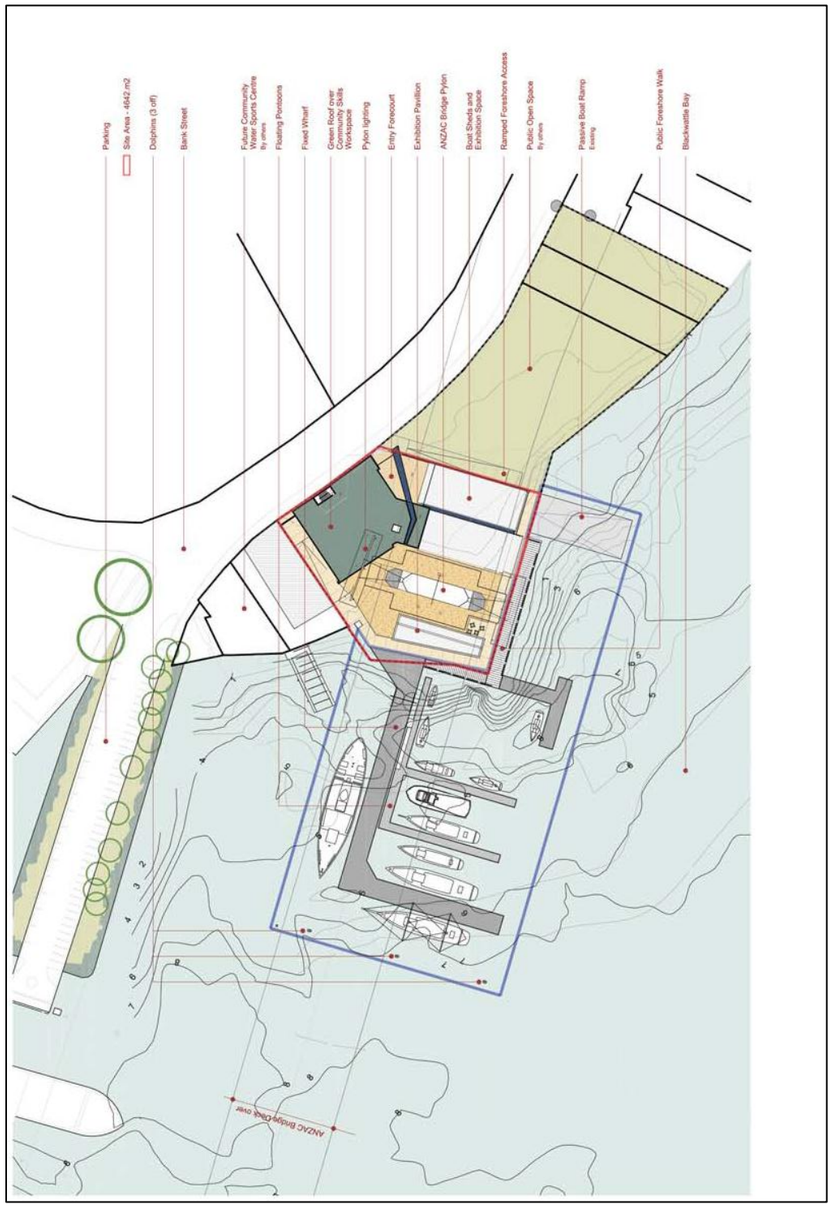


Figure 5b: Site Masterplan as proposed (and amended)



Public Participation in Fleet Activities	The site is an appropriate fit with the Fleet's desire to encourage greater interaction with the public. One of the aims is to actively promote public participation in many of its activities. These range from the relatively passive research and cataloguing of maritime records and photo collections; to active hands-on courses conducted to preserve traditional maritime skills (past and present), along with small wooden boatbuilding and repair workshops; and harbour cruises using the Fleet's historic vessels. There is something of interest for everyone and this site provides the opportunity for an integrated approach in providing these activities.
Consistency with Land Use Zoning	Importantly, the facility is an excellent match for the current land zoning, being Public Recreation. The Fleet is a public museum and a maritime-based organisation fully utilising an important waterfront site with water based recreational activities, including the hosting of the passive boating clubs of Dragon Boats NSW through provision of boatshed facilities linked to the public Blackwattle Bay passive boating launching ramp. The organisation actively encourages public and local community participation while simultaneously preserving and using historic vessels which are a significant part of Sydney's maritime history.
Improved Visual Outcome	The form and appearance of the completed development will be a significant improvement over what exists on the largely derelict site today. The proposed buildings will enhance, delineate and bring some order to what is an ill-defined, rather unusable space that was 'left over' after the eastern Anzac bridge pylon was completed in the mid 1990's.
Non-Prominent Feature in the Harbour Landscape	The extent of the Bridge provides a significant visual shield over the site, thereby reducing the visual prominence of built form in this location. The facility is dwarfed by the sheer size and scale of this.
Accessibility to Public Transport	The site is strategically located in close proximity to public transport facilities making it accessible for both regulars to the site, as well as tourists and the general public.
Strategic Linkages	It provides part of a strategic link with other significant maritime facilities, such as the Australian National Maritime Museum, which enables coordinated approaches to activities, as part of the state, and national, maritime history.
Lack of Historical Significance	It is not land which has any historical relevance or heritage listing that prevents its use.
No Adverse Impacts	The intended use of the facility can easily operate without causing adverse impact to the surrounding land uses, having particular regard tor its residential neighbours. This largely comes from the skillful design which has been employed to satisfy the needs of the Fleet, while carefully considering neighbouring land uses.
Constraints	
Whether the Site is Independently Developable?	The site forms part of what is known by many as the Bank Street Masterplan Area and there have been concerns expressed by some community members that suggest a need for integrated redevelopment of the site from No. 1 – No. 9 Bank Street. In particular, there has been suggestion that one allotment should not be developed until all allotments are in the same position to proceed. This is not a practical outcome due largely to different land tenure arrangements, nor is it sound planning justification for one development project to be contingent upon another when they are subject to separate commercial and/or leasing arrangements. Therefore, this proposal may be suitably implemented without bearing on, nor hindering redevelopment of, adjoining sites. The site is easily developable within its own right.
Potential Impacts on Neighbouring Land Uses	The use of the land is potentially constrained having regard to the land uses within the vicinity. For example, noise and air quality impact concerns raised by nearby residential communities. However, amendments to the proposal ensure that such potential risks are mitigated if not entirely removed.
Site Contamination	Constraints have been identified with respect to potential site contamination,

	due to previous uses of the land. These constraints can, however, be mitigated, as part of the construction process.
Sea Level Rise	Constraints have been identified with respect to the potential impacts of sea level rise. The use and design of the premises is considered to be adequate to deal with this issue.
Passive Surveillance to the Waterfront	While public foreshore access is a key element of planning policy, the slope of the land allows for limited passive surveillance over this part of the site. That said, discussions with RMS, has resulted in 24-hour foreshore access being agreed to, this enables the linkage with adjoining sites to occur at later stages, as these are developed. As part of the development, the new foreshore linkage will be available for access to the public 24-hours per day, seven days per week.
On-site Car Parking	The site is constrained in terms of its ability to provide off-street car parking. This is largely limited by the location of the Anzac Bridge Pylon which limits the available land use area. The development does, however, provide alternative scenarios as to how parking may be accommodated as part of the development proposal, within the vicinity of the site.

The opportunities presented by the site itself, having particular regard to the amended proposal, ensure that any potential constraints associated with the land are significantly outweighed by the benefits.

7 THE DEVELOPMENT

This section of the EA describes the works proposed as part of this application and has been prepared in conjunction with Crawford Architects.

7.1 Land Component

The land based works comprise a three storey building, terraced across the site from the Bank Street road alignment to the water's edge of Blackwattle Bay. The building elements are essentially two storeys, with one section of building overlapping to create a small three storey section. The building steps up from the water's edge and, when viewed from Bank Street, are seen as single storey elements. The design intent is to minimise the visual impact of the proposed development when viewed from either Bank Street or Blackwattle Bay and the scale of the building is similar to that of the existing buildings on the adjacent property at No 1 Bank Street.

Boat storage facilities are located on the southern side of the building directly adjacent to the water's edge and close to the recently completed passive boating ramp, constructed by RMS. The eastern part of this facility provides for the storage of dragon boats, operated by Dragon Boats NSW and the intended use of this space will be the subject of a separate application to the consent authority for the use of and associated fitout works to this area.

Adjacent to the dragon boat storage, is a similar sized space for use by the Fleet, as their small craft boatshed. The Fleet has many small sailing dinghies, rowing craft and recreational vessels which, to date, have been unable to be properly maintained or used through lack of suitable storage space, water access and launching facilities. Separate amenities for both the Fleet volunteers and for the dragon boat users are provided between the two storage areas.

Beyond the boat storage facilities toward Bank Street are the volunteers changing facilities, amenities areas and the lobby area that connects via stairs and a lift with the main entry lobby on the floor above.

To the west of the Anzac Bridge pylon, set at the water's edge, is an exhibition pavilion and a volunteer-managed refreshment kiosk. The purpose of these facilities is to provide a public interpretation and education centre, which will be used to describe the Fleet's vessels and the wider history of the site, as well as being a gathering point for cruises of the adjacent waterways in the Fleet's historic vessels. The proposed public foreshore walk is expected to prove a popular attraction and people will be able to use the area for recreation and relaxation in interesting surroundings, perhaps for the first time since the late 1880's, when industrial and commercial uses first occupied the sites in this area. The Fleet intends to curate exhibitions of the history of Pyrmont and surrounds and to map the changes over time. The exhibition pavilion will provide a focal point for this endeavour.

The pavilion is intended to be a lightweight flexible structure around which exhibition activities may be coordinated and combined with a small kiosk run by the Fleet, serving light refreshments. The Fleet Kiosk has the potential to enliven the area and to engage with, and serve, the local community, encouraging them to participate in the many exciting opportunities and interests that this development will bring to the foreshore of Blackwattle Bay

The new foreshore walk to be constructed will be for use by the public and local community. The aesthetic appeal of walking by the water's edge will be enhanced by the construction of a timber boardwalk located over the water. While there is limited visibility of the foreshore walkway from street level due to the level change between Bank Street and water's edge, as well as the visual obstruction caused by the Bridge pylon and the proposed Fleet building, public access to the walkway will be made available 24-hours per day, seven days a week. To ensure that the security of the Bridge pylon is retained, a fencing arrangement will contain the Bridge pylon and surrounding area to be protected outside of the operating hours of the site, without impeding access along the foreshore walkway. This will ensure that security concerns are alleviated, while maximising public access to the harbour foreshore.

From the Bank Street level, vehicular and pedestrian access is provided along the north-west boundary, accessing the fixed wharf and Bridge pylon area for service and maintenance. In addition, the north-west corner access will provide a drop-off and drive through facility, adjacent to the community skills workspace. This facility will provide undercover deliveries and a drop off area and also assist with traffic management in Bank Street, where deliveries, couriers and visitors will be able to drop off and pick up with minimal disruption to street traffic.

The building's main entry is located at the eastern end of the site and is directly accessible from Bank Street across an open courtyard, which leads visitors to a circulation lobby and reception area acting as a hub serving the various different areas and levels that make up the building. Adjacent to the lobby and reception areas and extending toward the water above the boat storage below, are flexible exhibition spaces, administration areas, meeting areas, amenities and an external deck overlooking Blackwattle Bay. These spaces may be combined to provide larger or smaller spaces and integrated exhibitions and events featuring the Fleet's extensive collections of books, maps, photographs, lines drawings, art and artefacts, all collected and/or presented to the Fleet over almost 50 years.

Adjacent to the entry lobby and accessible from the entry courtyard is a small Fleet shop, selling merchandise associated with the Fleet and its vessels, as well as a limited range of maritime heritage related items.

As noted above, an internal delivery area and workshop is located in the northern part of the building, fronting Bank Street. The design of this will minimise any noise and disruption to the nearby residential buildings by ensuring that all delivery activity occurs within the confines of the building.

Adjacent to this delivery area is the community skills workspace, where the Fleet will provide training in a variety of skills associated with small boats, using the Fleet's own small craft to provide hands-on experience. In addition, the community skills workspace will offer the opportunity for visiting owners of small craft, such as dinghies, sailing skiffs and canoes to work on their own boats while learning from experienced Fleet volunteers. Youth training courses in basic boat maintenance will also take place in this facility.

At the first floor level, the northern part of the building largely provides lay apart stores for the Fleet's vessels based at the site. There is also a viewing platform and void space, over the workspace below providing the visiting public a vantage point to observe the various activities being undertaken.

The roof of the northern part of the building adjacent to Bank Street is to be planted out as a green roof to create an aesthetically pleasing outlook for the existing adjacent residential buildings, the majority of which overlook the Fleet building. The green roof also has the added advantage of providing both additional acoustic and thermal insulation to the building, thereby reducing dependence on the need for air conditioning and heating within the space.

The existing Anzac Bridge floodlighting will be retained in accordance with RMS requirements and access to the lighting gantry will be provided from the roof area.

Externally, the building's finishes selection has been kept simple and understated. Walls are a combination of recycled timber cladding, pre-cast concrete, concrete block, natural aluminium-framed glazing and polycarbonate panelling. Applied finishes, such as paint, have been avoided. The finishes are designed to minimise the need for constant maintenance and to blend in with the simplicity of the Bridge which is constructed in concrete.

7.2 Water Component

The proposed fixed wharves and floating pontoons which make up the water-based component of the proposal are designed to enable the Fleet's vessels to be displayed to best advantage and to enter and leave their berths safely. It should be noted that the facility is not available for use by the public and does not fall into the category of a commercial marina. Mooring berths will only be available for the Fleet's vessels and all activity associated with the facility will be designed to promote the public's participation in Fleet activities and the preservation, maintenance and use of the vessels that are under the Fleet's control.

The fixed wharves will be constructed on steel piles to meet the requirements and standards of RMS for the construction of waterside structures. Steps will be taken to ensure minimal disturbance to the seabed during piling operations and the wharf decks will be designed to capture and contain accidental spills (bunding and runoff collection tanks) of any material, before it potentially contaminates the Harbour. It is anticipated that dredging of the seabed will not be required to accommodate the Fleet's vessels. Work Health and Safety

(WHS) training is a mandatory requirement for members working on Fleet projects and, as noted previously, the general public will not have unsupervised access to the wharf areas.

Floating concrete pontoons will be installed on the inside of the fixed wharves to provide easy and safe access to the smaller vessels of the Fleet which make up the majority of the Fleet's operational vessels.

A smaller 'T' head fixed wharf will be constructed directly south of the Exhibition Building, adjacent to the public foreshore walkway, to act as a pick up and drop off point for the public to participate in historic vessel tours of the harbour. This wharf is the same height as the proposed timber boardwalk and will provide a safe and convenient access point from the land to the water.

Sydney Heritage Fleet's operational vessels will be berthed at the pontoons within the water lease area.

The vessels likely to be moored at the site, and their associated lengths, may include:

Lady Hopetoun (1902)	23.5 metres
Waratah (1902)	33.1 metres
Boomerang (1903)	29.3 metres
Protex (1908)	11.1 metres
Harman (1943)	14.4 metres
Berrima (1955)	11.7 metres
Kookaburra II (1960s)	7.9 metres
Bronzewing / Currawong	15.2 metres

Further details on the Fleet's vessels may be found at www.shf.org.au.

7.3 Signage

External building identification signage will consist of a single sign on the north east corner of the building, fronting the adjoining open land to the east of the site and visible as one drives west along Bank Street.

The sign will have dimensions of ten metres by two metres and will be illuminated. It will be fitted with low lux lighting levels to ensure that there is no light spill that may impact upon residential properties within the vicinity of the site.

7.4 Operational Aspects & Staffing

Sydney Heritage Fleet is a maritime museum and its vessels do not operate to any fixed timetable or pattern. Vessel movements are dictated by museum requirements and by charters arranged through Fleet members and with the public.

For the most part, Fleet vessel movements are during daylight hours. The majority of movements take place at or around weekends – typically, Thursday/Friday-to-Monday. When Fleet vessel charters do take place in the evening, the vessel would only very rarely be away from her berth beyond 10pm (an exception would be New Year's Eve).

Charters of Fleet vessels are carefully arranged and there is a designated crew member on board vessels to enforce the responsible service of alcohol. Not all tours and charters involve catering or alcohol being available.

Fleet vessels do provide transport for several pre-booked group tours, including the popular 'Fish'n'Ships' tour which encompasses Darling Harbour and will take in the proposed new Bank Street site. These tours may take place once or twice weekly on week days, but are dictated by demand.

A typical Fish'n'Ships tour involves one of the Fleet's motor launches. The vessel departs during the morning from Blackwattle Bay to pick-up a tour group in Darling Harbour. The launch returns some two hours later with the tour group. At the proposed Bank Street site, the group will be taken on a short conducted tour of the facility before returning to the vessel for transport to the Fish Market, where the tour ends. The vessel then returns to its berth.

A Fleet vessel also provides transport for the Fleet's monthly 'Sydney Harbour Secrets' tour around parts of Sydney Harbour. There is also a monthly 'Steamin' Mondays' tour on a Fleet vessel.

A typical 'Sydney Harbour Secrets' or 'Steamin' Mondays' tour from the proposed Bank Street site will involve the tour group assembling in the main building before making their way to the Fleet vessel (typically, one of the Fleet's two steamers) and boarding for a 3-4 hour harbour cruise. At the completion of the tour, the vessel returns to its berth, the tour group disembarks and departs. The 'Sydney Harbour Secrets' tour is typically on a Saturday or Sunday afternoon, departing at 12:15pm and returning at 3:15pm. The 'Steamin' Mondays' tour, as its name implies, takes place on a Monday, departing at 10:30am and returning at 2:00pm.

The maximum size of any tour or charter group embarking on a Fleet vessel is 49 people.

Overall, Fleet vessel movements will be similar to those currently undertaken from the Fleet's existing base in adjacent Rozelle Bay. Such vessel movements have been carried out for many years, including regular

transits of the old Glebe Island Bridge, and although commencing from the Blackwattle Bay side of the old bridge, operational requirements will be identical.

Fleet vessels currently operate harmoniously and safely in Rozelle/Blackwattle Bays with the commercial charter vessels based there, and the relocation of Fleet vessels to the Bank Street site will not create any operational difficulties for Fleet or charter vessels.

It should be noted that all Fleet vessels operate with trained and certified crew as necessary and this arrangement will not change.

In the main, the route for vessels leaving the Bank Street site will be to the outer harbour through the old Glebe Island Bridge. The proposed mooring arrangements provide excellent visibility for vessel masters departing from their berths for a transit of the bridge and Fleet vessels will be clearly visible to other craft in the waterway.

Although Fleet vessels have operated safely for many years with large commercial vessels using the cement berth in Blackwattle Bay, the reduction in that traffic will remove a risk element from the waterway for **all** users.

It is proposed that the premises would operate as follows:

- Depending upon museum vessel requirements, there may be occasions when volunteer crew members (in small numbers, typically 5-10) would be on site from early morning (rarely earlier than 7am). Crew members on evening charters may return a vessel to its berth, but crew presence on site would rarely be beyond 10pm (an exception would be New Year's Eve).
- The majority of volunteer activity on the site would normally be between 8am and 6pm.
- Public visiting hours would normally be 9:30am – 5:30pm daily.

The facility is planned to be staffed as follows:

- Daily – 1 to 2 Exhibition staff and 2-4 volunteers depending upon pre-booked tours; and
- Daily – 4 volunteer site guides, depending upon pre-booked tours; and
- Daily – 2 refreshment kiosk volunteers

In addition to the above, Fleet vessel volunteer crew members will come and go on the site depending upon museum vessel requirements and charters. The maximum number of volunteers ever likely to be crewing vessels on a single day might total 30-40 volunteers. The majority of these volunteers will travel to and from the site by public transport.

