

1. INTRODUCTION

1.1 Background

1.1.1 The Environmental Protection Department (EPD) has commissioned Scott Wilson Ltd, in association with the Enviro Group, Urbis Limited, GHK (Hong Kong) Ltd and BMT Asia Pacific Ltd, to carry out a Study into the Extension of Existing Landfills and the Identification of Potential New Waste Disposal Sites (Agreement CE 45/99).

1.1.2 The objectives of the Study are clearly set out in the Inception Report carried out under this agreement (Scott Wilson, May 2000). In summary, the objectives are to:

- Determine the future need for additional landfilling capacity and new waste disposal facilities, having regard to the generation of Municipal Solid Waste (MSW), Construction & Demolition Material / Waste, and other waste requiring disposal.
- Identify measures to maximise the use of the available void space and to extend the life of the existing strategic landfills.
- Identify those strategic landfills that are suitable for extension; develop possible extension schemes and determine the principal requirements.
- Identify potential sites within Hong Kong that are suitable for the development of various types of new waste disposal facilities to meet Hong Kong's waste disposal needs for the 30 years after exhaustion of the existing/extended landfills.
- Formulate an implementation plan.

1.2 Strategic Environmental Assessment Requirements

1.2.1 In order to fulfil the above objectives, the Study Brief identifies the need for a Strategic Environmental Assessment (SEA) (*page 7-8,9-10 clause ix*) of extended and new sites. The Brief requires a level of detail ...

“such that collection of further detailed environmental information would be unlikely to affect the environmental recommendations and conclusions.”

1.2.2 The Study Brief has seven requirements for the SEA, which are summarised below:

- (i) Establish baseline conditions (including water quality, air quality, noise, environmental control and mitigation measures currently in place, land use, habitats (ecology), marine traffic and road traffic related issues and access);
- (ii) Justify the selection of sites (on environmental and non-environmental grounds);
- (iii) Evaluate the potential environmental performance and their environmental acceptability (issues to be addressed include ecology, heritage/archaeology, landscape, noise, water, air, landfill gas hazards, sewage infrastructure, and cumulative effect);
- (iv) Draw SEA conclusions;
- (v) Identify potential improvements / mitigation for the selected site(s);
- (vi) Discuss the implications of the extensions and new sites in an SEA Report;
- (vii) Develop a Strategic Environmental Monitoring and Audit SEM&A programme.

- 1.3.9 The schematic layout developed for an artificial island on this site would result in a 230ha island with the landfill developed on the island having a capacity of about 40Mcum.

Soko Islands (Site M.4)

- 1.3.10 The Soko Islands site would be located to the west of the Soko Islands in an area previously used for sand dredging.

- 1.3.11 The schematic layout developed for an artificial island on this site would result in a 475ha island with the landfill developed on the island having a capacity of about 75Mcum.

South Cheung Chau (Site M.5)

- 1.3.12 The South Cheung Chau site would be located to the south of the western end of Lantau and south of Cheung Chau to generally coincide with the area used for mud disposal, known as the South Cheung Chau Disposal Ground.

- 1.3.13 The schematic layout developed for an artificial island on this site would result in a 850ha island with the landfill developed on the island having a capacity of about 140Mcum.

Lamma Breakwater (Site M.6)

- 1.3.14 The Lamma Breakwater site would be located to the south west of Lamma, and midway between Lamma and Cheung Chau; this site would be near to the previously PADS proposed Lamma Breakwater.

- 1.3.15 The schematic layout developed for an artificial island on this site would result in a 585ha island with the landfill developed on the island having a capacity of about 130Mcum.

East Tung Lung Chau (Site M.7)

- 1.3.16 The East Tung Lung Chau site would be located on the western side of the Ninepin Group of Islands, and to the east of the Clear Water Bay Peninsula.

- 1.3.17 The schematic layout developed for an artificial island on this site would result in a 390ha island with the landfill developed on the island having a capacity of about 65Mcum.

Eastern Waters (Site M.8)

- 1.3.18 The Eastern Waters site would be located on the eastern boundary of SAR waters and east of the Clear Water Bay Peninsula.

- 1.3.19 The schematic layout developed for an artificial island on this site would result in a 875ha island with the landfill developed on the island having a capacity of about 140Mcum.

Tai Long Wan Offshore (Site M.9)

- 1.3.20 The Tai Long Wan site would be located on the eastern boundary of SAR waters and east of Tai Long Wan.

- 1.3.21 The schematic layout developed for an artificial island on this site would result on a 875ha island with the landfill developed on the island having a capacity of about 140Mcum.

Southeast Offshore (Site M.10)

- 1.3.22 The Southeast Offshore site would be located on the south eastern boundary of SAR waters and east of Po Toi.

- 1.3.23 The schematic layout developed for an artificial island on this site would result in a 850ha island with the landfill developed on the island having a capacity of about 140Mcum.

Lamma North (Site M.11)

- 1.3.24 The Lamma North site would be located to the northwest of Lamma.

- 1.3.25 The schematic layout developed for an artificial island on this site would result in a 435ha island with the landfill developed on the island having a capacity of about 85Mcum.

Lamma South (Site M.12)

- 1.3.26 The Lamma South site would be located to the south of Lamma within SAR waters.
- 1.3.27 The schematic layout developed for an artificial island on this site would result in a 450ha island with the landfill developed on the island having a capacity of about 65Mcum.

Pillar Point Valley North (Site L.1)

- 1.3.28 The Pillar Point Valley North site would be located to the north of the existing Pillar Point Valley Landfill in the North West New Territories. The site would be located within the confines of a borrow area site designated within Defence Lot 16 (Castle Peak Firing Range).
- 1.3.29 The schematic layout developed for a landfill on this site (including access road) would have a 100ha footprint and would provide a landfill capacity of about 65Mcum.

1.4 SEA Methodology Working Paper

- 1.4.1 In July 2000 a draft *SEA Methodology Working Paper* was circulated to Government for their comment. The purpose of the *SEA Methodology Working Paper* was to identify the methods by which the assessment would be carried out, including identifying assessment criteria for each of the environmental disciplines; and developing a consistent framework that could be applied to each of the potential extensions / new sites. Various comments were received regarding the draft Working Paper and the methodology was subsequently discussed and agreed during a meeting with Government in October 2000.
- 1.4.2 The methods developed for this SEA have fully considered the Environmental Impact Assessment Ordinance (EIAO) and its associated Technical Memorandum (as well as other supporting environmental legislation) in order to follow its guidance on environmental acceptability and feasibility.
- 1.4.3 This **SEA does not fully assess impacts in accordance with the EIAO**, rather it aims to identify the most environmentally acceptable scheme(s) at a strategic level. Further, more detailed, assessments would follow during subsequent Technical Feasibility Statement (TFS) and Feasibility Studies, including an EIA under the EIAO, which recognises that any new landfill is a Designated Project.

1.5 Report Structure

Part A (Volume I) – Introduction To SEA And Methodology

- Section 2 Strategic Environmental Assessment
- Section 3 The Construction Works and their Implementation
- Section 4 SEA Methodology
- Section 5 Environmental Impacts and Evaluation Criteria

Part B (Volume I) – Site Specific Details

Part C (Volume II) – Figures and Drawings