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for information

DEEP BAY WATER QUALITY AND
THE IMPLEMENTATION OF
SHENZHEN RIVER REGULATION PROJECT STAGE II PHASE II

INTRODUCTION

A member of the Council has raised concerns about a possible decline in the number of bottom-dwelling animals in Deep Bay. He has requested the following:

- (a) a report on the water quality and the possible cause of any changes;
- (b) an agreement from the government to delay the implementation of and reassess the impact on Deep Bay water quality by the Stage II Phase II works of the Shenzhen River Regulation Project;
- (c) an analysis of the effectiveness of the Stage I and water quality monitoring programmes; and
- (d) a review on the Environmental Monitoring and Audit (EM&A) manual for Stage II Phase II and consideration of how to incorporate ecological expertise in the monitoring work.

REPORT ON WATER QUALITY

2. A report on Deep Bay water quality is attached at Annex. The report indicates a trend of deteriorating water quality over the past nine years. During this time the government has implemented a number of programmes to reduce polluting loads from the Hong Kong side of the catchment including the declaration of Deep Bay as a water control zone under the Water Pollution Control Ordinance, the progressive implementation of the revised livestock waste control scheme, and the provision of new sewers in various areas. As a result inputs from the Hong Kong side have been reducing steadily. The observed deterioration in water quality is therefore unlikely to be due to increasing pollution from the Hong Kong side of the catchment. We will explore possible causes of the problem with the Shenzhen side through the Hong Kong Guangdong Environmental Protection Liaison Group.

Delay in the implementation of and reassessment of the impact on Deep Bay water quality by the Shenzhen River Regulation Project Stage II Phase II works

3. The Shenzhen River Regulation Project Stage II Phase II works are expected to commence at the end of April/ beginning of May this year. The Administration has no plan to delay the implementation of the project at this stage because the Final EIA for Stage II works, which was endorsed by ACE, has duly taken into account the increase in pollution load entering Deep Bay when drawing the conclusion that Stage II Phase II works would have no significant effects on water quality and benthos (Section 7.4.1, Sections 8.5.1 to 8.5.3 and Section 10.4.2 of the Shenzhen River Regulation Project Final EIA Report refer).

4. Furthermore, the water quality report has clearly shown that, with proper monitoring and adequate mitigation measures, Stage I works have no adverse effect on the water quality of Shenzhen River. We believe that with proper implementation of the recommended mitigation measures and monitoring, Stage II Phase II works would have no significant effect on the overall pollution load of the River as stated in the Final EIA Report. The deteriorating water quality trend should be tackled separately and independently and should not be linked up with the Stage II Phase II works.

Analysis of the effectiveness of the Stage I and water quality monitoring programmes

5. Our finding indicated that the monitoring programme of Stage I works has been carried out effectively. The Environmental Team's (ET) monitoring results indicated that the water quality in Shenzhen River has not deteriorated as a result of Stage I works. As there was no requirement for the ET to monitor the water quality of Deep Bay or to analyse the benthic data according to the criteria quoted by Mr Melville, they did not do so.

6. The Environmental Protection Department (EPD) monitors both marine and river water quality on the Hong Kong side of the catchment through a programme which is designed to provide a basis for assessment of compliance with water quality objectives, and track long-term trends. The programme is effective for this purpose. It is not designed as a mechanism for assessing relatively short-term impacts of projects and it is therefore not appropriate to attempt to use the results for that purpose.

Review on the Environmental Monitoring and Audit manual for Stage II Phase II and how to incorporate ecological expertise in the monitoring work.

7. Director of Drainage Services (DSD) has agreed to review the EM&A manual for Stage II Phase II works at the ACE meeting on 9 December 1996. The revised manual will be re-submitted for members' advice in due course.

8. As for input from ecological expertise, we have engaged benthic and mangrove experts from Xia Men University to provide expert opinion as part of the Stage I EM&A programme. We anticipated that similar arrangement would be made for Stage II Phase II works. As far as the Hong Kong government is concerned, DSD would consult EPD on environmental aspects and Agriculture & Fisheries Department on ecological aspects of the EM&A programme.

**Planning, Environment and Lands Branch
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