

PROVISIONAL LOCAL VESSEL ADVISORY COMMITTEE

Proposed Kwai Chung Public Filling Barging Point

Purpose

1. This paper briefs members on the conclusions and recommendations of a Marine Traffic Impact Assessment (MTIA) study conducted on the proposed Public Filling Barging Point at Kwai Chung.

Background

2. In 2000, local construction activities produce 13.77 million tonnes of construction and demolition materials (this is sufficient to fill the Happy Valley Racecourse to a height of 18 storeys). More than 80% of the construction & demolition (C&D) materials are inert materials comprising brick/tiles, asphalt, broken concrete, rock and excavated earth. These are called public fill and are re-used in reclamation. The remaining materials are C&D wastes, comprising bamboo, plastic, timber and packaging waste. They are often mixed and contaminated. They are not suitable for reuse in reclamation works or recycling and have to be disposed of at landfills at present.
3. C&D materials are voluminous and take up a lot of capacity if they are disposed of at landfills. We need to divert inert C&D materials away from landfills. Reuse of inert C&D materials in reclamation is important because there is always a substantial volume of inert C&D materials that cannot be recycled and should not be landfilled. Public filling areas provide a good avenue for these inert materials. The three existing public filling areas are at Tung Chung, Tseung Kwan O and Pak Shek Kok. Use of inert C&D materials also reduces the need for marine sand for reclamation, helping reduce the environmental impact from sand dredging.
4. A public filling barging point (PFBP) provides a bulk transshipment service for carrying public fill from urban areas to remote reclamation areas. Providing a

network of PFBCs will reduce the haulage of large number of dump trucks and reduce the traffic and environmental impacts on urban roads. It will also reduce cross-district traffic that would otherwise add to the traffic burdens of the major road corridors. Other PFBCs that are being planned are at Tuen Mun, Southeast Kowloon, Tseung Kwan O, Chai Wan, Western District and Apleichau.

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5. The proposed Kwai Chung PFBC¹ is located at the eastern edge of the Rambler Channel with busy River Trade, tug and fast launch traffic passing the site along routes constrained by bridges to the north and south (see figure 1). It will generate about 4, 5 and 6 barge loads per day upon its operation in 2004, 2006 and 2011 respectively. Surveys of present marine traffic were conducted, forecasts of future activities were made, and records of vessel incidents were reviewed. Traffic growth to the Rambler Channel PCWA is limited by its site constraints. However, further growth due to the barge berth at CT9 is anticipated. In addition to assessment on the road traffic and environmental aspects, a MTIA was conducted to identify the potential hazards, assess the associated risks, and develop control measures.
6. The MTIA examined various options for manoeuvring barges to and from the PFBC and assessed their potential hazards. It concluded that the option with two PFBC loading enclosures facing the Rambler Channel and adopting the quick manoeuvring (and safer approach/departure) of barges would produce the minimum impact. A risk assessment using a dynamic marine traffic simulator was conducted on this option. The assessment was based on present average and peak traffic, and future activity with/without barge operations. It concluded that while the overall risk levels in the vicinity would not be significantly impacted, barges manoeuvring to and from the PFBC close to the Rambler Channel PCWA might conflict with local vessel movements.
7. In order to address these risks, the MTIA made a series of recommendations associated with the control of marine operations, choice of barges and design of the facility. These include:
 - ♦ Only split barges are allowed to use the PFBC;

¹ The proposed Kwai Chung PFBC will be located in Kwai Chung Area 30D and will include queuing areas for dump trucks, offices, two enclosed tipping halls and barge berths and enclosed material sorting facilities.

- ♦ No more than two barges shall be berthed at the PFBP at any time, and barges must never be double stacked;
 - ♦ Tugs will not berth or wait near the PFBP except when delivering barges;
 - ♦ The PFBP shall be equipped with close circuit televisions and radios to monitor activities in the PCWA and Rambler Channel to advise the tugs of vessel activities and identify safe periods to arrive/depart;
 - ♦ The building structures at the north edge of the site will be set back 20m from the seawall to preserve sight lines;
 - ♦ The edges of the tipping canopies will be lit;
8. With the implementation of the above control measures, marine risks associated with the PFBP should be reduced significantly.

Implementation Programme

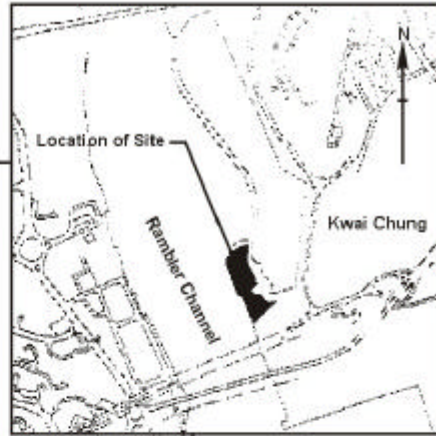
9. We plan to commence construction works in 2002 and to commission the barging point and the sorting facility in 2004. It will operate between 8:00 a.m. and 6:00 p.m. on weekdays and Saturdays, and will be closed on Sundays and public holidays.

Views Invited

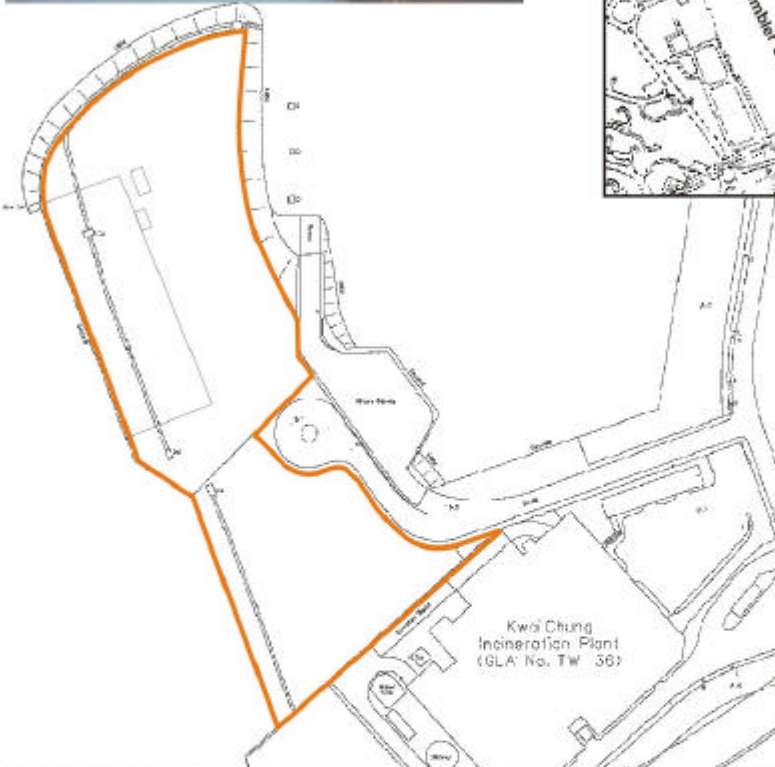
10. Members are invited to express their views on the recommendations of the MTIA.

Presentation

11. Civil Engineering Department, who is responsible for the Kwai Chung Public Filling Barging Point project, and the Consultant, Scott Wilson (HK) Ltd, together with marine specialist BMT Asia Pacific and accompanied by Mr. Chan Kwong-chun of the Marine Department, will present the paper.



Key Plan



Legend

-  Proposed Kwai Chung Area 30D Public Filling Barging Point



土木工程署
Civil Engineering
Department

Figure 1 Location of Proposed Kwai Chung Public Filling Barging Point