7.5 Operational Running Maintenance of Vessels

The maintenance of vessels will be limited to the day-to-day work required to keep the vessels operational. Maintenance such as that carried out at a vessel's annual lay-up will take place elsewhere. The Fleet has almost fifty years' experience in operating heritage vessels and the maintenance systems and regimes required are well honed and practiced.

Under the running maintenance heading are such routine requirements as brass polishing, deck cleaning and occasional touch-up painting.

Between operations, volunteers will carry out routine checks on the steam and diesel machinery (depending upon the vessel), and also carry out such routine running maintenance as checking oil, fuel and water levels, and lubrication, as necessary.

The steam vessels will require periodic coaling. At the site this would involve carrying, usually by fork lift, bagged or covered coal from the designated store area within the main building to a coaling point on the fixed wharf. Here, the coal would be quickly transferred to the vessel's bunkers, the method varying depending upon the vessel. This frequency of this procedure would depend upon the frequency of use of the steam vessels, but coaling is not required after each vessel use.

There is a requirement to remove ash from the boiler fireboxes of the steamers after a steaming. This is done as almost the reverse of the coaling process, with all containers covered and removed to a designated ash storage area within the main building for disposal. It should be noted that the Fleet has had almost fifty years' experience in handling coal and ash in such a way that all environmental obligations in force are met.

Fuel for the diesel vessels is usually transported by a fuel barge and discharged directly into the vessel's tanks. This method of fuelling has been practised for many years on Sydney Harbour for both commercial and private uses.

Any bilge water in a vessel is discharged into containers and disposed of ashore in an environmentally-compliant process. Similarly, effluent holding tanks are discharged only at official harbour side pump-out stations.

All Fleet vessels have a safety management system (SMS) which complies with current RMS requirements.

There is little noise associated with any of the routine operational running maintenance procedures. It is again noted that any maintenance requirements, other than minor operational running maintenance, will be carried out at another location.

7.6 Emergency Management Procedures

The proposed Bank Street site would be under the management of the Fleet's staff Operations Manager who also has day-to-day management of WHS matters.

All personnel, whether staff or volunteers, are currently required to sign-in on arrival at any Fleet site and sign-out on departure. The procedure allows monitoring of personnel on site and also acts as a checklist in the event of an emergency evacuation. This practice would be continued at the proposed Bank Street site.

Emergency evacuation procedures for all personnel – in the event of fire, or for an individual in the case of an accident – currently in place at all Fleet sites will be implemented at the proposed new facility.

The Fleet has an active WHS Committee which oversees procedures and practices for all personnel, staff, volunteers or visitors.

The Fleet has an enviable safety record over its nearly 50 year history.

7.7 Car Parking, Vehicular Access & Servicing

Due to the site constraints, particularly the location of the Bridge pylon and potential interference with vehicular access arrangements, there is no car parking proposed on the site, as part of this proposal.

Parking alternatives, in conjunction with alternative means of transport to and from the site, are discussed at Chapter 12 of this EA.

Vehicular access for the delivery of equipment and materials to the site will be via Bank Street, on the north-western side of the building. Access will be provided into the delivery area within the building, on the northern side of this. This is a double-height space to accommodate a 4.2 metre high truck.

Deliveries to the site will include:

- Delivery of consumables used on the site, such as exhibition materials and objects, coal, lubricating oils and materials for the skills workspace activities and the boatsheds. These will arrive on trucks and deliveries will generally be infrequent, typically on average once per week.
- Delivery of refreshment kiosk supplies will also be infrequent and will be likely to require only a volunteer's car, or the Fleet's utility.
- Overall, unless there are exceptional circumstances, all deliveries will be unloaded off-street, within the main building or wharf precinct.
- As noted elsewhere, diesel fuel will normally be delivered by water using the services of an experienced and licensed fuel supplier. Such deliveries may occur only two or three times per year.

In addition, a 21-seat mini-bus may access the drive-through building access to transport tour groups to and from the site.

7.8 Landscaping and Foreshore Walk

As detailed above, it is proposed to provide a green roof over the northern part of the main building, closest to Bank Street. The purpose of this is twofold. While the site is largely screened by the Bridge, Crawford Architects have been mindful of the interface that the site has with residential properties to the north. As such, this roof design has been incorporated to aid the visual appearance of the building and present a softer outlook than if a blank roof structure were proposed.

In addition, the proposed form of the roof will assist to insulate noise associated with the workshop space housed below this, and will provide an additional layer of protection for improved thermal insulation.

For the complete extent of the project's waterfront it is proposed to extend the width of the foreshore walk with a timber deck, set at the same level as the existing concrete sea wall. Timber is more pleasant and comfortable underfoot, is more environmentally and visually sustainable and will soften the transition between the land and the water. Timber decking also reinforces the impression of traditional timber wharves, which is in keeping with the purpose and uses taking place on the site.

The purpose of this foreshore space is for use by the public and in doing so, to conform to the relevant planning policies which seek to promote public access to the foreshore.

Despite the Proponent's concerns about public safety, as a result of the limited visibility over the foreshore area from Bank Street, the DP&I has advised that 24-hour public access of the foreshore is required. Subsequent discussions with RMS resulted in agreement that, with adequate protection measures in place, the foreshore walk may be opened up for public access purposes 24 hours per day. The Bridge pylon will be secured with fencing that is opened during Fleet operating hours on the site. This will ensure that the original intent of the design is remains intact while providing the required night time security for the relevant areas of the site. However, at night, the relevant areas will be secured accordingly.

The Fleet will ensure that adequate security measures are in place, to ensure protection of their assets in this location.

7.9 Architectural Design Philosophy

John Crawford, Director, Crawford Architects, has provided a design statement to accompany this EA. Extracts of this are provided below.

BUILT FORM / URBAN DESIGN

The Sydney Heritage Fleet's proposed new Fleet base is to be located beneath the suspended road deck of the Anzac Bridge, adjacent to the eastern pylon. Bordered by Bank Street to the north and facing south west onto the waters of Blackwattle Bay, the Fleet's proposed facility is dwarfed by the sheer scale and size of the Anzac Bridge structure. Such is the visual impact of the Anzac Bridge, the Fleet's building becomes almost irrelevant in the context of the urban design as one's eye is irresistibly drawn to the dynamics of the bridge towers, the delicate suspension cables and the 'floating' roadway of this iconic structure. Drawings, a physical model and 3D computer images all form part of the submission and the following narrative should be read with reference to the illustrations and the model.

DESIGN / MASSING AND BUILT FORM

The Fleet's building has been deliberately understated in design terms, preferring to hug the shore and meld with the existing topography. This is most apparent in any of the long views toward the city and Pyrmont or when viewed from the waters of Blackwattle Bay or from Glebe directly opposite the site.

The building itself is deceptively simple, responding directly to the designated functions that formed part of the Sydney Heritage Fleet brief.

The design utilises the level difference between the waters edge and the Bank Street road level to enhance the form and appearance of the building, especially from the water. The upper level projects beyond the lower level creating some modelling with shade and shadows and providing a degree of weather protection to the lower levels. Each of the building facades is different, responding to the differing function within the building and the varying aspects of each facade. Located as it is, under the bridge road deck, the extent of the building's exposure to the elements, sun, wind and rain is necessarily modified, with much of the building permanently protected and screened from the rain and the sun. The bridge deck significantly modifies the impact of the weather, creating its own microclimate with less sun and rain received than adjacent areas.

There are three different ways to approach the building, from the water, from the east (Fish Markets), and from the west, along Bank Street. As Bank Street is relatively narrow, it is difficult to stand back and view the building. All views, except the water view, require approaching the building obliquely. This results in viewing at least two facades at the same time. As most of the visitors will approach from the east (Fish Markets), the entry court has been located so as to "scoop them up" as they arrive at the site. It also provides a gathering and resting space outside Reception, prior to entering the building.

Some of the design constraints imposed by building in close proximity to the Anzac Bridge pylon have been utilised to enhance the amenity of the proposed building, while simultaneously satisfying the security concerns of the RMS. The proposed Public Foreshore Walk runs along the western boundary of the site from Bank Street to the waters edge. This walkway will also double as a service road to enable the RMS to gain vehicular access to the eastern bridge pylon for periodic maintenance inspections and will also permit the Sydney Heritage Fleet to have vehicular access to their proposed wharf, which extends west from this point. Vehicular access frequency for both groups would be minimal. In addition, the Sydney Heritage Fleet's small boat maintenance building utilises the flat land adjacent to the pylon as a paved courtyard area.

The form and appearance of the completed development will be a significant improvement over what exists on the site today. The proposed buildings will enhance, delineate and bring some order to what is, at present, an ill-defined, rather unusable, space that was 'left over' after the eastern bridge pylon was completed in the mid nineteen nineties. Public foreshore access will be provided for the first time, along with amenities such as, a kiosk, toilets, exhibits, information, public seating and a timber boardwalk all of which will immeasurably enhance the ability of residents and visitors to enjoy what will become a popular destination in this part of Pyrmont.

SUSTAINABLE DESIGN PRINCIPLES

In many respects the Sydney Heritage Fleet's core business is founded on sustainable design principles. Recycling is one of the things that the Fleet does best. The organisation is really a maritime custodian on water, with the added feature that the vessels are acquired, restored, repaired and then operated. All of the Fleet's larger vessels are operational or awaiting restoration. Static exhibits are confined to significant small craft donated to the Fleet and there are far too many of these to safely return to operating condition.

The basic design principle that was followed in meeting the requirements of the brief was to keep the building simple. Each functional element that makes up the building is designed to take greatest advantage of the site for its particular use. Wherever possible, sustainable principles are being applied to minimise energy consumption and maximise the use of natural light and cross ventilation in lieu of air-conditioning and mechanical ventilation.

In many respects, this is aided by the building's location under the road deck of the Anzac Bridge, thereby shading the building from direct sun for much of the day and maintaining a cooler and less variable ambient temperature. In turn, this reduces the heat gain and transfer within the building requiring certainly

less cooling, and, due to the thermal mass, less heating in the winter months. Considerable attention will be paid to the wall and roof cladding junctions and their detailing to ensure air gaps are minimised, enabling the building to be effectively 'sealed' from the elements.

The materials and finishes used throughout the building will generally be used in their natural state and, once in position e.g. concrete block walls will be used in their 'raw' state, not painted nor rendered, nor touched.

7.10 Construction Techniques

The project will be commissioned in two stages. Given the current commitments of the RMS with respect to upgrade works to the Bridge pylon, it is anticipated that works to the water component will commence first.

The construction period for the water component is anticipated to be six months. The major component of the water based construction will be the fixed wharf, which will be constructed using driven steel piles. The use of steel piles will reduce the number of piles required to carry the wharf deck and therefore, in turn, minimise the environmental impact on the sea bed.

Construction of the water based components of the proposal will be carried out by contractors experienced in waterside work and will be required to meet the compliance requirements of RMS as the consent authority for the water lease. The pontoons associated with the fixed wharf will be tethered to the structure and a minimum number of location piles will be required to maintain the pontoons in position.

No detailed design work has been undertaken at this stage, but the proposed construction will be a conventional and typical wharf structure with no special Fleet requirements, other than minimising the impact on the environment, both above and below the water. It is expected that the wharves and pontoons will be constructed 'on water' albeit there will be a land connection at the eastern end of the wharf deck.

The land based component of the proposal cannot commence construction until such time as RMS completes their upgrade and remedial work on the Anzac bridge. The current projected completion date for this is by 2014.

The Fleet building will be of conventional construction, being:

- concrete/concrete block retaining walls;
- concrete floors for the boat storage areas at the lower level;
- concrete floor slabs for the entry level, lobby, exhibition and administration areas, with insulated lightweight roofs above; and
- a concrete floor and roof structure over the workspace areas, to carry the load of the proposed 'green roof' and to provide the required thermal and acoustic protection.

Being a waterside site, special care will be taken to ensure that no run-off associated with the building works will be permitted to enter Blackwattle Bay and that the required booms and barriers will be installed at the commencement of construction to control any waterborne pollution.

8 WHY THE PROJECT IS A PART 3A PROJECT

The recent repeal of Part 3A of the Environmental Planning & Assessment Act 1979 (the Act) has altered the assessment of projects submitted under Part 3A. For the purpose of lodging and assessing this EA, it continues through the transitional arrangements provided for at Schedule 6A of the Act.

In accordance with Clause 2(1)(c) of Schedule 6A of the Act, this application is a 'Transitional Part 3A Project' as the environmental assessment requirements were notified prior to the repeal of Part 3A. In this instance, the DGR's were issued on 18 February 2011.

Accordingly, as stipulated at Clause 3(1) of Schedule 6A of the Act, Part 3A continues to apply to this application, in a manner which is consistent with its provisions immediately before it was repealed. In addition, Clause 3(2)(a) of Schedule 6A, confirms that the SEPP (Major Development) 2005 still applies to this application, as per its provisions before the repeal of Part 3A.

Further to this, published in the NSW Government Gazette on 24 August 2012, the Environmental Planning and Assessment Amendment (Transitional Part 3A Projects) Regulation 2012 legislated that no further environmental assessments would be accepted after 30 November 2012. This application is lodged prior to that date.

Given that lodgment has occurred within the appropriate time frame, the application is to be assessed pursuant to Part 3A of the Act.

Part 3A dealt with Major infrastructure and other projects. Clause 75B stated that Part 3A applied to development that was declared by a State Environmental Planning Policy (SEPP).

In this case, the SEPP (Major Development), at Part 2, provided for 'Major Projects and State Significant Sites'. This operated in conjunction with Schedule 2 for which types of development specified were a project to which Part 3A applied.

Clause 10 of that Schedule dealt with Sydney Harbour Foreshore Sites. Where there is a *'Development (with a capital investment value of more than $5 million) in the areas identified on Map 9 to this Schedule', it was subject to the SEPP (Major Development)'.*

The site is shown on Map 9 (Figure 6) and was therefore subject to Schedule 2 of the SEPP (Major Development) and Part 3A of the Act.

Having regard to this and the then provisions of the Act, Clause 75 is relevant to this application.

Development consent is sought, pursuant to Clause 75D(1); any conditions imposed would be complied with accordingly.

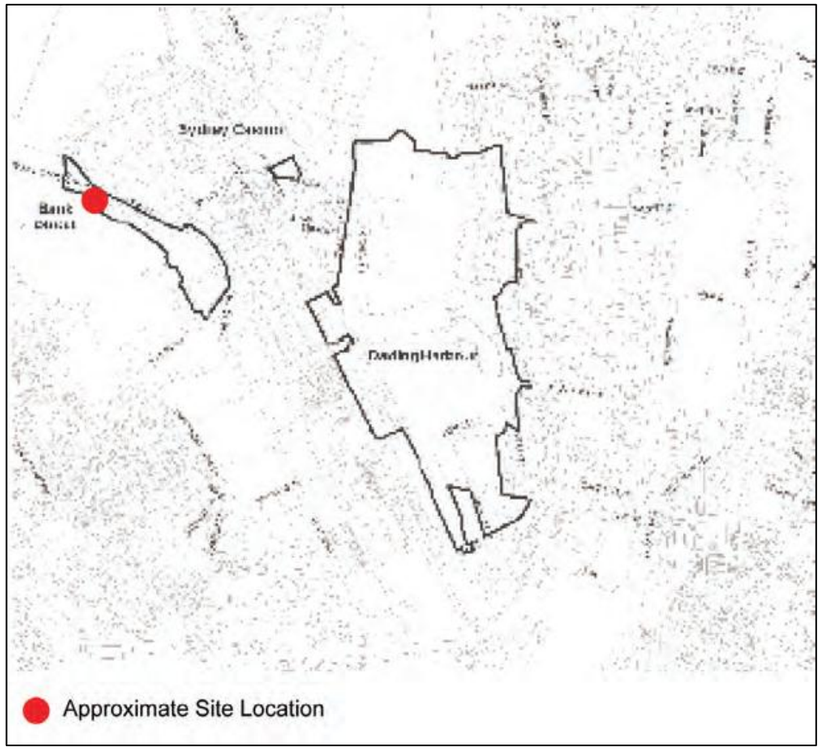
In accordance with the definitions provided at Clause 8A of the Regulations, this Project Application is made to the Minister for approval pursuant to Clause 75E(1) of the Act. In addition, pursuant to Clause 75E(2) of the Act, this EA serves the purpose of describing the project and deals with those matters specified by the Director-General. This EA relates to the whole of the project.

Director-General's Requirements (DGR's) have been issued in accordance with the Clause 75F and the relevant public authorities have been consulted. The proponent is required to provide a Statement of Commitments as part of this EA to deal with environmental management and mitigation measures, as a consequence of this proposal.

This EA is considered to address the requirements of the Director-General.

It is understood that the application will be exhibited by the DoP for no less than thirty days.

Figure 6: Map 9 Extract



Source: www.legislation.nsw.gov.au

9 CONSULTATION REQUIREMENTS

There are a number of phases of consultation that have been undertaken as part of this project to date, including with government agencies, the community, the DoP and the City Council.

9.1 Government Agency Consultation

The DoP consulted with the following agencies subsequent upon the declaration of the project:

- City of Sydney Council;
- Roads and Traffic Authority (now RMS);
- NSW Transport;
- NSW Industry & Investment;
- Department of Environment, Conservation, Climate & Water;
- NSW Maritime; and
- Sydney Ports.

The comments of each of these agencies accompany this EA. The requirements stipulated within this correspondence have been incorporated and addressed at Chapter 12.

9.2 Public Consultation

Prior to lodging the Preliminary Environmental Assessment (PEA) with the DoP, the Fleet, in conjunction with Crawford Architects and Hamptons undertook a Public Information Day.

The Day was advertised extensively in the local area by way of posters, website notices, newspaper stories and event listings, along with notices forwarded to a list of interested local community members and organisations.

The Day was held on Thursday 9 December 2010 between 10:00am and 7:00pm and was attended by the project team throughout the course of the day.

The Session was designed in a manner that provided the opportunity for people to examine the plans that accompanied the PEA and provide feedback to the project team on potential issues that they had with the proposal.

A Fleet presentation accompanied the exhibition of the PEA setting out background information about the Fleet and its operations, as well as previous sites that have been investigated for the relocation of the facility. The PEA was presented on display panels including architectural plans, elevations and photomontages detailing the proposal.

Approximately 45 people attended throughout the course of the day. The Proponent advised that these included almost all individuals who had previously taken part in community consultation on the project, some as members of the stakeholder group established by then NSW Maritime to agree uses and concept planning of the site, others as members of community organisations which had met previously with the Fleet, or as interested individuals. The information day was undertaken on a relatively informal basis, where people were able to tour the room, ask questions and provide feedback to individual members of the project team.

The key comments throughout the Day may be summarised as follows:

- The majority of people who examined the display provided praise for the architectural resolution of the proposed built form, in particular resolution of the green roof proposal which would provide a softer visual outlook for the residential properties to the north of the site.
- The proposed arrangements for public access around the site were considered very favorably and a substantial improvement over the existing situation, as the site has been fenced, locked and unavailable to the public, other than periodic use by dragon boaters, for a number of years. The proposal would open up the foreshore area to public access for pedestrians and cyclists.
- The proposal would result in a significant public benefit, particularly in terms of opportunities that it would provide for educational groups visiting the site.
- Concern was raised over the intensity of the continuing use of the site by the dragon boaters and the associated car parking impacts that the proposal may have on the surrounding street network once the vacant site could no longer be used for temporary dragon boater parking. It was requested that the project team investigate alternative car parking both within the site, and in surrounding locations.
  The project team did indicate that, at the time, there were discussions currently underway with the RMS for the possible use of the old Glebe Island bridge abutment which could provide sufficient gated car parking space, except at times of peak demand.
  Other suggested options were that of an underground car parking area beneath the proposed park, along with shared use of parking associated with the Sydney Fish Market.
- Noise associated with the use of the site, having particular regard to the works undertaken on vessels associated with the Fleet. The project team indicated that noise associated with work on the vessels is intermittent and infrequent and that noise mitigation measures would be incorporated into work practices at the site.
  It is also relevant to note that, as a result of the amended proposal, the extent of impacts, in this regard will now be significantly minimised over the original proposal.

