

1 INTRODUCTION

1.1 Project Background

- 1.1.1 The Project is located in the south-eastern part of Kowloon Peninsula, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. The Project also covers Kowloon Bay and Kwun Tong Typhoon Shelter and the adjacent water bodies.
- 1.1.2 The Kai Tak Airport was the international airport of Hong Kong until 6 July 1998, which was replaced by the new Hong Kong International Airport at the Chek Lap Kok. After closure, the airport site has been occupied by various temporarily uses such as public fill banks, bus depots, car sales exhibitions, and recreational grounds. Besides, most of the original buildings and structures within the former airport site have been cleared and the ground contamination identified at the north apron had been decontaminated.
- 1.1.3 In 2002, the Chief Executive in Council approved the Kai Tak Outline Zoning Plans (No. S/K19/3 and S/K21/3) to provide the statutory framework to proceed with the South East Kowloon Development at the former Kai Tak Airport. However, following the judgment of the Court of Final Appeal in January 2004 regarding the Harbour reclamation, the originally proposed development which involved reclamation has to be reviewed. The Kai Tak Planning Review (KTPR) has resulted a Preliminary Outline Development Plan (PODP) for Kai Tak in October 2006.
- 1.1.4 Based on the PODP, Planning Department have prepared the Draft Kai Tak Outline Zoning Plan (OZP) No. S/K22/1 and was submitted to the Town Planning Board for consideration on 10 November 2006 and was gazetted under the Town Planning Ordinance on 24 November 2006 and the OZP No. S/K22/2 was approved by CE in C on 6 November 2007.
- 1.1.5 A Recommended Outline Development Plan (RODP) of Kai Tak Development has been prepared by resembling the changes to the PODP and the Kai Tak Outline Zoning Plan (OZP). The RODP (dated May 2008) becomes the basis for conducting the EIA study for the feasibility study of the Kai Tak Development. A copy of the RODP (dated May 2008) is shown in **Figure 1.1a**.
- 1.1.6 This Project falls within item 1 under Schedule 3 of the EIAO, i.e. engineering feasibility study of urban development project with a study area covering more than 20 hectares or involving a total population of more than 100,000.
- 1.1.7 This Project also contains various Schedule 2 Designated Projects (DPs) that, under the EIAO, require Environmental Permits (EPs) to be granted by the DEP before they may be either constructed or operated. Details of the Schedule 2 DPs are described in the EIA Report.
- 1.1.8 Three of the Schedule 2 DPs, namely the Decommissioning of the Former Kai Tak Airport other than the North Apron, Kai Tak North Apron Decommissioning, and the Dredging Works for Proposed Cruise Terminal at Kai Tak, have already been covered under separate EIA Reports that were approved under the EIAO. The EM&A requirements for these 3 Schedule 2 DPs have already been detailed in the respective EM&A Manual.
- 1.1.9 The environmental impacts of another three Schedule 2 DPs as listed in **Table 1.1** below namely new distributor roads serving the planned KTD (DP1), new sewage pumping stations serving the planned KTD (DP2), and decommissioning of the remaining parts of the former Kai Tak Airport (DP3) have been adequately addressed in this Schedule 3 EIA Report. **Figure 1.2** shows the locations of these Schedule 2 DPs. The remaining Schedule 2 DPs will be addressed in further detailed EIA studies by the respective project proponents in the future.

Table 1.1 List of Schedule 2 Designated Projects Contained within the Kai Tak Development that have been Adequately Addressed in this Schedule 3 EIA Report

Item	Designated Project	EIAO Reference
DP1	New distributor roads serving the planned KTD	Schedule 2, Part I, Items A.1, A.8 & A.9. Partly referred in Section 1.3 (ii) of EIA Study Brief No. ESB-152/2006.
DP2	New sewage pumping stations serving the planned KTD	Schedule 2, Part I, Item F.3. Partly referred in Section 1.3 (iii) of EIA Study Brief No. ESB-152/2006.
DP3a	Decommissioning of the remaining parts (Ex-GFS Building and Radar Station) of the former Kai Tak Airport	Schedule 2, Part II, Item 1

1.1.10 Broad descriptions of the Schedule 2 DPs listed in **Table 1.1** above are given in the following paragraphs.

1.1.11 DP1 - New distributor roads serving the planned KTD

- The major elements of the future ground level road system within KTD include four district distributor roads namely Roads D1, D2, D3 and D4. No new primary distributor road is proposed within KTD. As Roads D1 to D4 are district distributor roads, they are classified as DPs under Item A.1, Part I, Schedule 2 of the EIAO. A section of Road D2 will be running underneath the podium structure of the proposed Stadium Complex. Based on the latest available information, that section of Road D2 is fully enclosed by decking above and by structure on the sides for more than 100 m and is thus classified as DP under Item A.9, Part I, Schedule 2 of the EIAO. For Road D3, a section of road bridge will be constructed above the 600m gap opening. Therefore, it is classified as DP under Item A.8, Part I, Schedule 2 of the EIAO.

