2.0 Department's Key Issues

2.1 Strategic Context

Further consideration shall be provided in regards to the proposed use in the context of the Bays Precinct Transformation Plan and the work that is currently being done as part of the Bays Market District State Significant Precinct. In particular, this should have regard to the proposed site layout and intended timeframes of these strategies in relation to the length of use proposed in this application.

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MOD 3 is driven first and foremost by the Government's publicly announced commitment to commence construction of a new fish market at the head of Blackwattle Bay in late 2018. In order to achieve this, vacant possession of the existing wharves on Bridge Road (occupied by the Blackwattle Bay Marina boat and tourist charter operations and the Hanson Heidelberg concrete batching plant) is required. The repurposing of the Sydney Heritage Fleet was identified as an appropriate way of facilitating early and efficient decanting of Blackwattle Bay.

UGDC is currently preparing a master plan that will underpin a rezoning proposal for the Bays Market District (BMD). UGDC intends to submit the rezoning proposal (through the DPE's State Significant Precinct process) to the DPE in mid-2018, and prior to that, will be consulting on the draft masterplan in early 2018. The master planning process considers staging and sequencing across the entire BMD, and acknowledges that should MOD 3 be approved, land that is currently zoned for open space will not be able to be used in its entirety. Accordingly, the draft master plan is proposed to identify alternative locations for open space that would be available for the duration that BBM is located at the Bank Street site to offset the area that would be utilised by BBM. Under the draft masterplan options currently being developed, facilities for passive water based recreation including dragon boating and rowing, and new and additional open space (above and beyond these alternative locations) is also proposed to be identified to cater for the demand generated by the new population envisaged by the draft master plan.

With respect to the remainder of the Bays Precinct:

- There are no plans to redevelop Wentworth Park; and UGDC understands that Council will be developing its own plans on how to improve and enhance existing sporting and recreational facilities within the Park. Although the timing is not known, MOD 3 is not precluded from proceeding.
- Bays West (being the Destinations located within the Inner West LGA) are not linked to the Bays Market District in any regard. In fact, recent Government announcements mean that parts of Bays West will be used as a construction compound for major city building infrastructure such as WestConnex, the second Harbour Tunnel and the new Metro and therefore are not able to be transformed in line with the Transformation Plan as earlier as initially projected. This also limits opportunities for other BBM locations as set out elsewhere in this RtS / PPR.
- Bays Market District is entirely self-contained; the masterplan and rezoning proposals will demonstrate that they can support themselves in terms of open space and other community infrastructure without having to rely on other Destinations. On this basis, the timing of other Destinations across the Bays Precinct are irrelevant for the purposes of MOD 3.

2.2 Alternative Sites

Please outline the consideration of alternative sites for the proposal, their suitability and justification for the proposed site being nominated, and its proposed relocation at the cessation of the proposed operations on site.

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The proposed Transformation of the Bays Market District (BMD) and the wider Bays Precinct is reliant on the decanting and relocation of a range of existing uses, many of them suitably and legitimately located in an inner harbour foreshore context – such as BBM.

The ultimately long-term relocation of the BBM is reliant on a range of factors and externalities, some of which UGDC is able to control and manage, many it is not.

Current or short-term suitable inner harbour foreshore locations are scarce for a range of reasons as set out in the table below. This is often due to land tenure (ownership/leases), proposed temporary / short-term uses by other Government entities (eg TfNSW) for a range of other projects, and competition for access to the foreshore by other working harbour uses and passive foreshore uses. It should be noted that the zoning of both the land and water supports the proposed commercial marina / charter boat use, and the proposal is no less relevant to Sydney Harbour's enjoyment and access to it, albeit in its temporary guise as proposed location at Bank Street.

The ultimate long-term planning for the relocation of BBM (and other foreshore uses part of the same BMPSSP project) is underway, but this cannot be resolved within the same timeframe as the planning and approvals process for the BMD project. The ultimate goal at the Bank Street site is to achieve continuous foreshore access as envisaged in previous planning regimes applicable to the Bank Street area, Ultimo-Pyrmont generally, and the Blackwattle Bay area and wider Bays Precinct. The best available option is the temporary relocation to the Bank Street site for a duration that enables appropriate final relocation options to be negotiated and formalised.

The proposed use will be suitably located and managed to ensure its overall compatibility with the transformed character of Blackwattle Bay, again noting its temporary relocation prior to a final location being established.

The table below (also included in **Appendix J** to this RtS/PPR) is to be read in conjunction with the Summary of Inner Harbour / Bays Precinct Locations Map.

1	Rozelle Bay – Northern Bank	This area is existing working harbour with the location at current capacity with the superyachts marina and other commercial vessel berthing and servicing. Long existing leases prevent any immediate decanting or relocation to this area.
2	White Bay – Northern Bank	This section has been earmarked as a construction area for major transport projects for the next 5 to 10 years. It is also an ongoing working harbour area, including overseas passenger cruise vessel berthing, managed by the Port Authority of NSW, and with operational curtilages and exclusion zones.
3	White Bay – North Eastern Tip	Currently provides vessel storage and fuel services to a wide range of vessels in the Bays. There are no current short term opportunities given space and access constraints and the

		above mentioned Ports Authority of NSW operation curtilages and exclusion zones.
4	Glebe Island	Bulk materials importation and storage and earmarked as a construction materials handling area for major transport projects over next 5 to 10 years.
5	Blackwattle Bay – Eastern Bank	Private waterside landowners with no or limited opportunity to secure sites for use. Identical issues of temporary use of areas earmarked for open space purposes arises. Land holdings if available are inefficiently shaped parcels to accommodate the use. The location also reinforces existing maritime use conflicts with passive boating activities potentially even amplifying those conflicts and displacing other valid foreshore and community uses.
6	Blackwattle Bay – South Eastern Bank (fish market and Hymix sites)	The foreshore is a mix of private land, land designated for open space, and future private residential land with continuous public foreshore. There is no suitable land-water connectivity available at this stage with the land being utilised for car parking and concrete batching. The location also reinforces existing maritime use conflicts with passive boating activities potentially even amplifying those conflicts if this location was available.
7	Blackwattle Bay – Southern Bank	Possible future location for fish market with no short term option available. This is the existing (and general adjacent) BBM location, which maintains the existing conflicts with passive boating activities and does not release the land for the intended development.
8	Head of Rozelle Bay	Site proposed for major transport construction projects as well as being occupied by waterside construction companies and industries that would also need to be relocated. Water depths here are not suitable for commercial vessels.

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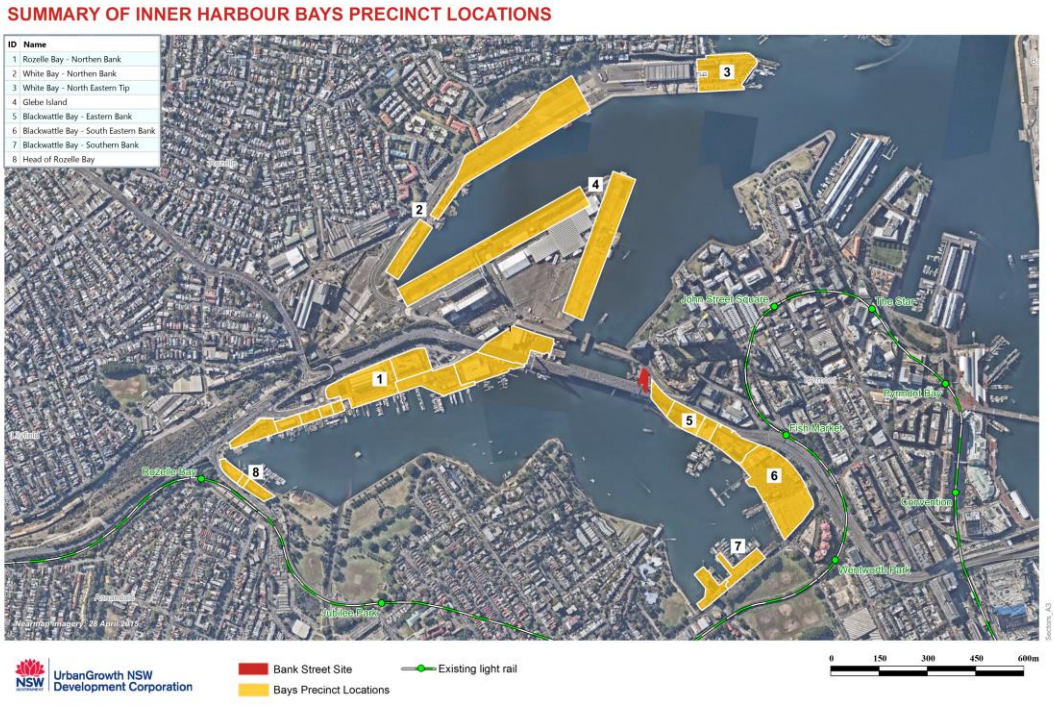

Figure 1 – Summary of Inner Harbour Bays Precinct Locations

In summary, the Bank Street site provides a suitable temporary location that:

- Is available and unconstrained by leases and existing land or water uses or exclusion areas;
- Has appropriate tenure (RMS-owned) and to which the landowner has agreed to the use;
- Is appropriately zoned (both in the water and on land);
- Has already secured approval for a similar use, but which has not been commenced, and for which general impacts have already been assessed and considered to be reasonable and/or manageable;
- Can be designed and managed to minimise impacts upon its sensitive neighbours (whether residential or Dragon Boat uses);
- Is appropriately sized to accommodate the temporary use, whilst at the same time enabling new public foreshore access and modest open space, where none has previously existed;
- Legitimately retains the working harbour character of Blackwattle Bay (albeit temporarily until the Transformation Plan has been more fully realised); and
- Enhances passive and recreational vessel use of Rozelle Bay, and in particular Blackwattle Bay, by locating the use and its vessel movements away from the majority of the rowing and Dragon Boating courses, and thereby enhances wider enjoyment of the Bays Precinct over current usage whilst concurrently enhancing marine safety.