As was indicated to attendees, a number of activities which are currently undertaken outside on the existing site, due to space limitations, would be carried out in the workshop spaces proposed within the building.

In addition to this, one of the key benefits of the proposed green roof is the sound containment qualities for activities in the workshop building, thus ensuring that noise impacts associated with the use of the site are minimised.

- Concern was raised with respect to the overall redevelopment of Bank Street and that development may occur in a piecemeal manner given that there are three distinct sites involved.
  As indicated to the attendees, while these concerns are acknowledged, it is important to recognise that each individual tenant, or future tenant of land in that area, is able to pursue planning processes at separate times and such processes cannot be held up in the event that negotiations between landlord and future tenants is occurring at different stages.

Overall, it is considered that the Day provided an informative opportunity to outline the project to the community and obtain initial feedback on the proposal.

Concerns raised, which still apply after the amendments made to the proposal, have been addressed as part of this EA. The major concerns no longer apply as a result of the amendments to the proposal, which remove all 'heavy duty' restoration activities initially proposed for the site.

Upon exhibition of the EA by the DoP, this application will be subject to the opportunity for further comment by the community. It is intended that a second Public Information Day will be undertaken by the Fleet during the exhibition period to assist with any queries that the community may have with respect to the proposal.

9.3 Consultation with the DP&I and the City Council

Over recent months, discussions have been undertaken with the DP&I in response to issues relating to the application, particularly in terms of the proposed activities at the site involving the heritage vessel restoration and major maintenance works associated with the proposal.

The City Council and the Lord Mayor (but in her then role as the Member of Parliament for the Sydney electorate) responded to concerns raised by a small number of residents in the vicinity of the site concerning the Fleet's vessel restoration and major maintenance works. Although the concerns raised were, in the opinion of the Fleet, exaggerated, they created public and political misconceptions about the Fleet's activities and the Bank Street proposal. Although efforts were made to respond to these concerns through informed commentary regarding the Fleet's operations, it became clear that such a course of action was unlikely to succeed. This was particularly so when it was publicly suggested that the Fleet should seek another site entirely or, at the very least, separate its restoration activities from its operational, exhibition and community activities.

Discussions took place, at a number of levels, to explore the options open to the Fleet. Despite detailed discussions, it became clear that, as the Fleet had long maintained, there was no viable alternative site available.

The Fleet was faced with the decision to proceed with its Bank Street proposal in the original form, or make amendments to its plans with the concerns raised in mind.

As a community-based organisation and one relying for its success on daily interaction with the community, it was decided, in response to the concerns expressed, that the Fleet would separate its back-of-house restoration activities from its public activities.

As a result, the workshops and the Sea Heritage Dock are no longer included in the proposed development and will be permanently located elsewhere. This removes all aspects of 'heavy duty' restoration and maintenance work from the site.

10 JUSTIFICATION FOR ALTERNATIVES

The SHF has been seeking a permanent home within Sydney Harbour for many years. During the past decade the Fleet has reviewed, inspected and analysed thirteen different sites and these are summarized in Figure 07. Each of these sites has been discounted or been unavailable for various reasons.

Figure 7: Alternative Sites Considered

Source: Sydney Heritage Fleet

A summary of why each of these sites did not represent a viable location is provided below, along with a response as to why the site at Bank Street is suitable, having regard to the particular matter of concern raised.

Table 3: Alternative Sites Considered

Site Location	Why the site was not suitable	Why Bank Street meets any concerns
Chowder Bay (1)	Insufficient wharfage due to defence requirements.	Sufficient wharfage can be purpose-built.
	Dangerous wave conditions in poor weather.	Blackwattle Bay provides ideal 'quiet' water needed by historic vessels.
Garden Island (2)	Navy museum planned for the site, which has now been opened.	Noted.
	Inadequate protection on exposed eastern side.	Sufficient protection is available for all vessels in prevailing weather conditions.
HMAS Platypus (3)	Restoration activities unacceptable due to topography which accentuates any noise and need to adaptively re-use buildings known to have created noise problems when under control of the RAN.	Any noise impacts associated with the amended proposal are more than mitigated through building design.
Berrys Bay (4)	Former oil terminal site provides deep water access; however, shore access is limited and shoreline configuration could hamper vessel movements.	Depth of water is sufficient at this site; shore access is essential to reinforce a relationship between the land and water components of the development and provide public access to the foreshore. Berthing layout ensures ease and safety of vessel movement.
	No shore workshop facilities and requires major wharf structures.	Sufficient space is available to accommodate necessary shoreside and wharf facilities.
	Development cost likely to be considerable for only a limited facility.	The nature of the site enables a quality facility at realistic development cost.
	Shared use of Quarantine Depot as North Shore pick-up land base is of interest.	Noted.

ANMM Darling Harbour Pool	Suitable for limited operational vessel use only.	The site is suited to all the SHF's operational vessels
	Project abandoned by ANMM due to engineering problems.	Noted.
Blackwattle Bay	Commercial cement berths not available in foreseeable future.	Noted.
	Major land-side site limitations for long-term purposes.	Land-side limitations present no impediment to this proposal.
White Bay	No shore facilities; major wharf repairs and dredging required.	The site enables new facilities, including shore facilities, and no dredging is required.
	Future still debated; cruise terminal and terminal access restricts use on land and water.	No similar limitations on land and water uses.
	Exposed for smaller vessels, particularly NE winds.	The site is suitable for smaller vessels, in prevailing weather conditions.
Glebe Island	Future being debated.	Noted.
	Exposed site for smaller vessels.	The site is suitable for smaller vessels, without exposure to weather.
	No shore workshop facilities and major wharf modifications required.	The site enables new wharf facilities to be created in conjunction with shore facilities, which will promote public access to the site.
Woolwich Dock	Restoration activities unacceptable to local residents due topography of site creating noise amphitheater.	Any noise impacts associated with the amended proposal are mitigated through building design.
	Now under lease.	Noted.
Cockatoo Island	Major proposal made and considered.	Noted.
	Sydney Harbour Federation Trust decided restoration workshops and vessels not compatible with future entertainment-based vision for island.	The proposed use of the site will enhance it for the future and provide publicly accessible use of the foreshore.
Rozelle Bay	Current workshops and docks	
	RMS wishes to let site now on community-use basis.	Noted.
	Site is constricted and unsuitable for public viewing.	The site is more than suitable for public access and viewing of SHF activities, exhibitions and vessels.
	Water area limited and inadequate for protective berthing of heritage vessels.	The water area is suitable for berthing heritage vessels.
Goat Island Shipyard	Logical long term Fleet workshop site.	Noted.
	Major proposal made and considered.	Noted.
	Political factors resulted in alternative plan being proposed, involving recommended removal of the shipyard.	Noted.
	Reversal of new policy for island not in current NPWS plans.	Noted. There is no policy position in play that compromises the location of the SHF at this site.

Taking into account responses in the table above, the site represents a suitable option for the location of the Fleet's operational and exhibition needs.

In terms of design solutions for the site, some of the key matters that have been evaluated in establishing a suitable design are as follows:

- **Car parking:-** suggestions have been put forward for a basement structure as part of this proposal. However, this has been discounted due to matters of flooding and sea level rise. In addition, the costs of excavating for such a purpose are cost prohibitive for a community organisation. As a result, alternative options have been pursued.

The Bank Street stakeholder group established by NSW Maritime and which met in 2009 and early 2010 considered many alternative site layouts over many months and the final positioning of the Fleet wharves and buildings was negotiated and signed off by all members of the stakeholder group. The stakeholder group included representatives from NSW Maritime, Sydney City Council, management committees of nearby residential buildings, local community progress groups and passive boating organisations.

The proposal, as amended, does not contravene the agreements reached with the stakeholder group at that time. Removal of the restoration element of the Fleet's activities, in response to concerns raised more recently, further reduces any impacts of the proposal.

The Fleet continues to believe that it will bring positive, attractive, community-based enhancement to the Blackwattle Bay foreshore and the Fleet's amendment to its plans is a further demonstration of the organisation's desire to contribute sympathetically to the local community scene. In turn, by hosting the Fleet within the local community, the people of Pyrmont will help to assure the future of some of Australia's most significant maritime heritage in a safe, suitable, purpose-built, attractive environment.

11 ENVIRONMENTAL PLANNING INSTRUMENTS & GUIDELINES

This section deals with compliance of the proposal, having regard to the relevant environmental planning instruments, as set out in the EAR's.

11.1 Water Management Act 2000

In accordance with Section 91 of the Water Management Act 2000, a controlled activity approval is required. A controlled activity is defined in the Dictionary as:

(a) the erection of a building or the carrying out of a work (within the meaning of the Environmental Planning and Assessment Act 1979), or

(b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or

(c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or

(d) the carrying out of any other activity that affects the quantity or flow of water in a water source.

In accordance with Section 91(2), the relevant approval is sought in association with this application.

11.2 Protection of the Environment Act 1997

The proposed development will require approval pursuant to Section 43(b) of the Protection of the Environment Operations Act 1997. This Section authorities the carrying out of scheduled activities in accordance with Section 48.

Section 48 deals with licensing requirements for scheduled activities, as set out at Schedule 1. This calls in marina and boat repair facilities (Clause 25). And includes activities for the construction and maintenance for both dry and floating docks generally.

As such, the relevant approval is sought in association with this application.

11.3 State Environmental Planning Policy (Major Development) 2005

The SEPP (Major Development) has been addressed at Chapter 8.

11.4 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 was gazetted on 21 December 2007 and applies to the State of NSW.

However, given the nature of the proposed works, the provisions of this policy are not applicable in this instance, namely:

- The proponent is not a public authority, nor are the proposed works being undertaken on behalf of a public authority. Therefore, the provisions of **Part 3**, **Division 13 Port, Wharf or Boating Facilities** are not relevant to the determination of this application; and
- The proponent is not a public authority, nor are the proposed works being undertaken on behalf of a public authority. Therefore, the provisions of **Part 3, Division 25, Waterway or Foreshore Management Activities** are not relevant to this application, in particular as they relate to foreshore access ways; and
- The proposal is not captured by **Schedule 3** as traffic generating development**.**

11.5 State Environmental Planning Policy No. 55 (Remediation of Land)

SEPP No. 55 requires, as part of the development application process, consideration of land which has the potential to be contaminated. Where there is this potential, appropriate measures to remediate such land must be included as part of any application. The requirement of the SEPP is that land is suitably remediated prior to its use (Clause 1).

As part of considering an application, the consent authority must contemplate a preliminary contamination assessment of the land to be developed. Such investigations are to be conducted in accordance with the Contaminated Land Planning Guidelines.

To comply with the requirements of SEPP 55, SLR Consulting Pty Ltd was appointed to undertake such assessment.

In accordance with Clause 4, the land is to be used for recreational purposes.

Previous investigations have identified the potential for contamination, based on known activities, which, as identified by SLR Consulting, are as follows:

- *Colonial Sugar Refinery: gypsum and possibly building materials were stored on site potentially along with sugar refining raw materials;*
- *Cam and Sons Limited: it is likely, due to trawling activities of this company that fish and fish products would have been stored and moved across the site, coal was also stored and used as fuel within vessels, which may have been transferred onto the site.*
- *Timber Merchants (including Allen Taylor and Company Limited): it is possible that timber (treated/untreated) was stored or moved across the site. Potentially site usage may also have involved the treatment of time or the storage of timber treated chemicals.*

The conclusions of this assessment, with respect to the potential contamination of the land are as follows:

> *Should elevated contaminant levels be encountered, which exceed the Health Investigation Levels prescribed for this development type, then a Stage 2 – Detailed Investigation will be required in accordance with Section 3.5.3 of SEPP 55. This investigation would seek to provide information on the extent and degree of contamination and an assessment of the risks posed by the contaminants to health and the environment.*

Having regard to this, it is relevant that further investigative works are required. However, as indicated previously, the site is currently occupied by RMS, which is undertaking maintenance works on the Anzac Bridge. As a result, further testing works, at this stage, cannot be commissioned due to site access restrictions imposed by RMS.

Having regard to the restricted access available to the site, SLR Consulting has been furnished with studies commissioned by RMS, namely:

- Limited Phase 2 Environmental Site Investigation (RCA Australia) (June 2011);
- Soil Contamination Investigation (Noel Arnold & Associates Pty Ltd) (Jun 2010);
- Geotechnical Investigation (RTA) (pre-2003).

Having regard for theses reports, in conjunction with SLR"s own investigations, the conclusions as to the contaminated nature of the site, and proposed remediation are as follows:

> *A review of these studies indicates that although some contamination impacts were encouraged in the shallow fill materials on the upper part of the site, these were typical contaminants associated with urban sites (PAH and petroleum hydrocarbons) and do not represent an exceptional risk in terms of remediation.*

If, when investigated, the underlying fill materials are found to contain less onerous impacts or similar contamination, at levels not significantly exceeding those encountered in the upper strata, then it is considered reasonable to assume that the site could be made more suitable for the purpose proposed by the proponent.

It should be noted that the proponent has given specific undertakings relating to the further contamination investigation recommended and the control measures and any necessary remediation which may be subsequently required, in their Statement of Commitments, specifically Numbers 20-23.

Having regard for the above, and the Statement of Commitments provided by the proponent it is considered that, in the event of contamination being present on the land, suitable remediation works can be undertaken to ensure the site is fit for purpose.

As such, development consent is sought for any necessary remediation works identified in association with the proposal and will be executed in accordance with the contaminated land planning guidelines and a further remediation strategy, as required and set out in the Statement of Commitments.

11.6 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

The site is subject to the SREP (Sydney Harbour Catchment) 2005.

The proposal responds to the Aims (Clause 2). It will result in the use of land that responds to its harbour side location, while providing a public asset to the community that reflects the maritime history of Australia. The use will be undertaken in a manner that ensures the health and sustainability of the land and the water and will implement mechanisms such as water quality treatment systems and landscape outcomes that provide for a high quality and ecologically sustainable environment.

The proposed use of the land will promote the site, as part of a working harbour, albeit with the nature of activity responding to its surrounding environment, particularly in a residential context. It seeks to balance this objective, associated with the maritime history of Australia to promote the on-going use of this precinct as a working harbour.

The diversity of public spaces that are offered within the development will ensure that it is culturally rich and vibrant, reflective of Australian maritime culture.

The implementation of a new publicly accessible boardwalk will ensure that access to and along Sydney Harbour foreshore is promoted and results in a net improvement over the existing situation.

In terms of the principles under Clause (2)(2) the proposal will be recognised as a public resource and promote a greater level of opportunity associated with this space over its current use.

The proposal is therefore considered to be consistent with the Aims of the Plan.

In accordance with Clause 3, the site is land to which the plan applies. The site is located within a Foreshore and Waterway area. It is not however a strategic foreshore site, nor is it identified as a heritage item, nor located within a wetland protection area.

Clause 14 deals with Foreshores & Waterways Areas. The proposal will respond to each of the planning principles as follows:

(a) *development should protect, maintain and enhance the natural assets and unique environmental qualities of Sydney Harbour and its islands and foreshores;*
The proposal will not compromise the Harbour as a natural asset and will maintain and improve upon its physical condition, so as not to compromise the environmental quality of the Harbour. Adequate provision is made, as identified in the Statement of Commitments, for water quality control mechanisms in association with the development to ensure that its unique qualities are preserved.

(b) *public access to and along the foreshore should be increased, maintained and improved, while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation;*
The proposal will increase access to the foreshore in a location that has been closed off for a substantial period of time, due to security constraints associated with the Anzac Bridge. The proposed access arrangements, which will be provided on a 24 hour basis will therefore significantly increase the public's access to this section of the foreshore.

The design of the proposed structure will not impact upon the natural conditions surrounding the site.

(c) *access to and from the waterways should be increased, maintained and improved for public recreational purposes (such as swimming, fishing and boating), while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation;*
Public access to the waterway is improved as a result of the proposed foreshore walk, providing 24 hour access, as well as the supply of boat storage areas within the proposal, which will enable Dragon Boats NSW to transfer vessels to the waterway *via* the recently constructed passive boat launching ramp.

(d) *development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores;*
The proposal has been designed to provide a high quality visual outcome on a site that is dwarfed by the sheer scale and size of the Anzac Bridge.

The scale of the building, which is stepped across the site to enable it to respond to the natural topography of the land, will be constructed of materials and finishes that reflect the qualities of the Harbour, particularly through the use of timber elements.

The green roof will also soften the visual impact of the building, when viewed from neighbouring properties to the north and east of the site, providing a strong landscaping element that integrates with the waterway.

As such, it is considered that the proposal adequately responds to the visual location in which it is situated.

(e) adequate provision should be made for the retention of foreshore land to meet existing and future demand for working harbour uses;

It is considered that the use of the land, as intended, promotes this site, as part of the working harbour. The extent of activity to take place thereon is appropriately balanced so as not to cause adverse impact to its more sensitive neighbours, whilst ensuring that the demand for such land, in this harbour front location is retained.

(f) public access along foreshore land should be provided on land used for industrial or commercial maritime purposes where such access does not interfere with the use of the land for those purposes;

The proposal will adequately accommodate public foreshore access, on a 24 hour basis, without interference with the use. The ability for public access to be achieved is also a superior outcome over the existing situation.

(g) the use of foreshore land adjacent to land used for industrial or commercial maritime purposes should be compatible with those purposes.

It is considered that the proposal is suitably accommodated having regard to the use of land for maritime purposes to the east of the site.

(h) …

(i) the provision and use of public boating facilities along the waterfront should be encouraged;

There are no publicly available mooring facilities as part of this proposal. The passive boat launching ramp, on the eastern side of the site is however, publicly accessible and will be relied upon by user groups associated with the proposed facility and the wider public.

Clause 15 deals with Heritage Conservation. Matters of heritage conservation are dealt with in Chapter 12. However, the proposal will not adversely impact upon any heritage items within the vicinity of the site.

Clause 17 addresses Zoning. The site is located in W1 Maritime Waters. The proposal is consistent with the Objectives of this zone:

(a) to give preference to and protect waters required for the effective and efficient movement of commercial shipping, public water transport and maritime industrial operations generally,

The proposal will not compromise the aforementioned activities. The location of the wharf structures in association with the development have been carefully considered by RMS and deemed appropriate as part of the landowner's consent process. In addition, the reduction in length and footprint of the waterside structures will further ensure that the efficient movement of vessels currently using the waterway is not compromised.

(b) to allow development only where it is demonstrated that it is compatible with, and will not adversely affect the effective and efficient movement of, commercial shipping, public water transport and maritime industry operations,

The proposal will not compromise safe vessel movement within the adjoining waterways. In addition, the length of waterway structures has been reduced by twenty three metres over the original proposal, resulting in a reduction in the footprint of permanent waterside structures associated with the development.

In addition, as stated above, the layout of the waterside structures has been considered in detail by RMS, throughout the evolution of this project and has been deemed appropriate and will not compromise the efficient movement of vessels.

The nature and use of the waterside elements of the development is also compatible with current users of the waterway and will not adversely impact them, particularly given the positioning of these elements within the waterway

The proposal is therefore consistent with this objective.

(c) to promote equitable use of the waterway, including use by passive recreation craft.

The proposal will reinforce increased opportunities for use of the waterway, as a result of its provision of dragon boat storage.

In accordance with Clause 18, use of the waterway as a commercial marina, in association with a public water recreation facility and public water transport facility are permissible with development consent. Use of the waterway for the purpose of a public boardwalk is also permissible.[7].

Clause 18A deals with subdivision in the waterway and requires development consent. In accordance with Clause 18A(4) the proposal will not result in any significant reduction in public access to the foreshore; instead it will be facilitated by the proposal.

In terms of the waterway, while the water-based structures will occupy part of the waterway that is currently occasionally used by the public, siting of the structures has been agreed with other stakeholders so as to retain adequate public access through this section of the waterway. In addition, as indicated previously, the modified proposal reduces the extent to which the structures extend into the waterway by 23 metres, thereby increasing the opportunity for public access in this area.

