

1 INTRODUCTION

1.1 General

- 1.1.1 On 31st of January 2007, Maunsell Consultants Asia Limited (MCAL) was commissioned by the Civil Engineering and Development Department (CEDD) to undertake Agreement No. CE35/2006 (CE) – Kai Tak Development Engineering Study cum Design and Construction of Advance Works – Investigation, Design and Construction.
- 1.1.2 The overall objective of the Assignment is to formulate a comprehensive plan for the development and implementation of Kai Tak Development (KTD), which will address all the issues arising from the development and which will integrate the new and existing/planned developments in the surrounding areas in a coherent manner. The aim is to develop Kai Tak into a distinguished, vibrant, attractive and people-oriented Kai Tak by the Victoria Harbour.
- 1.1.3 A Recommended Outline Development Plan (RODP) of Kai Tak Development has been prepared by resembling the changes to the Preliminary Outline Development Plan and the Kai Tak Outline Zoning Plan (OZP) approved by Chief Executive in Council (CE in C) in November 2007. 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), PODP and OZP are shown in **Figures 1.1a, 1.1b and 1.1c** respectively.

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- 1.1.4 The feasibility study of KTD falls within item 1 under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO) and include various Schedule 2 Designated Projects under the EIAO which require Environmental Permits (EPs).
- 1.1.5 The EIA Study Brief No. ESB-152/2006 for the feasibility study of KTD was issued by the Environmental Protection Department (EPD) under Section 5(7) of EIAO in August 2006.
- 1.1.6 Within the scope of the Schedule 3 EIA study for the feasibility study of KTD, individual project that falls under Schedule 2 of the EIAO is identified in this Schedule 3 EIA Report. Some of these Schedule 2 Designated Projects have already been approved under the EIAO, some are adequately addressed in this Schedule 3 EIA Report, and some will be adequately addressed in further detailed EIA studies to be conducted by respective project proponents in the future. The list of Schedule 2 Designated Projects identified within KTD is presented and discussed in **Section 1.5** below.

1.2 Project Background

Background

- 1.2.1 The airport at Kai Tak was relocated to Chek Lap Kok in July 1998. The relocation has offered a good opportunity for major development in the Metro Area.
- 1.2.2 Completed in September 1991, the Metroplan Selected Strategy proposed a broad land use framework for redevelopment of the Kai Tak Airport, which included reclamation at Kowloon Bay, Kai Tak Approach Channel and Kwun Tong Typhoon Shelter and extension of highway and railway networks, and port-related facilities.
- 1.2.3 The South East Kowloon Development (SEKD) Statement Study completed in November 1993 has translated the Metroplan Framework into more specific planning objectives. The Outline Master Development Plan (OMDP) prepared under the study covered a development area of about 580 ha, with about 300 ha of reclamation area, to accommodate an overall population of 285,000 persons.