1.1.12 DP2 - New sewage pumping stations serving the planned KTD

- Six sewage pumping stations (SPSs), excluding the proposed SPS of the DWFI compound at JVBC (JVBC-PS) as described under DP15 below, are located within KTD. As part of the sewerage improvement scheme in the hinterland to reduce the pollution loading in KTAC, DSD will initially construct two new SPSs, namely PS1 and PS3. These two SPSs are tentatively programmed to be completed in 2012 to convey sewage flow generated from the hinterland to To Kwa Wan Preliminary Treatment Work. PS6 will have to be completed in later 2011 in time for commissioning of the Phase I Berth of the Cruise Terminal in 2012. PS1A is designed to convey sewage flow generated from the public housing sites, schools and residential sites. It has been determined that PS1A is not required for the initial population intake of public housing developments in Sites 1A and 1B in September 2012. Instead the initial sewage flow collected from these housing sites will be discharged directly to the existing sewer along Eastern Road via new gravity sewer as an interim measures. PS1A is planned to be available 2014 or earlier. The re-provision of SPS (NPS) located in the Site 5A1 will be available in 2014. PS2 is located at the Site 1L5 and designed to convey sewage flows generated in the developments in Sites 1M, 1P, 1K, 1L 2A and 2B.
- All these SPSs, except PS6, are with an installed capacity of more than 2000 m³ per day and are located within 150m from existing and/or planned residential area or educational institution, therefore these SPSs are classified as DPs under Item F.3, Part I, Schedule 2 of the EIAO.

- The proposed PS6 is located near the southern tip of the former Kai Tak Airport runway. The installed capacity of PS6 is more than 2000 m³ but less than 300,000 m³ per day. PS6 is located at more than 150 m away from any existing or planned residential area, place of worship, educational institution, health care institution, site of special scientific interest, site of cultural heritage, bathing beach, marine park or marine reserve, fish culture zone, or seawater intake point. Therefore with reference to Item F.3, Part I, Schedule 2 of the EIAO, the proposed PS6 is not classified as a DP under the EIAO.

1.1.13 DP3a - Decommissioning of the remaining parts (Ex-GFS Building and Radar Station) of the former Kai Tak Airport

- The scope of this DP is primarily to decommission the Ex-GFS Building and Radar Station within the former Kai Tak Airport that were not covered under the previous EIAs on decommissioning of former Kai Tak Airport (namely EIAs for DP4 and DP5).
- The decommissioning of airport facilities is classified as DP under Item 1, Part II, Schedule 2 of the EIAO.

1.2 Project Scope and Programme

1.2.1 The scope of the Project comprises the demolition of the remaining structures at the former Kai Tak Airport and the construction of key infrastructures to serve KTD for development of key components such as the Cruise Terminal, Tourism Node, Runway Park, Metro Park, Stadium Complex, public and private housing sites, commercial office and hotel sites and other community facilities. The infrastructure needs to be provided are not exhaustive to roads, vehicular bridges, footbridges, subways, railway, environmental friendly transport system, drainage culverts and drains, rising mains and sewers, pumping stations, fresh and salt water supply mains, district cooling system, electricity substations and utilities, landscape softworks and hardworks.

1.2.2 The decontamination works at the south apron will proceed in around 2008 while the construction works are anticipated to commence on site in early 2009, with completion of the project beyond 2020. Construction of the infrastructures needs to be implemented in stages in order to meet the development schedule of Kai Tak Area. To accommodate the construction sequencing constraints and conflicts of interfacing projects, the infrastructure works are split into seven packages as follows:

- Package A – Cruise Terminal Development and related advance works
- Package B – Infrastructure Works at North Apron, Phase 1 – Housing Sites and Government Offices
- Package C – Kai Tak Approach Channel Improvement Works
- Package D – Kai Tak Nullah Modification Works
- Package E – Infrastructure Works at Runway and Metro Park
- Package F – Infrastructure Works at North Apron, Phase 2
- Package G – Trunk Road T2 and Infrastructure Works at South Apron

