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**(ACE Paper 37/96)**  
for advice

## **Report of the EIA Subcommittee**

The Subcommittee considered two Environmental Impact Assessment reports at its meeting held on 1 July 1996.

### **EIA Study for Strategic Sewage Disposal Scheme Stage I Principal Collection and Treatment System**

2. Members of the EIA Subcommittee originally considered the EIA report by circulation and agreed that this should be discussed at the EIA Subcommittee meeting held on 1 July 1996.

3. The paper reported on the key environmental issues identified and conclusions reached in the EIA study carried out on the Strategic Sewage Disposal Scheme (SSDS) Stage I, Principal Collection and Treatment Scheme. The EIA study aimed to quantify the environmental impacts of the construction and operation of the SSDS Stage I Scheme and to specify measures in the works contracts to mitigate the impacts to within Government established limits.

4. The Stage I Scheme comprises a conveyance system in a deep tunnel which will connect Tseung Kwan O, Chai Wan, Shau Kei Wan and Tsuen Wan with Kwun Tong. Effluent is conveyed to the new sewage treatment works at Stonecutters Island. The effluent is treated by Chemically Enhanced Primary Treatment, prior to disposal via the Stage I outfall, into marine waters to the southwest of Stonecutters Islands. The Stage I works are carried out in fifteen works contracts. Three of the contracts have been substantially completed and the sewage treatment works at Stonecutters Island is currently scheduled to operate by mid-1997. Environmental monitoring and audit are carried out as recommended in the EIA study and no major environmental problems have been reported to date.

5. Modelling results from the EIA study indicated that once the Stage I Scheme has been commissioned, water quality in the Rambler Channel

and Victoria Harbour will improve in terms of the E. coli counts and dissolved oxygen level although not to such an extent that the Water Quality Objectives (WQO) could be achieved. Except in the vicinity of the outfall, full compliance with suspended solids and some reductions in oxidised nitrogen are forecast. Ammonia levels throughout the harbour will also improve markedly, except in the vicinity of the outfall, where there will be a deterioration. Overall therefore, the Stage I Scheme will bring about a marked improvement in water quality in the main harbour areas but full compliance with the WQOs is not expected until the later stages of SSDS are implemented.

6. Water quality impacts of the construction phase are primarily confined to those connected with marine works for the outfall tunnel and diffuser sections. The EIA concluded that these could be mitigated to established water quality standards.

7. The EIA also concluded that only noise generated as a result of the construction for the Stage I Scheme will impose several restrictions on working practices at specific locations. The imposed time constraints, needed to reduce the noise impact, have been accepted by DSD.

8. Furthermore, the EIA study concluded that through good working practices there will be no adverse fugitive dust impacts during the construction phase. Odour assessments were undertaken for each component of the scheme and the mitigation measures required were determined. These requirements have been included in the relevant contract documents.

9. Members were satisfied with the report and agreed to recommend endorsement of the EIA report without conditions. However, they strongly recommended that disinfection processes be adopted at Stonecutters Island sewage treatment plant.

### **Main Drainage Channels for Ngau Tam Mei, Yuen Long and Kam Tin Environmental Impact Assessment**

10. The North West New Territories Base Strategy Studies recommended two main drainage networks, the Yuen Long and Kam Tin Main Drainage Channels (MDC), and the Ngau Tam Mei MDC to alleviate the severe and recurrent flooding.

11. The MDCs for Yuen Long, Kam Tin and Ngau Tam Mei consist of three packages of drainage works :

- (a) widening and channelisation of the downstream sections of the Shan Pui and Kam Tin rivers,

- (b) construction of new river channel section between the section of the Kam Tin river to the east of the Castle Peak Road, and the existing Kam Tin river meander near Kam tin San Tsuen,
- (c) drainage works at the upstream sections of the Yuen Long and Kam Tin drainage basins and the channelisation of existing natural river/stream sections and also the construction of a new channelized section running to the south.

12. The major habitat losses caused by the projects are fish ponds and mangroves. The EIA report concluded that the whole MDC project would cause a loss of 110.07 ha of fish ponds and 88 ha of mangroves. On-site mitigation measures such as retainment and reinstatement of fishponds, planting of mangroves along channel embankments, unlined sections of new channel to enable recolonisation of flora and fauna, and revegetation of embankment slopes have been recommended to reduce the habitat losses to a minimum. However, a residual net loss of 86.95 ha of fish ponds and 4.28 ha of mangroves would remain. The net loss of fish ponds amounts to 0.7% of the total area of fish ponds in the Territory.

13. The EIA also identified that during construction dredging will be key to water quality impacts. The use of closed-grab dredgers or excavators were recommended to minimise disturbances to water bodies so that non-compliance with Water Quality Objectives will not result. Dredged contaminated material arising from the construction of the MDC will also be taken off-site immediately in specially designed water-tight vehicles for marine disposal at sites approved by the Fill Management Committee.

14. Members expressed great concern on the residual loss of wetland habitats which would require implementation of off-site compensation measures. The Subcommittee, however, agreed to recommend the endorsement of the EIA subject to the following conditions:

- (a) that old river channels would be considered for restoration into wildlife habitats,
- (b) that the disposal of contaminated mud should be to the satisfaction of the Fill Management Committee and that it would have no adverse effects on the environment,
- (c) that the proponents should review the conceptual off-site compensation measures in light of Government's latest policy on off-site compensation and report back to the Sub-committee of the Council their specific proposals for this project.

## **Advice Sought**

15. Members are requested to consider the recommendation of the EIA Subcommittee:

- (a) endorsement of the environmental impact assessment report of the EIA Study for Strategic Sewage Disposal Scheme Stage I Principal Collection and Treatment System (para. 9 refers);
- (b) endorsement of the environmental impact assessment report of Main Drainage Channels for Ngau Tam Mei, Yuen Long and Kam Tin Environmental Impact Assessment study subject to conditions (para. 14 refers).

**Planning, Environment & Lands Branch (Environment Division)**  
**July 1996**