

1. INTRODUCTION

1.1 Background

The Hong Kong Government carried out a study in 1986 to explore the landuse-transport infrastructure of Tsuen Wan New Town. Following the endorsement of Metroplan by the Executive Council in September 1991, planning studies were conducted by the Planning Department in 1992 to formulate a Development Statement for Tsuen Wan New Town with a view to implementing the Metroplan concepts at the district level. On 20 June 1995, the Territory Development Department commissioned Maunsell Consultants Asia Ltd. (MCAL) to undertake the "*Tsuen Wan Bay Further Reclamation, Area 35 - Planning, Environmental and Engineering Investigations*" study. As a result of the proposed reclamation, existing marine facilities including the Tsuen Wan Public Cargo Working Area and Tsuen Wan Dangerous Goods Anchorage (TWDGA) will have to be relocated to allow Tsuen Wan Bay Further Reclamation (TWBFR) to proceed. The Marine Department (MD) has commissioned separate site search studies for relocating the TWDGA. The "*Tsuen Wan Dangerous Goods Anchorage: Alternative Site Search Study - Stage 2 Study*" (the Site Search Study) undertaken by MD has recommended a site to the south of Ma Wan and adjacent to Tang Lung Chau (now known as the Tang Lung Chau site) as the most preferred site for the DGA. The Site Search Study was completed in early 1996 with an Initial Environmental Impact Assessment (IEIA). Following completion of the IEIA, a more detailed quantitative water quality impact assessment was carried out as the initial assessment was not detailed enough to demonstrate that the Tang Lung Chau site would not result in any insurmountable water quality impacts. Upon confirmation that the Tang Lung Chau Site is feasible in terms of overall hydraulics and water quality impacts, work related to the Detailed Environmental Impact Assessment (DEIA) of the Tang Lung Chau Dangerous Goods Anchorage (TLCDGA) commenced.

1.2 Purpose and Objectives of the DEIA Study

The purpose of the DEIA Study is to assess the key environmental issues arising from the construction and operation of the DGA next to Tang Lung Chau, and to propose mitigation measure requirements for all identified adverse environmental impacts.

The objectives of the assessment are as follows :

- To describe the proposed project and associated works together with the requirements for carrying out the proposed project in detail.
- To identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses.
- To quantify the potential losses or damage to flora, fauna and natural habitats during construction and operation of the DGA.
- To propose mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of the DGA.
- To identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and cumulative effects expected to arise during the construction and operation phases of the DGA in relation to the sensitive receivers and potential affected uses.
- To identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the DGA which are necessary to mitigate these impacts and reduce them to acceptable levels.
- To design and specify the environmental monitoring and audit requirements necessary to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted.

- To investigate the extent of side-effects of proposed mitigation measures that may lead to other forms of impacts.
- To review the findings of the previous hazard assessment, *Tsuen Wan Dangerous Goods Anchorage : Alternative Site Search Study - Stage 2 Study, Volume 2 : Risk Assessment*, prepared by ERM Hong Kong Ltd. for the Marine Department.
- To identify constraints associated with the mitigation measures recommended in the study.
- To identify any additional studies necessary to fulfill the objectives to the requirements of this Environmental Impact Assessment Study.

1.3 Report Structure

The reports for the DEIA Study are presented in three volumes as follows:

- Volume 1 of 3 : EIA Final Assessment Report;
- Volume 2 of 3 : Environmental Monitoring and Audit Manual; and
- Volume 3 of 3 : Executive Summary.

The structure of the DEIA Study as presented in this EIA Final Assessment Report is shown below.

Chapter 1 presents the project background and outlines the objectives of the DEIA Study.

Chapter 2 describes the location and history of the proposed site and the current operations of the TWDGA, and summarizes the previous site search study and site selection criteria. The proposed configuration and construction method of the TLCDGA, project programme and benefits of the project are described. A summary is given of the findings of the Key Issues Report and the scope of works for the DEIA study is then outlined.

Chapters 3 to 9 present the prediction and evaluation of potential environmental impacts during the construction and operational phase with respect to each identified key issue. The assessment methodologies to be adopted and the baseline conditions and sensitive receivers are described, together with the relevant environmental legislation and guidelines. Mitigation measure requirements are proposed for all identified adverse environmental impacts. The identified key issues comprise water quality, fuel spillage, air quality, noise, waste management and mud contamination, hazard assessment and ecology.

Chapter 10 outlines the recommended environmental monitoring and audit requirements necessary to ensure the effectiveness of the construction and operation phase environmental protection (mitigation) measures recommended.

Chapter 11 summarizes the findings of the DEIA Study and presents the conclusions and recommendations of the study.