

San Tin is an area of historical recurrent flooding. The need for the construction of the *Main Drainage Channels and Poldered Village Protection Scheme for San Tin, North West New Territories* (the Project) was established in the *Territorial Land Drainage and Flood Control Strategy Study, Phase 2* (TELADFLOCOSS-2 Study) completed by the Drainage Services Department (DSD) in 1993, to alleviate the recurrent floods in the San Tin basin.

ERM-Hong Kong Limited (ERM), in association with Ecosystems Limited, Shankland Cox Limited and Maunsell Consultants Asia Limited, have been commissioned by the Government of Hong Kong SAR, Territory Development Department - New Territories North Department Office (TDD) to undertake an Environmental Impact Assessment (EIA) Study for the Project. *Annex 1-A* contains a copy of the Study Brief.

The proposed works comprise Public Works Programme (PWP) item no. 35CD covering the village flood protection works for the San Tin villages and Chau Tau Tsuen, PWP item no. 73CD consisting of the Eastern Main Drainage Channel (MDC) for San Tin, and another non-itemized work for the Western MDC for San Tin. *Figure 1.1a* shows the locations of the main drainage channels and village flood protection works.

Due to the urgent need to protect the San Tin villages and Chau Tau Tsuen from risk of flooding, the village flood protection work under 35CD has proceeded before the construction of the Eastern and Western MDCs for San Tin. During implementation of 35CD, environmental control measures have been undertaken in accordance with that recommended for *PWP Item No. 71CD, Village Flood Protection for Sha Po Tsuen, Kam Tin, New Territories*. As part of the present EIA Study, a *Working Paper for 35CD Works* (October 1997) was prepared to review the potential environmental impacts and the adequacy of the environmental control and monitoring measures in the 35CD contract clauses that were taken from the similar 71CD project. The Working Paper concluded that the contract clauses were generally adequate to provide the necessary environmental protection to achieve Government standards. A copy of the 35CD Working Paper is presented in *Annex 1-B* for reference.

The Drainage Services Department (DSD) indicated that three different drainage channel improvement work options for the San Tin area had been considered for public consultation in 1992. They were Eastern MDC work only; Western MDC work only; and both Eastern and Western MDC works. Based on consultations with the San Tin Rural Committee and villagers, as documented in the *Territorial Land Drainage and Flood Strategy Study (Phase 2)*, the last option with improvement of both Eastern and Western MDCs was the preferred scheme and drainage reserve areas have been planned in the San Tin Outline Zoning Plan (OZP, No. S/YL-ST/1, 1994, see *Figure 2.5a*). Upon a priority exercise on the urgency of works in PWP in 1994, the Eastern MDC improvement works was retained in the PWP because of its urgency, while the Western MDC was excluded because it was comparatively less urgent.

The ongoing DSD's Drainage Master Plan Study in Northern New Territories will include a comprehensive review of the need for further flood control works in San Tin. The need of the Western MDC will be reviewed and should the Western MDC be recommended for implementation in the drainage master plan study, an EIA Study will be required for the proposed work, a Designated Project, to fulfill the requirements of the Environmental Impact Assessment Ordinance. The Western MDC EIA Study, if needed, will address all potential alignment options and the cumulative impacts arising from the San Tin Eastern MDC and Village Flood Protection works. The present EIA Study provides a preliminary assessment and comparison of the potential environmental implications of the Western MDC alignment options for reference based on preliminary information, as presented in *Annex 1-C* of this report.

Therefore this EIA Final Assessment Report (FAR) focuses on the Eastern MDC works (as described in *Section 2*) which has been supported by the San Tin Rural Committee and the Yuen Long Provisional District Board, scheduled for construction from mid-2001 to 2003. A detailed assessment of the potential environmental impacts has been provided, and appropriate mitigation measures for incorporation into the engineering design of the drainage channel identified. Environmental monitoring and audit (EM&A) requirements have been identified and detailed in a separate EM&A Manual.

1.2 OBJECTIVES OF THE EIA STUDY

The primary objective of the EIA is to provide information on the nature and extent of the potential environmental impacts associated with the proposed development of the Project, focussing on the Eastern MDC. This information will contribute to decisions on the acceptability of any adverse environmental impacts likely to result from the construction and subsequent operation of the Project, and the conditions for the design and construction of the Project. Details of the study objectives are presented in the Study Brief in *Annex 1-A* and issues assessed include ecology, water quality, solid waste management, land contamination, noise, air quality, visual and landscape and socio-economic. The Antiquities and Monuments Office has confirmed that there is no requirement for heritage impact assessment for the San Tin Eastern MDC.

In accordance with the EIA Ordinance, the proposed drainage work for the Eastern MDC is considered a Designated Project under Schedule 2, Part 1, I1 (b) of the Ordinance due to its close proximity to Conservation Area. Therefore the present EIA Study should fulfill the requirements of the Ordinance. The Study Brief, number SB-014/BC in the EIA Ordinance Registry, is attached in *Annex 1-A* for reference.