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No alternative location is able to concurrently and suitably satisfy all of these requirements or criteria.

2.3 Analysis of approved and proposed operations

Further detail should be given, in order to provide a clearer comparison of the nature of the existing marina at Blackwattle Bay in comparison to the proposed marina, particularly in relation to operational details.

The table/matrix below provides a 'ready-reckoner' describing attributes, data and the like of the approved SHF project, the existing BBM location and use at the head of Blackwattle Bay, and the current proposal (as per the revised design) under the PPR.

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	SHF Approval MP 11_0001	**Existing BBM use at Bridge Road**	**Proposed BBM use at Bank Street**
Land use / permissibility (land and water)	Maritime facility, museum, exhibition space, pavilion, kiosk *Commercial marina* and *community facility* Permissible, land and water	*Charter and tourism boating facility* Permissible, land and water	*Charter and tourism boating facility* Permissible, land and water
Permanent development	Yes	No – temporary long-term use as per current arrangements	No – temporary 10 years
Public Access / open space	Yes	No	Yes
Vessels (number)	11 – predominantly permanently moored	22 – working harbour use	22 – working harbour use
Vessels (size)	15m length min 51m length max	15m length min 48m length max	15m length min 48m length max
GFA / floor space	Approx 1,200m2	121m2 in 3 x portable offices	70m2 portable office
Development height	2-3 storeys 8.5m to 11.3m max	Single storey portable office Containers 2.59m height	Single storey up to 8.915m Containers 2.59m height
On-site car parking	Yes – 1 space, no visitor parking	Yes – c.50 spaces shared with other uses, no visitor parking	Yes – 2-3 spaces, no visitor parking
Visitors to the site	Max 49 visitors to the site at any one time	None	None
On-street parking demand	About 7 visitor cars per hour from 10am to 4pm, and 10 staff parking spaces over the weekend days	None	12-13 cars per day
Bicycle Parking	8 spaces with end of trip facilities	No formal parking	4 spaces with end of trip facilities (as a temporary use)
Easy access to public transport (at all times of day / night)	Yes	Yes	Yes
Bus / Coach drop-off / pick-up	Yes, shuttle buses and coach drop-off	No	No
Charter Vessel passenger disembarkation at site	Yes (SHF vessels only to and from site) Private ferry services to the site	No	No
Office area	Approx 282m2	121m2	70m2
Storage containers	None	31 total	22 total

		22 small (6m x 3m x 2.59m) 9 large (12m x 3m x 2.59m) 720m2 (but not all used efficiently)	10 small (6m x 3m x 2.59m) 12 large (12m x 3m x 2.59m) 612m2
Staff / Employees (land-based)	Up to 10 Up to 40 volunteers over the course of a weekend	6	6
Staff / Employees (water-based)	5-10	25 (predominantly) 75 (limited peak period)	25 (predominantly) 75 (limited peak period)
Ice-machines	No	Yes – 5 (but not all in use)	Yes – 2 or 3
LPG gas bottles	No	Yes – approx. 36-40 full and empty	Yes – 36 full and empty
Refuelling on-site	Yes	No	No
Sewage pump-out on-site	No	Yes	Yes
Hours of Operation	8am – 6pm typically 7am – 10pm occasionally Museum 9:30am – 5:30pm 7 days per week	7am – 1am 7 days per week	7am – 1am 7 days per week
Servicing / Deliveries (frequency and size of vehicles)	Unknown – undiscoverable from original application documentation	6 food and drink deliveries per week 1-2 other loading vehicles	6 food and drink deliveries per week 1-2 other loading vehicles
Waste removal (frequency and size of vehicles)	Unknown – undiscoverable from original application documentation	1-2 waste collection per week 14 bins total of 42m3	1-2 waste collection per week
Noise generation (applicable standard or condition of approval)	60dB(A) LAeq Day 50dB(A) LAeq Evening 45dB(A) LAeq Night to Bayview Towers Pyrmont	Unknown – estimate target as per INP. 60dB(A) LAeq Day 50dB(A) LAeq Evening 45dB(A) LAeq Night	60dB(A) LAeq Day 50dB(A) LAeq Evening 45dB(A) LAeq Night To adjacent residences
Maintenance and servicing on-site of vessels	Yes – minor / hand tools only	Yes – minor / hand tools only	Yes – minor / hand tools only
Major servicing and anti-fouling	Off-site only	Off-site only	Off-site only

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In summary, the following key information can be gleaned from the table/matrix:

- Compared to the approved SHF project, the proposal:
  - Is a temporary use compared to a permanent use which may or may not have provided the same future capacity to provide enhanced public foreshore open space opportunities as now envisaged under the UrbanGrowth Transformation Plan. This proposal leaves the site available for improved open space connections and opportunities after the temporary use ceases.
  - Provides access and open space to the foreshore in this location for the first time, noting as the SHF approval will now not commence this nature and scope of that foreshore open space will not be realised.
  - Doubles the number of vessels from 11 to 22, however, the visual impacts of the vessels will be similar at various times of the day, week, and year due to the working harbour nature of the proposed use. The predominantly permanent nature of the mooring of the SHF vessels would mean the visual impacts of that use would be consistent compared to the variable nature under the BBM use. See also the new Visual Impact Assessment appended.

- Has vessels sizes which are virtually identical, albeit the greater number of vessels under the BBM proposal.
- Is a temporary use involving containers and a light weight demountable building of a maximum GFA of 70m2 (and a total of about 680m2 if counting the possible floor area of the containers). The approved SHF use involved a building of about 1,200m2 – being significantly larger.
- Has a maximum height of the temporary building of under 9m at the crown of the roof, with the cluster of containers no higher than 2.59m. The approval featured a 2-3 storey building (of significantly greater bulk) of between 8.5m and 11.3m.
- Will cater for significantly fewer visitors to the site, and despite the lesser floorspace, provides more on-site car parking.
- Will not embark / disembark passengers arriving at the site. The SHF use included up to 49 visitors at the site at any one time, most arriving by shuttle bus or coaches or via a proposed private ferry service from the fixed wharf. This won't occur under the BBM use.
- Deletes the approved fixed wharf and to be replaces it with a lower-profiled floating pontoon arrangement, allowing improved visibility for BBM and passive recreational vessels in the water, an enhanced construction program and methodology, and greater flexibility in providing an appropriate vessel mooring location choice to assist in marine safety, and later removal and replacement with new foreshore open space outcomes.
- Has staff numbers proposed (on-land) which are lesser in number than the SHF approval. This also reflects positively on the likely on-street car parking demand, once considered in light of the SHF also receiving daily public visitors.
- Increases the number of overall staff proposed which is at least double under the BBM proposal (off-peak), however, many of these staff are also able to be picked-up and dropped off at other locations around the harbour.
- Is also subject to the parking restrictions applicable on Bank Street which would act as a deterrent to commuting to the site by car to enjoy day-long parking as the restrictions prevent this. Public transport is readily available over 24 hours with buses, light rail, taxis, and cycle and walking access to the site easily achieved.
- Has proposed hours of operation which are longer than the SHF hours of operation, particularly into the night by an additional 3 hours over 7 days.
- Would be considered much more of a working harbour use than that of the SHF, however, the proposal does not include refuelling at the site (unlike the SHF). The uses otherwise share the same general noise criteria targets in relation to nearby residential development and servicing and maintenance regimes for vessels.