Clause 36 deals with Acid Sulfate Soils and requires development consent on such land that is affected. As the land is affected by acid sulfate soils, the relevant consent is sought. Mapping prepared to date in relation to this issue has not confirmed the existence of such conditions; however, this is considered likely.

For the same reasons that contamination matters cannot be furthered at this stage, in the event that such conditions are discovered the appropriate management plan would be prepared and implemented accordingly as part of the construction process. This is reflected in the Statement of Commitments by the Proponent.

It is therefore considered that the proposal satisfies the requirements of the SREP.

---

commercial marina means a permanent boat storage facility (whether located wholly on land, wholly on the waterway or partly on land and partly on the waterway) together with any associated facilities, including:

(a) any facility for the construction, repair, maintenance, storage, sale or hire of boats, and

(b) any facility for providing fuelling, sewage pump-out or other services for boats, and

(c) any facility for launching or landing boats, such as slipways or hoists, and

(d) any associated car parking, commercial, tourist or recreational or club facility that is ancillary to a boat storage facility, and

(e) any associated single mooring,

but does not include a boat repair facility or a private marina.

Public boardwalk means a decked structure, supported by piers or piles, providing public pedestrian access extending over or beyond the intertidal zone, but does not include a structure that is intended merely to provide direct access to a vessel.

Public water recreational facility means a pier, wharf, boat shed or other waterfront structure that is primarily used for public recreation.

Public water transport facility means any structure used primarily in connection with transporting the public by water.

11.7 Sydney Harbour Foreshores & Waterways Development Control Plan (the DCP)

The DCP is relevant to this application.

Section 4 deals with Land Water Interface and Water Based Development. Section 4.2 provides General Requirements. The proposal will satisfy these as:

- Public 24-hour access to the waterway will be made available (where it is currently not) and will promote a significantly higher degree of access to this site by the public, over the existing situation;
- the proposal, through the appropriate location of vessels will not result in congestion of the waterway, nor result in adverse conflicts having regard to other maritime users;
- it warrants a foreshore location, given its relationship with Australia's maritime history and the nature of the uses that are proposed to take place from this;
- it will not interfere with navigation or other recreational activities, instead promoting recreational activities from this location. As stated previously, the reduced footprint of the water-based component of the development will further ensure that this does not impede navigation;
- the extent of capital investment value associated with the proposal, for a not-for-profit community organisation is reflective that there is an evident demand associated with the project;
- the proposal will improve upon the existing landscape setting of the site, both at ground level and above, with the provision of a green, landscaped roof over the built structure, while implementing materials and finishes that are reflective of the waterfront location of the site;
- the development is minimised in terms of its need for access to the waterway;
- shared use of the facilities is promoted for various maritime users.

Therefore, the proposal satisfies the requirements of this Section.

Section 4.3 deals with Foreshore Access. As stated previously, the proposal will allow for the complete opening up of the foreshore, with a new boardwalk, accessible to the public, for both pedestrian and cycling purposes. This is a marked improvement over the existing situation, where such access is not formalised, nor currently available. At a future stage, when adjoining land uses are developed, the development of the site can link into similar foreshore access on adjoining lands, therefore achieving 24-hour public access to the entire foreshore, as promoted by the planning controls.

Section 4.4 addresses Siting of Buildings and Structures. The proposal seeks to locate the building by responding to the topography of the site, stepping the building from the street level down to the waterfront level. In doing this, the available views surrounding the site are not compromised, albeit that the existing view

corridor is largely restricted by the dominance of the Anzac Bridge, above. The extent of glass openings to the waterway ensures that views are available within the facility itself and the available view to landmarks or features within the vicinity of the site are not compromised.

Section 4.5 stipulates requirements for Built Form. The scale and design of the proposal is complementary to the topographical landform and the materials to be employed will adequately reflect the waterfront location. The built form is suitably broken up with both horizontal and vertical elements of varying proportions to ensure that a diverse visual appearance is achieved. Lighting will be provided in accordance with the relevant Australian Standards AS4282 – 1997 and AS/NZ 1158.3 – 1999.

Reflective materials are minimised as part of the design and the requirements of the Building Code of Australia will be dealt to accordingly.

The proposed colour scheme will be sympathetic to its surrounds, being made up of timber cladding and glass to ensure a complementary relationship with the industrial elements of the harbour, while being sympathetic to the surrounding residential context.

The articulation of the built form will also ensure that the visual impact of the proposal is significantly reduced over a design based on a rectangular box of basic materials.

It is also considered that the scaling of the building across the site, having regard to the topographical characteristics will ensure that adverse cumulative impacts will not result once adjoining lands to the east and west are developed.

Therefore, the requirements of Section 4.5 are satisfied.

Section 4.6 addresses Signage. Building identification signage is proposed. The proposed graphic style and materials for the proposed signage, which will be visible from Bank Street and the adjoining public open space area, is suitable to both the overall design of the building and in the public context. The proposed dimensions are not obtrusive and will allow for the premises to be easily identified. Low lux lighting will be provided so as not to impede the amenity of the waterway or nearby residential land uses.

The signage will be located on the façade of the building and will not intrude on the skyline.

The proposal is therefore consistent with the requirements for signage.

Section 4.7 stipulates requirements for marinas. While not a traditional marina, providing private and public access for vessels, the provisions are relevant to this application. The proposed use for a marina is permitted within the zoning.

In relation to the location of the proposal, the proposed berthing arrangements are for berthing by vessels of the Fleet or under the control of the Fleet only. The location is easily accessed from the land and the water, through the new public passive boating ramp at the eastern side of the site and the new foreshore walk to be constructed along the southern and western sides of the site.

The location of the marina is not subject to exposed wave environment and is not located in an environmentally sensitive area (wetlands, vegetation etc).

The proposal will not reduce the publicly available single moorings as there are none in the current location. The reduction in footprint of the marina will not compromise the safe navigation of vessels, nor will it impact on users of smaller craft. The proposed waterside structures will not compromise public activities or use of the waterway. The overall proposal will instead encourage on-going use by the dragon boaters due to their inclusion within the development.

In relation to design and layout, natural features of the site will not be obscured and the extent of built form is consistent with the demands of the proposed user groups. The proposal will enhance public access to and along the foreshore area in a location that is currently inaccessible.

Secure storage of vessels on the marina will occur with public access to the main part of the marina restricted in association with activities occurring on particular vessels.

The proposed waterside structures are minimised and reduced as a result of the modified application and the proposed structure minimises the number of piles required to secure the facility.

The built form, in association with the proposal is consistent with the site's waterfront location and reflective materials are minimised.

In terms of the facilities and services offered in association with the development, boating service facilities are not proposed as the facility is not operating as a commercial marina, servicing the broader public.

The marina itself will provide a diverse choice of boat storage facilities, in terms of vessel lengths, to accommodate the Fleet's varied historic vessels. No vessels maintained by the Fleet are used for residency purposes.

Disabled access will be provided to the marina, including along the public foreshore.

The environmental impacts of the proposal are minimised, as detailed in Section 12, having regard to matters such as air and water quality, marine habitat and bank stability.

The relevant guidelines have been used in preparing the design and layout of the proposed marina structures.

The proposal has been designed to ensure that its visual impact is minimised. Dwarfed by the visual presence of both the upper deck of the Anzac Bridge and the pylon structure, the marina, from the northern and eastern location adjoining the site, will have very limited visibility. The design of the built form, in association with the waterside works, has been stepped across the site, to reduce its visual presence and the proposed materials and finishes are appropriate to the waterside location.

When viewed from the southern and western sides of the site, there is a similar perception of the site, again dwarfed by the presence of the Bridge. The extent of visual separation will also reduce the perceived presence of the facility.

That said, the location of the proposal is consistent with the expectations of a working harbour in this location and the positioning of vessels by the Fleet is not an unknown element, currently being located in Rozelle Bay.

The largest vessel will be positioned on the western side of the site, on the northern side of the main section of the fixed wharf. It is not considered that this location provides any extensive view corridor to or from a particular point and therefore will not intrude in this respect.

It is not anticipated that the proposed structures or vessels will block views from public open spaces or the foreshore area. In addition, the regular use of vessels for activities in association with the Fleet will see frequent change in terms of the visual appearance of the site.

The bulk and scale of the buildings and infrastructure associated with the marina is considered suitable to the waterfront location. In addition, the proposed green roof will reduce the potential bulk associated with the built form. The extent of articulation to the building frontage will also assist with reducing the perceived visual bulk of this, as well the stepped building height.

The proposed building signage is located such that it will not be a dominant element in the visual catchment of the waterway and therefore not have an overbearing presence.

Having regard to the above, it is considered that the visual impact associated with the proposal is suitable in this location and will be without adverse impact.

Matters of environmental management are dealt with at Section 12.

The integrity of the existing sea wall is dealt with at Section 12.

No reclamation works are required in association with the proposal.

It is therefore considered that the proposal is consistent with the requirements of this DCP and will provide a positive visual outcome in this location, where elements of a working harbour are to be promoted.

11.8 Sydney Local Environmental Plan 2005

The landward side of the proposal is subject to the Sydney Local Environmental Plan (LEP) 2005.

The proposal will satisfy the Aims of the LEP (Clause 11) by:

- protecting the diversity of the City, promoting a new tourist facility that will enable both the population of Sydney and tourists to visit;
- providing social and economic outcomes, by way of volunteer activities, as well as employment during both construction and operation;
- encouraging the sustainable use of the land and ensuring that the proposal does not impact upon the heritage of the City.

Consistent with the Strategies provided at Clause 12, the proposal will:

- significantly enhance opportunities to access the public domain over the existing situation at the site;
- provide a high quality urban form and outcome that is suitable, having regard to the site's location in the public domain;
- promote a form of development that is ecologically sustainable and will enhance the natural environment;
- provide opportunities for maximising use of public transport, walking and cycling to and from the site, through limited provision of on-site car parking;
- provide a high quality pedestrian environment in a location that is currently inaccessible; and
- ensure the orderly construction and operation of the development.

The site is located in the Ultimo – Pyrmont Precinct and is therefore subject to Part 2. Clause 84 provides Planning Principles. In terms of land use activities, the use of the site for the intended purpose will make use of a vacant parcel of land which has limited opportunities, given its position under the Bridge. The site takes advantage of its proximity to other visitor attractions and will tie in suitably with this, promoting the maritime history of Australia. The ground floor level of the building, fronting the public domain will provide a complimentary relationship to the broader network, within the vicinity of the site.

As stated previously, the height and scale of the proposed built form, which is largely dwarfed by the dominance of the Bridge, has been stepped across the site and will enhance views and vistas to public location in the vicinity of this.

Disabled access will be provided.

In terms of social issues, the site will service a large volunteer base in association with the Fleet, which is considered to have a positive social outcome to the community. The proposed design of the buildings is reflective of the waterfront location of the site and the desire, through planning principles to create a sense of activity reflective of a traditional working harbour.

The outcomes will ensure that passive surveillance over the waterfront location is achievable in a location where this is not currently possible and the needs of current and future communities will be met, particularly those in association with the Fleet, which is the key driver behind the establishment of this facility.

Matters of urban design have been dealt with previously in this assessment. In summary, the proposed building height is reflective of the site's location, which is dwarfed by the Bridge and is stepped across the site to enable view sharing from the public domain.

The height of the proposed buildings will provide a suitable transition to the waterway and will not impede view corridors, nor compromise privacy, particularly of nearby residential properties to the north of the site. In addition, the proposed green roof on the building will provide an improved visual outcome when considered from the north of the site.

The environmental quality of the waterfront will not be compromised as a result of the proposal.

The proposal will provide a substantial opportunity to increase public access to the foreshore, coordinating new pedestrian and cycleway access, on a 24 hour basis. As discussed elsewhere, due to the topography of the land, foreshore access would be limited to operating hours at the site to ensure the safety and security of users. Vehicular traffic, for specific site related matters only, is limited to the western wharf area and around the bridge pylon for its maintenance.

In terms of leisure and recreation, the proposal provides a significant opportunity to contribute to such activity, in terms of both local population and the broader tourist opportunities that will be presented. The location of the site, adjacent to other lands which are mooted for public recreational purposes will allow for this development to suitably fit in with such activities. In addition, the proposal will promote use of the waterfront area, including through the increased provision of public access.

The proposal will not compromise any outcomes with respect to heritage in this location.

In terms of movement and parking, the proposal will discourage the use of motor vehicles as a means of access to and from the site, due to limited on-site provision and will instead promote use by public transport, walking, cycling and by Fleet vessels. This is reflected in the Proponent's Statement of Commitments 28 and 37.

The proposal, and its potential impact on infrastructure, will be suitably mitigated through the staged implementation of the proposal.

The site is located in the Public Recreation Zone. The Objectives of this zone are reproduced below, along with the proposal's compliance with these:

(a) to establish public recreation areas which serve the needs of residents and workers within Ultimo-Pyrmont and the adjoining suburbs, and

The proposal will provide a public recreation area that will service the needs of residents particularly within the vicinity of the site. It will promote and provide an array of on-site activities for the public and as well as the opportunity to involve local community members with the Fleet on a volunteer basis, in association with the Fleet's current member base, which comes from far and wide.

The proposal will also attract a variety of different user groups to the site, for recreational boating purposes, involving the Fleet's collection of historic small craft and through harbor cruises, as set out at Section 3.

Section 3 also demonstrates the diversity of recreational activities available within the Fleet's operations, all of which accord with the zoning of this site and demonstrate its suitability for the intended purpose.

The implementation of the new foreshore access walkway will further enhance opportunities for public recreation at a passive level at the interface of the site with the waterway, which is significant given that this area is not currently accessible by the public.

On-site storage facilities for dragon boat users will further aid use of the waterway for recreational purposes and promote active communities in this location.

(b) to provide public access to all parts of the public domain, especially waterfront areas and escarpments, and

The proposal will provide significant opportunities for enhanced access to the public domain, particularly the foreshore area, through the implementation of the new foreshore walkway which will link with development on adjoining sites when they are forthcoming.

As stated previously, as a result of negotiations with RMS, it has now been agreed that 24 hour public access along the foreshore may be provided. This will result in significant benefits to the public, in a location where access has been restricted for a significant period of time. The proposal provides the opportunity to open up the foreshore area, not only in association with the recreational activities offered by the Fleet, but also for general purposes such as walking and cycling along the foreshore.

During the operating hours of the Fleet facility, access will be available from the foreshore walkway to the entire Fleet and this will further enhance opportunities to understand and enjoy the recreational offerings of the Fleet, along with direct access to the foreshore.

(c) *to provide a variety of public areas and recreational opportunities, and*

The proposal will provide significant opportunities for public spaces and recreational opportunities, within the proposed built form, as well as along the foreshore area, as described at Section 7.

(d) *to provide for facilities that accommodate or are ancillary to recreational activities relating to the use of the public domain.*

A limited array of ancillary facilities will be provided in association with the development, including refreshment kiosk facilities. These are positioned such that they suitably tie in with the public domain and promote further activation of the waterfront area.

Clause 93 deals with the Height of Buildings. The proposed building height, at its maximum point is 9.9 metres for a small proportion of this, with the majority of the building being 6.9 metres. While above the 7.0 metre height control, the design response is to ensure that the built form is terraced across the site and does not appear as an intrusive element in the waterfront landscape. This layout also ensures that the building has a direct relationship with the waterway.

In accordance with Clause 94, the proposal satisfies the requirements of Clause 84(4).

In terms of Clause 97, Scale and alignment of buildings, the proposed built form has limited benchmarks in terms of neighbouring sites, due to the undeveloped nature of these. However, it is considered that the proposed position of built form on this site will not impede the location of buildings on nearby sites at any later stage. In addition, the stepped form across the site ensures that an adequate scale is achieved, having regard to the waterfront location, as well as the Bridge being the dominant built form within the locality.

The proposal is therefore considered to satisfy the requirements of the LEP.

11.9 Ultimo Pyrmont Section 94 Contributions Plan 1994

The proposed development is subject to the provisions of the Ultimo Pyrmont Section 94 Contributions Plan 1994. Pursuant to the Table contained at Schedule 4 of the Plan, the per person rate for workers to be applied to the development as an 'Other Use' is $2,845 / person.

The total number of workers directly employed by the Fleet is four As such, the resulting required contribution is $11,380.

11.10 Sydney Local Environmental Plan 2012

The Sydney Local Environmental Plan 2012 (the LEP 2012) has been advertised in accordance with the requirements of the Act. It has, however, been gazetted after the issuing of Director-General's requirements, and, as a result both LEP 2012 and LEP 2005 are referred to.

The majority of the Aims of LEP 2012 are consistent with the LEP 2005 and have therefore been assessed above. The proposal will provide for economic and employment opportunities, as well as providing a significant tourist opportunity to this section of Pyrmont, reflective of the maritime history of NSW and Australia. The proposal promotes the use of public transport usage to and from the site and will result in a high quality urban form presented to the waterfront and the streetscape of Bank Street.

The site is located in the RE1 Public Recreation zone. The proposal will achieve the objectives of the zone, by enabling the use of the site for public recreational purposes in a compatible manner with the adjoining lands, particularly those of a residential purpose. Most importantly, the application has been amended to remove the Fleet's 'heavy duty' restoration and maintenance operations from the site, operations which may have had the potential to impact upon the amenity enjoyed by neighbouring land uses, particularly with regard to noise. As amended, the recreational activities promoted by the proposal will provide a diverse offering to the local and tourist communities in a compatible setting, as set out at Section 11.8.

As set out at Section 12, the proposal will take place without adverse environmental impact and result in a positive contribution to the natural environment, particularly with respect to remediation works in the event that these are required. This is reflected in Statement of Commitments 20-23.

With respect to the permitted uses, having regard to the zoning table, development consent is sought for the following uses on the land the subject of this instrument:

kiosk means retail premises used for the purposes of selling food, light refreshments and other small convenience items such as newspapers, films and the like.

Information and education facilities means a building or place used for providing information or education to visitors, and the exhibition or display of items, and includes an art gallery, museum, library, visitor information centre and the like.

marina means a permanent boat storage facility (whether located wholly on land, wholly on the waterway or partly on land and partly on the waterway) together with any associated facilities, including:

(a) any facility for the construction, repair, maintenance, storage, sale or hire of boats, and
(b) any facility for providing fuelling, sewage pump-out or other services for boats, and
(c) any facility for launching or landing boats, such as slipways or hoists, and
(d) any associated car parking, commercial, tourist or recreational or club facility that is ancillary to a boat storage facility, and
(e) any associated single mooring.

In accordance with Clause 7.16, development consent is sought for the purpose of works being undertaken on land subject to acid sulphate soils. This is reflected in Statement of Commitments No 21.

The proposal is therefore consistent with the future planning intentions for the site, as prescribed by the LEP.

11.11 Sydney Development Control Plan 2010

The *Sydney Development Control Plan 2010* (the Draft DCP) has been formally adopted by the Council , upon gazettal of LEP 2012. Similar to consideration of the LEP 2012, this is also considered as part of the EA.

The principal matters for consideration are at Section 2. These relate to matters of public domain, ecologically sustainable development; waste; water; and transport and parking. All of these matters have been considered in various sections of this report. The proposed outcomes are consistent with the intentions of the draft DCP in this regard.

Section 6.12.1 provides a **Locality Statement** for **Pyrmont Point** of which the site is located within. The proposal is consistent with the Principles as it will:

- not compromise the topographical characteristics of the land, as a result of the terraced building design, to maximise opportunities for visual corridors to be maintained from Bank Street;
- conserve views within the vicinity of the site, particularly from the public domain. Of particular relevance is that the existing structure of the Bridge precludes the majority of access to views in this area and the location of built form below this will therefore impede few, if any available view corridors;
- maintain the traditional character of the water's edge by proposing uses that will promote a working waterfront harbour;
- provide activated ground floor uses to ensure that there is the perception of activity within the site, which will allow for a positive relationship with the public domain;
- provide a small scale, kiosk use to aid local convenience in association with the facility, while promoting activation and passive surveillance of the public domain.

