

1. INTRODUCTION

1.1 Background

The Highways Department (HyD) of the Hong Kong SAR Government has commissioned Scott Wilson (Hong Kong) Limited in association with specialist sub-consultants to undertake an Environmental Impact Assessment (EIA) as part of the Preliminary Design and Ground Investigations for Widening of Yuen Long Highway (Agreement No CE 98/98).

The Yuen Long Highway (YLH) is a strategic route in the North West New Territories (NWNT) connecting Tuen Mun new town and Yuen Long. The area has been identified as suitable for development and there are proposals for additional housing in Tuen Mun, Yuen Long and Tin Shui Wai. The Tin Shui Wai Development Study was conducted in 1996 and identified that most sections of YLH would operate beyond capacity by the year 2001.

In addition to the proposed increase in the NWNT population, this area forms the route corridor for proposed cross boundary transport links as investigated under the “Crosslinks” study. It has been identified that both the Route 10 - North Lantau to Yuen Long Highway, (R10 (NLYLH)) and the Deep Bay Link will connect with the highway.

1.2 Scope of the EIA

The EIA is concerned with the issues associated with the widening of the YLH from Dual-2 to Dual-3 lane. The scope of the proposed works is described in Chapter 2. The Project Profile prepared by HyD, and subsequently assessed by the Environmental Protection Department (EPD), indicated that the proposals comprise a Designated Project (DP), as defined by the Environmental Impact Assessment Ordinance (EIAO). Under the requirements of the EIAO, the EIA is undertaken in support of an application for an Environmental Permit to construct and operate the DP. In undertaken the EIA, the following components will be addressed:

- noise impact assessment;
- air quality assessment;
- water quality impact assessment;
- waste management assessment;
- land contamination assessment;
- landscape and visual impact assessment;
- cultural heritage impact assessment; and
- recommendations for environmental monitoring and audit (EM&A).

The specific requirements of the EIA Study Brief have been determined on the basis of the Project Profile (and the Preliminary Environmental Review) and reflects the key environmental elements that could potentially be affected by the construction and operation of the works. The Preliminary Environmental Review also included an evaluation of potential impacts on ecology and identified that as the existing area had undergone disturbance as a result of the works to construct the existing Highway, the ecological value of the area likely to be affected by the widening was low. As the works can be carried out within the existing reserve for the Highway, the potential impacts upon ecology would be limited.

It should be noted that consideration of environmental issues should proceed through the entire process of any development and the potential environmental effects (including those on ecology)

arising from any changes in the assumptions made in the EIA Report should be considered accordingly.

1.3 Study Objectives

The purpose of the EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the proposed designated project. This information will contribute to decisions by the Director of Environmental Protection (DEP) on:

- the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the proposed project;
- the conditions and requirement for the detailed design, construction and operation of the proposed project to mitigate against adverse environmental consequence wherever practicable; and
- the acceptability of residual impacts after the proposed mitigation measures are implemented.

As detailed in the Study Brief, the objectives of the EIA are as follows:

- (a) to describe the proposed project and associated works together with the requirements for carrying out the proposed project;
- (b) to identify and describe elements of the community and environment likely to be affected by the proposed project including both the natural and man-made environment;
- (c) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- (d) to identify and quantify any potential landscape and visual impacts and to propose measures to mitigate these impacts;
- (e) to propose the provision of infrastructure or mitigation measures so as to minimise pollution, environmental disturbance and nuisance during construction and operation of project;
- (f) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation phases of the project in relation to the sensitive receivers and potential affected uses;
- (g) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the project which are necessary to mitigate these environmental impacts and reduce them to acceptable levels;
- (h) to investigate the extent of side-effects of proposed mitigation measures that may lead to other forms of impacts;
- (i) to identify constraints associated with the mitigation measures recommended in the EIA study; and

- (j) to design and specify the EM&A requirements, if required, to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted.

The EIA will be conducted in accordance with the requirements of the EIAO, (EIA Technical Memorandum, (EIA-TM)) and the EIA Study Brief.

1.4 Report Objectives and Contents

This report presents the results obtained from the assessment and evaluation of the environmental impacts that may arise during the construction and operation of the widened Yuen Long Highway. Following impact prediction, the requirement for environmental remedial measures to address any unacceptable environmental impacts are presented. This report also highlights where environmental monitoring and audit (EM&A) programmes are considered to be required during construction and operation. Specific requirements for EM&A are presented in a stand alone EM&A Manual.

In accordance with the Study Brief, this EIA - DFR includes the following components:

Chapter 2	-	Project Description
Chapter 3	-	Noise Issues
Chapter 4	-	Air Quality
Chapter 5	-	Water Quality
Chapter 6	-	Waste Management
Chapter 7	-	Land Contamination
Chapter 8	-	Landscape and Visual Impacts
Chapter 9	-	Cultural Heritage Issues
Chapter 10	-	Conclusions