- 1.2.4 The Feasibility Study for South East Kowloon Development (SEKDFS) completed in December 1997 have fine-tuned the OMDP and identified phased and integrated developments for the early development packages. The feasibility study has recommended a development area of 630 ha, with a reclamation area of 299 ha to accommodate a population of 320,000 persons. The scheme was incorporated into the draft Kai Tak (North) and Kai Tak (South) OZPs No. S/K19/1 and S/K21/1 exhibited in September 1998. Strong public objections, mainly on the extent of reclamation were received.
- 1.2.5 To address these objections, a revised scheme was prepared after a series of public consultation in mid-1999. The Comprehensive Feasibility Study for the Revised Scheme of South East Kowloon Development (SEKDCFS) was commissioned in November 1999 to prepare more detailed proposals for the revised scheme and to examine the overall feasibility. In mid-2000, a Preliminary Layout Plan (PLP) on the revised scheme was promulgated for public consultation. With the community's general support on the PLP, the SEKDCFS proceeded to the detailed feasibility and preliminary design phase. By mid-2001, the SEKDCFS completed an OMDP and the preliminary design for the whole SEKD.
- 1.2.6 The draft Kai Tak (North) OZP No. S/K19/2 and draft Kai Tak (South) OZP No. S/K21/2, incorporating relevant proposals of the SEKDCFS and the OMDP, were gazetted in August 2001 providing the statutory planning framework for the area. The extent of reclamation has reduced from 299 ha to 133 ha. With a development area of about 461 ha, the revised scheme is planned to house a population of about 260,000 in 78,000 flats. Apart from a variety of housing, the planned tourism node, Cruise Terminal, Stadium Complex and Metropolitan Park are the key features in SEKD for formation of a new tourism, sports and recreation centre in the Metro Area.
- 1.2.7 On 25 June 2002, the CE in C approved the OZPs, which were renumbered as S/K19/3 and S/K21/3 and exhibited for public inspection on 5 July 2002.
- 1.2.8 The approved OZPs have incorporated a number of reclamation proposals, namely Kowloon Bay Reclamation, Kai Tak Approach Channel (KTAC) Reclamation, Kwun Tong Typhoon Shelter (KTTS) and Cha Kwo Ling Reclamation and reclamation for a cruise terminal, with a total reclamation area of about 133 ha.
- 1.2.9 According to the Judgment of the Court of Final Appeal (CFA) on the draft Wan Chai North OZP handed down on 9 January 2004, the Protection of the Harbour Ordinance (PHO) establishes a statutory principle recognizing the harbour as a special asset and a natural heritage of Hong Kong people and prescribing that it is to be protected and preserved. According to the CFA Judgment, the presumption against reclamation under s.3(1) of the PHO can only be rebutted by establishing an overriding public need for reclamation, i.e. "the overriding public need test". In view of the CFA judgment, a comprehensive review of the Kai Tak OZPs is required to ensure the planning framework meeting the statutory requirement.
- 1.2.10 On 13 January 2004, the Government agreed to commission Consultants to undertake a Comprehensive Planning and Engineering Review of SEKD. The Comprehensive Review is broadly divided into two parts. Part I of the Review is a Planning Review. It started with "no reclamation" as the planning basis to formulate Preliminary Outline Development Plan (PODP). Part II is an Engineering Review to undertake detailed engineering feasibility studies and Environmental Impact Assessment (EIA) study, including Schedule 3 EIA Study, to confirm the feasibility of the PODP, as well as to produce a Recommended Outline Development Plan.
- 1.2.11 In July 2004, Planning Department commissioned the Kai Tak Planning Review (KTPR) as Part I of the Comprehensive Review. The KTPR include 3 stages of public participation. Stage 1 was to engage the public in determining vision and key issues. Stage 2 was to engage the public on the Outline Concept Plans (OCPs). Stage 3 was to engage the public on the draft PODP.

- 1.2.12 Stage 1 public participation was conducted between September and November 2004. Three OCPs were formulated for the Stage 2 public participation namely “City in the Park”, “Kai Tak Glamour” and “Sports by the Harbour” for public participation between November 2005 and January 2006 before preparation of a draft PODP. The community and stakeholder groups were consulted on the draft PODP in Stage 3 during June to August 2006.
- 1.2.13 On the basis of ‘no reclamation’, the PODP of KTD proposes residential developments for about 86,000 persons. The PODP proposes to create a new urban node at Kai Tak, supported by a belt of office developments, several residential neighbourhoods and a variety of Government, institution or community (GIC) facilities, a stadium complex fronting Victoria Harbour, a cruise terminal and a tourism node at the end of the former runway and a Metro Park in the northern section of the runway and surrounding the Kai Tak Approach Channel (KTAC).
- 1.2.14 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.

1.3 Purpose of this Environmental Impact Assessment Report

- 1.3.1 The purpose of this EIA Report is to provide an environmental impact assessment for the Schedule 3 Designated Project “Kai Tak Development” in accordance with the requirements in the EIA Study Brief No. ESB-152/2006. Besides, it is also the purpose of this EIA to assess the environmental impacts of three Schedule 2 Designated Projects namely:

- (1) the new distributor roads serving the planned Kai Tak Development;
- (2) the new sewage pumping stations serving the planned Kai Tak Development; and
- (3) the decommissioning of the remaining parts (Ex-GFS Building and Radar Station) of the former Kai Tak Airport

in order to apply for the Environmental Permits for the construction and operation of these three Schedule 2 Designated Projects.

