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Panel on Environmental Affairs

Meeting on 28 June 2004

Updated background brief on trials and studies on the way forward for the Harbour Area Treatment Scheme

Background

1. In April 2000, the Administration invited an International Review Panel (IRP) to carry out a review of further stages of Harbour Area Treatment Scheme (HATS). In its report released on 30 November 2000, IRP proposed four alternative treatment and discharge options, all involving the use of Biological Aerated Filters (BAF) technology for treatment, deep tunnels for transfer and short outfalls for disposal of sewage. On 25 May 2001, the Finance Committee (FC) approved \$73.6 million for the Administration to conduct a number of trials and studies to ascertain the feasibility of the four IRP options.

Programme for the trials and studies

Compact sewage treatment technology pilot plant trials

2. The compact sewage treatment technology pilot plant trials are originally proposed for three months to test the feasibility and effectiveness of compact sewage treatment technologies, particularly BAF technology, in treating local saline sewage. In the light of views of the Monitoring Group (MG) set up to monitor the progress of the trials and studies, the trial period has been extended to 10 months so as to cover both hot and cold seasons and provide more comprehensive trial results.

3. Open tenders for the trials were invited on 28 September 2001 and a total of 13 tenders were received. Three contracts, including two based on BAF technology and one based on non-BAF technology, worth of about \$17 million were awarded on 24 December 2001. The trials have been scheduled to commence in April 2002 and will last until January 2003, subject to further extension on a month-to-month basis for a maximum of three months, if necessary. In line with the MG's recommendations, a single laboratory and an Independent Checker will be appointed to carry out sampling/analysis work for the trials and to assist in overseeing as well as to verify the trial results respectively. The contract sum for the Independent Checker is around \$1.3 million.

Environmental and engineering feasibility studies

4. Environmental and engineering feasibility studies evaluate the potential impacts of options for the further stages of HATS on the receiving water environment and their effectiveness in achieving the Water Quality Objectives and meeting other relevant agreed criteria. The effectiveness of the options in meeting long-term demands for treatment capacity for the whole HATS will also be examined. The consultancy was awarded to Camp Dresser & McKee International Inc on 29 November 2001 at a price of \$21 million. The study will last for 24 months and is scheduled for completion before the end of 2003.

Study on procurement options

5. The Study on procurement options aims to review possible contractual arrangements, including "Design, Build, Operate (BOD)", and develop a framework that will help expedite the delivery of the project, achieve best quality and value-formoney for the proposed works that meet the required standard and satisfactory control of risk. It will also identify the most appropriate means of operating the selected scheme.

6. The study involves two separate consultancies. The first one will review possible contractual arrangements as well as identify and develop the most efficient and effective contractual arrangement for implementation of the subsequent stages of HATS. The consultancy is scheduled to start in mid-March 2002 for completion in March 2004. The second one will prepare necessary core contract documents to effect the selected procurement option for the follow-on implementation of the project. The consultancy is scheduled to start in May 2004 for completion in November 2004.

7. To evaluate the way forward for HATS, the Administration has also conducted two additional studies using existing resources -

- (a) HATS Stage I flow assessment study to assess performance of the Stage I system for future population and development projections under both dry and wet weather conditions; and
- (b) capacity reassessment study for the Stonecutters Island Sewage Treatment Works (SCISTW) to determine the maximum capacity of the Stage I Sedimentation Tanks at SCISTW and the effect of increased flow on the pollution removal efficiency.

8. Members received a briefing on the progress of the trials and studies at the Panel meetings on 20 March and 25 November 2002. Concerns have been raised on the extent and the duration of studies to be conducted before the coming into operation of HATS which has been overdue for a long time. According to the Administration, it will endeavour to complete all the studies as soon as practicable with a view to providing further improvements to the water quality of the harbour area. The outcome of the trials and studies will be published for public consultation before a decision is made on the choice of option.

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