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## **Update on Fill Supply**

### **Purpose**

To update Members about the supply of fill for use in Hong Kong projects.

### **Background**

2. Currently, it is estimated that about 350Mm<sup>3</sup> of fill will be required for development in Hong Kong over the next decade. To meet future demand, three initiatives have been pursued:

- (i) possible use of further marine fill resources in Hong Kong waters;
- (ii) possible use of marine fill resources in Chinese waters; and
- (iii) possible use of land borrow areas in Hong Kong.

### **Marine Sources in Hong Kong**

3. Since 1991, about 220Mm<sup>3</sup> of sand from Hong Kong waters has been used to form new land, mainly for the Airport Core Programme (ACP) projects. At present, only a few sand sources remain unused in Hong Kong (Attachment A). The only unallocated/unused sources are at Soko West, Urmston Road East and Brothers West, but these are covered by thick overburden or associated with other dredging constraints which render them uneconomic.

4. In late 1994, further potential sand resources were proven in eastern Hong Kong waters. However, the use of any of this sand is subject to the satisfactory outcome of an EIA which is on-going.

### **Marine Sources in Chinese Waters**

5. The use of sand supplies from Chinese waters for Hong Kong projects has increased since 1993. To assist and encourage this trend, the Civil Engineering Department (CED) has investigated potential sand sources to the south and to the east of Hong Kong with the agreement and cooperation of the relevant Chinese authorities. Results of studies to date have been very encouraging and we are confident that sources adequate for Hong Kong's future needs are available in Chinese waters near Hong Kong. Sand proven in Zhuhai waters in 1994 has already been used in a number of Hong Kong projects. Up to the present, about 3Mm<sup>3</sup> of sand has been supplied from sources in Chinese waters to the south of Hong Kong.

6. Over the past three years, contractors have also imported sand by barges from sources to the north-west of Hong Kong in the Pearl River Estuary. This has amounted to about 22Mm<sup>3</sup> for Hong Kong projects.

## **Land Sources in Hong Kong**

7. In 1994, an inter-departmental study identified eight potential land borrow areas in various parts of the Territory and geological studies have been carried out for six of the eight potential borrow areas (Attachment A). As the projected demand for fill material can now be met by known marine sources in Hong Kong and Chinese waters, the Fill Management Committee (FMC) has recently decided to abandon five of the potential borrow areas identified earlier. These are :

- i) Sunshine Island,
- ii) Hei Ling Chau (southern corner),
- iii) Mong Hau Shek,
- iv) Penny's Bay West (east Lantau), and
- v) Fat Tong Chau (Junk Island).

8. In theory, part of the Castle Peak Firing Range land borrow area could provide fill material including special rock fill should a need arise.

