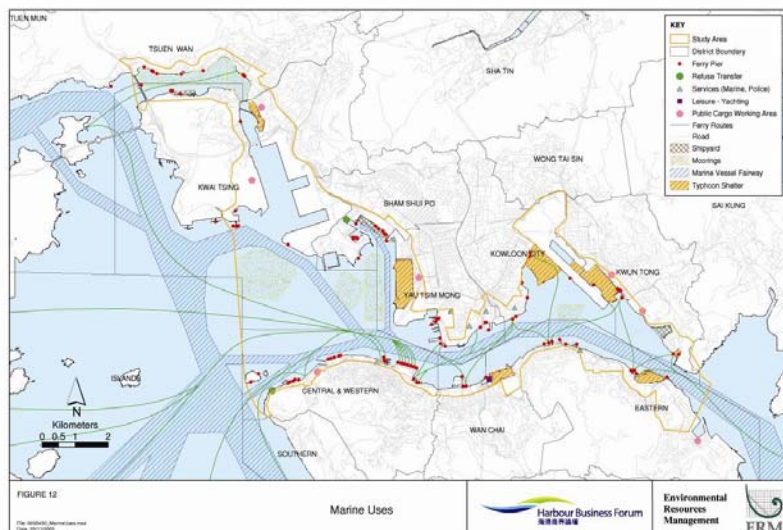


**Item: WPI Research Project**

**A Living Harbour – Victoria Harbour marine use and land/water interfaces**

**Introduction**

In January and February 2010, two student teams from Worcester Polytechnic University will conduct a study of the leisure and recreational marine uses and related land/water interfaces in Victoria Harbour. The study is to audit and forecast marine uses, determine existing land/water interfaces and make recommendations on future requirements for land/water interfaces including sheltered water bodies and their function/design/engineering features which enable marine uses and enhance the waterfront.



**Decision**

The research is sponsored by the Harbour Business Forum and Designing Hong Kong.

It is also recommended that the Harbour-front Enhancement Committee (HEC) and Harbour Unit of Development Bureau be the sponsors for this year's research to give the necessary support and facilitation in the course of their study. Upon completion of the study, the WPI teams will be invited to make a presentation to the HEC.

Views of the members are sought on endorsing this project.

**Encl. Study brief details**

## **WPI Research Project Brief**

### **A Living Harbour – Victoria Harbour marine use and land/water interfaces**

A living harbour is a harbour which is actively used for a diversity of water related activities. A living harbour stimulates jobs in marine related industries, ensures an attractive backdrop to HK's impressive skyline and attracts people to the waterfront.

Over time marine uses have changed, and will continue to do so, with the evolution of industry, commerce and technology. Today we see fewer barges and freighters, and we see more leisure crafts and cruise ships, especially in the eastern part of Victoria Harbour.

Marine uses require land/water interfaces - land (and water) based facilities which enable these marine uses: piers, ticketing kiosks, marine clubs, water and fuel provisioning, and so forth. These mostly low value land uses will need to compete with other uses such as promenades, roads, residential developments, etc., for scarce land available around the harbour. Land/water interfaces often require piling and support grounded on the seabed (i.e. for piers) and may be deemed reclamation and are thus subject to the strict tests set out under the Protection of the Harbour Ordinance: reclamation is only allowed when there is a public overriding need without reasonable alternative. This ordinance was only adopted in 1997, and up to that time the coast line had always moved with new reclamations. As a result marine supporting land uses and infrastructure were often temporary in nature, and little attention has been given to the amenity quality over technical functionality. There is thus little experience with 'how to get it right'. For example, only two of the new piers now include quality restaurant facilities.

Available studies - The Typhoon Shelter study by the Marine Department and the Port and Airport Development Study - give some but limited insight into the future demand for small vessel marine activities.

For 150 years Hong Kong's development was based on reclaiming land from the harbour. In 1997, the community agreed on the Protection of the Harbour Ordinance. As a result, the current water-edge will become Hong Kong's waterfront for 1,000 years.

Hong Kong, with its mountains and seas, has little developable land in the core urban areas, and there is a long list of competing needs for the last remaining plots of land around the harbour.

To ensure we get land zoned for marine uses, and reclamation agreed on for piers and breakwaters, we will need to convince the community of the overriding public need for marine uses and supporting facilities.

## **Proposed Research Format**

The study is divided into two. One team will study (1) Hong Kong Island harbourfront and the second team will study (2) Kowloon harbourfront. Each side is approximately the same in length, but both sides have distinct characteristics.

### **Part 1: The Audit**

The study is to audit existing land/water interfaces and existing marine uses of these interfaces through desk research, interviewing stakeholders, and by surveying the waterfront. Special attention must be given to identifying the available leisure and recreational marine uses.

The audit is to identify, classify and describe the available land/water facilities – e.g. piers, landing steps, boat slips, ferry/cruise terminals, wharves, typhoon shelters, public cargo handling areas, private marinas/boat harbours, breakwaters – and the various services, uses and users. Description could include various relevant information (i.e. schedule of accommodation, frequency of use, etc.) and visual records (photographs).

The research must identify the administrative body responsible for each structure/area and information regarding operations and management of each (for example approval arrangements for new users).

### **Part 2: The forecast**

The study is to forecast, by considering available data in Hong Kong and by making references to other cities with active waterfronts, what the future water dependent and harbour related services, uses and users would or could be: sailing, sailing schools, visiting racing yacht provisions, tall ship anchorage, scheduled and unscheduled ferry services, water taxis, dining and tour boats, bathing, rowing, (super-)yachting, marine museums, floating restaurants/museums, etc.

The second element of the forecast is then the required land/water interfaces including sheltered water bodies to facilitate these uses in a sustainable manner. For example: Yachting needs a marina, parking, water and fuel provision, and waste collection. Another example: a ferry, dining or tour service needs sales/schedule information display, ticket sales facilities, a landing for passengers to get on/off, and

an ability to stock food & beverages and off-load waste. Reference can be made to observations, best practices, overseas examples, and information gathered from interviews with stakeholders.

### **Part 3: The recommendations**

The study teams can consider making various levels of recommendations based on the gap between the findings under 1. and 2. We foresee recommendations on the potential and value of marine uses, quick win and long term provision of facilities, as well as recommendations on the function, design, engineering, and features of land/water interfaces, and on any constraints identified.

One of the dilemmas is that few people understand marine development – therefore, it is important to make the report have as many visuals as possible, and uses should be based on both Hong Kong and international examples.

### **The Sponsors**

The sponsors will help connect with identifying key stakeholders for interviews and briefings. Stakeholders include marine users (commercial (barges, ferries, launches, kaidos, fishermen), leisure (sailing, angling, rowing, yachting, ..), tourism (tours, cruises, junk rentals, museums, etc.), NGOs involved in planning and harbour issues, and Government (Economic Services, Tourism, Marine, Development, Planning, Transport.)

Some background information:

<http://www.harbourfront.org.hk/eng/index/index.html?s=1>

<http://www.pland.gov.hk/>

<http://www.mardep.gov.hk/>

[http://www.harbourbusinessforum.com/eng/welcome\\_ani.asp](http://www.harbourbusinessforum.com/eng/welcome_ani.asp)

<http://www.harbourdistrict.com.hk/>

<http://www.designinghongkong.com/>

Previous WPI studies related to the Hong Kong Harbour and Harbourfront areas.