The proposal will therefore provide a complementary outcome for the Pyrmont Point Precinct and is consistent with the draft DCP.

Overall, the proposal is considered to be acceptable in terms of the matters addressed by the Draft DCP and is therefore suitable in this respect.

11.12 NSW State Plan – Metropolitan Plan for Sydney 2036

In December 2010, the NSW State Government released the *Metropolitan Plan For Sydney 2036* (the Metro Plan) and builds on the previous 2021 strategy. The Metro Plan outlines a number key challenges facing Sydney which are summarised as:

- A growing and changing population;
- A need for more suitable and affordable housing;
- A need for more jobs which are closer to home;
- A need for more efficient transport;
- A need for more efficient infrastructure delivery;
- A more sustainable Sydney and a need to tackle climate change; and
- Maintaining the global competitiveness of Sydney.

In order to address the key challenges identified, the Metro Plan outlines a number of key strategic directions and policy settings, where are outlined under the following headings:

- Strengthening a city of cities;
- Growing and renewing centres;
- Growing Sydney's economy;

- Tackling climate change and protecting Sydney's natural environment;
- Transport for a connected city;
- Housing Sydney's population;
- Achieving equity, liveability and social inclusion;
- Delivering the Plan; and
- Balancing land uses on the city fringe;

In relation to the proposed development, given the nature of the proposed works, the proposal will not hinder the achievement of the strategic directions, policy settings or vision as outlined by the Metro Plan. Overall, the proposal is considered to be acceptable in terms of the Metro Plan on the following basis:

- The proposal represents renewal of a currently under-utilised site, with limited alternative opportunities in terms of land use. As a result, it will promote increased activity within the locality and public benefits, contributing positively to the image and attractiveness of Sydney as a destination;

- The proposal exhibits sound sustainable design principles being integrated into an overall high-quality outcome, with minimal environmental impacts generally; and

- The proposal will result in positive economic returns for the locality and Sydney region, as well as provide for additional employment opportunities; and

- The proposal responds to the necessary State requirements, having regard for climate change.

It is therefore considered that the proposal is suitable having regard for this Metro Plan.

11.13 Draft Sydney City Sub-Regional Strategy

In September 2008, the Draft Sydney Sub-Regional Strategy was exhibited and relates to the City of Sydney Local Government Boundary area. The Draft Sydney Sub-Regional Strategy details the vision for the area and includes the following:

- Improved global competitiveness;
- Stronger economic links to other metropolitan areas;
- Further capacity for office and hotel development;
- Well recognised activity precincts;
- A stronger network of liveable communities;
- Redeveloped major sites across the area;
- A diverse housing stock;
- Improved and more integrated transport system;
- A profile as a diverse global cultural centre; and
- Unified planning for the subregion.

In addition to the above, the Draft Sydney Sub-Regional Strategy outlines several key directions and associated key actions. Given the nature of the proposal, it is considered that it will not hinder the achievement of the vision nor key directions and is generally acceptable in terms of this strategy on the following grounds:

- The proposal integrates sustainable design principles into the overall high-quality outcome for the site and utilises the Water Sensitive Urban Design Strategy;
- The proposal will not have any adverse flora and fauna impacts, nor any substantial environmental impacts in general;
- The proposed redevelopment of the site will provide for increased activity within the locality and public benefits, contributing positively to the image and attractiveness of Sydney as a destination; and
- The proposal will provide for additional employment opportunities within the locality and sub-region.

The proposal is therefore consistent with this Strategy.

12 ASSESSMENT OF THE PROPOSED DEVELOPMENT

This Chapter considers the proposal having regard to the DGR's. Each item corresponds with the heading set out in the DGR's.

12.1 Built Form & Urban Design

- *Height, bulk and scale of the proposed development within the context of the locality.*

The height, bulk and scale of the proposed built form is dwarfed by visual dominance of the Anzac Bridge. Fitting well below the bridge deck, the building has been terraced across the site to respond to the existing topography of the land. While some alterations to the natural surface are required, the height of the majority of the structure is generally only two storeys, with a small section, 282m^2 in area, where the height will be three storeys.

The result is that the building has little prominence, particularly when viewed from Bank Street, and nearby residential properties on the opposite side of the road.

From Blackwattle Bay, the building maintains a similar fit. The Bridge is clearly the dominant built form and visual element and the proposal is dwarfed by this. As a result, the proposed building and associated elements present as a secondary element within the foreshore landscape.

The bulk and scale of the building is reduced as a result of the terraced form, combined with the varied materials that are proposed to be used to treat its exterior form. Timber and glass elements are combined with concrete paneling and cladding and, in conjunction with significant building articulation, present a varied form to all of the surrounding street frontages. This is further enhanced through variation in colour which again aids the visual appearance of the built form and reduces the potential bulk of the building.

The height and scale of the building is such that, when considered in the context of nearby development, and in a position that is dominated by the Bridge, it will appear as a less prominent element in the context of both the streetscape and the waterway. The height and scale of the proposal is considered suitable in this location and will complement its context accordingly.

- *Design quality with specific consideration of the massing, waterfront interface, setbacks and visual impacts, including impacts on the waterway.*

The site perspectives accompanying this application demonstrate that the proposed built form is an appropriate size and scale, having regard to its interfaces. The articulation that is proposed to all frontages, in conjunction with the variation in materials and finishes, ensures the presence of a light weight structure that is suited to its context.

At the waterfront, there is extensive articulation, in conjunction with material variation producing a variety of light and shade on the façade. This visually breaks down the bulk of the building and creates the appearance of a series of smaller elements on the site, particularly when viewed from a distance on the water. The extensive use of recycled timber cladding and shading devices used on the facades further reinforces the association with the waterfront such as wharves and timber decks proposed to be constructed at the interface with the water.

In addition, the glass elements ensure that natural, passive surveillance over the public domain is achieved, in conjunction with providing visual access to an active space, overlooking the waterway, and a strong relationship to the public foreshore.

The site perspectives demonstrate that the visual impact of the proposed built form on the land is limited. The structure is dwarfed by the presence of the Bridge and, through appropriate materials treatment and scaling of the built form, this outcome does not result in anything other than a positive relationship with the waterway.

The wharf structures proposed are within the waterway and will reinforce the maritime nature of the proposal consistent with the ideology of the planning instruments which call for the retention, where appropriate, of a working harbor. The presence of vessels berthed at the facility will vary the visual context and the use and movement of these vessels will provide visual variety and interest as they come and go on their various tours.

From the south, the closest land based viewpoint is Glebe, which is 350 metres across the water from the Bank Street site. While it will be possible to identify the proposed building nestling under the Bridge the distance is such that the visual impact will be almost negligible and especially so given the undeniable visual impact of the Bridge itself. It is considered that the Bank Street buildings will be entirely suited to the proposed location providing a measure of human scale at the waters edge and an interesting counterpoint to the massive scale of the bridge above.

- *The form and external appearance of the proposed buildings and how they will improve the quality and amenity of the public domain.*

As discussed previously, the proposed building will be clad with a variety of materials from timber, and concrete, to glass elements, and metal cladding. Timber will be used to soften the appearance and will

generally be allowed to weather naturally to the soft silver grey of wharf decks. It is a natural and sustainable product and is entirely compatible for use in areas where the public come in close contact with the building. Some extensive glazed doors and window wall areas will enable the public to visually participate and engage with the building by viewing the various activities being carried out. The opportunity for the public to participate in such activities will be actively encouraged as part of the Fleet's aim to share their skills.

There is little doubt that the activities carried out in the building will be a positive attraction to the public and will provide an undeniable improvement to the quality of the amenity of the public domain in the areas adjacent to the Fleet's building.

This treatment will also improve passive surveillance over the public domain, particularly along the foreshore which is some distance from the street frontage of the site and has a poor line of sight from Bank Street. The design will ensure that during operating hours, passive natural surveillance will be available from the building over the adjoining foreshore. This supports the intent of much of the planning policy, which encourages use of the foreshore area in a manner that is safe for the public.

The design and materials treatment of the building also has a sense of openness, where people inside will be clearly visible. This will encourage people into the site, by promoting a sense of activity that ensures that everyone is comfortable moving in and around the activities being undertaken in this location.

- *The sustainable design principles incorporated into the development in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security, resources, and water and energy efficiency.*

Crawford Architects have provided the following with respect to the sustainable design principles associated with the proposal:

> *In many respects the Sydney Heritage Fleet's core business is founded on sustainable design principles. Recycling is one of the things that the Fleet does best. The organisation is really a maritime custodian on water, with the added feature that the vessels are acquired, restored, repaired and then operated. All of the Fleet's larger vessels are operational or awaiting restoration. Static exhibits are confined to significant small craft donated to the Fleet and there are far too many of these to safely return to operating condition.*
>
> *The basic design principle that was followed in meeting the requirements of the brief was to keep the building simple. Each functional element that makes up the building is designed to take greatest advantage of the site for its particular use. Wherever possible, sustainable principles are being applied to minimise energy consumption and maximise the use of natural light and cross ventilation in lieu of air-conditioning and mechanical ventilation.*
>
> *In many respects, this is aided by the building's location under the road deck of the Anzac Bridge, thereby shading the building from direct sun for much of the day and maintaining a cooler and less variable ambient temperature. In turn, this reduces the heat gain and transfer within the building requiring certainly less cooling, and, due to the thermal mass, less heating in the winter months. Considerable attention will be paid to the wall and roof cladding junctions and their detailing to ensure air gaps are minimised, enabling the building to be effectively 'sealed' from the elements.*
>
> *The materials and finishes used throughout the building will generally be used in their natural state and once in position e.g. concrete block walls will be used in their 'raw' state, not painted nor rendered, nor touched.*

In addition to the above, other key features include:

- The implementation of a green roof on the northern side of the site, which will enhance the sustainability objectives associated with the project; and
- Strategies for water efficiency which are outlined in the Water Management Strategy prepared by SLR Consulting.

- *A materials/finishes sample board and detailed elevations confirming the application of materials and finishes for the development.*

The relevant matters are provided on the Architectural Drawings accompanying this application.

- *3D modeling and a physical model of the proposed development in accordance with the City of Sydney requirements.*

3D modeling and a physical model accompany this application.

- *Shadow diagrams.*

Shadow diagrams accompany this application.

These shadow diagrams demonstrate that, at 21 June, the greatest level of impact, as a result of the development, is incurred at 9am. The extent of affectation is generally contained within the site, the majority of which is to the southern side of the building, over the waterway.

The extent, however, is limited and far less than that of more significant structures within the immediate vicinity of the site, particularly that of the Anzac Bridge.

At 12 noon, the Anzac Bridge dominates the shadow affectation within the vicinity of the site, with a marginal impact to the land directly east of the site. The balance of overshadowing, at this time, is contained within the development itself.

Similarly, at 3:00pm, shadow affectation is dominated by the Anzac Bridge, with the development causing a minor impact over Bank Street.

Therefore, while the proposal does result in some additional overshadowing within the direct vicinity of the site, the majority of those areas affected are already so by existing structures within the vicinity.

On this basis, it is considered that the extent of shadow affectation is limited and without adverse impact.

Having regard to the aforementioned matters, it is considered that the proposal is acceptable in terms of its built form and urban design outcomes.

12.2 Public Domain & Public Access

- *Design quality with specific consideration of the massing, the waterfront interface, setbacks and visual impacts of any proposed structures, including views.*

The design quality of the building is appropriate in terms of its massing, particularly having regard to its waterfront interface. As set out previously, the terraced building form ensures that opportunities for views are opened up as much as possible and that the visual impacts in association with the development are limited.

With respect to building setbacks, these are appropriate from each of the site frontages and correspond with the uses on neighbouring lands, without adverse impact. They also provide an appropriate relationship having regard to future potential uses to the north-west and east of the site.

Regarding the matter of view loss, as stated previously, the proposal is dwarfed by the prominence of the Bridge, providing the site with limited visibility from the majority of vantage points surrounding the site. Therefore, the potential to impede existing view corridors is extremely limited.

From residential properties to the north, the built form will have very limited visibility. To ensure a sensitive design response, a green roof has been incorporated on the main structure of the building which will reduce the visual sensitivity of what may otherwise be a bland structure when viewed from these. This roof has been designed to ensure that the building provides a softer interface when viewed from this vantage point.

From the waterway, the topography of the land is such that the visual impact associated with the implementation of this proposal will be limited. The land is currently vacant, other than by use associated with Dragon Boats NSW. There are, however, only ad hoc temporary structures associated with that use which do not provide a positive visual outcome when viewed from the waterway.

The dominance of the structure of the Bridge allows for a building to be constructed that sits as a subservient element within this landscape and does not impede any positive view from the waterway across the site. The result will be a significant visual improvement over the existing situation which has existed for over twenty years.

Similarly, when viewed from other locations within Blackwattle Bay, along the foreshore, the building, which is largely overshadowed by the Bridge, will present as a subservient and non-intrusive element. The building design will complement the maritime character of the location and will provide a contemporary, but subdued, appearance to this part of the harbour.

With respect to the mooring of vessels within the waterfront lease area, this is a normal and anticipated activity within Blackwattle and Rozelle Bays. The design and layout of the wharf structure will enable the vessels to be located in various positions, so as to modulate and vary the visual appearance of this part of the site. It should become an interesting visual element of the area that makes a positive contribution the local community and the wider general public for the enjoyment of all.

The size and scale of the vessels varies, which will add interest to the waterfront and relieve the possibility of a static display due to the mix of vessels that are proposed.

It is therefore considered that the visual impact associated with the proposal is limited and will provide a positive contribution to the anticipated elements of this section of the site, as a working harbour.

- *Identify proposed open space, public domain and linkages with and between other public domain spaces, including the waterfront.*

Open spaces within the development are largely at the interfaces with the waterway.

As indicated previously, the proposal will provide a substantial improvement to the existing public foreshore access, with a new pedestrian walkway along the interface between the land and water on the southern and western sides of the site.

In addition, the exhibition pavilion on the western side, while being provided as part of the use of the site, by virtue of its design, will enable people to spill into, and out of, this space, enabling it to form part of the public domain and recreation area around the waterfront. Its design ensures that it does not appear as an

exclusively private space associated with the development and the waterfront coffee kiosk at the southern end and will provide a social venue for the local community and wider visiting public.

With respect to linkages, the position of the proposed walkway will enable future linkages with the public spaces that are anticipated to the east of the site, as well as providing direct access back to Bank Street. The design of these very much focuses on the ability to interconnect these at a later stage when future development in this precinct occurs. The position ensures that the principles intended in the relevant environmental planning instruments are upheld, with respect to locating public access opportunities at the direct interface with the waterway.

The Proponent has been advised that a future development to the north-west may comprise a community water sports facility and development to the east may include a public park.

In the event that such activities are developed, the location of the public access way proposed as part of this application will suitably link with these properties and allow for a logical connected access route between the land uses.

As a result of discussions with DP&I, an express requirement of the application is to ensure that 24-hour access is available along the foreshore. This has been negotiated with RMS, despite the Proponent's concerns about safety surveillance over this section of the site, given that this area is obscured from street level by both the slope of the land and the built form.

This aside, adequate security arrangements have been incorporated into the design scheme to ensure that the Bridge pylon is suitably protected in accordance with RMS requirements while providing for 24-hour access along the foreshore.

As a result the 24-hour public access to the foreshore directly adjoining the site will further enhance the recreational aspects of this foreshore location, both in association with the development itself and in a broader public and community context.

- *Details on the interface between the proposed uses, public domain, and the relationship to, and impact upon the existing public domain, including demonstration of means of activating the public domain.*

As indicated previously, the proposed uses within the development are varied and will very much focus on the public use of the facility. This will include general public access, access by particular user groups, including school and educational groups, as well as by the committed volunteers associated with the Fleet.

The uses will occur in the variety of spaces that are proposed within the building. However, these are designed such as to spill out into the open public areas of the site, or onto adjoining balconies. These inherent features of the proposal will provide a significant contribution to the public domain in what is currently an under-utilised space with a very limited public benefit and unlikely to change unless a catalyst such as the Fleet's proposal is permitted.

The design of the spaces, with glass elements, viewing platforms and recessed and glazed doors provide a positive contribution for activated spaces to be experienced, and provide a strong interrelationship with the public domain. These will also maximize opportunities for passive surveillance over public areas directly adjoining the site.

As development within the precinct takes place over time, the use of this site for the intended purpose will provide a strong relationship with neighbouring sites through elements such as interconnected pedestrian pathways which will promote public access in, and around, the site in conjunction with neighbouring ones.

- *Address existing and future opportunities for public access to and along the foreshore including demonstrating 24 hour access to the public foreshore.*

As set out previously, it is proposed to provide 24 hour access along the foreshore which will be facilitated by the new pedestrian pathways that are proposed. This is a significant improvement over the existing situation, as the site is currently fenced off and precludes public access to this part of the foreshore.

The outcome, as proposed, will open up the opportunity for eventual connection to neighbouring sites, The ability to provide 24 hour access is therefore a logical outcome and welcome in the broader public context and will facilitate ease of access through this section of Pyrmont, particularly where no such access is currently available.

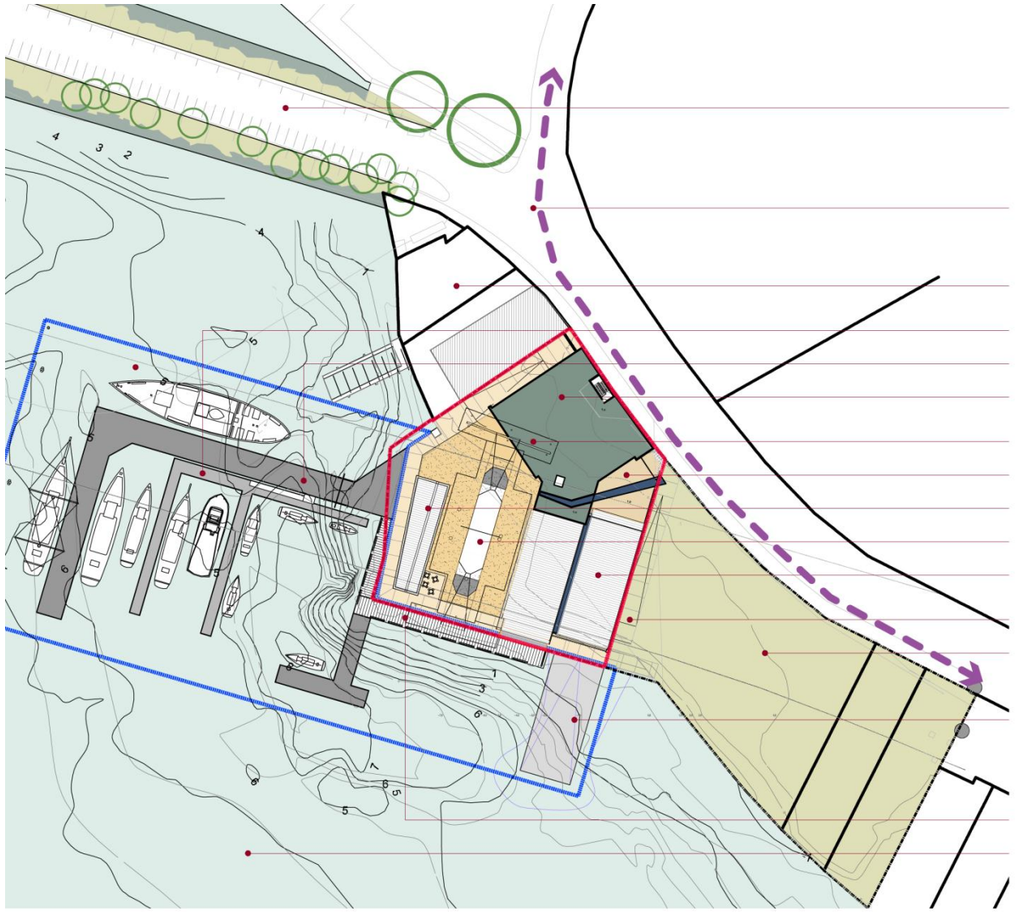
- *Demonstrate that the design of the foreshore access for the development proposal is compatible with the Sydney Harbour Cycleway and that connections from the facility to potential developments adjacent to the Sydney Heritage Fleet site are maintained.*

In this respect, the Traffic Management and Accessibility Plan (TMAP) notes that the both Bank Street and Bowman Street include shared pedestrian and bicycle paths on both sides of the street. These shared paths are part of the broader Sydney Harbour Cycleway, which runs along Bank Street, continuing along Bowman Street which then provides cyclist connections through to Cadi Park which fronts the waterway to the north of the site.