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- Compared to the current BBM use at Pyrmont Bridge Road, the proposal is identical in:
  - the number and size of vessels
  - the number of land and water-based staff, both on and off-peak periods
  - the hours of operation, servicing and waste collection requirements
  - that no visitors or disembarkation of passengers occurs from the site
  - respect of public transport access and ease of access by walking or cycling, if not slightly better
  - relation to the refuelling and major servicing of vessels (occurring only off-site)

- Compared to the current BBM use at Pyrmont Bridge Road, the proposal is of lesser impact or is improved or enhanced in relation to:
  - Office size area / requirements
  - On-site car parking supply
  - Bicycle parking and end of trip facilities
  - Number and floor area of storage containers
  - Ice machines and LPG bottles

The proposal is no greater in impact on the matters tabulated than that at the current site. In fact the relocation provides for the opportunity to fine tune the operation by rationalising its footprint and impacts and providing for a compact and efficient operation consistent with a new and updated Plan of Management for the land and water-based uses.

2.4 Navigation and Safety

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Provide a Navigation and Safety Impact Assessment, which outlines all potential maritime impacts and safety issues and measures to minimise and mitigate identified impacts on users of Blackwattle Bay. Particular regard shall be given to recreational vessel users, including the adjacent dragon boating club and the maritime constraints (vessel visibility, manoeuvrability, travel paths etc.) associated with the site's location. The assessment should address all navigation and safety issues raised in submissions.

In the preparation of the Navigation and Safety Impact Assessment consultation is required with RMS and the Ports Authority. The outcomes of this consultation shall be included in the assessment report.

Royal HaskoningDHV (RHDHV) has prepared a Navigation Impact Assessment which is attached at **Appendix C** to this report. The Assessment has responded directly to the above matters, and also addressed a range of issues raised in submissions made to MOD 3.

The scope of the Assessment by RHDHV involved:

- review of previous and current marina approval documentation for the site and the vicinity of the site;
- establishing existing waterway navigation and usage within the Bays Precinct;
- comparing current and previous proposals for a marina facility at the Bank Street site, including the Sydney Heritage Fleet Part 3A Approval, BBM Mod 3 Facility and current proposal for floating marina structure, and the existing BBM facility;
- assessment of potential navigation impacts and proposed mitigation measures; and
- preparation of the Navigation Impact Assessment Report based these finding and following further consultation with Dragon Boats NSW representatives.

Whilst the focus of this report is the site of the proposed Bank Street marina facility, RHDHV has also given consideration to waterway uses in adjacent areas such as Rozelle Bay as this interacts with vessel activity in Blackwattle Bay, and boating traffic from both areas utilises a common navigation channel beneath the Glebe Island Bridge to access Sydney Harbour.

RHDHV considered:

- Existing tidal characteristics, water depth, and navigational widths and conditions;
- Navigational rules and restrictions and safety requirements on Sydney Harbour;
- Existing vessel use (motorised and passive recreational vessels);
- Existing launching / mooring facilities within the Bays Precinct;
- The nature of commercial vessel and passive recreational vessel use and traffic;
- Periods and locations where overlap of commercial and recreational vessels presently occurs;
- The rowing and Dragon Boating 'courses' within Blackwattle and Rozelle Bays;
- Peak periods of activity by rowers and Dragon Boaters on a weekly basis;
- Glebe Island Bridge boating traffic in the vicinity of the Bank Street site;

- The nature and scale of the proposed BBM use at Bank Street, including the number, and individual size and specifications of the BBM vessels;
- The differences between the fixed wharf design and PPR's floating pontoon design and configuration;
- The appropriate mooring location of the BBM vessels having regard to their size, specifications, water depth and tides, wave climate, proximity to the Dragon Boat launching ramp, and size of the marina licence area;
- Likely seabed disturbance arising from the BBM use, preferred mooring locations of vessels, and PPR design;
- Impacts of the BBM use at Bank Street upon passive vessel use in Blackwattle Bay in consideration of impacts at its current location and the preferred mooring locations of vessels, and PPR design;
- Safety and navigational signage and devices to enhance protection of passive boat uses in the bay and in proximity of the Dragon Boat launching ramp in particular; and
- Recommended mitigation measures.

Amongst the key findings arising from the RHDHV Assessment and the known BBM operations is a better appreciation of the likely overlap of BBM and Dragon Boating, launching from the adjacent ramp, and rowing activities within Blackwattle Bay.

As can be seen in the first table below, the peak periods of BBM activity are in summer (November and December especially) when vessels movements occur from 10am to midnight or 1am, 7 days per day, and at a higher frequency to other times of year or season.

The off-peak period is in the winter months, with movements likely only 1-2 days per week (1 movement per day) and likely only after 5pm.

Maximum / worst case scenario for fleet (all vessels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Days/wk	4	4	4	4	1-2	1-2	1-2	1-2	3-4	3-4	7	7
Freq/day	2	2	2	2	1	1	1	1	1	1	2-3	2-3
Hours*	12-24	12-24	12-24	12-24	17-24	17-24	17-24	17-24	17-24	17-24	10-24	10-24
Movements Per day ++	88	88	88	88	44	44	44	44	44	44	132	132

*vessel movements

++assuming worst case 22 vessels (up to …)

Based on Table 2 in the RHDHV Assessment (copied below) and improved knowledge of rowing activities in the Bays Precinct the following table highlights the likely extent of overlap.

Table 2: Schedule of Dragon Boat Club Training at Bank Street, Pyrmont

Club	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Blackwattle Bay Dragon Boat Club	6.30pm-8pm		6.30pm-8pm				8.45am-11am
Naga Spirit Dragon Boat Club						9am-11am	
Pacific Dragons Dragon Boat & Outrigger Canoe Club	6.45pm	6.45pm	6.45pm	6.45pm	Morning	8am	8am
ACCA Dragon Boat Racing Team		6.45pm-8.30pm		6.45pm-8.30pm		8.30am-10.30am	
Bluefins Dragon Boat Racing Team							8.45am
Mavericks Dragon Boat Club		6.30pm-8pm		6.30pm-8pm		8.30am-10.30am	
Chinese Youth League Dragon Boat Club		6.30pm-8.30pm		6.30pm-8.30pm		9.30am-11.30am	
City Dragons Dragon Boat Club							9am-11am
Different Strokes Dragon Boat Club		6.30pm-8pm		6.30pm-8pm		7am-9am	
Dragons Abreast Sydney		6.30pm-8pm		6.30pm-8pm		7.30am-9am	
FFB Dragon Boat Club	6.30pm-8pm		6.30pm-8pm			7.30am-9.30am	
Flying Dragons			7pm				9am
Sydney Tsunami Dragon Boat Club		6.30pm-8pm				8.30am-10.30am	
Sydney Zodiacs		5pm-6.30pm		5pm-6.30pm		7.30am-9am	
The Sloths Dragon Boating Club	6.45pm-8.30pm		6.45pm-8.30pm			7.45am-10am	

AM Training	
AM Peak Day	
PM Training	
PM Peak Day	

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Overlap with rowers and dragon boaters

	Monday - Friday	Saturday	Sunday
AM	None – year 'round	None – January-October	None – January-October
		Some – November-December only	Some – November-December only
PM	Substantial 5pm-8:30pm only Year 'round	None - year 'round	Some – January-March only

The likely overlap is limited to specific times of the day and week, some of which is also seasonal. As can be seen in the table above, the substantive overlap occurs daily Monday to Friday in the late afternoon and early evening year 'round. No overlap is expected Monday to Friday in the mornings or Saturday afternoons. Further no overlap is anticipated on weekend mornings between January and October. Late morning overlap is likely in the BBM peak period and Sunday afternoons in the January to March period. Overall, the overlap is much less than may have been initially anticipated, noting also that the existing BBM location means a longer and wider area of the rowing and Dragon Boating 'courses' are affected, compared to the proposed location.

The key findings and recommended Mitigation Measures (from Section 4.6 of the RHDHV Assessment) are:

- wave climate experienced at the marina site complies with guidance for acceptable conditions within AS3962-2001, provided that the 'Sunseeker' moored at Berth B1 is substituted with one of the larger vessels that are positioned within the interior berths, such as the 'Southern Star';
- comparison of the required seabed levels for berthing with minimum existing seabed levels demonstrates that existing water depths satisfy the requirements of AS3962-2001 and dredging is not required to provide additional water depth for the proposed marina berthing arrangement;
- the proposed floating marina facility does not extend any further west than that considered to be acceptable by RMS for safe navigation of outbound vessels, including manoeuvring of large vessels in adverse weather conditions, in the approved development application for the original Sydney Heritage Fleet facility proposal;
- navigation lights mounted on poles are proposed to be fixed to each end of the outermost (western) marina arm, a single navigation light fixed to the southern end of the central marina arm, and a single navigation light fixed to the eastern end of the pontoon in the south-east corner of the marina;
- the existing lit port beacons on each side of Anzac Bridge would need to be relocated approximately 20m to the west to accommodate the proposed western extent of the marina;
- installation of piled marker buoys with navigation lights to be installed to delineate the port side limit of navigation along the western side of the proposed marina and the waterway lease area, which would provide visual markers to guide rowing crews and assist in segregation of non-powered and motorised craft;
- the final type of navigation aids and their positioning would be subject to the requirements of RMS and the Harbour Master
- the southern encroachment of the proposed marina into the waterway does not extend beyond the encroachment of other existing structures on the northern shoreline of Blackwattle Bay;
- the proposed floating marina structure is less visually obtrusive at times when berths are unoccupied when compared to the original Sydney Heritage Fleet facility which included a fixed wharf structure;
- existing 4 knot speed limit and no wash zone within Blackwattle Bay / Rozelle Bay;
- further consultation with stakeholders (rowing clubs and RMS) to investigate potential relocation of the rowing route turn in the vicinity of the marina to enhance segregation of non-powered and motorised craft;
- installation of several marker buoys alongside the western side of the dragon boat launching ramp to guide rowing crews away from the SE corner of the marina during launching and retrieval activities;
- the 3 berths in the south-east corner of the marina are aligned approximately in a SSW-NNE direction (parallel to the dragon boat launching ramp) such that movement of marina vessels into and out of these berths would not involve manoeuvring in close proximity to the launching ramp;

