

1 Introduction

1.1 Project Background

1.1.1.1 In June 2017, The Chief Executive in Council has agreed in principle to the government proposal to grant a piece of land in Tai Po to Sha Lo Tung Development Company Limited (the Project Proponent) in exchange for its private land in Sha Lo Tung which has high ecological values. Under the non-in-situ land exchange proposal, the piece of land at the Shuen Wan Restored Landfill in Tai Po will be granted to the Project Proponent for the development of a private golf course and the Sha Lo Tung site would be considered by government for active conservation management to avoid degradation and damage for long-term public enjoyment. This land exchange proposal is a unique, exceptional and isolated case, and is technically feasible as the private land ownership is largely unified under one entity and both Sha Lo Tung and the land at the landfill site, which has been planned for golf course development, are located in Tai Po.

1.1.1.2 When completed, the proposed 18-hole Shuen Wan Golf Course (the Project) will be the smallest (approximately 53 ha) in Hong Kong and is unique in its location on top of a restored landfill. Despite such physical site constraints and having taken on board the views of district councils and stakeholders wherever practicable, a number of environmental initiatives covering clean energy / energy saving, sponge design, waste minimisation and biodiversity / greening have been recommended for incorporation in the detailed design to enhance sustainability of the Project. Key environmental benefits and achievements of the Project include (Details refer to **Section 2.7**):

- Opportunity to realise the conservation of Sha Lo Tung;
- Minimal export of inert construction & demolition materials;
- No marine construction works;
- No discharge of first flush surface runoff to Tolo Harbour with the implementation of water storage tanks;
- No discharge from water storage tanks to Tolo Harbour;
- Optimal use of agrochemicals;
- Minimisation of fresh water consumption;
- Rehabilitation of landfill site landscape character;
- Reinstatement and enhancement of ex-landfill site planting areas;
- Maximise recycling of natural resources; and
- Ecological enhancements.

1.1.1.3 In November 2017, the Project Proponent commissioned Ove Arup & Partners Hong Kong Limited (Arup) to provide consultancy services in respect of Shuen Wan Golf Course (the Project). This consultancy also includes compilation and submission of an Environmental Impact Assessment (EIA) Report to fulfil the relevant legislative requirements.

1.1.1.4 The Project Profile (No. PP-558/2017) was submitted by the Project Proponent to Environmental Protection Department (EPD) for an EIA Study Brief under Section 5(1)(a) of the EIA Ordinance on 15 September 2017. The EIA Study Brief (EIA Study Brief No.: ESB-303/2017) was formally issued by EPD on 26 October 2017.

1.2 Site Location and History

1.2.1.1 The location of the Project is shown in **Figure 1.1**, with an area of approximately 53 ha. It is bounded by Ting Kok Road to the north, Tai Po Industrial Estate (TPIE) to the west and Tolo Harbour to the east and south.

1.2.1.2 The Project Site was once part of the Tolo Harbour before 1970s. Since the beginning of 1970s, the Shuen Wan Landfill was then progressively reclaimed at the Project Site. The landfill commenced its operation in Year 1973 and ceased operation in Year 1995. Subsequent to the closure of the landfill site, restoration works were implemented and the closed landfill now serves as a 145-bay golf driving range for public use since Year 1999. EPD has been operating the management system for landfill gas and leachate system and will continue after the operation of the Project.

1.3 The Project

1.3.1.1 As described in the Project Profile (PP-558/2017), the Project comprises construction and operation of a golf course in Shuen Wan Restored Landfill at Tai Po. The Project comprises:

- Construction and operation of a golf course and its ancillary facilities; and
- Other infrastructure such as drainage system, sewerage system, irrigation system to support the daily operations of the golf course (including temporary storage system as required).

1.4 EIA Study Brief

1.4.1.1 In accordance with the requirements of Section 5(1) of the EIA Ordinance, a Project Profile (No. PP-558/2017) for the Project was submitted to the Director of Environmental Protection (DEP) for application for an EIA Study Brief on 15 September 2017. Pursuant to Section 5(7)(a) of the EIA Ordinance, the DEP issued a Study Brief (No.: ESB-303/2017 dated 26 October 2017) for the EIA study.

1.5 Designated Projects

1.5.1.1 The Project comprises construction and operation of a golf course and the managed turf area within. The Project is a Designated Project (DP) by virtue of Item O.1, Part I, Schedule 2 of the EIAO, which specifies “an outdoor golf course and all managed turf areas”.

1.6 Objectives of the EIA Study

1.6.1.1 According to Section 1.5 of the EIA Study Brief (No.: ESB-303/2017), this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project and associated works that will take place concurrently. This information will contribute to decisions by the DEP on:

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

1.6.1.2 The objectives of the EIA study are as follows:

- To describe the Project and associated works together with the requirements and environmental benefits for carrying out the proposed Project;
- To identify and describe the elements of the community and environment likely to be affected by the Project and / or likely to cause adverse impacts to the Project, including both the natural and man-made environment and the associated environmental constraints;
- To identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- To identify and quantify any potential losses or damage and other potential impacts to fisheries, flora, fauna and natural habitats;
- To identify any potential landscape and visual impacts and to propose measures to mitigate these impacts;
- To propose the provision of infrastructure or mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of Project;
- To investigate the feasibility, effectiveness and implications of the proposed mitigation measures;

- 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;
- To identify, assesses 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 residual environmental impacts and cumulative effects and reduce them to acceptable levels;
- To investigate the extent of the secondary environmental impacts that may arise from the proposed mitigation measures and to identify constraints associated with the mitigation measures recommended in the EIA study, as well as provision of any necessary modification;
- To design and specify environmental monitoring and audit requirements; and
- To identify any additional studies necessary to implement the mitigation measures or monitoring and proposals recommended in the EIA report.

1.7 Structure of This EIA Report

1.7.1.1 The structure of this EIA study is as follows:

<u>Chapter</u>	<u>Title</u>	<u>Aims</u>
1	Introduction	Introduces the project background and the objectives of the report
2	Project Description	Summarises the various options and scope for various environmental aspects Describes relevant main construction / engineering aspects for the recommended layout
3	Air Quality Impact	Presents the legislation, methodology, assessment and recommendations for air quality impacts
4	Hazard to Life	Presents the legislation, methodology, assessment and recommendations for hazard impacts

5	Noise Impact	Presents the legislation, methodology, assessment and recommendations for noise impacts
6	Water Quality Impact	Presents the legislation, methodology, assessment and recommendations for water quality impacts
7	Waste Management Implications	Presents the legislation, methodology, assessment and recommendations for waste management
8	Land Contamination	Presents the legislation, methodology, assessment and recommendations for land contamination
9	Landfill Gas Hazards	Presents the legislation, methodology, assessment and recommendations for landfill gas hazards; identifies potential adverse impacts to the existing Shuen Wan Restored Landfill (SWL), its restoration facilities and its aftercare, and recommendations for mitigation of their impacts, if any
10	Ecological Impact	Presents the legislation, methodology, assessment and recommendations for ecology impacts
11	Fisheries Impact	Presents the legislation, methodology, assessment and recommendations for fisheries impacts
12	Landscape and Visual Impact	Presents the legislation, methodology, assessment and recommendations for landscape and visual impacts
13	Environmental Monitoring & Audit Requirements	Presents the EM&A requirements
14	Summary of Environmental Outcomes	Presents a summary of the key environmental outcomes arising from the EIA study
15	Conclusion	Summarises the findings and concludes the overall acceptability of the project