Figure 08 below demonstrates how the proposed works will not impact upon these shared pathway routes along Bank Street and maintains connections from the site to future adjoining developments, including the future adjoining public open space area to the east of the site.

Details of the broader bicycle network is provided at Section 5.3 of the TMAP.

Figure 08 Sydney Harbour Cycleway



Sydney Foreshore Cycle Loop

In addition to the above matters, it is prudent to identify that the adjoining site to the north, being No 1 Bank Street, is the site which is understood to be a future water sports facility. Although this does not form part of this application, nor does the proponent have any control over this site, it has been identified on the accompanying drawings and the possible design impacts considered when preparing this submission.

Specifically, it should be noted that the proposed development, including the water-based component, does not impede or disadvantage public access to this future facility, nor is the proposal anticipated to impact upon this facility's access to the waterway. In this regard, adequate access to the waterway is available for this facility, given the separation distances between the water-based component of the proposed development and the foreshore frontage of No 1 Bank Street. Agreement on the water area available to No 1 Bank Street was reached with the promoter of the site and NSW Maritime (RMS) holds an agreed water area plan signed by both parties.

In addition, the reduced length of the water lease area proposed in our submission will reduce any perceived impacts associated water-based activities based at No1 Bank Street.

The potential navigation impacts have been considered by NSW Maritime as part of their granting of landowner's consent and are therefore suitable in this instance. The reduced length of the waster-based infrastructure further reduces any navigation impacts.

12.3 Transport & Accessibility Impacts

Existing Road and Public Transport Facilities

In terms of the existing road networks surrounding the site, this consists of:

- Bank Street, being a 50km/hour two-lane local road, which is immediately adjacent to the site;
- Bowman Street which is a 50km/hour, two-lane, local road which connects with Bank Street, to the north of the site; and
- Quarry Master Drive, a 50km/hour, two-lane local road to the north-east of the site. It is noted that vehicles over three tonnes cannot access Quarry Master Drive.

Bank Street connects with the broader road network, with signalised intersections to the east of the site providing access to the Western Distributor westbound on-ramp and eastbound off-ramp. A second set of signals provides access to and from Pyrmont Bridge Road. The Western Distributor and Pyrmont Bridge Road provide major routes and arterial functions for the Sydney road network.

In relation to the availability of existing car parking, kerbside two-hour, ticketed parking is provided along each side of Bank Street between 8:00am and 7:00pm, with Permit Holders being excepted from this.

Further east along Bank Street, the ticketed parking changes to a six-hour provision between 8:00am and 7:00pm.

Bowman Street does not allow for stopping or parking along both sides of the street, whilst Quarry Master Drive provides one-hour ticketed parking on both sides of the street.

The site is serviced by a range of existing public transport services, including bus and light rail routes within proximity to the site. Specifically, the site is serviced by

- Sydney Buses route 501, 443 and 201;
- Metro Light Rail service between Central Station and Lilyfield; and

In addition, Sydney Ferries operate a regular service to Pyrmont Bay which is a 15 minute walk from the site.

Bicycle access is also afforded to the site *via* the shared footpath route which runs along Bank Street and connects with the broader bicycle network.

DGR Matters

In terms of the proposed development, the DGR's required an assessment of a number of matters, which have been reproduced below and addressed accordingly.

- *Justification of proposed quantum of on-site car parking for the proposal, RMS guidelines, relevant Australian Standards and impacts likely to be caused by surrounding street network.*

Parking surveys conducted in connection with the proposal concluded that the capacity of the nearby road network provided in the order of 43 car parking spaces. Of the 43 spaces available, 38 spaces were occupied during the existing peak demand periods associated with the proposal, within the vicinity of the site. This leaves an availability of five spaces being available during peak periods.

The Fleet has adopted a 'restrictive approach' to encourage public transport use to and from the site. Volunteers and staff currently based at Wharf 7 at Pyrmont are well used to using public transport to access the site. The Fleet will also promote regular public guided tours of the site with visitors gathering at Pyrmont Bay, where parking stations are more readily available, and travelling to the site in a Fleet vessel.

The traffic assessment provides two alternative car parking calculations. The first calculation involves using the anticipated visitation and employee levels. This concludes that some 30 persons per day may arrive by private car. Subsequently, based on peak visitation estimates, this generates a demand for seven car parking spaces.

Alternatively, a calculation of the car parking requirements, based on assessment of the publicly accessible floor space, applying a rate of 1 space per 232.2m[28], results in the need for five car parking spaces, applied to 1,123m^2 of floor space.

Due to the site constraints, which include:

- its limited physical size;
- the cost and likely environmental impediments to the provision of basement car parking;
- the location of the Bridge pylon and potential interference with vehicular access arrangements to this,

there is no car parking proposed on the site, as part of this proposal for visitor access.

Limited staff parking and ample bicycle spaces for staff and visitors will be provided within the building's delivery access area.

The proposed shortfall of on-site car parking spaces is not anticipated to have an unreasonable or adverse impact upon the surrounding road network and McLaren Traffic Engineering conclude that the proposal is suitable in this respect, despite the lack of on-site provision. The Fleet's active promotion of alternative means of transport will assist in reducing any adverse impact.

During the preparation of the EA, the Fleet has undertaken on-going discussions to pursue alternatives for car parking. One such opportunity is use of the old Glebe Island Bridge abutment for gated car parking for users of the site. This arrangement would be on the basis that the abutment would be cleared on days when the old Glebe Island Bridge roadway is opened for special events. Additionally, there would be through access for bicycles. On-going discussions are occurring with RMS concerning bridge abutment parking, and its use for this purpose cannot be confirmed at this stage.

Despite that, the outcome of the traffic impact assessment of the proposal suggests that the lack of on-site car parking is manageable, in the event that the Fleet is not successful in securing parking on the old Glebe Island Bridge abutment. In that event, the Fleet will respond proactively with alternative initiatives to maximize accessibility to and from the site.

To reduce the potential dependence on private vehicle travel to and from the site, and therefore the potential parking impact on the surrounding road network, the following recommendations contained in the traffic impact assessment are provided below. These recommendations are accepted by the proponent, and are included in the Statement of Commitments.

[8] This rate is one which has been applied by City of Sydney Council in the past for similar situations.

- Consultation with the NSW Department of Transport to consider and pursue the various public transport initiatives for the area presented in the TMAP. These generally seek either changes to the existing bus routes to better service the site, or the creation of a new bus route.
- Preparation of a Travel Access Guide (TAG). This involves the museum management being pro-active in the supply of up to date public transport information for staff and visitors. A TAG will be prepared in accordance with RTA Guidelines and introduce the following measures:
- Information kits for staff in order to encourage public transport, cycling and walking transport options to access the site;
- Travel information will be displayed within staff areas and on the Fleet's website;
- An information desk will be provided within the museum that will provide directions and information regarding public transport options and the nearest public car parking areas; and
- Notice boards will be displayed within the museum to provide information on transport options.
- On-site parking will be kept at a restricted level to encourage other travel modes; and
- On-site bicycle parking and staff showers/amenities will be provided.

Given the extent of available transport options, as well as the accessibility of pedestrian and cycle paths, the implementation of the above recommendations will effectively mitigate the potential impacts associated with the proposal with respect to car parking. Proactive commitment by the Fleet in promoting alternative access arrangements will assist.

- *RMS's in principle endorsement of use of Old Glebe Island Bridge for car parking to support the proposed development as well as justification for the use of public land for the purpose of private car parking, including rates and details of how the car parking would be managed and operated.*

The Fleet continues to pursue the Glebe Island Bridge abutment parking option with RMS. For the purposes of this application the potential use of this area to provide for car parking cannot be relied upon.

However, given that this area could provide approximately 65 car spaces for use of visitors to the site, including the dragon boaters, the Fleet will continue to pursue the option with RMS.

It is considered that the proposal is suitable in the absence of car parking on the old Glebe Island Bridge abutment and it does not rely upon this option.

- *Demonstrated consultation with the RMS to ensure that maintenance access requirements for the Anzac Bridge are appropriate.*

Adequate consultation has been undertaken with RMS concerning current and future maintenance access requirements to the bridge pylon. Access to the pylon for RMS has been designed with their needs in mind and the proposed site layout plans are a direct reflection of the needs of RMS. Provision has been made in the design of the site for access by equipment specifically specified by RMS.

- *Transport Management and Accessibility Plan with particular regard to:*
  - *Transport and traffic management;*
  - *Pedestrian and cycle access/circulation to meet the likely future demand within the precinct and connections to the external networks;*
  - *Measures to promote public transport usage and pedestrian and bicycle provisions and linkages.*

The required TMAP accompanies this application, with the key objectives being to:

- *Minimise car based trips;*
- *Support and promote sustainable travel to and from the site;*
- *Maintain satisfactory operation on the local road network; and*
- *Manage delivery movements generated by the site.*

In the matters of transport and traffic management, minimizing car based trips and promoting sustainable travel opportunities to and from the site, as set out previously, the proponent is committed to minimising car based trips, through limited on site parking provision, as well as promoting sustainable travel opportunities. This matter has been addressed above.

Having regard to the importance of retaining the satisfactory operation of the local road network, the TMAP indicates that during peak hours, the estimated flows along the Bank Street – Bowman Street route would be in the order of 480 to 500 vehicles per hour (two way traffic) and, as such, additional traffic will be readily absorbed into the carrying capacity of these streets.

In addition, the delivery movements to the site are as set our previously:

- Delivery of consumables will arrive on trucks and deliveries will generally be infrequent, typically on average once per week.
- Delivery of refreshment kiosk supplies will also be infrequent and will be likely to require only a volunteer's car, or the Fleet's utility.
- Unless there are exceptional circumstances, all deliveries will be unloaded off-street, within the main building or wharf precinct.
- Diesel fuel will normally be delivered by water, using the services of an experienced and licensed fuel supplier, generally only two or three times per year.

Given the limited number of deliveries anticipated, it is considered that these would occur without interference and on a limited basis. Potential conflict with peak traffic periods within the surrounding network is unlikely. In

addition, the unloading of goods will occur within the site and not cause any disruption to the surrounding road network.

Therefore, given the limited extent of deliveries and the ability to accommodate these within the site, it is considered that these may be adequately managed without adverse impact.

In terms of pedestrian access and circulation, the TMAP notes that Pyrmont is a relatively contained area with good pedestrian links to public transport and the City. As such, any potential to improve upon the existing situation may be facilitated through further consultation with the Council and other stakeholders, as required. In relation to bicycle access and connections to external networks, this has been addressed previously.

Most importantly, as discussed previously, the proposal will, at a later stage, when adjoining land uses develop, be able to suitably integrate with these to ensure the broader connectivity of the network.

Measures to promote access to the site by public transport will be facilitated as set out above. Specific details, as requested by the DGR's, cannot be provided at this stage, but will be primarily through a TAG and publicly displayed information on access opportunities.

- *Daily and peak traffic movements likely to be generated by the proposed development, including modeling and assessment of the performance of key intersections providing access to the site and any upgrades (road/intersections) required as a consequence of the proposal.*

Chapter 8 of the TMAP outlines the estimated visitation and traffic generation. These are noted to include:

- Group visitors by coach are estimated at 12,250 per year (no car parking required);
- Group visitors by boat from Darling Harbour are estimated at 6,000 per year (no car parking required);
- Casual public visitors are estimated at 10,500 per year (transport methods will vary);
- Heritage vessel charter passengers are estimated at 2,500 per year (public transport and existing car parks will be encouraged);
- Volunteers on site are estimated at 7,500 per year (public transport and existing car parks will be encouraged); and
- Hourly bus and car traffic are estimated to be in the region of five visits per hour, or less, during any particular peak hour.

In this respect, the level of traffic generation will be very low and have minimal impact on the surrounding road network.

Given the limited impact of traffic generation, the need for upgrade works to the intersection of road networks in the vicinity of the site will not be required.

- *Identification of Travel Demand Management (TMD) [TDM?????] measures that will optimise the opportunity provided by the project site's proximity to public transport, including the preparation of a Work Place Travel Plan.*

As set out previously, based on the Fleet's knowledge and operational experience of almost fifty years, they are aware of the travel experiences of their volunteers, the majority of which rely on public transport to access the existing Wharf 7 site and those moving to the new site will continue to do so.

A work place travel plan will be provided as set out previously for staff and a TAG provided for visitors. These outcomes are reflected in the draft Statement of Commitments and accepted by the proponent.

- *In relation to construction traffic:*
  - *Cumulative impacts associated with other construction activities on the site;*
  - *Details of anticipated truck movements to and from the site;*
  - *Details of access arrangements for workers to/from the site, emergency vehicles and services vehicle movements*

Construction of the project is anticipated to occur in two key stages, with the water component being constructed first and the land second, subject to RMS completing their Anzac Bridge maintenance project, which is due for completion by 2014.

The water construction could commence while RMS Anzac Bridge maintenance works are continuing and take approximately six months although construction time may be longer if carried out with RMS maintenance work continuing as construction of the land-water interface will depend upon some RMS equipment being removed.

The majority of materials for construction of the water component would be delivered by water and would therefore not impact upon the road network, nor result in conflict with the RMS works. Any limited deliveries by road are not anticipated to cause any significant impact.

During the land based construction, the anticipated truck movements are not known at this stage. However, the proposed construction period is estimated to be 12-18 months to full fit-out stage.

Deliveries and construction traffic would be limited by conditions of consent and a Construction Environmental Management Plan. This would set out the delivery and vehicular movement arrangements (including travel maps) for vehicles, as well as car parking arrangements during the construction period, to minimise disruption to the immediate locality. It will also include the phasing of construction, the anticipated

daily volume of construction traffic, the proposed truck routes servicing the site and environmental protection measures over vehicles to ensure that the condition of the nearby roadways is not compromised. Staff parking zones will also be included and, where possible, accommodated on site.

A TAG will also form part of plan, specific to the construction process.

It is considered that the potential cumulative impacts associated with construction activities may be effectively mitigated through the inclusion of industry-standard control measures within the overall Construction Environmental Management Plan. The proponent accepts these recommendations which are reflected in the Draft Statement of Commitments (Chapter 13).

- *Details of any proposed transportation of waste materials via the Harbour and proposed locations for handling materials.*

No waste will be transported by water. The operational vessels all require sewage pump-outs from time to time, depending upon the degree of usage, and they will continue, as at present, to pump out at the RMS facility in Blackwattle Bay.

12.4 Marina Development (Heritage Vessel Berthing)

The proposal is not a marina development in its traditional form. The water facility is only designed to berth vessels of Sydney Heritage Fleet. There will be no provision or opportunity for temporary berthing of vessels that are not associated with the Fleet. Berths will not be privately leased, nor will temporary public berthing be available on an ad hoc basis.

Having regard to this, the matters raised within the DGR's are addressed below.

- *Justify the suitability of the site for a marina development, including the extensive infrastructure to accommodate the proposal in this location.*

As stated previously, the proposal is not for a traditional marina development.

The infrastructure requirements, to accommodate the proposal, are reflective of their intended use by historic vessels of the Fleet. In addition, the extent of infrastructure has been downsized due to the removal from the proposal of vessel restoration and heavy maintenance work. This amendment will also result in a reduced footprint of the water-based elements, allowing 23 metres to be reduced from the length of the main east-west wharf over that in the original proposal.

The infrastructure will include:

- The installation of a fixed wharf, on the western side of the site, which extends in a westerly direction and then turns south. This will be constructed of concrete and piled into the sea bed, using steel piles. The use of steel piles will enable a lesser number of piles to be installed which has the resultant benefit of reducing the environmental impact of the proposal on the sea bed.
- Floating pontoons on the southern side of the fixed wharf to accommodate the Fleet's vessels. This will be constructed of concrete, positioned alongside the fixed wharf, using standard floating pontoon technology, with gangways from the fixed wharf for access.
- A smaller timber fixed wharf is positioned close to the sea wall on the western side of the site and provides a protective small craft 'harbour' as well as a landing wharf at its outer end. This will be used by Fleet vessels discharging or taking on group tour passengers visiting the site. It also has the potential to be used for ferry services should they be available in the future.
- Three Dolphins are positioned on the western side of the main fixed wharf following discussions with RMS. Piled into the sea bed, they will provide protection for any typical vessel using Blackwattle Bay transiting the old Glebe Island Bridge, as well as providing protection for a Fleet vessel at the outer berth of the site. With the addition of the dolphins, RMS agreed that there were no navigation difficulties with the proposal. The amendment made to the east-west fixed wharf, reducing its length by 23 metres, reduces even further any potential navigation concerns. The dolphins also have the benefit of giving all users of the waterway, including passive boaters, a clear navigation mark when entering or leaving the Bay.

  The piles will be driven to a depth which secures a firm footing and their height will be adequate to compensate for any predicted tidal rise as well as providing a convenient mooring point for vessels at the wharf.

  As the berthing requirements of the Fleet are known and may be accommodated into the long term future under the arrangements in the proposal, the proposed infrastructure is adequate for many years to come. This is another reason why the facility is very different from a traditional marina, which must provide infrastructure for anticipated, rather than known, craft.

  Having regard to the above, it is considered that the proposed plans are suitable in terms of navigational impacts.

- *Address the potential impacts due to marina construction and operations on marine vegetation, aquatic ecology.*

The potential impacts of the proposal have been considered by SLR Ecology, in conjunction with WS Rooney & Associates, including an assessment of the amended proposal, with its reduced water lease footprint. The findings of this assessment have concluded that:

- There are no non-aquatic native biota of particular concern that will be impacted by the proposal;
- There are no threatened biota or habitats that would be threatened as a result of the proposal; and
- The additional shading impacts, as a result of the proposed infrastructure represent only a minor proportion of Blackwattle Bay. In addition, the reduced footprint will be of environmental benefit reducing the potential shading of the waterway.

The findings of the investigations do reflect that there will be some decline in benthic marine biota as a result of the proposal. This is largely in response to the shading that will be imposed by the water based structures, albeit reduced over the original proposal. However, the implementation of new piling structures will provide an opportunity for new growth to occur.

The removal of vessel restoration and heavy maintenance works at the site will represent a substantial decrease in risks associated with the proposal, in terms of contaminants or pollutants, as well as waste materials. In particular, the reduced risk of spills associated with oils, paints, and antifouling materials is substantial.

To ensure that risks are reduced, the following mitigation measures are required to be implemented:

- *The use of appropriate measures to minimise or avoid sediment disturbance and the smothering of nearby benthos during construction of the marina;*
- *The implementation of 'best practice' measures to control and manage all wastes, oils, fuels, paints or other potential contaminants;*
- *The provision of mesh materials in parts of the marina to increase the quantity of diffuse light entering the water column; and*
- *The implementation of specific measures during the operational phase of the project to avoid the discharge of contaminants, wastes or materials into the harbour.*[9]

Through the implementation of the aforementioned mitigation measures, during both construction and operation of the facility, which is reflected in the Statement of Commitments, it is considered that the proposal will not compromise the quality of marine vegetation and aquatic ecology within the vicinity of the site. This will also be achieved through implementation of the waste management plan accompanying the application, which applies to both the construction and operational aspects of the proposal.

- *Provide a detailed review of existing water-based activities in the area and the impact of the proposal on these activities.*

[9] Flora & Fauna Assessment Report, SLR Consulting, Page 3

The existing water based activities are detailed below, along with the potential impact of the proposal (if any) on these.