- larger sized vessels with higher powered engines, are located in berths that are positioned away from the south-east corner of the marina and hence away from the dragon boat launching ramp;
- navigation requirements should be written into the 'marina rules' and/or a Plan of Management and included as part of the berthing agreement and planning documentation for the marina's use and include:
    - 4 knot speed limit and no wash zone;
    - keeping a proper lookout for non-powered craft at all times;
    - notification of peak times for passive recreation (e.g. dawn and dusk);
    - giving way to passive recreational craft including rowing boats and dragon boats; and,
    - exercise caution on approach to Glebe Island Bridge and follow traffic light signals when in operation.

  the above navigation requirements should also be reinforced and made clearly visible to marina customers with signage installed in prominent locations throughout the marina.
- installation of prominent signage at the Glebe Island Bridge entrance advising that "non-powered vessels are using this area frequently" or words to this effect.

The imposition of these Mitigation Measures (as agreed with Dragon Boating NSW representatives) will ensure safe, segregated, and well delineated areas of use and operation by both BBM and the Dragon Boating community. This has largely been achieved through the combined effects of:

- Replacing the fixed wharf design with a floating pontoon design and configuration and its consequential positive impacts as set out below;
- Improved visibility due to the lower profile of the marina in the water;
- Improved wave climate and protection / shielding of the Dragon Boating launching area;
- Allocation of berths / moorings for specific vessels to further enhance visibility, and rules on the speed and manoeuvring of these vessels relative to mooring locations – noting under the exhibited EA, some vessels were indicatively moored at the extremity of the marina licence area facing the Dragon Boat launching ramp with a navigational path intersecting the area used by Dragon Boats; and
- A reduced marina licence area now able to the reconfigured to have lesser adjacency with the Dragon Boat launching ramp area.

Other positive outcomes include:

- Improved seabed disturbance characteristics during construction and operation due to reduced reliance on piling activities and appropriate and enhanced mooring locations to limit and manage seabed disturbance.

The Dragon Boating NSW representatives advised that they are now comfortable with the proposed location and the proposed design, subject to the Mitigation Measures, as the project provides a freer area within Blackwattle Bay for Dragon Boating (and likely rowing also) as all existing conflicts and overlap is removed from the head and the majority of the bay due to the relocation. The proposed location has further been enhanced as set out above.

2.5 Visual Impact Assessment

A detailed Visual Impact Assessment of the full impacts of the proposal on the foreshore and waterway should be provided, including vessels, built form elements and proposed site fencing. Further consideration should also be given to the proposed visual treatment of the structures.

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Visual Impact Assessment Requirements
The visual impact assessment, including focal lengths, must be done in accordance with Land and Environment Court requirements.

Visual assessment methodology

- **The consultant's methodology should be explicit. This may include a flow-chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities.**
- **As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and vessels. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework.**
- **Visual catchment should be defined and explained (see below).**
- **An assessment matrix should be produced including number of viewers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low.**

Visual catchment

- **Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified.**
- **Categories of views (e.g. from the water, from public open space, from key streets, from main buildings and from key heritage items) should be defined.**
- **Photos are required for representative view categories, plotted on a map.**

Visual material

- **Reference to be made to site analysis.**
- **Provide key plan indicating where viewpoints are located and narrative explaining why these have been selected.**
- **The built form and vessels shall be illustrated in the context of the visual catchment to enable assessment of the visual impact.**
- **The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment.**
- **Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment.**
- **A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views.**
- **Assessment must benchmark against the existing situation with the proposed plans.**
- **Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment.**

- **As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context.**

A comparison of 'before', 'approved' and 'proposed' is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46o angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating.

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Architectural Images has prepared the photomontage assessment to support the proposal and articulate the likely volume, scale, extent and impact of the project upon a range of public and private views from within Pyrmont, as well as from within the waterways of Blackwattle Bay and the Glebe foreshore. The assessment also compares the three scenarios of the Existing Site, the Approved SHF development, and the current proposal as per the PPR. The Approved and Proposed views include both the land and water-based uses, including vessels. See **Appendix D**.

Architectural Images sets out its methodology in its Photomontage Methodology Statement. This includes explanation of its approach to photography, survey information, establishing the 3D model and camera matching through superimposing existing photography with the 3D wire frame model.

Architectural Images advises *the methodologies described in this document are based on current best practice and follow the requirements of the Land and Environment Court and relied on as or as part of expert evidence in Class 1 appeals that apply for proceedings commenced on or after 1 October, 2013.*

Overall 9 views were produced to assess the visual impact of the project (as revised under the PPR). The views are a mix of public and private views and from elevated positions and from ground level:

- View 1 – looking towards the site from the corner of Bank and Bowman Streets (at RL 6.5)
- View 2 - looking towards the site from further east on Bank Street (at RL 5.65)
- View 3 - looking down onto the site from 2 Bowman Street residential tower (at RL 43)
- View 4 - looking down onto the site from 2 Bowman Street residential tower (at RL 46.03)
- View 5 – looking down onto the site from 1 Distillery Drive residential building (at RL 37.5)
- View 6 – looking towards the site from within Blackwattle Bay (at RL 2)
- View 7 - looking towards the site from within Blackwattle Bay (at RL 2)
- View 8 – looking towards the site from the western foreshore of Blackwattle Bay (at RL 1.8)
- View 9 - looking towards the site from the former Fletchers site foreshore of Blackwattle Bay (at RL 1.8)

Existing to Proposed PPR Design

The Visual Impact Assessment demonstrates that the proposal has only a modest impact on public and private views from a range of locations compared to the current vacant site.

The scale of the land-based development is such that:

- It assists in temporarily framing the edge of Bank Street when viewed from the north and south and assists in reinforcing a sense of ownership and activity in the area from a built-form perspective – see Views 1 and 2.
- The buildings and containers are at a low-profiled scale to prevent any impact upon distant views or create a new obstruction to existing views to other significant buildings or developments thereby serving to maintain existing levels of orientation. The buildings and containers will general sit within the pre-existing clustering of buildings within views and the general silhouette of development – See Views 1 and 2. Note in view 2 that the pylon of the Anzac Bridge is maintained in the round.

- It maintains existing water views and views to the land/water interface at the foreshore from residential development – see Views 3, 4 and 5.
- It will not be visible from within the waterway when all vessels are moored – see View 6.
- It will be below the profile of the sandstone edge / top of Distillery Hill and generally dwarfed by existing residential towers and pylon of the Anzac Bridge. It will not detract from the view that provides the green / sandstone plinth the Distillery Hill residential towers or Meriton development to the south. Importantly, the Anzac Bridge pylon will still be able to be viewed in the round and as a singular built form without obstructed views from within the waterway – see Views 7, 8 and 9, or from the land – see Views 3, 4, and 5.
- Overall the scale and bulk of the land-based development is representative of its temporary nature. It is not excessive relative to its intended use and temporary nature. The buildings will be seen from a variety of angles and locations as forming development of half of the site, with the proposed open space clearly distinguished from the working harbour enclosure.

The scale of the water-based development is such that:

- It will generally only be visible in glimpses from Bank Street and not be a predominant and wide visual feature of the foreshore or its use – see Views 1 and 2.
- It will be set wide into the waterway from elevated residential views, thereby maintaining the definition of the land/water interface and foreshore – see Views 3, 4 and 5.
- Vessels will appear tightly clustered rather than sprawling within the bay. The location of the marina, its new low profile floating pontoon design, and size and mooring location of vessels, will ensure clear views of, and beyond, the Anzac Bridge deck and water beneath – see Views 3, 4, 5.
- It will be subordinate to the scale and dominance of the Anzac Bridge pylon and significant clearance to the underside of the roadway deck – see Views 6, 7, 8 and 9.
- The temporary marina use will also be low-profiled to present as a horizontal form complementing the Anzac Bridge roadway deck, rather than competing against its horizontality – see Views 7, 8, and 9. Views towards land and the built and natural features of Pyrmont, Balmain, Glebe and adjoining areas will not be obstructed to the extent that the facility would pre-dominate views and vistas to other foreshores or the waterways.
- Overall the scale and bulk of the water-based development is in keeping with the pre-existing maritime and working harbour heritage of Blackwattle Bay and the Bays Precinct.