- 1.3.2 As per the requirement in Section 3.4.1 of the EIA Study Brief, this EIA has been conducted using the best and the latest information available during the course of the EIA.

1.4 Objectives and Scope of the EIA Study

- 1.4.1 According to the EIA Study Brief (No. ESB-152/2006), the scope of this EIA Study shall cover all the developments proposed within the boundary of KTD. The EIA Study shall address the key issues described below, together with any other key issues identified during the course of the EIA Study and the cumulative environmental impacts of the Project, through interaction or in combination with other existing, committed, and planned and known potential developments in the vicinity of the Project:

- (i) The overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project and associated works, and their related stage implementation;
- (ii) The conditions and requirements for mitigating environmental nuisances associated with introducing the Project as a new urban development in the existing environs close to an embayed area with known pollution problems;

- (iii) The conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
 - (iv) The acceptability of residual impacts after the staged as well as the full implementation of the Project, the associated works and the related proposed mitigation measures.
- 1.4.2 The EIA Study Brief, in accordance with the Technical Memorandum on EIA Process (EIAO-TM), states the objectives for this EIA Study as follows:
- to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project and associated works;
 - to identify and describe the elements of the community and environment likely to be affected by the Project and associated works and/or likely to cause adverse impacts to the Project, including both the natural and man-made environment and associated environmental constraints;
 - to provide information on the consideration of alternatives to avoid or minimize the potential adverse environmental impacts on the sensitive uses at the Project and adjacent areas that may be subject to the adverse environmental impacts of the Project and associated works; to provide justification and constraints for selecting the preferred option(s) and to describe the part environmental factors played in the selection;
 - to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
 - to identify, describe and quantify any potential landscape and visual impacts, evaluate the significance of such impacts on sensitive receivers and propose measures to avoid or mitigate these impacts;
 - to identify and quantify any potential losses or damage to flora, fauna and natural habitats and to propose measures to avoid or mitigate these impacts;
 - to identify any negative impacts on site of cultural heritage and built heritage resources and to propose measures to avoid or mitigate these impacts;
 - to identify the negative impacts and propose measures to avoid or provision of mitigation measures to minimize pollution, environmental disturbance and nuisance during construction and operation of the Project;
 - to investigate the feasibility, practicability, effectiveness and implications of the proposed impact avoidance or mitigation measures;
 - to identify, predict and evaluate the residual environmental impacts (i.e. after practicable avoidance or mitigation measures) and the cumulative effects expected to arise during the construction and operation of the Project and associated works (including associated decommissioning works, e.g., decommissioning of the former Kai Tak Airport) in relation to the sensitive receivers and potential affected uses;
 - to identify, assess and specify methods, measures and standards to be included in the detailed design, construction and operation of the Project and associated works (including any associated decommissioning works, e.g., decommissioning of the former Kai Tak Airport) which are necessary to mitigate these environmental impacts and cumulative effects and reduce them to the 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 identify, within the scope of this EIA study, any individual project(s) that fall under Schedule 2 of the EIAO; to ascertain whether the EIA study has adequately addressed the environmental impacts of those projects; and, where necessary, to identify the outstanding issues that need to be addressed in any further detailed EIA study; and
- to design and specify environmental monitoring and audit requirements to ensure effective implementation of the recommended environmental protection and pollution control measures.