## **Supply of Special Rock Fill From China**

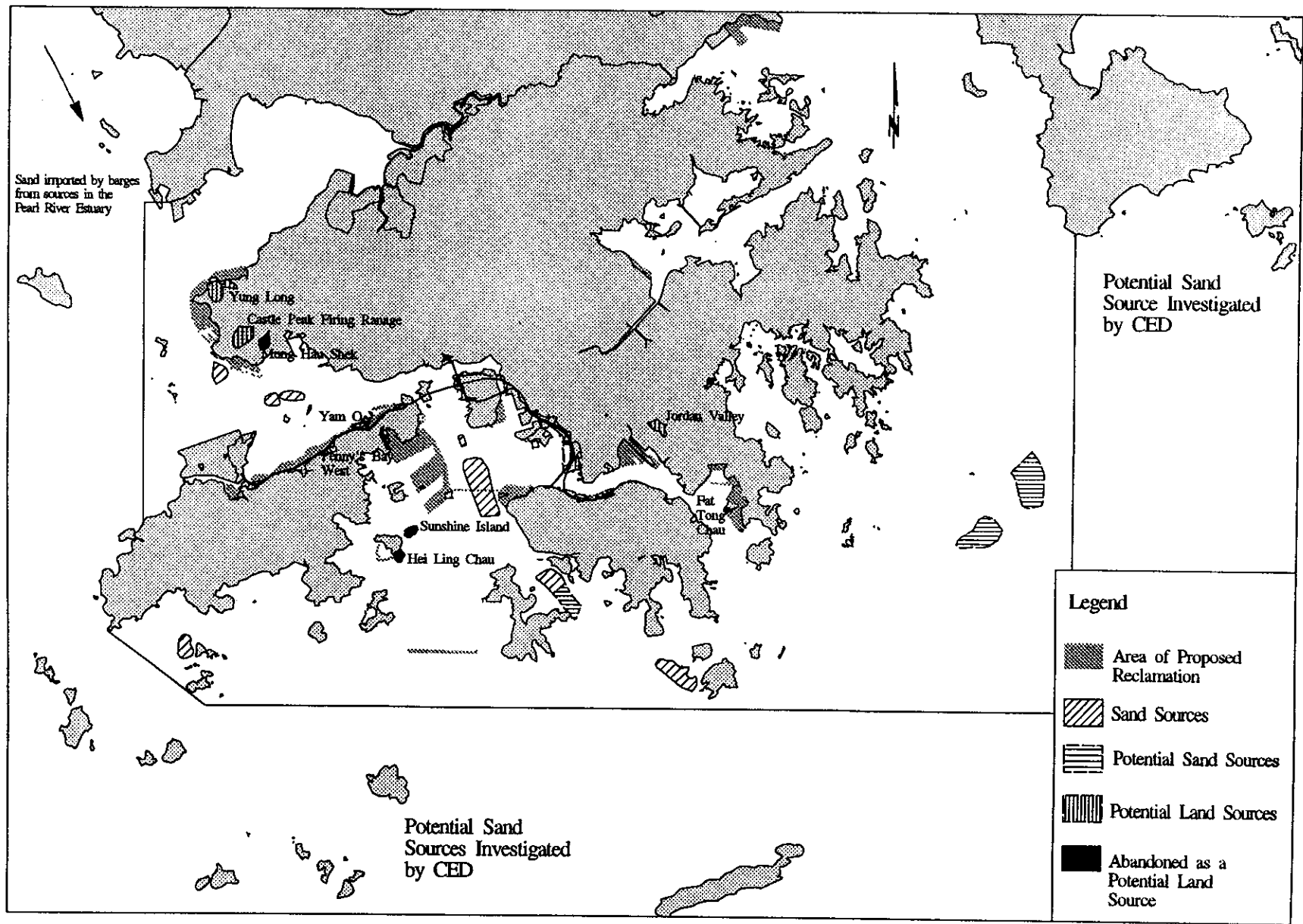
9. In recent years, large quarries or land borrow areas have been established by the commercial rock product suppliers on several nearby islands in China to meet the demand for special rock fill, such as pell mell and armour for Hong Kong projects. It is envisaged that these supply arrangements will continue to meet future demand for rock fill in Hong Kong.

## **The Way Forward**

10. Adequate fill reserves in nearby Chinese waters have been identified to supplement Hong Kong's remaining sand sources. It is anticipated that the projected demand for fill material for Hong Kong projects into the next decade will increasingly be met by sources in Chinese waters (Attachment B). This is consistent with trends over the past decade or so for an increasing proportion of Hong Kong's raw construction materials to come from neighbouring parts of China. Currently there are no plans for any specific land-based borrow areas to be developed in Hong Kong solely for the purpose of fill supply.

## **Attachments**

- Attachment A - Potential Sources of Fill for Future Hong Kong Reclamation Projects
- Attachment B - Projected Supply of Sand from China



Potential Sources of Fill for Future Hong Kong Reclamation Projects

# PROJECTED SUPPLY OF SAND FROM CHINA