Note the visual impact assessment has included all 22 vessels in the renders, remembering that this scenario will only occur predominantly on mid-winter mornings based on the operational characteristics of the BBM use as set out in the table in Section 2.4 of this response report.

Proposed to the Approved Design

The Visual Impact Assessment demonstrates that the proposal has only a modest impact on public and private views from a range of locations compared to the SHF approval.

The scale of the land-based development is such that:

- It sits well below and within the approved height, bulk and scale of the permanent SHF building. See Views 1 and 2. This demonstrates, by comparison from some angles, the SHF building was at a scale to partially compete with the dominance of the Anzac Bridge structure, and also obscure views to the pylon. The approved SHF would in part enclose views to the extent to shorten them and remove some distant district views. The proposal does not have this same impact.
- The approved SHF building would impact on land/water and foreshore views from elevated residential development positions. See Views 3, 4 and 5. As discussed above, the proposal does not have this same impact.

- By comparison to the proposal, the approved SHF building would compete with distant views towards the Anzac Bridge pylon (see View 6) and obscure views to the vegetated and sandstone base of Distillery Hill, removing and affecting appreciation of the dramatic, altered historic topography of Pyrmont (see views 6, 7 and 8).

The scale of the water-based development is such that:

- From some elevated residential positions the views to the water nearer the foreshore would be obscured as a result of the fixed wharf structure and the permanent mooring of vessels in those locations – see Views 3 and 4.
- The overall spread of the SHF vessels would be lesser than that of the proposed, largely through only 11 vessels being moored. Note however, through the superior mooring arrangements possible through the bespoke floating pontoon arrangement, despite 22 BBM vessels, the visual impact will not be doubled – see View 5.
- Both the SHF and the BBM water-based uses general visual impacts are such that they provide a low profile horizontal addition to the views from Glebe towards Pyrmont. The SHF use includes a handful of vertical elements arising from the masts of the older heritage or replica vessels.

The Tenacity test / Land & Environment Court Planning Principle

Views are difficult to quantitatively assess against numerical development controls, and therefore in *Tenacity Consulting v Warringah Council*, Senior Commissioner Roseth introduced a four step approach regarding the assessment of view impacts. This four step approach has been adopted as a planning principle by the Land and Environment Court. The principle relates principally to impacts upon residential views. Under the Architectural Images views, this is Views 3, 4, and 5. The following considers impacts of the proposal on these views under the planning Principle (and compares these to the approved SHF impacts upon the same views).

The **first step** involves an assessment of the views potentially affected. Water views are valued more highly than land views, and iconic views are valued more highly than views without icons.

Furthermore, whole views are valued more highly than partial views, for example a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

The proposal generally maintains the same water and foreshore views as presently exist under Views 3, 4 and 5, and enhances these views compared to the SHF approval, especially the land-based components. These water views would not be considered iconic, however, the views to the Anzac Bridge including its pylon may be considered iconic. Again, the visual impact under the proposal is superior to that approved as a result of its recessive scale and segregation to the southern half of the site away from the pylon. The proposal is of an improved scale to not compete with or obscure available water and iconic views.

The **second step** outlined in the planning principle is to consider from what part of the property the views are obtained. For example, the protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries.

The views available from elevated residential positions within developments in Jacksons Landing are more likely to be considered primary frontage views than not, despite affectation across a range of other property boundaries towards those views. Some level of impact would be anticipated and expected however given the high density environs of Pyrmont, the zoning of the land and waterway for permitted uses other than only open space or recreational uses, and no building height limit. Effectively, a development in this location, whether this or another, would be considered on its merits. As above, the merits of the proposal compared to that approved is that it reduces the overall visual

impact, whilst importantly restoring those views once the development's temporary purpose is complete.

The **third step** is to assess the extent of the impact. This is to be done for the whole of the property and not just for the view that is affected. The impact may be assessed quantitatively, but it is usually more useful to assess the view loss qualitatively.

Again, as above, given the small area covered by the land-based component, and broader area of the marina when occupied by 22 vessels (as noted mainly between 1am to 7am and in mid-winter mornings) the full extent of view loss is limited. The views to water lost are not so significant that the enjoyment of views is detrimentally affected. The main impact would be by the vessels and now lower profiled marina, ordinarily a use that may otherwise be considered to enhance a marine view by adding interest with a use expected at a foreshore. The scale of the marina use and its vessels would still maintain a clear separation of the Anzac Bridge roadway deck and allow a view under the bridge to an expanse of waterway visible between these parts of the view.

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The **fourth and final step** outlined in the planning principle is to assess the reasonableness of the proposal that is causing the impact.

The foremost consideration of the proposal's visual impacts and reasonableness is that the use is not permanent, and views lost will be regained within a short timeframe. The scale of development is also commensurate with the temporary nature of the use. The greatest impact occurs within the waterway itself, where one would reasonably expect a water-based use to be located. The new floating pontoon arrangement has also introduced not only at lower profiled marina structure reducing the visual impacts of the fixed wharf, albeit in a minor way, but also the ability to better manage the mooring arrangements of the vessels, to cluster them and reduce the marine license area initially proposed and as approved for the SHF. The combined effect is one which enhances the capacity to reduce visual impacts of the vessels and marina.

In summary, although the impacted views from residential developments are highly valued and are easily obtained, the degree of view obstruction is considered acceptable from the following reasons:

- only a very small proportion of the views are affected;
- the views are obtained across several property boundaries; and
- the proposed envelope of the land-based development has been carefully designed to minimise view impacts on all surrounding properties, with the water-based development design and resultant impacts representative of balancing safety and navigational matters ahead of view loss considerations.

Importantly, the use is in itself temporary and easily reversible with the modest view impacts to be replaced by master planned open space uses once confirmed.

2.6 Waste Management

The Plan of Management should address the management arrangements for the removal of waste:

- **from vessels during the hours proposed (between 7am and 6pm), with consideration given to potential acoustic impacts, health issues, odour, and availability of staff to remove it from the vessels the following day.**
- **from on-site waste storage, with consideration given to potential acoustic impacts, odour and impacts on traffic flow and safety.**

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The Plan of Management has been updated to address these matters. See **Appendix E**.

The potential acoustic, odour and traffic impacts have been reconsidered by the respective consultants and addressed in the formulation of the updated Plan of Management.

The revised Plan of Management has addressed the removal of waste from the vessels and from the site as follows:

Removal of waste from vessels

- No sewage pump out between 6:00pm - 7:00am, seven days a week (noting that the pump-out system does not generate any perceptible noise or odour at nearby residences)
- No internal vessel cleaning (including transfer of rubbish to on site waste storage bins) between 6:00pm – 7:00am seven days a week.
- Rubbish that is collected on board the vessels must be placed in waste bins on board each vessel, all of the rubbish is to be stored in heavy duty black plastic bags that are tied and stored in the bins on the vessel from 4:00pm until 7:00am.
- An operator may remove rubbish from the vessels upon returning to the facility between the hours of 7:00am and 4:00pm.
- An operator must maintain designated garbage receptacles, in a clean, dry, adequately covered location and as stipulated by RMS.
- No garbage or other stock is permitted to be stored temporarily or permanently on the wharves, gangways, and boardwalk or open space areas.

Removal of waste from the site

- No Garbage collection between 4:00pm – 7:00am seven days a week
- During peak season (November to January), garbage must be collected a minimum of twice weekly, and more frequently if required.
- An operator must maintain designated garbage receptacles, in a clean, dry, adequately covered location and as stipulated by RMS.
- No garbage or other stock is permitted to be stored temporarily or permanently on the wharves, gangways, and boardwalk or open space areas.
- An operator must ensure that, between collection periods, any food scraps are securely wrapped and covered to prevent permeation of odours.
- Waste stored on site will be transferred to the street in bins for collection by a private contractor as set out in the GTA Transport impact Assessment Report – included as an update in **Appendix I** to this RtS/PPR package. The on-road pick-up of garbage and waste is much like any other suburb in Sydney where the garbage truck cannot enter the site. Waste removal will be predictable and manageable from an impacts perspective.

Overall the following key management parameters will apply:

- Vessel operators must comply with all relevant codes, statutes, acts, ordinances, regulations and Protection of the Environment Policies that relate to water, air and land activities including but not limited to waterway activities, safety, light, noise levels and all matters covered by the *Protection of the Environment Operations Act 1997*
- An operator must take reasonable precautions to minimise noise resulting from use of the other waterfront facilities likely to disturb the peaceful enjoyment of occupiers of other premises in the locality.
- Operators are bound by the EPA and Council's regulations (and any other authority as required) relating to noise.
- Noise generated at the premises must not exceed the following noise limits:
    - Day 60 LAeq
    - Evening 51 LAeq
    - Night 49 LAeq

See **Appendix E**.

