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Liquefied Natural Gas (LNG) Receiving Terminal and Associated Facilities

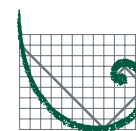
EIA Study (EIA Study Brief ESB-126/2005)

EIA Report
Part 3 - Black Point
Sections 1 - 6

22nd December 2006

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ERM

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22nd December 2006

For and on behalf of
ERM-Hong Kong, Limited

Approved by:



Dr Robin Kennish

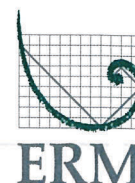
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Date: 22nd December 2006

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1 INTRODUCTION

1.1 INTRODUCTION

This report is prepared by ERM-Hong Kong, Ltd (ERM) in accordance with the *EIA Study Brief* (No. ESB-126/2005) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM)*.

1.2 PURPOSE OF THIS EIA

The detailed requirements of this EIA study are set out in the *EIA Study Brief* and summarised in Part 1 of this EIA Report. This Part of the EIA Report addresses the key environmental issues associated with the construction and operation of the Black Point option.

1.3 SITE LOCATION AND HISTORY

The Black Point LNG terminal is proposed to be located at the northern face of the Black Point headland, as presented in the preliminary layout shown in *Figure 1.1*. Part of the site area (16 ha) will be formed by reclamation extending out from the Black Point headland. The remaining site area will be formed by cutting part of the slope of the northern face of the Black Point headland. To allow safe access for the LNG carrier, an approach channel and turning basin is required. Should the Black Point option be selected as the LNG receiving terminal site, natural gas will be sent via a short onshore pipeline to the Black Point Power Station (BPPS). The onshore pipeline is expected to be within the boundary of the BPPS.

Black Point is the western most part of the New Territories, and comprises of a headland extending from the east (land) to the west (sea) with granitic soil underneath, which is typical of the Tuen Mun and Castle Peak areas. The only major development that has occurred at Black Point was the construction of the BPPS (the first natural gas-fired plant in Hong Kong) which is located to the north of the headland. The lowland areas to the southeast of the headland are occupied by an orchard, a cement plant and a cargo storage site. The orchard was originally cultivated land managed by villagers in the 19th century ⁽¹⁾ but is now no longer managed. An aerial photograph of Black Point (year 2003) is shown in *Figure 1.2*.

(1) ERL Asia Ltd 1992. Environmental Impact Assessment of the Proposed 6000MW Thermal Power Station at Black Point: Initial Assessment Report Volume 1. The Surrounding Environment, prepared for China Light and Power Company Limited.

