

## **1. INTRODUCTION**

### **1.1 Purpose of this Manual**

**1.1.1** The purpose of this Environmental Monitoring and Audit (EM&A) Manual is to guide the setup of an EM&A programme to ensure compliance with the Environmental Impact Assessment (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 to be undertaken for the construction of the Revised Scheme of South East Kowloon Development (SEKD). It aims to provide systematic procedures for monitoring, auditing and minimising of the environmental impacts associated with the construction works.

**1.1.2** Hong Kong environmental regulations for air quality, water quality, noise, and waste; the Hong Kong Planning Standards and Guidelines (HKPSG); and recommendations in the EIA Report on Comprehensive Feasibility Study for the Revised Scheme of South East Kowloon Development have served as environmental standards and guidelines in the preparation of this Manual.

**1.1.3** This Manual contains the following:

- (a) duties of the Environmental Project Offices (ENPOs) with respect to the environmental monitoring and audit requirements during construction;
- (b) information on project organisation and programming of construction activities for the project;
- (c) requirements with respect to the construction schedule and the necessary environmental monitoring and audit programme to track the varying environmental impact;
- (d) definition of Action and Limit levels;
- (e) establishment of event and action plans;
- (f) requirements of reviewing pollution sources and working procedures required in the event of non-compliance of the environmental criteria; and
- (g) requirements of presentation of environmental monitoring and audit data and appropriate reporting procedures.

**1.1.4** For the purpose of this Manual, the “Engineer” should refer to the Engineer as defined in the Contract and the Engineer’s Representative (ER), in cases where the Engineer’s powers have been delegated to the ER, in accordance with the Contract. The Environmental Project Office (ENPO) manager, who should be responsible for and in charge of the ENPO, should refer to the person delegated the role of executing the environmental monitoring and audit requirements.

**1.1.5** Since the EIA Report identified that there are no ecological impacts requiring mitigation, no ecological monitoring and audit programme is therefore proposed in this Manual.

**1.1.6** It should be noted that pertinent parts of this EM&A Manual such as the proposed number and location of monitoring stations, baseline and impact monitoring details, etc. are subject to refinement during the Schedule 2 EIA studies for various Designated Projects under SEKD.

### **1.2 Background**

#### **1.2.1 Background of the Project**

**1.2.1.1** The new development area of SEKD measures 413 ha, comprising:

- The former Kai Tak Airport apron and runway (280 ha);
- Reclamation area at Kai Tak Approach Channel and Kwun Tong Typhoon Shelter (65 ha);
- Reclamation area at Kowloon Bay (61 ha); and
- Cruise terminal and other marine and waterfront facilities (7 ha).

1.2.1.2 The new development is expected to accommodate a population of at least 250,000. The entire SEKD is mainly divided into three major development areas namely:

- Kai Tak Airport (KTA);
- Kowloon Bay Reclamation (KBR); and
- Kai Tak Approach Channel / Kwun Tong Typhoon Shelter (KTAC/KTTS).

1.2.1.3 Extent of the above three major development areas is shown in **Drawing No. 22936/IM/010**. The works packages involved in the three development areas are listed in **Table 1.2** and are shown in **Drawing Nos. 22936/IM/011A, 012A, 013A and 014A**.

## 1.2.2 Sensitive Receivers

1.2.2.1 Representative sensitive receivers that are potentially liable to nuisance arising from the project are identified in the EIA Report. These mainly relate to noise, air quality and water quality.

1.2.2.2 The development area is situated in close proximity to existing urban districts namely Kwun Tong, Kowloon Bay, San Po Kong, Kowloon City, To Kwa Wan, and Hung Hom. Representative existing and planned air quality sensitive receivers (ASRs) and/or noise sensitive receivers (NSRs) surrounding the site are listed in **Tables 1.1** and the locations are shown in **Drawing Nos. 22936/EN/354**. Future air and noise sensitive receivers also include the future development within SEKD, for example the public housing sites in Area 1 that will be completed at the early stage of SEKD.

Table 1.1 Existing and Planned Air and Noise Sensitive Receivers

Sensitive Receiver	Air / Noise Sensitive	Description
1	Air & Noise	Laguna Verde
2	Air	Hilder Centre
3	Air	APB Centre
4	Air & Noise	Bailey Garden
5	Air & Noise	Holy Carpenter Primary School
6	Air & Noise	Proposed residential development along Yuk Yat Street
7	Air & Noise	Wei Chien Court
8	Air & Noise (future)	Merit Industrial Centre / Proposed residential development
9	Air & Noise	The HK Society for the Blind – Workshop & Hostel / Proposed CDA development
10	Air & Noise	Proposed CDA development along Sung Wong Toi Road
11	Air & Noise	Parc 22
12	Air & Noise	SKH Holy Trinity Church Centenary Bradbury Centre
13	Air & Noise	464 Prince Edward Road East
14	Air & Noise	South Mansion
15	Air & Noise	Proposed G/IC development along Sa Po Road
16	Air & Noise	Lee Kau Yan Memorial School
17	Air & Noise	Sir Robert Black Health Centre
18	Air & Noise	Kowloon Cognitio College