2.7 Acoustic Assessment

The Acoustic Assessment must be revised to include consideration of all relevant issues raised in submissions. This shall include reverberation of sound from the ANZAC Bridge and a broader analysis of noise associated with the manoeuvring of vessels including bow thrusters (i.e. not only idling engines) and potential horns, as well as the impacts of noise carrying across the water.

Please note that in Table 4.4: Project specific amenity criteria, the Noise Management Level at night should be amended from 49dB to 47dB. However, it is acknowledged that the adopted criterion is 45dB. Acoustic Assessment shall be revised consistent with the above comments.

The project's acoustic consultant, Renzo Tonin, advises as follows which respect to the above two matters:

> *We assume that "reverberation of sound from ANZAC Bridge" refers to reflection of noise off the concrete support structure and underside of road deck. We confirm that the 3D noise model considers these items as hard reflective surfaces and noise reflects off these surfaces where applicable. We confirm that the water in Blackwattle Bay is also set as a hard reflective surface so that the effect of noise across the water is taken into account. Section 6.1.1 of the updated Acoustic Assessment has been revised to clarify this.*
>
> *With regard to bow thrusters, during the testing of vessels at Blackwattle Bay, only the Bella Vista vessel was observed to use bow thrusters, which is quantified and included in the Acoustic Assessment.*
>
> *With regard to horns, we are advised that the use of horns in the context of Blackwattle Bay and the proposed marina would not be mandatory. Horns would only need to be used on occasion for safety, where for example a skipper wants to indicate to other vessels that they will be reversing into a berth. The plan of management for the marina should limit the use of horns to emergency situations only.*

The 49dB(A) amenity criteria at night is from the calculation of 59dB(A) minus 10dB = 49dB(A), which is correct. We do not agree that Table 4.4 should be amended.

Renzo Tonin has also addressed all relevant issues in submissions which raise acoustic or noise matters. Renzo Tonin advise:

There is a common theme that residents expect noise issues from passengers as they embark or disembark charter boats. As stated in Section 2.1, our understanding is that "No embarkation or disembarkation of patrons will occur at the site. The main pick up points are at Star City, King Street Wharf, and the Opera House.

As stated clearly and variously in the EA and its supporting documentation, there will be no passenger role for the site. No deliver of passengers to be site, no disembarkation of passengers or delivery of passenger back to Bank Street will occur.

Noise from rubbish removal, sewage pumps, ice maker etc are repeating themes in the resident comments. Most of these issues have already been addressed in the report. Further commentary and clarification has been provided in the revised acoustic report.

An updated Acoustic Report has been prepared by Renzo Tonin to address both resident submissions and the DPE request for additional information. See **Appendix F**.

Renzo Tonin has identified mitigation measures that are appropriate relative to the potential noise impacts. These are included at Section 6.5 of the updated Acoustic Report and replicated below. The updated Plan of Management has also adopted these measures.

The following mitigation measures are recommended to mitigate potential impacts:

- *No use of the forklift after 8:00pm*
- *Acoustic screens around the sewage pumps where required after detailed design assessment*
- *Roof over waste enclosure area as shown on plans*
- *Good behavioural practices after 10:00pm as part of the marina Plan of Management (e.g. minimal use of vehicles on site, minimal shouting, etc.)*
- *We are advised that the use of horns on vessels is not mandatory and therefore the Plan of Management for the marina should limit use of horns to emergency situations only to avoid unnecessary impacts*
- *No operational vibration mitigation measures are necessary.*

2.8 Parking and Traffic

Given that the existing marina at Blackwattle Bay has a significant number of car parking spaces, and the proposal provides for only two car parking spaces, concern is raised with the lack of parking on-site and further information should be provided as to how this can be effectively managed without generating demand for on-street parking nearby.

GTA has provided an addendum and updated Transport Impact Assessment Report. These are found at **Appendix I**.

In response to this issue, GTA advises as follows:

> *While no further staff increases are expected, (conservatively) assuming a scenario during peak daytime periods where a maximum of 22 vessels would be berthed, on-street car parking within the surrounding streets has been well protected from long-term employee parking during office hours with time restrictions (e.g. 1P, 2P or 6P).*
>
> *Therefore, as discussed within the GTA Transport Impact Assessment report, should additional employees (beyond those using the two car spaces provided) prefer to drive to the site, there would not be suitable publicly accessible parking to accommodate their demands. In particular it is also noted that the use is of a nature that would not readily allow staff to 'rotate' their car throughout the day for their typical 8-hour shift during business hours.*
>
> *Accordingly, in this circumstance employees will be directed (and required by existing parking restrictions) to use alternate transport modes, such as public transport, cycling or walking, to access the site and would not impact the available on-street parking resource. As detailed in the GTA Transport Impact Assessment report, the existing and proposed future public transport, cycling and walking networks are considered suitable to accommodate these additional demands.*
>
> *Notwithstanding the above, it is noted that during peak events, some staff may have shifts outside of business hours and may be able to legally park outside of time restrictions. Further details regarding the adopted Traffic Demand Management (TDM) measures have been presented in the GTA Workplace Travel Plan prepared for the site.*

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2.9 Public Open Space

Further consideration should be given to providing well designed and active public open space that is open, accessible and that is consistent with Crime Prevention Through Environmental Design (CPTED) principles and which based on community needs and activities.

The following addresses the desire for well-designed, accessible and active public open space which meets community needs and provides a safe environment consistent with the principles of CPTED.

Well-designed, accessible open space

Bennett + Trimble (as part of addressing the City of Sydney comments on the nature and quality of the open space) have advised as follows:

> *The location of the Land Facility is constrained by existing easements (below, at and above ground), boundaries and agreements.*
>
> *However, its placement along the southern boundary, allows for a continuous uninterrupted publicly accessible space from Bank Street to the foreshore along the northern edge of the site. This configuration and siting also locates the facility as far from the Anzac Bridge pylon as far as possible, allowing it to be seen and experienced in the round by the public. Concealed security measures at the perimeter of the site, have allowed the pylons to remain free of unsightly bollards.*
>
> *The Public Open Space along the foreshore is not limited to a narrow walkway, and it is not separated from the foreshore area as described.*

The entire area (13.8m wide at Bank Street, 32m wide at the foreshore and 87m deep from the foreshore to Bank Street) from Bank Street to the foreshore is publicly accessible. This is a continuous area approximately 2,000sqm in a mixture of hard and soft landscaping connecting Bank Street to the foreshore. As the site is not level, the public open space is naturally divided into two areas, at the Bank Street level, and the foreshore level. These areas are connected by stairs and an accessible ramp adjacent the access road.

This is a temporary facility and it is understood that this site will be reconfigured in the near future and will form a part of the larger Bays Promenade and the project has been designed with this in mind. The public space around the pylons has been left intentionally spare with the reuse of the materials already found on the site (concrete, gravel, asphalt, and native grasses), in deference to the structure of the Anzac Bridge pylons and deck structure over.

From an amenity perspective within the site, it will be subject to significant overshadowing arising mainly from the deck of the Anzac Bridge over the site. The proposed temporary use in itself will not add any major new overshadowing to the site and the area to be opened as public open space for the first time.

The new open space fronting Bank Street will receive day-long solar access between 9am and 3pm on 21 December, whilst during the same period on the same day, the new foreshore open space and overwater structure will only enjoy afternoon sun.

On 21 March and 21 September, the Bank Street area of open space will receive greater than 3 continuous hours of solar access in the afternoon, whilst the new foreshore open space and overwater structure will be in shadow from 9am to 3pm.

In mid-winter (21 June), the majority of the site will be out of shadow by 12 noon, with the new foreshore open space and overwater structure enjoying afternoon-long sun. The Bank Street area of open space will be in full shadow by 3pm.

It must be remembered that as a temporary use, the open space of the site is also subject to future change and redesign as part of the long-term planning and delivery of the foreshore promenade.

Community Needs and Activities

The existing community needs and activities (noting the separate Dragon Boat tenure at, and use of, the foreshore is largely unaltered) have been considered in light of the existing supply of recreation space / open space.

The ultimate goal is to achieve continuous foreshore access as envisaged in previous planning regimes applicable to the Bank Street area, Ultimo-Pyrmont generally, and the Blackwattle Bay area and wider Bays Precinct.

There is no intent to extend the temporary use to justify any level of permanence. The proposed open space will serve a temporary role until it can be finally redevelopment for its zoned and master planned open space purpose.

UGDC shares current and prior State and Local Government initiatives and objectives to create new foreshore access where previously none has existed. This temporary use proposal will provide formal public foreshore access to this site for the first time, noting much like the use itself the open space design is temporary or adaptable, and will be subject to future formal permanent delivery of open space as a reconfigured foreshore promenade.