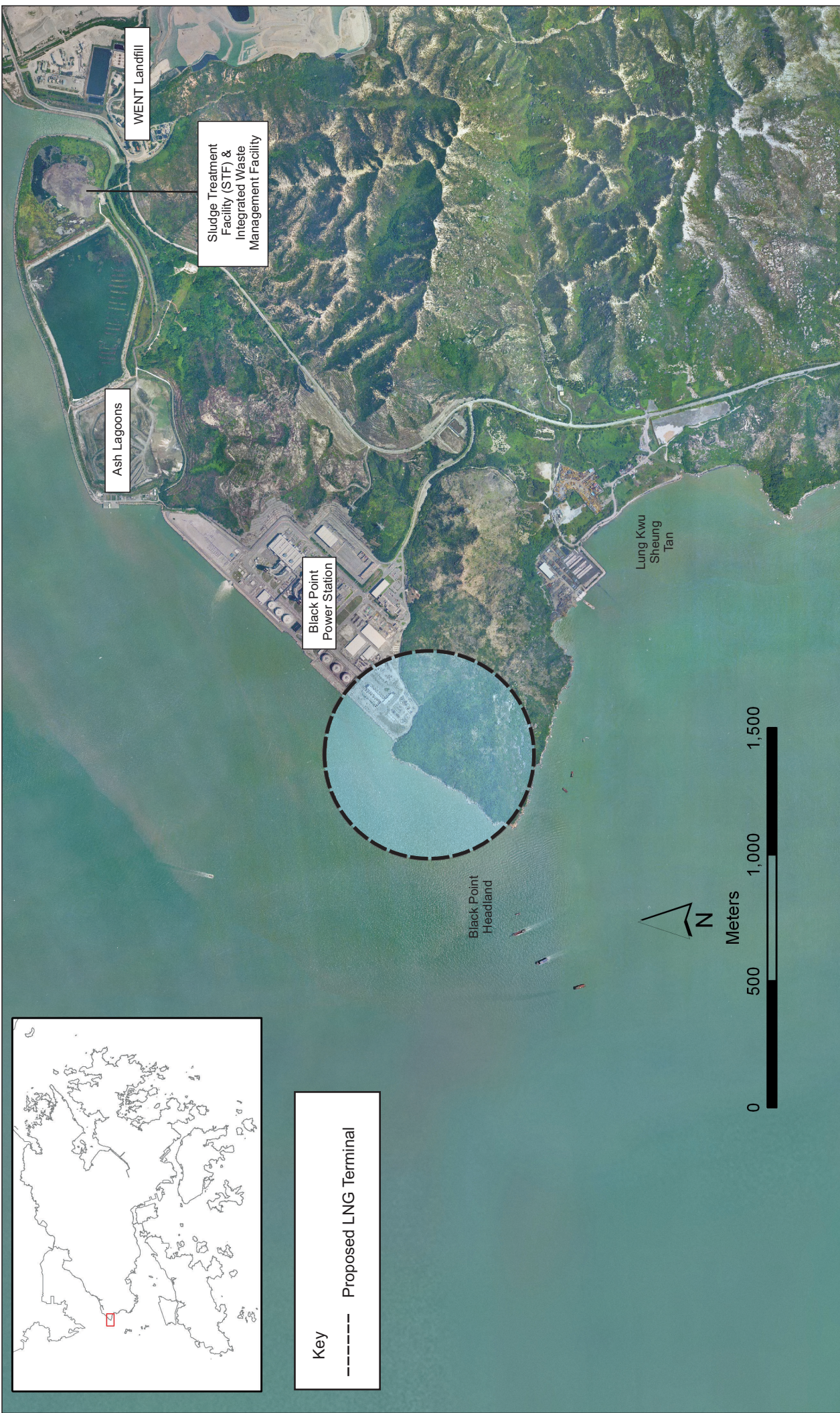


Figure 1.1

Location of Proposed LNG Terminal at Black Point

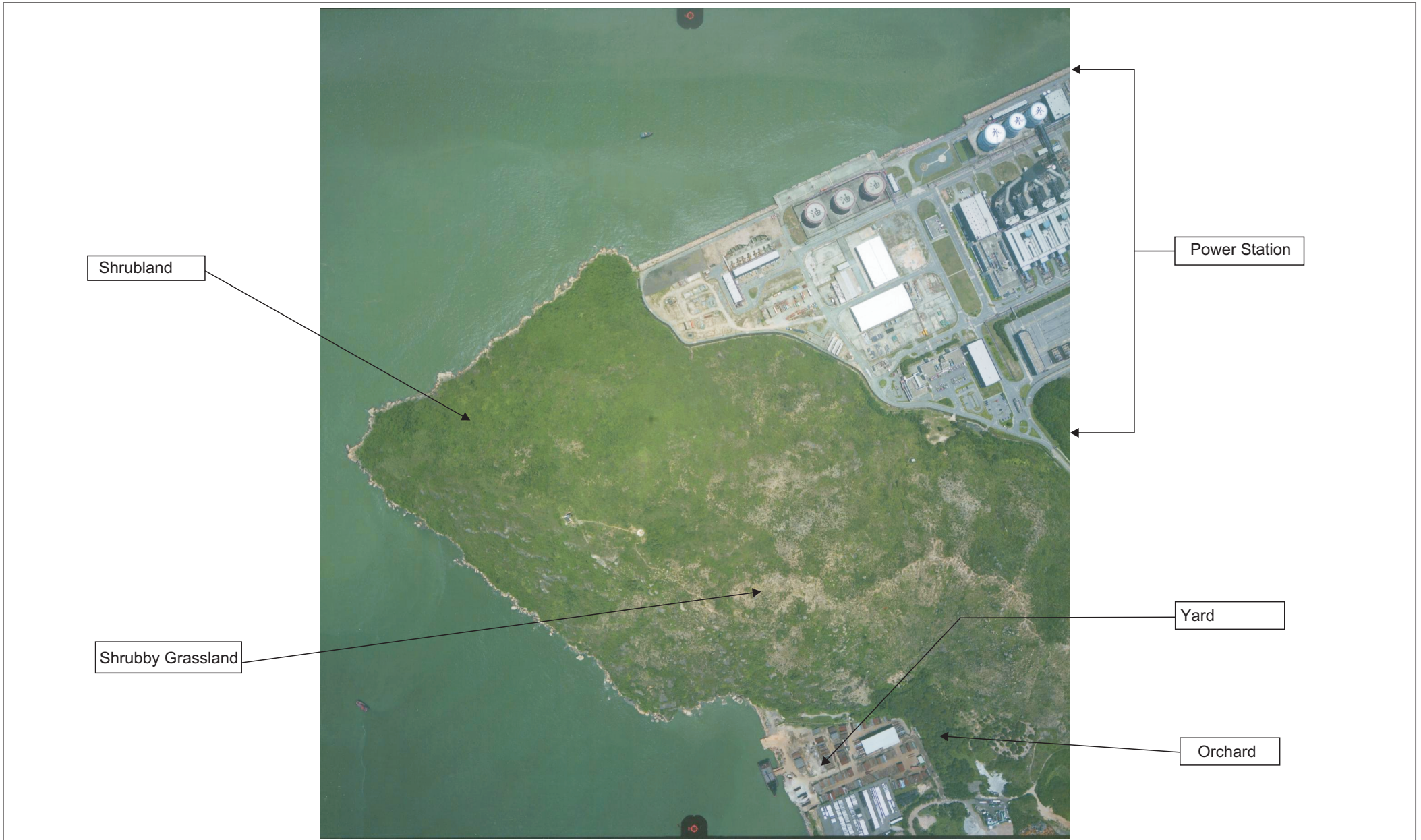


Figure 1.2

Aerial Photograph of Black Point in 2003 - This aerial photograph presents the existing condition of Black Point

1.4 SCOPING OF ENVIRONMENTAL ISSUES

The potential environmental impacts which may arise from the construction and operation of the terminal and associated facilities were identified and discussed in the Project Profile for this EIA. The specific scope for the EIA of the Black Point option is presented in **Clause 3.2** of the EIA Study Brief.

1.5 STRUCTURE OF THE REPORT

Following this introductory section, the remainder of this *Section* is arranged as follows:

- Section 2* This section of the EIA report presents the findings of assessments conducted by ERM on behalf of CAPCO in considering alternative layout and design options for the LNG terminal at Black Point. This section concludes with an introduction to the preferred scenario for a LNG terminal at Black Point.
- Section 3* Provides a description of the Project highlighting the key infrastructure to be constructed, the timeline for implementing the Project and the operational activities. This section forms the basis of the technical assessments presented in *Sections 4 – 14* below.
- Section 4* Presents the details of an assessment of impacts from the construction and operation of the LNG terminal to air quality sensitive receivers.
- Section 5* Presents the details of an assessment of impacts from the construction and operation of the LNG terminal to noise sensitive receivers