1.2.3 The construction programme for each package is summarized in **Table 1.2** for reference.

Table 1.2 Summary of Construction Programme

Package A	May 2008 to Mar 2012
Package B	May 2009 to Dec 2015
Package C	Sep 2010 to Sep 2014
Package D	Sep 2010 to Dec 2016
Package E	Sept 2010 to Dec 2016
Package F	Jul 2012 to Dec 2016
Package G	Jan 2012 to Dec 2016

1.3 Purpose of this Manual

1.3.1 The purpose of this Environmental Monitoring and Audit (EM&A) Manual is to guide the set up of an EM&A programme to ensure compliance with the EIA study recommendations, to assess the effectiveness of the recommended mitigation measures and to identify any further need for additional mitigation measures or remedial action. This Manual outlines the monitoring and audit programme for the proposed Project. It aims to provide systematic procedures for monitoring, auditing and minimising environmental impacts associated with Project activities.

1.3.2 Hong Kong environmental regulations and the Hong Kong Planning Standards and Guidelines have served as environmental standards and guidelines in the preparation of this Manual. In addition, the EM&A Manual has been prepared in accordance with the requirements stipulated in Annex 21 of the EIAO-TM.

1.3.3 This Manual contains the following information:

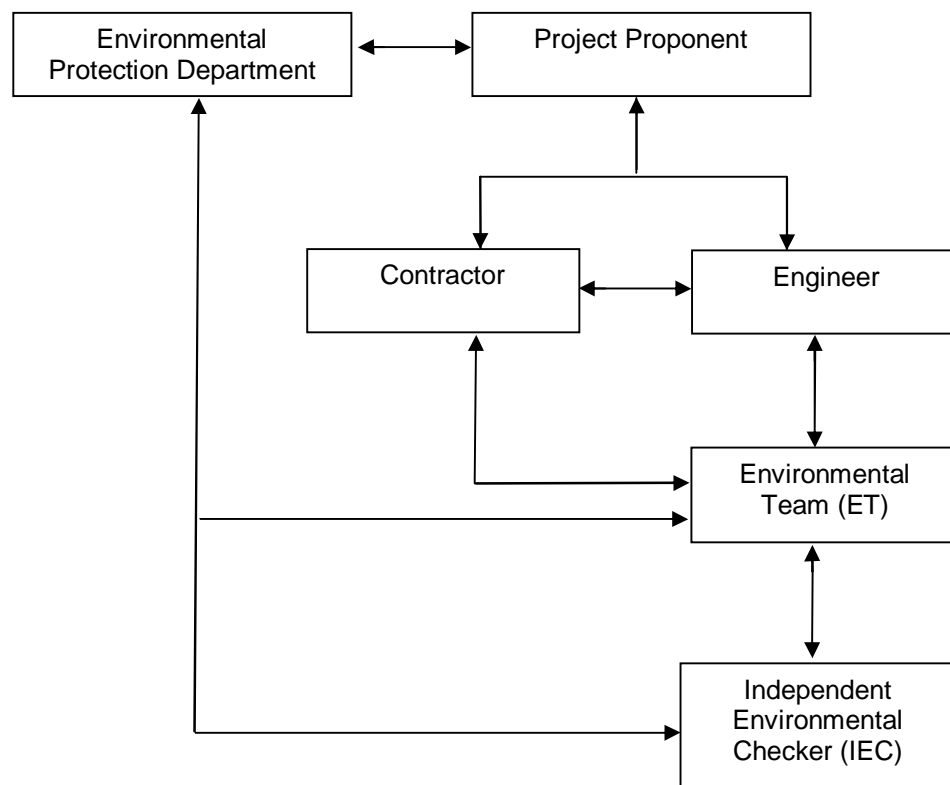
- Responsibilities of the Contractor, the Engineer or Engineer's Representative (ER), Environmental Team (ET) and Independent Environmental Checker (IEC) with respect to the environmental monitoring and audit requirements during the course of the Project;
- Project organisation;
- The basis for, and description of the broad approach underlying the EM&A programme;
- Requirements with respect to the construction programme schedule and the necessary environmental monitoring and audit programme to track the varying environmental impact;
- Details of the methodologies to be adopted, including all field laboratories and analytical procedures, and details on quality assurance and quality control programme;
- The rationale on which the environmental monitoring data will be evaluated and interpreted;
- Definition of Action and Limit Levels;
- Establishment of Event and Action Plans;
- Requirements for reviewing pollution sources and working procedures required in the event of non-compliance with the environmental criteria and complaints;
- Requirements for presentation of environmental monitoring and audit data and appropriate reporting procedures; and
- Requirements for review of EIA predictions and the effectiveness of the mitigation measures / environmental management systems and the EM&A programme.

