

Appendix H: Marine Infrastructure

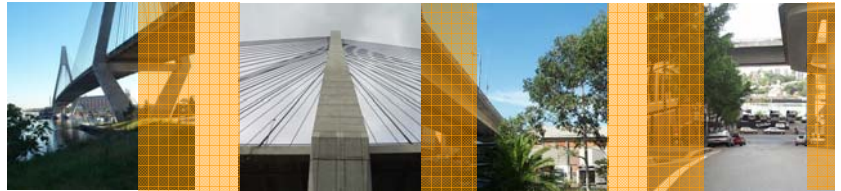
1.0 Background

The master plan for the development of Blackwattle Bay East recognises the existing water access requirements of the precinct and identifies opportunities for enhancing access in future. In addition to water access considerations, the seawalls retain backfilling that provides foundations for pavements and buildings and protects the tenancies from the effects of the sea including tides, surges and wave action.

The implications of the condition of existing marine infrastructure and opportunities for the development of new marine infrastructure are considered in this section. Infrastructure components included in the scope are the depth of water for navigation, jetty/wharf structures, and seawalls. Services and associated infrastructure for water and electricity supply are addressed in **Section 4.7**.

Apart from the Sydney Fish Market site there is currently no public access to the waters edge of the precinct as the various tenancies form a continuous barrier between Blackwattle Bay and Bank Street.




The perspective on marine infrastructure identifies infrastructure that requires attention, modification to suit new user needs and opportunities for the provision of new facilities.



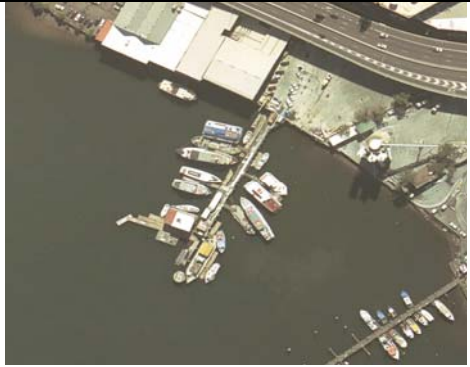
2.0 Existing Situation

2.1 Existing Water Access

Table 1: Water Access within Study Area

Location	Description	Condition ¹	Ownership	Image
Adjacent to No 1 Bank Street	Timber jetty, now disused.	Poor – incomplete roof	The land over which the jetty is built belongs to the NSW Maritime.	
Northern end of NSW Maritime site	Make-shift timber ramp installed by Dragon Boat users, who currently hold a month-by-month lease for use of the site.	Appears unstable and temporary	The land over which the ramp is built belongs to the NSW Maritime.	
Bidvest Site	Small timber jetty, with just one boat, the <i>Martin Cash</i> , moored there. Not used for regular deliveries, etc.	Unknown	The land over which the ramp is built belongs to the NSW Maritime, the jetty belongs to Bidvest	

¹ Taken from *Draft Blackwattle Bay Foreshore Promenade Implementation Strategy*, and GHD report *Sydney Fish Market Seawall Assessment*

Location	Description	Condition ¹	Ownership	Image
Charter Boat Wharf at Hymix north.	Timber deck, sub-structure, piles and fender piles	Poor state of repair – requires maintenance	The land over which the ramp is built belongs to the NSW Maritime, the jetty is leased to Hymix	

2.2 Existing Assessment

The marine infrastructure in the wider precinct is generally in poor condition with some infrastructure requiring urgent attention. The exceptions are walls adjacent to the Bidvest and Poulos sites and the NSW Maritime site beneath Anzac bridge, which are in relatively good condition.

GHD's *Marine Infrastructure Overview* (2002) claim the 'walls adjacent to ... Hymix and the Charter Boat site may have unacceptable low factors of safety² against collapse, and immediate further structural safety investigations are recommended'. Hymix advise that improvements to the seawall are proposed.

GHD in their report *Sydney Fish Market Redevelopment, Seawall Assessment* (May 2002), have recommended a minimum seawall height of 1.9m AHD for a 100 year return period. This is based on the following components (100 year return period);

Significant Wave Height:	0.4m (greater of vessel wash and waves generated in the 'fetch' across Blackwattle Bay)
Tide including storm surge:	1.44m AHD
Nominal wall run up:	0.06m

GHD note that this height may result in some overtopping and more severe wave run up, depending on the final wall type, for the 100 year extreme event.

In comparison, the NSW Maritime minimum recommended height is 1.7m AHD. The top of existing seawalls around the Sydney Fish Market is approximately 1.9m AHD.

The height of seawalls in the precinct may need to be raised to the recommended GHD '100 year return period' level, and new walls should be constructed to this level.

The water depth adjacent to the shoreline to the south and west of the NSW Maritime site is generally shallow sloping down to the navigable waterway. This has implications for the location of any boat ramp.

² Hymix disagree with this advice, believing the seawall is structurally sound.

2.2.1 Opportunities

- Parts of the seawall require repair/maintenance/replacement. This presents an opportunity to increase seawall heights and accommodate the development of an adjacent boardwalk;
- Relatively deep water occurs near the shore at the southwestern corner of the NSW Maritime site. This provides an opportunity for the development of the boat ramp as navigable water depths are close to the shore at this location thereby reducing any dredging necessary to provide adequate water depths; and
- In addition to addressing the present public liability risk to the owners (NSW Maritime), replacement of the Charter Boat Wharf could be an opportunity to provide services not presently available to floating craft such as sewage pump-out facilities, removal of waste oils and lubricants, water and electricity supply, although these facilities are possibly to be implemented as a part of the draft SFM Master Plan.

2.2.2 Constraints

- The generally poor condition of existing marine infrastructure is a significant constraint;
- The remaining service life of the Charter Boat Wharf was assessed at 5 years in 2001. Assuming that a facility of this nature is required, this structure should be withdrawn and replaced with an appropriate new structure;
- The type of repairs and reinstatement of the sections of seawall need to respond to the ease of access for the work as existing infrastructure and operations may impose restrictions;
- If a boardwalk were developed, it should not proceed until the adjacent seawall has been returned to a safe condition. Dolphins in the path of the boardwalk will have to be removed. The boardwalk will also have to be integrated with infrastructure that will remain; and
- Mitigation of environmental impacts associated with any development may impose constraints on the development of marine infrastructure.

2.3 Summary

On balance the precinct offers substantial opportunities, however the unsafe marine infrastructure should be remedied before these are exploited.