- Section 6* Details the assessment of impacts to water quality sensitive receivers arising from the construction and operation of the LNG terminal.
- Section 7* Presents the waste management implications from construction and operation of the LNG terminal.
- Section 8* Details the assessment of impacts to terrestrial ecological resources arising from the construction and operation of the LNG terminal.
- Section 9* Presents the details of an assessment of impacts from the construction and operation of the LNG terminal to marine ecological resources.

- Section 10* Details the assessment of impacts to fisheries resources and fishing operations arising from the construction and operation of the LNG terminal.
- Section 11* Presents the details of an assessment of impacts from the construction and operation of the LNG terminal to landscape and visual sensitive receivers.
- Section 12* Details the assessment of impacts from the construction and operation of the LNG terminal to cultural heritage resources.
- Section 13* Presents the quantitative risk assessment from the operation of the LNG terminal.
- Section 14* Describes the measures that are to be adopted in the operational phase of the LNG terminal to prevent land contamination.
- Section 15* Presents a summary of the environmental outcomes of the EIA of the Black Point option.
- Section 16* Presents a summary of the environmental performance comparison of the Black Point and South Soko option.
- Section 17* Introduces the environmental monitoring and audit (EM&A) measures for the Project.
- Section 18* Presents the conclusions of the EIA on the Black Point option.