User Group/Operator	Nature of Operation	Potential Impacts
Superyacht Marina	Large motor yacht base	Super yacht movements are infrequent. The Fleet's vessels currently berth adjacent to the marina and there has been no impact, despite being at close quarters.
RMS Headquarters	Government agency	No impact
Waterside Contractors, Waterway Constructions, AW & B etc	Commercial contractors	No impact. The craft movements are largely restricted to Rozelle Bay and transits of Glebe Island Bridge.
Sydney City Marine	Commercial	No impact
Bailey Refuelling	Commercial refuellers	No impact. The Bailey's facility is in White Bay.
Dry stack boat storage	Commercial (not yet operational)	No impact anticipated. Normal navigational care will be required to deal with slightly increased small craft movements from Rozelle Bay.
Sydney Fish Market & Blackwattle Bay wharves	Cruise vessels, fishing trawler base and public visitors wharf	Normal navigational care will keep any potential impact to a minimum.
Cement Wharf	Goliath & Claudia	Claudia has been sold, Goliath a rare visitor and cement operations are likely to move from Blackwattle Bay. Impact negligible.
Rowing Club	Club Water Sports, Glebe	Courtesy is extended to passive craft in the waterway. Fleet movements are relatively infrequent and outside hours of rowing activity. Reduced length

		of fixed wharf provides additional visibility for passive craft. Minimal impact.
Dragon Boats	Club Water Sports at Bank Street	Dragon boat activity is usually outside hours of Fleet vessel movements. Reduced length of fixed wharf provides additional visibility for passive craft. Minimal impact.
Jones Bay Wharf	Commercial boat sales, private marina moorings, Sail Sydney Base	No impact. Not in Blackwattle Bay.
NSW Water Police HQ	Government Agency	No impact. Not in Blackwattle Bay
Commercial shipping berths at Glebe Island & White Bay	Sydney Ports – Government Agency	No impact. Normal navigational care taken and regulations observed around commercial shipping. No impact on site.

Having regard to the existing activities within Blackwattle Bay, the preliminary referral of the application to RMS raised concerns with respect to the safe navigation of vessels within the Bay. The comments from RMS were as follows:

> *The degree to which the development extends to the west impacts on outbound vessels and will also restrict the ability of large vessels to manoeuvre in adverse weather conditions. It is recommended that any development in this area extend no further west than the proposed 'Sea Heritage Dock'.*

The development does not extend further west and, indeed, has been reduced on its east-west axis by 23 metres as a result of the removal of the vessel restoration and heavy maintenance activities from the site. The three dolphins agreed with RMS provide added protection as already noted and could provide assistance to a vessel waiting to transit Glebe Island Bridge in adverse weather conditions.

These measures have the benefit of resolving the concerns of RMS.

Having regard to the current activities, and the reduced length of the water based element of the proposal, it is not considered that it will impact upon existing arrangements within the waterway. In addition, the reduced footprint of the water based component will ensure that the existing use of the waterway is not compromised, having regard to other users.

- *Address the cumulative impact on increased boating activities in the locality including the provision of appropriate boating infrastructure.*

The extent of boating activity is set out at Section 7.4.

It is anticipated that the extent of existing activity, as described, will be the same at the site the subject of this application. Therefore, it is not anticipated that there will be any increase in boating activity as a whole. Any increase in boating activity resulting from the boat stacking development, once completed, will largely be restricted to Rozelle Bay and have minimal impact on the site.

It should be noted that the Fleet has been resident in the Rozelle/Blackwattle Bay waterway for many years and moving from Rozelle Bay to Blackwattle Bay poses no issues concerning operations in the waterway and the Fleet's high operational standards, with crews well used to the waterway, will continue to apply.

The move will not, therefore, result in increased cumulative impacts over the current situation. Limited, if any, change will be recognisable within the waterway.

When considered having regard to the above table, the impact on existing users of the waterway will be negligible and consistent with current experience.

As such, no adverse cumulative impacts are anticipated.

- *Demonstrated consultation with the Harbour Master of the Port of Sydney regarding potential navigation impacts and safety, and details of any mitigation measures to minimise navigation impacts. In accordance with Clause 67 of the management of Waters and Waterside Lands Regulation – NSW, the Harbour Master's approval is required for the proposed development.*

Advice has been taken, to date, from NSW Maritime on this issue. Attempts at consultation with the Harbour Master have been attempted at the time of lodgement of this EA. Their advice is anticipated shortly.

12.5 Flora & Fauna

The Flora and Fauna Assessment notes that the site is highly disturbed as a consequence of historical activities, such as land reclamation and the construction of the Bridge. Subsequently, the terrestrial condition of the site, being highly disturbed, modified and degraded, is of extremely limited ecological value or

relevance. Existing vegetation is sparse and where present, consists largely of manicured gardens, weeds and landscaped road verges.

Native fauna recorded by SLR Consulting in the vicinity of the subject site were associated with the waterfront land and included the Silver Gull (commonly known as the 'Sea-gull'), the Pied Cormorant and Little Black Cormorant. The introduced Common Myna and Common Pigeon were also recorded on the site.

In relation to the aquatic composition of the site, this is also highly modified from its original condition as a result of landfilling for the construction of the Bridge, and long-term changes in the water quality and condition of Blackwattle Bay and Sydney Harbour in general.

The aquatic environment is generally characteristic of such sites and substrates within the inner parts of Sydney Harbour summarised as follows:

- *the densities of biota and their burrows in the sediments suggest "healthy, aerobic surface sediments";*
- *there is a "nearly buried coffer dam that is exposed a metre or more above the substrate surface near the northern water lease boundary";*
- *there were only a few fish sighted during the dive;*
- *there are no mangroves or saltmarsh communities present along the foreshore in this area, and there are no seagrasses within the water lease boundary; and*
- *there were "no noxious pest species, particularly the introduced green alga Caulerpa taxifolia" within the study area.*

In relation to the impact of the proposed development, the DGR's required the following assessment:

- *Impacts on flora and fauna including threatened species, populations and endangered ecological communities and their habitats and steps taken to mitigate any identified impacts to protect the environment.*

In terms of terrestrial component of the site, SLR Consulting note that there are a few Port Jackson Figs growing from a retaining wall on the eastern side of Bank Street and a few scattered eucalypts on properties to the southeast, but there is no native canopy at the site. In addition, there are no threatened plant species, nor is there a likelihood for threatened species of plant or threatened populations within the vicinity.

SLR Consulting also discuss potential habitats. Given the nature and history of the site, there are no habitats or features which are of any particular relevance or value for native fauna species. In addition, the array of native fauna likely to utilise the site and its vicinity, SLR Consulting note such opportunities to be extremely limited. As such, it is not likely that populations, nor even individuals of any such species, would be resident upon the site.

As such, in terms of terrestrial flora and fauna, the proposal is not anticipated to have any adverse impacts.

In terms of the aquatic composition of the site, the FFA Report notes that no threatened aquatic biota was recorded at the site, nor in its vicinity. As such, it is considered by both SLR Consulting and W.S. Rooney & Associates that it is not likely that any such biota would be dependent on the area proposed for development.

The FFR Report notes that the additional shading of the harbour floor, caused by the proposal, is likely to result in some decline in benthic marine biota, but there will also be opportunities for a range of additional aquatic biota around the support piles and structures of the wharf.

Although there are no significant issues associated with this proposal, SLR Consulting have provided a number of recommendations which relate to the protection of flora and fauna during the construction period and during the operation of the proposal. These have been reproduced previously.

The implementation of such recommendations will ensure that construction does not result in adverse impacts to adjacent aquatic habitat and that the correct boring technique has been selected to minimise sediment disturbance. In addition, the recommendations which relate to the operation of the proposed development will effectively minimise impacts of shading and allow for as much diffuse light to penetrate the seabed as possible.

In addition to the above, the amended proposal, which reduces the footprint of the water based elements will result in an environmental benefit, particularly given the adjustment in proposed activities, which will reduce the potential risk associated with spills.

Overall, these recommendations are accepted by the proponent and reflected within the Statement of Commitments.

12.6 Water Quality

Matters pertaining to water quality are addressed within the Water Sensitive Urban Design Report (WSUD Report).

ENVIRONMENTAL ASSESSMENT

The existing catchment generally comprises unsealed hardstand areas of mainly sand and gravel, with some small grassed areas. Of the 0.47 hectare site, the Anzac Bridge suspended road deck screens approximately 0.26 hectares. This therefore reduces the amount of rain that falls onto the site.

Although no detailed information is currently available regarding groundwater flow or depth, it has been assumed that this would tend to flow from the Pyrmont area, across the site, towards Blackwattle Bay. It should also be noted that much of the Pyrmont area was quarried for many years to supply sandstone for building works and as such bedrock is close to the surface in most areas.

The WSUD Report indicates that, during storm events, surface water runoff generated within the existing site would tend to mobilise and transport pollutants from the soil and discharge these into Blackwattle Bay. The identified existing potential pollutants to water quality are therefore:

- *Gross pollutants (e.g. trash);*
- *Nutrients;*
- *Suspended solids;*
- *Oxygen demanding materials; and*
- *Micro-organisms.*

In terms of the proposed development's potential impact on water quality, the DGR's outlined a number of matters, which have been reproduced and addressed below.

- *Address potential impacts on water quality, including surface water controls, management of slipways, hardstands and vessels, management of sewerage water from vessels, fuels and chemical storage and spill management.*
- *Assess the impacts of the proposal on surface and groundwater hydrology and quality.*

There are two identified types of environmental impacts, being those during construction and those during operation of the proposed development.

Construction Phase

- There is a potential for an increase in soil erosion and the amount of suspended solids being transported by stormwater into Blackwattle Bay. However, due to the nature of the existing ground surface and the relatively minor catchment area, any adverse impacts in this regard are considered to be negligible.
- There is potential for rainwater, which falls during construction, to transport surface contaminants down through the subsurface and adversely impact the underlying groundwater table. However, due to the relatively small surface area which is exposed to this, the low permeability of the existing ground surface and the site's proximity to Blackwattle Bay, it is considered that there would only be negligible impact in this regard.
- During construction, there will be a demand for potable water at the site. However, the minor and temporary increase in potable water demand is negligible and does not require any mitigation measures.

Operational Phase

- Similar to the existing situation, during storm events, surface water runoff at the site has the potential to mobilise and transport pollutants from impermeable surfaces before discharging into Blackwattle Bay.
- The proposed development will lead to an increase in mains water demand for the site which may cause adverse impacts on local water resources.

In addition to the above, there would also be concern around the potential for operational practices to occur such as refueling of vessels and disposal of bilge water.

In order to mitigate and alleviate these potential impacts, a concept drainage design, incorporating water quality treatment measures to manage and treat surface and roof water runoff, prior to a controlled release into the receiving waters has been prepared.

The modeling undertaken by SLR Consulting demonstrated that the implementation of water quality improvement measures such as the proposed green roof and rainwater harvesting tank will marginally improve the quality of stormwater being discharged from the site. It is concluded by SLR Consulting that, although the water quality targets were not achieved, there will be a nett improvement of stormwater quality and therefore the proposed development will not adversely affect the surface water or groundwater resources.

In addition, SLR Consulting provided mitigation and monitoring recommendations which relate to both the construction period and the on-going operation of the proposed development.

In terms of the construction period recommendations, these will minimise the amount of sediment and potentially contaminated water which leaves the construction site. Such recommendations are accepted by the proponent and included in the Statement of Commitments.

In relation to the on-going operation of the proposed development, SLR Consulting outlined recommendations pertaining to Onsite Stormwater Detention (OSD) and Stormwater Quality Improvement. It is noted that in this regard, OSD will need to be addressed at the detailed design stage and that the Water Sensitive Urban Design Strategy prepared by SLR Consulting forms the basis of the Stormwater Quality Improvement recommendations. Nonetheless, these recommendations are accepted by the proponent and incorporated into the Statement of Commitments.

With respect to the risks associated with fuel loading and disposal of bilge water, all such processes have been practiced on the Harbour for many years and are undertaken in accordance with the relevant environmental policies. The same applies to effluent disposal at official harbour side pump-out stations. All relevant practices will be maintained as part of the on-going operation of the Fleet. These are reflected in the Statement of Commitments for the project.

Having regard to the above processes, it is therefore considered that the proposal is suitable with respect to water quality and will result in a net improvement.

12.7 Air, Noise & Odour Impacts

SLR Consulting were appointed to advise on the relevant assessment pertaining to this matter.

Existing Air & Odour Quality Conditions

In accordance with the DGR's the relevant air quality criteria applicable to the project are in the Approved Methods for the Modeling and Assessment of Air Pollutants in NSW (2005). This assessment considers airborne particles, increases in deposited dust, Carbon Monoxide and Oxides of Nitrogen levels. In addition, the odour benchmarks and odour separation requirements are also considered, with the assessment criteria and guidelines used to determine the level of impact associated with the proposed development.

In relation to determining the existing air quality condition, SLR Consulting have relied upon data from the OEH Air Quality Monitoring Station, located one kilometre to the north-west of the site, at Rozelle Hospital. This is considered representative of the air quality currently at the site. The data which SLR Consulting received in this respect, details that between January 2010 and September 2011, no exceedance of the relevant OEH criteria was measured.

In addition, dust deposition monitoring within the Rozelle area in June 2011 established a site average of 1.0g/m^2/month.

The existing sources of emissions in proximity to the site include Licensed Activities (such as the Malt Shovel Brewery) and Non-Licensed Activities (such as the Fish Markets). In addition, existing road traffic was identified as a significant source of existing air pollution, based on the traffic volumes identified in the TMAP.

Existing Noise Conditions

In relation to the existing noise environment, noise monitoring was conducted at the locations considered to be the most potentially affected noise-sensitive locations. The locations are presented at Figure 5 of that report, whilst the results of the monitoring are presented at Table 6 and Table 7.

The existing ambient background noise was significantly influenced by the Anzac Bridge traffic. Subsequently, the project-specific operational noise criteria were used to prepare a noise model for the proposed development.

In terms of the potential air, noise and odour impacts that the proposed development may cause, the DGR's identified a number of specific matters. These have been reproduced and addressed below.

- *Address potential air quality, noise and odour impacts, in particular during the construction and operation of the development and appropriate mitigation measures.*
- *In particular the following must be addressed:*

Air and Odour

The Environmental Assessment must include an Air Quality Impact Assessment that is prepared strictly in accordance with the Approved Methods for meddling and assessment of air pollutants in New South Wales 2005.

As nominated in the relevant report, the assessment has been prepared in accordance with the relevant requirement.

The Air Quality Impact Assessment must make appropriate reference to the Assessment and Management of Odour from Stationary Sources in NSW; Technical Framework 2006 and Assessment and Management of Odour from Stationary sources in NSW; Technical Notes 2006.

Appropriate reference to these has been made. In particular, the key principles that have been adopted include:

- *Planning to prevent and minimise odour (i.e. through careful location and design of new activities and sustainable land use planning around existing activities to ensure the best environment outcomes);*
- *Use of a range of strategies to manage odour (depending on the sources, odour nature and impact of the emissions).*
- *Ongoing environmental improvement. Operators of all developments should adopt a risk management approach to minimise the potential for odour impacts.*

The key air quality issues for the proposal will depend on the methods used to manage and remediate the contaminated material. Potential matters that must be covered in the Air Quality Impact Assessment include, Where Applicable:

i. The identification of the pollutants of concern, including the individual toxic air pollutants, dust and odours;
ii. The identification and assessment of all relevant fugitive and point source emissions;
iii. Appropriate coverage of all aspects of the remediation, including the excavation, storage, transport and treatment of contaminated material; and
iv. Proposed air quality management and monitoring procedures during remediation.

The Air Quality Impact Assessment must consider the requirements of the Protection of the Environment Operations Clean Air Regulation 2010.

In the event that contamination is identified, during site remediation works, the SLR report establishes that any odour impacts are likely to be short in their duration. In the event that such materials are discovered, an odour assessment and manage procedure would need to be development to minimise off-site risks and or potential health impacts from the volatility of ground contaminants. This would form part of a Construction Environmental Management Plan and is adopted by the proponent in the Statement of Commitments.

Beyond the matter of contamination, the following summarises the potential impacts associated with both the construction and operational phases of the development.

Construction Phase

- There is a potential for dust to be emitted from the site due to construction activities, including any required remediation works. These activities have the potential to temporarily elevate the level of particulate emissions and dust. The impact of this is considered to be low and short-term in nature, given the scale of development. Nonetheless, during excavation works, the application of suitable dust control measures will be required. SLR Consulting note that the anticipated temporary elevation in dust levels would not exceed the OEH dust deposition criterion and that dust may be effectively managed through the CEMP. The proponent accepts that such matters will need to be included in the CEMP and this is provided for in the Statement of Commitments.
- The proposal may result in disturbance of sediment within Blackwattle Bay, in conjunction with the water based works. As such, in the event that sediment disturbance occurs in conjunction with piling or any other construction activity, an odour assessment and management procedure would need to be implemented in order to manage the risk of off-site impacts. Again, this will need to be included as a component of the CEMP and is accepted by the proponent in the Statement of Commitments.
- During the construction period, there is potential for emissions caused by construction plant and machinery. However, given the scale and nature of the development, and as there are no existing buildings or infrastructure to be demolished, the quantity and scale of construction plant and machinery, including the vehicles required for such activities, is considered to be low. As such, the potential for exhaust emissions during the construction phase is correspondingly low.

Operational Phase

- There is a potential impact associated with emissions from increased traffic at the site. In this regard, SLR Consulting have relied upon the traffic volume estimates provided within the TMAP. The conclusions made within the TMAP with regard to traffic volumes provide that there will only be a marginal increase in traffic movements. As a consequence, the impact associated with exhaust emissions will also be low and of insignificance to air quality conditions.
- There is also a potential impact on air quality from the materials and processes undertaken within the community skills workspace component. The potential impacts in this regard primarily result from the occasional use of solvents in small boat repairs, where emissions of Volatile Organic Compounds (VOC) are possible during storage, application, mixing or accidental spillage. Based on annual usage estimates and solvent densities, the estimated Total VOC emission from the processes is 1,1450kg per year. However, SLR Consulting note that the estimated solvent usage is well below the National Pollutant Inventory (NPI) reporting threshold for VOCs and as such, these impacts are considered to be reasonable and may be controlled through suitable controls on the emission of fugitive VOCs. Minor dust and fume emissions may also result from small boat workspace activities. Overall, the potential impacts associated with the workspace, are considered by SLR Consulting to be of minor significance.
- There are also potential impacts associated with the delivery and handling of coal for the coal-fired boilers of the Fleet's vessels. In this respect, the estimated mass of coal used and therefore loaded into the coal bunkers, is 60 tonnes per year. The estimate of annual emissions associated with coal handling, which will require enclosure or part enclosure (by curtain) of the bunker portal will be

required to minimise dust emissions and in order to comply with POEO Regulations and Best Practice measures.

- There is a potential impact associated with the removal of grate ash from the coal-fired boilers which needs to be periodically removed from the vessels. The procedure for this removal will include the deposit of the grate ash into bags within the vessels and removal of such in sealed bags for subsequent disposal at a suitable waste management facility. Accordingly, the potential impact is considered to be minor, except where bag failure occurs. In such events, impacts will be controlled at the source through prompt spill management procedures. The handling of grate ash is an Occupational Health and Safety issue and its potential for off-site impacts are low. The management response is accepted by the Proponent and is adopted in the Statement of Commitments.
- In addition to the above, there is a potential impact associated with the emissions caused by the boilers used by the Fleet's vessels. In this instance, compliance is required with POEO Regulations, which include certain circumstances where smoke emissions may occur. Control equipment is not required pursuant to the POEO Regulations, as the Fleet's estimated annual usage is well below the threshold. Similarly, the Fleet's usage and combustion of liquid and solid fuels falls well below the NPI reporting thresholds. As such, the impacts in this regard are not of any significance to air quality.

In response to these potential concerns, the following recommendations are set out for both the construction and operational phases of the development in terms of air quality and odour impacts.