Sensitive Receiver	Air / Noise Sensitive	Description
19	Air	Chiap King Industrial Building
20	Air	San Po Kong Factory Estate
21	Air & Noise	Rhythm Garden
22	Air & Noise	Proposed CDA development at Tai Hom Village
23	Air & Noise	Pik Hoi House, Choi Hung Estate
24	Air & Noise	Kam Pik House, Choi Hung Estate
25	Air & Noise	Ping Shek Bus Terminus C/R Development
26	Air & Noise	Richland Gardens
27	Air & Noise	Kai Lok Temporary Housing Area
28	Air & Noise	Kai Lok Temporary Housing Area
29	Air	Sino Industrial Plaza
30	Air	Jing Hin Industrial Building
31	Air & Noise	Lower Ngau Tau Kok Estate Redevelopment
32	Air & Noise	Upper Ngau Tau Kok Estate Redevelopment
33	Air	Sing Tao Building
34	Air	New Kowloon Bay Vehicle Examination Centre
35	Air	Kowloon Bay Factory Estate
36	Air	World Trade Square
37	Air	Piazza Industrial Building
38	Air	Seapower Industrial Centre
39	Air & Noise	Laguna City
40	Air & Noise	Proposed Cha Kwo Ling housing development
41	Air & Noise	Proposed Yau Tong Bay CDA development

1.2.2.3 The SEKD might affect the water quality in the three Water Control Zones (WCZs) namely Victoria Harbour, Eastern Buffer and Western Buffer WCZs during the construction and operational phases. **Drawing No. 22936/EN/033** shows the locations of the potential water quality sensitive receivers. The existing water quality sensitive receivers include:

***Seawater Intakes for Cooling and Flushing Purposes***

- Tsuen Wan (A1);
- Tsing Yi (A2);
- Kennedy Town (A3);
- Cheung Sha Wan (A4);
- Yau Ma Tei (A5);
- Central Water Front (A6);
- Tsim Sha Tsui (A7);
- Wan Chai (A8);
- Tsim Sha Tsui East (A9);
- Tai Wan (A10);
- North Point (A11);
- Quarry Bay (A12);
- Sai Wan Ho (A13);
- Cha Kwo Ling (A14);
- Yau Tong (A15)
- Chai Wan (A16);
- Ap Lei Chau (A17); and
- Tsing Yi Power Station (D1).

***Enclosed Water Bodies - Typhoon Shelters***

- Rambler Channel (B1);
- Yau Ma Tei (B2);
- Causeway Bay (B3);
- To Kwa Wan (B4);
- Kwun Tong (B5);
- Aldrich Bay (B6);
- Sam Ka Tsuen (B7);
- Chai Wan (B8); and
- Aberdeen (B9).

***Mariculture Zones***

- Ma Wan (C1); and
- Tung Lung Chau (C2).

***Gazetted Beaches***

- Tung Wan (E1); and
- Ting Kau (E2 and E3).

- 1.2.2.4 After completion of the SEKD development, the existing To Kwa Wan Typhoon Shelter (TKWTS) will no longer exist and a new marina will be built in Kowloon Bay. The existing Kwun Tong Typhoon Shelter (KTTS) will be shifted towards the existing breakwaters at the typhoon shelter outlet. A portion of the new KTTS would be located in front of the end section of the disused airport runway. The new marina and the reprovisioned KTTS are the future water quality sensitive receivers.

### **1.3 Environmental Monitoring and Audit Requirements**

- 1.3.1** The construction and operational phases impacts of the project are assessed and presented in the EIA Report on Comprehensive Feasibility Study for the Revised Scheme of South East Kowloon Development. The EIA identified the need for EM&A and/or environmental management system (EMS) activities for different environmental aspects during the construction and operation phases of the proposed developments. The criteria for the EM&A program is presented in **Table 1.2**.
- 1.3.2** The EIA Report also specified the recommended environmental mitigation measures. An implementation schedule of the recommended environmental mitigation measures is prepared as part of the EIA Study and is contained in **Appendix A** of this Manual.
- 1.3.3** In order to ensure that the mitigation measures recommended in the EIA Study are implemented fully and resulted in the expected effectiveness, this Manual defines the scope of EM&A requirements for the construction and operation of the proposed developments to achieve satisfactory environmental performance. The EM&A requirements are prepared in accordance with the requirements stipulated in Annex 21 of the TM on EIA Process.