1.3 STUDY AREA

The Study Area focuses on the immediate environs of the Project but also takes into account the Deep Bay area north of the New Territories Circular Road (NTCR) and the Mai Po Nature Reserve (MPNR) between Chau Tau and Inner Deep Bay where necessary.

This report is organised into 12 sections. Following this introductory section, the subsequent sections include:

- *Section 2* describes the background and engineering design of the Eastern MDC works.
- *Sections 3 - 10* present an assessment of the following environmental issues: ecological resources, water quality, solid waste management, land contamination, noise, air quality, visual and landscape, and socio-economic implications, respectively;
- *Section 11* summarises the requirements of EM&A; and
- *Section 12* provides an overall conclusion of the FAR as well as an implementation schedule.

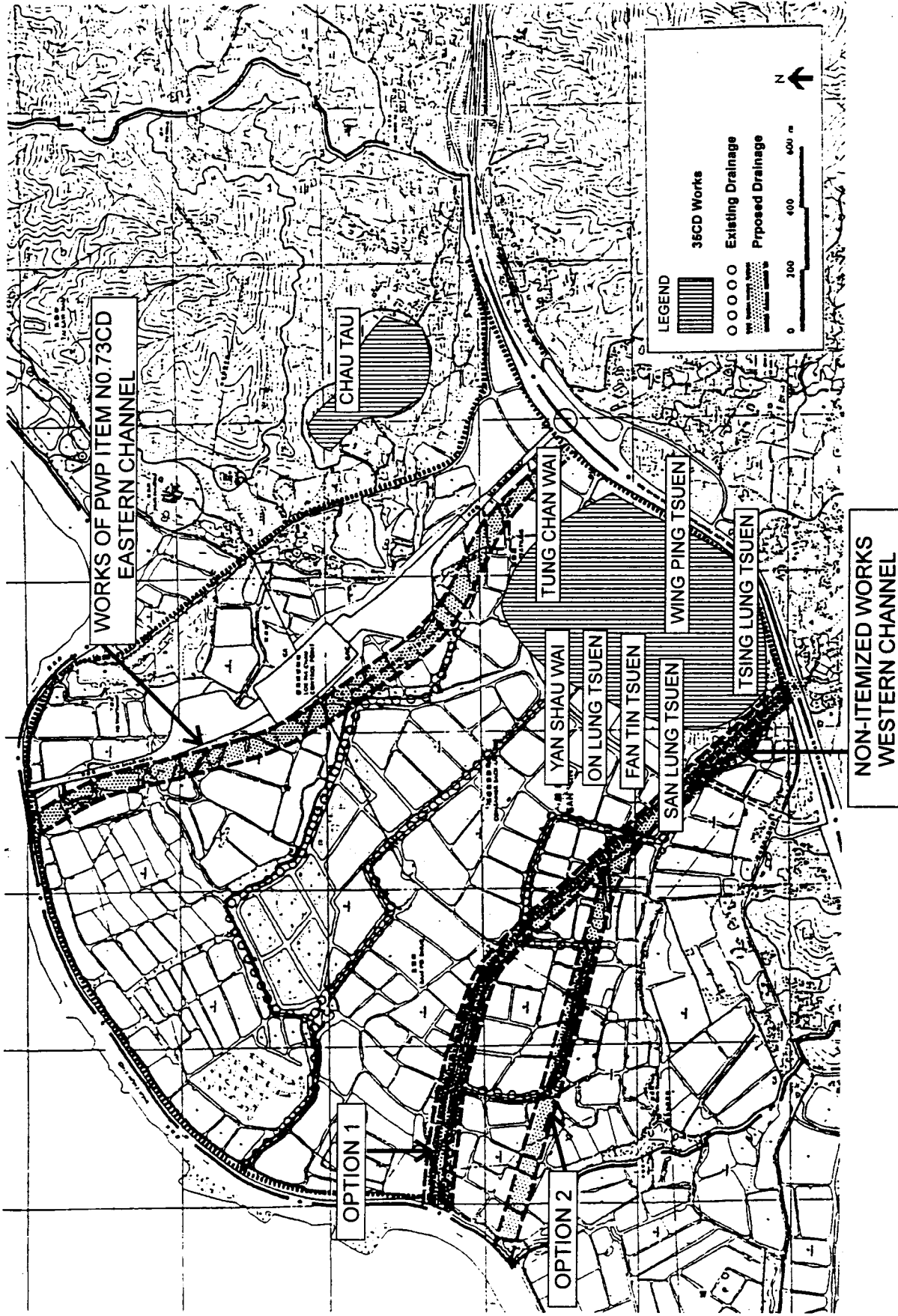


FIGURE 1.1a

LOCATION OF SAN TIN MAIN DRAINAGE CHANNELS AND POLDERED VILLAGE PROTECTION SCHEME WORKS