Table 4: Recommendations for Air & Odour Control

Phase / Activity	Recommendation
Construction Phase	
Construction Environmental Management Plan (CEMP) to address pro-active control of dust emissions	Dust management measures to include identification of conditions during which particularly dust generating activities may be curtailed or ceased, dust suppression measures, visual inspection of off-site compliance, a clear communication strategy for management and prompt investigation of dust complaints.
CEMP to address the disturbance of contaminated soil and sediment including associated odour impacts and health implications	Extent of ground contamination to be determined prior to commencing construction and a remediation strategy. Where this is determined to potentially affect the emission of odour or contaminated dust from the site, these impacts to be specifically addressed in the remediation strategy and CEMP. An odour assessment and management procedure would need to be developed to manage the risks of off-site odour impacts and/or health impacts from the volatilisation of ground contaminants. Reference should be made to SLR Consulting's report "Preliminary Contaminated Land Assessment".
Location and management of plant	Plant should be located as far from local receptors as practicable and engines should not be left idling when not in use. Stationary trucks should switch off engines if idling time on-site is likely to exceed 2 minutes and should avoid using the local road network during peak traffic periods. All equipment used on site should be maintained to the required performance standards.
Phase / Activity	Recommendation
Operational Phase	
Implementation of an Odour Management Plan as part of the Operational Environmental Plan (OEMP)	The Odour Management Plan will provide a pro-active management procedure to record activities and observations on-site, provide a range of odour control methods to manage the risk of odour emissions from operational activities and provide a methodology for the recording and response to any received odour complaints.
Workspace emissions	Control of fugitive emissions from the workspaces should be managed through careful use and bunded storage of solvents, the provision of spill clean-up kits including absorbing materials to minimise the potential for VOC emissions. Waste solvents should be properly stored in sealed and marked containers and removed from site for treatment or disposal at a suitable waste management facility. Where feasible, products and agents with lower VOC contents should be used. Where possible, the delivery of liquid fuels will utilise reciprocal feeds, so that the tank vapours are displaced into the delivery vehicle rather than being emitted to atmosphere as a fugitive emission.
Coal handling	Coal handling activities should be carefully managed to ensure particulate emissions are minimised. Bunker portals should be enclosed (or partially enclosed where shown to be effective) by the use of a curtain.

Grate ash handling	Where bag failure or accidental spillages occur, particulate emissions should be controlled at the source by prompt spill management, involving the damping down of the ash, bagging and removal. The provision of suitable personal protective equipment (PPE), including dust masks, is recommended for the purposes of occupational health and safety.
Combustion emissions from the Boilers in SHF vessels	All practicable means should be employed to prevent and minimise the emission of smoke during boiler combustion.

The relevant mitigation requirements will be incorporated into both the CEMP and the WSP and are agreed to by the proponent. Such recommendations are included in the Statement of Commitments.

Noise

- *The Environmental Assessment should include an assessment of noise and vibration impacts, prepared in consultation with DECCW. All feasible and reasonable noise impact mitigation measures should be implemented. The assessment should be prepared in accordance with NSW government's Interim Construction Noise Guideline, Industrial Noise Policy and Application Notes, Environmental Criteria for Road Traffic and Noise and Assessing Vibration: A Technical Guide, as appropriate.*
- *A noise management plan for the demolition and construction phase should be submitted. The report should have regard to the City's Code of Practice for Construction Hours/Noise 1992, in particular assessment should be carried out of the noise impact from any highly intrusive equipment (Category A appliances) to be employed as identified in Schedule 1 of the Code of Practice.*

In terms of the potential noise impacts, the following potential impacts have been identified during both the construction and operational phases:

Construction Phase

- Potential noise impacts during construction were identified as being expected with any demolition and site clearance works, construction of buildings, and with the construction of the water-based component of the proposal. In this respect, the predicted construction noise levels at the different receivers note that the predicted noise levels comply with OEH noise criterion, except during piling operations for the middle pontoon, where there is a potential 'moderate exceedance' for the Bowman Street receiver location and a potential 'negligible exceedance' on Floors 3 and 4 of the new Bovis Residential receiver.

Operational Phase

- Based on the noise models, operational "worst case" scenarios were developed for the major noise emitting equipment and operations. The predicted operational noise levels where identified for each of the different receiver locations comply with the OEH noise criteria, at all of the receiver locations, during workspace operations, including the use of forklifts and angle grinders.

Of relevance is that, due to the reduced level of 'heavy duty' restoration and maintenance operations to take place at the site, the impact of the facility, in terms of noise impact, will be significantly reduced.

The following recommendation is provided in order to mitigate the potential noise impacts associated with the proposed development:

- *A construction noise management plan is to be prepared in relation to the demolition and construction works.*

The implementation of the recommendation will appropriately alleviate any potential impacts associated with the proposal in terms of noise.

Specifically, the construction noise management plan, which will form part of the CEMP, will ensure that noise levels during the construction period are at an acceptable and reasonable level, in line with expectations and industry practice. The specific requirements for the noise management plan are provided by SLR Consulting at Section 5.4.1 of Appendix 23. These requirements include the City of Sydney's Code of Practice for Construction Hours/Noise, 1992 as requested by the DGR's.

The recommendation has been accepted by the proponent, and reflected in the Statement of Commitments.

12.8 Drainage & Flooding

Matters pertaining to drainage and flooding are addressed within the WSUD Report and the Climate Change Induced Sea Level Rise Report, both prepared by SLR Consulting.

In terms of the existing drainage systems SLR consulting has relied upon information provided by the City of Sydney Council in relation to the existing network.

In terms of current detailed sea level information for Blackwattle Bay, no publically accessible information is available. In addition, sea level data for use in their assessment from the City of Sydney Council's Blackwattle

Bay flood study, was due for release in June 2012 and not available at the time the study was commissioned or completed for this project. As such, SLR Consulting have relied upon the 2008 'Fort Denison Sea Level Rise Vulnerability Study' as being the most relevant data available.

Nonetheless, in terms of the potential drainage and flooding issues pertaining to the proposed development, the DGRs outlined a number of matters to be addressed, as follows:

Address drainage/flooding issues associated with the site, including:

- *Stormwater and drainage infrastructure;*
- *Incorporation of Water Sensitive Urban Design measures*
- *Assessment of any flood risk in accordance with the guideline contained in the NSW Floodplain Development Manual (2005) including potential effects of climate change, sea level rise and an increase in rainfall density.*

There are a number of identified flooding issues associated with the operational phase of the proposal, including:

- Due to the site's proximity to Blackwattle Bay, rising coastal flood waters may potentially pose an increased flood risk to the site. The assessment undertaken by concluded that:
    - Currently, the proposed finished floor level (FFL) is 0.165 metres above the existing 100 year Average Recurrence Interval (ARI) still water level.
    - In 2050, the development's FFL is predicted to be 0.115 metres below the 5 year ARI design level and 0.235 metres below the 100 year ARI still water level.
    - In 2100, the development's FFL is predicted to be 0.345 metres below the 0.05 year ARI design water level (equivalent to less than a monthly rainfall event) and 0.735 metres below the 100 year ARI still water level.
- The design of the proposed development may impact on the existing overland flow route, causing a potential flood risk for the site and potentially to upstream areas (such as Bank Street). Overland flow paths are required to be provided in order to convey flows in excess of the capacity of the in-ground drainage system. The combined in-ground and overland flowpath capacity must cater for the 100 year ARI flows.
- As the proposed development will lead to an increase in impermeable surfaces within the site, there will be an increase in the volume and rate of stormwater runoff being discharged, potentially causing a flood risk.
- The sealed surfaces within the proposed development will prevent rainfall from continuing to soak into the ground within the site. However, given the relatively small catchment area which is exposed to rainfall and existing site conditions, the potential impact in this regard is considered by SLR Consulting to be negligible.

In order to mitigate the above flood impacts associated with the proposal, the following design-based and operational recommendations are provided which included:

- *Raise the sea wall to defend against projected potential sea level rise.*
- *Develop and construct a "flexible design" whereby in the future the ground floor can be raised.*
- *Establish all services (particularly electricity) above the projected inundation levels within the ground level building.*
- *Raise the height of the ground level as part of the current development to accommodate the projected higher sea levels.*
- *Development of an adaptation management plan which identifies:*
    - *Monitoring requirements*
    - *Future building adaptability/adaptation measures*
    - *Emergency response elements to minimise damage to property and avoid damage to humans.*

In addition to the above, SLR Consulting provide a number of recommendations which relate to overland flow routing, including an overland flow mitigation strategy within the Preliminary Stormwater Drainage Concept Plan.

These recommendations, together with the flooding recommendations above, have been reproduced as part of the Statement of Commitments and are accepted by the proponent.

Such recommendations are considered to be effective in mitigating the potential impacts associated with drainage and flooding and will alleviate issues in relation to these matters.

12.9 Waste Management

Matters of waste management have been dealt with by SLR Consulting. The DGR's required the following to be addressed:

- *Identify all potential sources of liquid waste and non-liquid wastes as defined in the Environmental Guideline Assessment, Classification and management of liquid and non-liquid wastes (EPA 1999). The*

EA should identify any waste that will be stored, separated and processed on the site and identify the procedures to be adopted to manage these wastes.

The identified waste sources in association with the construction of the project are:

- Demolition materials (such as crushed hardcore surfacing, fencing and the like);
- Green waste from the removal of existing sparse vegetation;
- General construction waste (such as concrete, timber and steel);
- Contaminated or hazardous material, if present;
- Liquid wastes (such as waste oil); and
- Clinical wastes (such as sewerage).

In terms of waste storage, management and processing at the site during the construction phase, these aspects will be undertaken in accordance with the recommendations contained in the waste management plan. This will include a construction waste management plan being prepared by the appointed building contractor, prior to release of a construction certificate. This will focus upon the waste avoidance, reuse, recycling and disposal practices outlined by SLR Consulting.

In terms of operational waste management, the following waste streams are identified as part of the on-going operation of the proposal:

- Clinical and related wastes (such as sewerage);
- Waste tyres;
- Stormwater and grey water;
- Maintenance wastes (such as cleaning chemicals, fuels, solvents, etc);
- Hazardous wastes including spent batteries (lead-acid or nickel-cadmium), used dangerous goods containers and fluorescent tubing;
- General solid (non-putrescible) wastes; and
- General solid (putrescible) wastes, such as food wastes and spoiled/damaged/spilled products.

In terms of waste storage and collection, the proposed development incorporates a dedicated waste storage and collection area on Level 1 which includes a garage and recycle store of 13.5m^2. This is suitable to cater for waste produced on the site, with a separate area used for recyclables.

Waste water issues are dealt with under separate disciplines with appropriate strategies in place to deal with these.

Hazardous waste materials will also be stored and separated in the waste area at Level 1 and disposed of in accordance with the Waste Management Plan.

Overall, the Waste Management Plan provides appropriate and specific details regarding waste management during both the construction and operational phases of the proposed development. The proponent accepts the recommendations of the Waste Management Plan which are reflected in the Statement of Commitments.

12.10 Infrastructure

- *Detail the existing infrastructure on site and identify possible impacts on any such infrastructure from the proposal, including the existing Sydney Water and possible Energy Australia Infrastructure.*
- *Detail measures to mitigate the impacts of the proposal in any infrastructure items, including proposed relocation.*

In terms of the existing infrastructure at the site, these are shown on the accompanying Architectural Drawings at Appendix 05 and include:

- An Energy Australia Joint Bay, positioned to the north of the proposed volunteers lunch room and amenities;
- Energy Australia cable which runs to the east and west of the Joint Bay.

The design of the proposed development has adequately accounted for the above infrastructure and will not impact on the ongoing operation of these. It is anticipated that further details in this regard will be presented at the Construction Certificate stage.

12.11 Staging

- *Details regarding the staging of the proposed developmen*t.

The construction staging will involve the initial completion of the water-based components of the proposed development. Subsequent to this, the land-based component will be constructed. The commencement of this is reliant upon the timing of the completion of the RMS maintenance works, currently being undertaken on the Anzac Bridge

The staging of the works should be reflected in any future Conditions of Consent issued by the DP&I.

12.12 Ecologically Sustainable Development

- *Identify how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development.*

Matters of sustainability have been addressed previously at Section 12.2 and in the Waste Management Plan.

In addition, SLR Consulting have provided recommendations which pertain to Water Conservation and Water Re-Use. These recommendations involve the use of water efficient fixtures, appliances and equipment, along with the incorporation of a rainwater harvesting tank which allows for the re-use of rainwater on site. These recommendations are considered to improve the sustainability performance of the proposed development and have been accepted by the proponent. Accordingly, these recommendations have been included in the Statement of Commitments.

12.13 Contamination

- *Demonstrate compliance with the requirements of SEPP 55.*
- *If there is a risk from the presence of Acid Sulphate forming soils during construction a suitable Acid Sulphate Management Plan will need to be supplied.*

Matters of contamination and acid sulphate soils are addressed at Chapter 11 of this report.

With respect to matters of geotechnical conditions, detailed geotechnical investigations, at this stage, have not been assessed, beyond the information contained in the relevant reports, as set out in the contamination assessment. Soil, landform and matters of hydrology, have been detailed at Section 4, as known at the time of writing.

It is, however, considered that based on current known conditions, this will not preclude the development taking place and the Statement of Commitments suitably addresses any future requirements in this respect.

12.14 Climate Change and Sea Level Rise

An assessment of the risks associated with sea level rise on the proposal as set out in the NSW Coastal Planning guideline: Adapting to Sea Level Rise.

12.15 Signage

- *A detailed Signage Strategy showing the proposed signage details including dimensions, height and location.*

The proposed signage has been discussed at Section 7.3 and is shown on the architectural drawings accompanying the application.

12.16 Consultation

- *Undertake an appropriate and justified level of consultation in accordance with the Department's Major Project Community Consultation Guidelines October 2007*

Consultation associated with this proposal to date is set out at Chapter 9.

It is considered that the extent of consultation undertaken is sufficient and accords with the relevant Guidelines.

12.17 Heritage

The historic uses of the site have been outlined previously within this EA. The site does not contain any items of heritage significance. However, the pylon of the Bridge which is an items listed as being of state significance is of relevance to this application.

The proposal has, however, been considered in heritage terms and is not considered to have any impact on heritage item within the vicinity of the site.

In terms of the non-indigenous archaeological potential of the site, although the site remained largely undeveloped during the nineteenth century, the majority of the site is situated on reclaimed land which began in the nineteenth century and continued in intervening periods up to the late twentieth century. Nonetheless, the heritage impact assessment prepared by AHMS accompanying the EA states that:

> *There is high potential for remains of the former seawall to remain on the site. However it is also highly likely that parts, if not all of seawall has been removed, or heavily disturbed in the subject site due to past historical activities and possible most recently due to works for maintenance ANZAC Bridge's eastern pylon footing.*

In relation to the indigenous archaeological potential of the site, AHMS prepared a preliminary Aboriginal archaeology assessment based on the OEH guidelines which was subsequently provided to the Metropolitan Local Aboriginal Land Council whom, to date, have not provided any comments in this regard. Nonetheless, the assessments made by AHMS in this regard, states that:

> *…historical occupation of the subject site and the peninsula from the late nineteenth century onwards indicates the subject site has been heavily modified and disturbed. The quarrying of the general area from the 1850s, construction of Bank (formerly Abattoir) Road, the sea wall and three successive bridges to Glebe Island, industrial uses of the site throughout the twentieth century and reclamation would have disturbed and/or removed Aboriginal archaeological features, should they have existed at the subject site.*

The DGR's in relation to this matter require consideration of the following:

- *An Archaeological Assessment (both non indigenous and aboriginal) is required.*
- *A Heritage Impact Statement should be undertaken, including addressing the results of both the archaeological assessments.*

The conclusions of the assessment in relation to Aboriginal Cultural Heritage are that no known Aboriginal sites/places are located within the subject site. Therefore, it is unlikely that potential Aboriginal sites and/or objects survive within this. Accordingly, No further investigations or assessment in this regard are warranted.

In relation to non-indigenous archaeology, the following has been identified:

- There is potential for parts of the former sea wall to survive within the subject site and that, should the sea wall survive, there is also the potential it may be impacted by the proposed development;
- A sandstone wall has been identified adjacent to Bank Street within the subject site during works by the RTA. As such, there is also the potential for the sandstone wall to be impacted by the proposed development; and
- It is unlikely that any other archaeological features or resources survive within the subject site.

As such, in order to mitigate the abovementioned potential impacts, AHMS made a number of recommendations, which are as follows:

- If the former sea wall is exposed during excavation works, an archaeologist should attend the site to record the location and the extent of the feature and prior to its removal. A brief letter report should be written and submitted to OEH regarding the recording.
- Given that it is unknown if the RMS intend to disturb or remove the sandstone walls discovered adjacent to Bank Street, information should be sought from the RMS prior to undertaking works for the proposed development to identify whether or not any of the sandstone wall remains.
- In the event that the RMS has removed the sandstone walls adjacent to Bank Street, and any other associated features, no further assessment, monitoring or recording works would be required. However, if the RMS has not disturbed or removed the sandstone walls and if the construction works for the proposed development is likely to impact on such, it is recommended that an archaeologist be called in to record the location, fabric and extent of the sandstone wall and any other associated features, during construction works. A brief letter report should be written and submitted to OEH regarding the recording.

In addition to the above, AHMS noted that no approvals or permits are required from the OEH prior to the disturbance or removal of the former sea wall, sandstone wall or any other potential archaeological features and/ or deposits, as the proposed development is subject to the Project Approval provisions for Part 3A project, in accordance with the Act.

The above recommendations which AHMS have provided in relation to historical archaeology pertain to the construction stage of the proposed development. These recommendations effectively alleviate the potential for the construction works to result in adverse heritage or archaeological impacts and accordingly, have been accepted by the proponent. This is reflected in the Statement of Commitments.

13 STATEMENT OF COMMITMENTS

Having regard to the matters raised in this EA, it is essential that the Proponent maintains a significant and committed level of responsibility over the project during both the construction and operational activities. The following table sets out the Statement of Commitments, as intended by the Proponent.

This is provided as a draft commitment at this stage, on the basis that it will most likely be modified in response to conditions of consent imposed by the DoP in the event it is of a mind to approve the application.

The Statement of Commitments is provided at the conclusion of the EA.

14 CONCLUSION

The Fleet is seeking development consent, pursuant to Part 3A of the Act, for the proposed relocation of the public activities associated with the Fleet from their existing facility at Rozelle Bay, to the site at 3 Bank Street, Pyrmont.

The Fleet, as a community-based maritime museum, seeks to achieve a permanent location in which the works of the Fleet, over some fifty years, may be displayed. To this, the outcome requires both water and shore-based facilities which it has never managed to acquire, despite a number of opportunities being considered.

The proposed use of the land and water is permissible with development consent and accords with the zone objectives for both public recreation and maritime waters. It is also consistent with the required environmental outcomes that are desired to ensure a harmonious co-location of the facility, both on land and within the water.

The proposal will not interfere with, nor compromise, use of the waterway by existing water users, including those of a more domestic nature.

The proposal will promote an enlivened and activated space at the water's edge and achieve public access to the foreshore in a location that is not currently possible.

The outcomes provide an environmentally sustainable solution through the proposed materials to be employed in the construction of the building, as well as during the operation of the facility. This will include aspects such as water management, as well as site accessibility, which will be promoted through the use of public transport.

Most importantly, the proposal seeks to provide a positive and vibrant contribution to the local community, while being able to share the nation's maritime heritage.

It is with these objectives in mind that this application should be approved by the DoP, subject to development consent and in accordance with the Statement of Commitments put forward by the Proponent.

The Bank Street site has been identified because it is easily and safely publicly accessible and it has a waterfront location which is essential if the Fleet is to publicly display its significant historic collection of vessels in their natural setting and in quiet, safe water. This site selection is a result of significant research and consultation with maritime, government and community stakeholders and is eminently suitable for the intended purpose. Thus it is the subject of this application.