- 1.3.4 For the purpose of this manual, the ET leader, who shall be responsible for and in charge of the ET, shall refer to the person delegated the role of executing the EM&A requirements.

1.4 Project Organization

- 1.4.1 The roles and responsibilities of the various parties involved in the EM&A process are outlined in the following paragraphs. The proposed Project organization and lines of communication with respect to environmental management for the Project are shown in **Figure 1.3**.

Figure 1.3 Project Organisation



- 1.4.2 The duties and responsibilities of respective parties are as follows:

The Contractor

- 1.4.3 The Contractor shall report to the Engineer. The duties and responsibilities of the Contractor are:
- To provide assistance to ET in carrying out monitoring;
 - To submit proposals on mitigation measures in case of exceedances of Action and Limit Levels in accordance with the Event and Action Plans;
 - To implement measures to reduce impact where Action and Limit Levels are exceeded;
 - To implement the corrective actions instructed by the Engineer;
 - To accompany joint site inspection undertaken by the ET; and
 - To adhere to the procedures for carrying out complaint investigation.

Environmental Team

- 1.4.4 The ET Leader and the ET shall be employed to conduct the EM&A programme and ensure the Contractor's compliance with the Project's environmental performance requirements during construction. The ET Leader shall be an independent party from the Contractor and have relevant professional qualifications, or have sufficient relevant EM&A experience subject to the approval of the Engineer's Representative (ER). The ET shall be led and managed by the ET leader. The ET leader shall possess at least 7 years experience in EM&A and/or environmental management.
- 1.4.5 The duties and responsibilities of the ET are:
- To monitor various environmental parameters as required in this EM&A Manual;
 - To analyse the environmental monitoring and audit data and review the success of EM&A programme to cost-effectively confirm the adequacy of mitigation measures implemented and the validity of the EIA predictions and to identify any adverse environmental impacts arising;
 - To carry out regular site inspection to investigate and audit the Contractors' site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and effect proactive action to pre-empt problems; carry out ad hoc site inspections if significant environmental problems are identified;
 - To audit and prepare monitoring and audit reports on the environmental monitoring data and site environmental conditions;
 - To report on the environmental monitoring and audit results to the IEC, Contractor, the ER and EPD or its delegated representative;
 - To recommend suitable mitigation measures to the Contractor in the case of exceedance of Action and Limit Levels in accordance with the Event and Action Plans; and
 - To adhere to the procedures for carrying out complaint investigation.

Engineer or Engineer's Representative

- 1.4.6 The Engineer is responsible for overseeing the construction works and for ensuring that the works undertaken by the Contractor in accordance with the specification and contractual requirements. The duties and responsibilities of the Engineer with respect to EM&A may include:
- Supervising the Contractor's activities and ensure that the requirements in the EM&A Manual are fully complied with;
 - Informing the Contractor when action is required to reduce impacts in accordance with the Event and Action Plans;
 - Participating in joint site inspection undertaken by the ET; and
 - Adhering to the procedures for carrying out complaint investigation.

Independent Environmental Checker

- 1.4.7 The Independent Environmental Checker (IEC) shall advise the Engineer's Representative on environmental issues related to the Project. The IEC shall possess at least 7 years experience in EM&A and/or environmental management. The IEC shall be an independent part from the Contractor and the ET.
- 1.4.8 The duties and responsibilities of the IEC are:
- To review the EM&A works performed by the ET (at least at monthly intervals);
 - To carry out random sample check and audit the monitoring activities and results (at least at monthly intervals);
 - To review the EM&A reports submitted by the ET;
 - To review the effectiveness of environmental mitigation measures and project environmental performance;
 - To review the proposal on mitigation measures submitted by the Contractor in accordance with the Event and Action Plans; and
 - To adhere to the procedures for carrying out complaint investigation.
- 1.4.9 Sufficient and suitably qualified professional and technical staff shall be employed by the respective parties to ensure full compliance with their duties and responsibilities, as required under the EM&A programme for the duration of the Project.