It should be noted that the existing population of Pyrmont presently enjoys an appropriate quantum of open space per head of population (whether foreshore access, parks, access / connections between

spaces) as a result of prior strategic planning and master planning for the Ultimo-Pyrmont area under SREP 26 – City West, its UDP, and site-specific planning for sites such as the former CSR Refinery (now Jacksons Landing).

The open space under this planning regime was quantified and delivered based on development and population assumptions. Additionally, delivery of the foreshore park by the City of Sydney at the termination of Harris Street, Pyrmont has provided further foreshore open space. At this point there is no deficit in the provision of public open space in Pyrmont that would affect the enjoyment and active use of recreation spaces.

Any new open space and foreshore connections will serve both a regional open space role and the broader open space needs of the new incoming population arising from the development of the existing Sydney Fish Market site.

Crime Prevention through Environmental Design (CPTED)

Crime Prevention through Environmental Design (CPTED) is a crime prevention strategy that focuses on the planning, design and structure of cities and neighbourhoods. It reduces opportunities for crime by using design and place management principles that reduce the likelihood of essential crime ingredients (law, offender, victim or target, opportunity) from intersecting in time and space (source: NSW Police – Safer by Design).

The relevant CPTED Principles under the NSW Police Safer by Design guidelines are:

- Territorial Re-enforcement
- Surveillance
- Access Control
- Space/Activity Management

These principles are addressed in turn below, relative to the design of the project.

Based on information made available on the NSW Bureau of Crime Statistics and Research (BOCSAR) webpage, Pyrmont is generally identified as being subject to low levels of crime and anti-social behaviour. In summary, see BOCSAR's rating for different types of crime in Pyrmont:

- Assault - low
- Homicide - low
- Robbery – low to medium
- Sexual offenses - low
- Theft – low to medium
- Malicious damage to property - low

Territorial Reinforcement

The development site and its curtilage is a generally highly trafficked and visible place within Pyrmont at most times of the day and evening. There is an existing high frequency of passing traffic and parking on Bank and Bowman Streets near the site, as well as a high existing level of waterside and land/water interface activity, whether by dragon boaters, rowers, or other maritime activities. The site is also overlooked by newer residential development at Distillery Hill and other residential development within the Jacksons Landing redevelopment of the former CSR site.

There is plentiful vehicular, pedestrian and maritime traffic and casual surveillance at the edges of the site. New use of, and activity on, the site itself (whether the BBM use and public use of the limited stretch of foreshore access) will enhance and consolidate the sense / perception of territorial reinforcement. Pedestrian and maritime traffic around the site at present and this is unlikely to be reduced as a result of the works. The Pyrmont area (particularly the area overlooked by residential uses) generally feels safe as a result of sufficient and continuous activity in the area.

The works will further enhance territorial reinforcement by providing new opportunities for the wider public to traverse the site and walk to and enjoy the foreshore. This, with the BBM use, will further demonstrate that there is wider ownership of the site and its immediate frontages and spaces under its influence. The development will further promote an openness, visibility and connection with adjacent spaces to detract from creating areas to hide. Whilst being only a temporary use it will nonetheless signify the initial steps in commencement of the reuse of land in Bank Street and the wider part of the Bays Precinct under UGDC's vision.

Surveillance

The site presently enjoys high levels of wide-ranging passive or casual surveillance from both the waterway, the street, and the particularly the adjacent elevated areas of open space and neighbouring residential development at Distillery Hill and elsewhere within the Jacksons Landing redevelopment of the former CSR site. This will be reinforced by the works in creating enhanced access and visibility and openness to the site and the foreshore compared to current circumstances.

The development will seek to promote interaction between people and articulate that its spaces are supervised.

Natural surveillance is achieved through the sight lines through the site and to the foreshore (and back to the street). The building layout, orientation, solar access, and its location will make it a well-used open space area. The open space will be segregated from the BBM use and easy access through the site to the foreshore is planned. Surveillance is further improved with effective circulation to, around and through the site, clear sight lines, effective lighting and appropriate landscaping treatments. Neighbouring residential uses will have casual sight lines around the building's edges and with obscured views into its interior areas, further reinforcing surveillance and security. See figures below from the visual impact assessment highlighting the views into the open space areas of the site.

Technical/mechanical surveillance is achieved through mechanical/electronic measures such as CCTV at its perimeter. The buildings and the site would not be considered a high risk environment.

Figure 2 – View into proposed open space from Distillery Hill and residential development

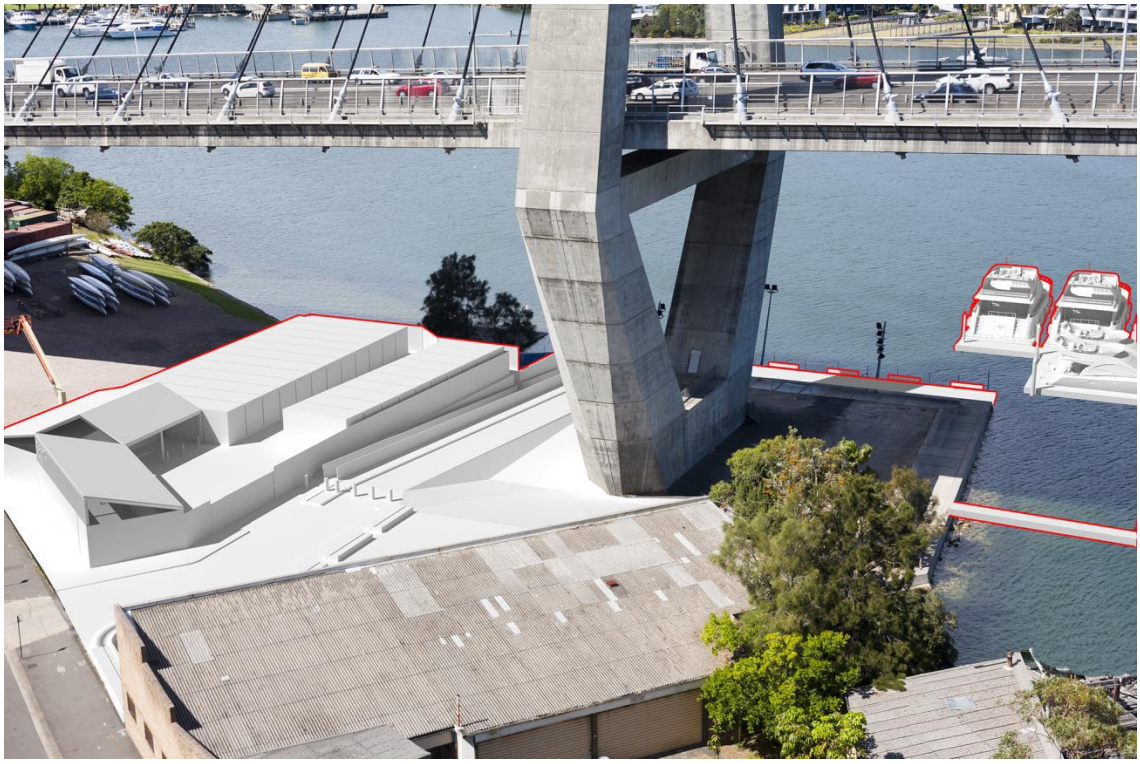

Figure 3 – View into proposed open space from residential development at 2 Bowman Street

Figure 4 – View into proposed open space from residential development at 2 Bowman Street

Access Control

The BBM and public uses of the site will be subject to a range of security control measures. The maritime activity areas will open and accessible during BBM's typical hours of operation. Public access will be available at all times to the open space and foreshore.

The administration building, services compound area, and the storage containers will be access controlled after hours with alarms, security hardware, locks, pass-swipes, and fencing, as relevant.

Reception areas and visibility into and within the building will reinforce passive surveillance and a level of access control.

General ease of way-finding within the site (given its relatively small size) will assist to detract from any criminal or anti-social behaviour.

Natural access control at the development site includes design measures such as the location of including building configuration, formal pathways and landscaping within and through the site.

Space/Activity Management

Space/Activity Management strategies are an important way to develop and maintain natural community control. Space management involves the formal supervision, control and care of the site and the development. BBM will maintain and manage the administration building, services compound area, and the storage containers to a level greater than its current practices ensuring there is no deterioration or decay of the building or its surrounds that may attract crime or the sense of a lack of safety.

2.10 Sewage Pump Out

Detailed consideration shall be provided about the proposed sewage-pump out operations.

The sewer pump out facility is to be located below ground within the open space area towards Bank Street – see drawings S75W-05 and -06 from the PPR's architectural plan set – **Appendix B**.

With regard to the facility's internal sewerage system, there will be a pump-out inlet located in recessed service duct in selected central positions on the floating pontoons with an 80mm polyethylene pipe (similar to a hose) placed on the underside of the pontoons (in a void above the waterline). The poly pipe will run in series on the underside of the pontoons and along the gangway. The polypipe will then run underground to a tank with a pumpstation. The pumpstation will regulate the incoming flow and discharge it into the Sydney Water sewer system. There is an overflow tank placed directly adjacent to the pump station tank in the event of pump failure.

A tradewaste application will be completed through the Sydney Water Tap-In system as per the Sydney Water Notice of Requirements.

The treatment of the site sewerage will be completed by Sydney Water at their treatment facilities.

Noise and odour are controlled in sealed environments, i.e. the electric motors (already usually quiet) will be housed in aboveground seal pedestals and odour is controlled as follows:

- Sewerage is to be pumped directly into the sewerage system via a leak tight line; and
- All holding tanks for sewerage are air tight.

The impacts of introducing the sewer pump-out facility will be minor from an odour and amenity perspective. As noted, the sealed, underground, and closed nature of the pump-out system is such that noise and odour leakage will be limited (at worst).

Pacific Environmental has reconsidered odour potential tied to prevailing winds (and as set out earlier advised *near-field odour observations were taken downwind of the* (existing site's) *sewage pump-out activities, during which time no adverse odour was observed beyond the site boundary. This suggests that providing good odour management practices are followed, we do not anticipate adverse odour beyond the site, regardless of meteorological conditions.*

From a noise generation perspective Renzo Tonin advises:

> *Based on past Sydney Water projects, underground sewer pumps of this type are typically no more than approximately 67dB(A) sound power level. This is much quieter than the existing above ground pump measured at Blackwattle Bay. The proposed underground pump is predicted to comply with the noise criteria at all times.*
>
> *In the case of the smaller pumps located on each pier, their noise levels are unknown at this early stage of the project, however pump noise can readily be mitigated using acoustic enclosures and/or screens if required.*

2.11 Contamination

Further consideration is required relating to the potential need for dredging and its associated contamination and water quality impacts.

No dredging is required or proposed. As per Section 4.2 of the Royal HaskoningDHV Navigation Impact Assessment, *comparison of the required seabed levels for berthing and minimum existing seabed levels available (refer Table 9 and Map 4) demonstrates that existing water depths satisfy the requirements of AS3962-2001. As such, dredging is not required to provide additional water depth for the proposed marina berthing arrangement.*

Seabed disturbance has also been considered by Royal HaskoningDHV (see Section 4.3 of the Navigation Impact Assessment). The report has considered the vessel size, hull type, vessel engine specifications, water and tidal depths, and the proposed mooring location of vessels at the marina.

The report has concluded that of the seabed disturbance potential of the 12 vessels considered only four resulted in bed disturbance at Low Water and only three at High Water.

The assessment shows that the bed disturbance is higher at the proposed Bank Street marina than it is at the existing Blackwattle Bay marina. This is mainly due to the predicted bed disturbance from the two vessels with the most powerful engines (Lady Audrey and Seven Star), which increases at the proposed marina as their berths are approximately 2.1-2.5m shallower than at the existing marina.

Royal HaskoningDHV has advised that *due to the berths all being relatively deep compared to the vessel draughts the predicted mass of sediment to be disturbed from the bed at both marinas is considered to be relatively low. The process of bed disturbance due to the vessel propeller jets would typically gradually reduce over time as the looser and less consolidated surface layers are eroded the*

more consolidated sediment, which is harder to erode, reach the surface and would reduce the bed disturbance rates. Furthermore, due to the relatively low tidal currents within Blackwattle Bay disturbed bed material is expected to be deposited in the locality of the marina rather than being transported as suspended sediment to other areas.

2.12 Dragon Boat Storage

Further consideration should be given to dragon boat storage that was part of the original approval, and the impacts on dragon boat users as a result of there being no provision for dragon boats being stored on the site.

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At this time given space constraints on the site, and the temporary nature of the use, a final design for inclusion of amenities, particularly for Dragon Boaters cannot be provided.

As outlined above, UGDC is currently master planning the Bays Market District (BMD). As part of this process, UGDC is required to consider water based passive recreation, as well as the need for, and mechanisms to deliver, local, regional and State infrastructure.

Dragon boating is acknowledged as a key activity in Blackwattle Bay, and accordingly, UGDC is in discussion and consultation with the representatives of the Dragon Boating clubs to understand how, where and when future amenities can be incorporated into planning for foreshore activation, uses, and nodes in this part of Blackwattle Bay.

The underlying land use zones, land ownership arrangements (noting the BMD comprises three private landowners), increasing competition for an already highly utilised waterway, the need to minimise water based user conflicts, and expectations of dragon boat clubs around facilities, it is highly likely that the existing launch facility will remain in its current location under the draft master plan. As part of the master planning process, UGDC is currently working through the size, location and tenure of a new community facility that would be available to not only the Dragon Boat clubs but the broader community.

A key consideration influencing the size, location and tenure of any such community facility is land ownership. UGDC has been charged with overseeing the master planning of the BMD and construction of the new fish market, however it does not own or control any land within the BMD other than 1-3 Bank Street. Any publicly owned land throughout the BMD, including 1-3 Bank Street would need to go through a potentially competitive public tender or licencing process before a tenant/use was confirmed; this includes the Dragon Boat clubs and their associated facilities and storage.

In the meantime, the existing Dragon Boat storage facilities are not impacted at all as they are located on another site that is not the subject of MOD 3. Accordingly, the existing facilities can remain in situ so long as Dragon Boats NSW and RMS have an executed licence between the relevant parties.

2.13 Consultation

The RTS shall outline:

- **who was consulted and when consultation took place**
- **the method(s) of consultation, including whether any independent convenor and mediator was used**
- **information provided to the community**
- **community views raised**
- **response to matters raised by the community/how matters have been addressed**
- **minutes of the meeting(s).**

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Summary

Since Receipt of the DPE letter requiring additional consultation, UGNSW met with:

1. Dragon Boats NSW, including representatives of individual clubs as well as a representative of Glebe Rowing Club (24 August 2017);
2. Members of Blackwattle Cove Coalition, Pyrmont Action Inc, Council of Ultimo Pyrmont Associations, Bays Precinct Community Coalition, and others (on site on 7 September 2017);
3. City of Sydney Council senior staff (13 November 2017); and
4. Dragon Boats NSW representation at a meeting with UGDC and consultants on the development of the Navigation Impact Assessment (15 November 2017).

Minutes of Meetings 1, 2 and 4 above are included with this RtS at **Appendix G**.

In general terms, the Dragon Boats NSW representatives welcomed the renewed opportunities to comment on the scheme, including the revised design, and input into the planning and design process at this stage. The outcomes of the consultation with Dragon Boats NSW have been very positive for both UGDC and Dragon Boats NSW. Dragon Boats NSW advised that it is now of the view that the PPR design has suitably addressed a range of initial concerns about usage, safety, proximity, interface and water- and land-based operational concerns.

The consultation with members of Blackwattle Cove Coalition, Pyrmont Action Inc, Council of Ultimo Pyrmont Associations, Bays Precinct Community Coalition, and others addressed a range of pre-existing concerns and objections to the project. Those initial concerns and objections largely remain.

City of Sydney / UGDC Meeting

The meeting with the City of Sydney included Graham Jahn (Director - City Planning | Development | Transport) and Michael Soo (Area Planning Manager). UGDC was represented by Humfrey Whitaker (Project Leader) and Nick Bouziotis (Project Manager). Oliver Klein (Senior Associate – RobertsDay) attended as UGDC's planning consultant.

At the meeting Council reaffirmed its overall position objecting the project on the basis that it prefers a permanent relocation solution be found for the BBM in a different appropriate location.

Discussion around this matter re-emphasised the difficulty in UGDC securing a permanent and available site within the next year and for the duration of the next 10 years, largely as a result of existing long-term leases at appropriate locations around the inner Sydney Harbour foreshores and prioritisation for other Government agencies around their temporary use of locations in and around Glebe Island, White Bay and Rozelle Bay – particularly Transport for NSW and its works depots and sites for its major infrastructure projects.

Council's strong preferred position is for the site to be developed for its open space zoning without the proposed temporary use and the possible threat of the temporary use being extended or being made permanent.

UGDC advised that the use is temporary and this could be limited to 10 years through a number of legal mechanisms, including leasing arrangements and the terms of the planning approval itself.

UGDC presented the changes made to the application since its exhibition (as set out throughout this RtS / PPR), and in the context of the objection to the project, it was considered that the changes were a positive step and that better consideration of impacts and relationship to surrounding land and maritime uses had been generally carried out. The suggestion of improving the outward appearance of the built elements of the project with an artistic wrap or screening was raised by Council, and accepted by UGDC.

Council re-affirmed that it objects to the project as set out in its submission, and despite positive changes to the design, cannot support the application.