1.5 Designated Projects under Schedule 2 of the EIAO

- 1.5.1 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.
- 1.5.2 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. **Table 1.1** lists all the Schedule 2 DPs that are contained within KTD.
- 1.5.3 Three Schedule 2 DPs, namely the Decommissioning of the Former Kai Tak Airport other than the North Apron (DP4), Kai Tak North Apron Decommissioning (DP5), and the Dredging Works for Proposed Cruise Terminal at Kai Tak (DP6), have already been covered under separate EIA Reports that were approved under the EIAO.
- 1.5.4 The environmental impacts of another three Schedule 2 DPs namely new distributor roads serving the planned KTD (DP1), new sewage pumping stations serving the planned KTD (DP2), and decommissioning of the remaining parts (Ex-GFS Building and Radar Station) of the former Kai Tak Airport (DP3a) have been adequately addressed in this Schedule 3 EIA Report. In accordance with Section 5.2 of the EIA Study Brief, a stand-alone EIA report or a separate stand-alone section of the EIA report shall be prepared for each of the individual Schedule 2 EIA projects that are identified to be adequately addressed in this Schedule 3 EIA. Each report or section shall aim to be self-sufficient in information documentation for the DEP to make decision on whether the contents meets requirements of the EIA Study Brief and relevant provisions in the EIAO-TM for that particular individual Schedule 2 EIA project. In order to fulfil this EIA Study Brief requirement, separate stand-alone section has been prepared for each of DP1, DP2 and DP3a and included as **Sections 3, 4 and 5** respectively in this EIA Report.
- 1.5.5 The rest of the Schedule 2 DPs listed in **Table 1.1** will be addressed in further detailed EIA studies by the respective project proponents in the future.
- 1.5.6 The detailed remarks on the Schedule 2 DPs identified within KTD are included in **Table 1.1**. The locations of all the Schedule 2 DPs listed in **Table 1.1** are shown in **Figure 1.2**. The locations of those Schedule 2 DPs that have been adequately addressed in this Schedule 3 EIA study are shown in **Figure 1.3**.

Table 1.1 List of Schedule 2 Designated Projects Contained within the Kai Tak Development

Item	Designated Project	EIAO Reference	Remarks	Project Proponent
DP1	New distributor roads serving the planned KTD	Schedule 2, Part I, Items A.1, A8 & A.9. Partly referred in Section 1.3 (ii) of EIA Study Brief No. ESB-152/2006.	The environmental impacts have been adequately addressed in this Schedule 3 EIA. (Individual Schedule 2 DP is presented in Section 3 of this Report)	CEDD
DP2	New sewage pumping stations serving the hinterland and 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.	The environmental impacts have been adequately addressed in this Schedule 3 EIA. (Individual Schedule 2 DP is presented in Section 4 of this Report)	CEDD / Drainage Services Department
DP3a	Decommissioning of the remaining parts (Ex-GFS Building and Radar Station) of the former Kai Tak Airport	Schedule 2, Part II, Item 1	The environmental impacts have been adequately addressed in this Schedule 3 EIA. (Individual Schedule 2 DP is presented in Section 5 of this Report)	CEDD
DP3b	Decommissioning of the remaining parts (HKAC site and existing EMSD Headquarters) of the former Kai Tak Airport	Schedule 2, Part II, Item 1	To be adequately addressed in further detailed EIA study by the respective project proponent. For the decommissioning of the HKAC, no soil remediation works would be necessary (see Section 10) and no building demolition is anticipated.	To be determined
DP4	Decommissioning of the former Kai Tak Airport other than the North Apron	Schedule 2, Part II, Item 1. Referred in Section 1.3(i) of EIA Study Brief No. ESB-152/2006.	The EIA report has been approved under EIAO (Register No.: AEIAR-114/2007).	CEDD
DP5	Kai Tak Airport North Apron decommissioning	Schedule 2, Part II, Item 1	The EIA report has been approved under EIAO (Register No.: AEIAR-002/1998).	CEDD (completed)
DP6	Dredging works for proposed cruise terminal at Kai Tak	Schedule 2, Part I, Item C.12. Referred in Section 1.3 (iv) of EIA Study Brief No. ESB-152/2006.	The EIA report has been approved under EIAO (Register No.: AEIAR-115/2007).	CEDD
DP7	Outdoor sporting facility of the proposed Stadium Complex	Schedule 2, Part I, Item O.7	To be adequately addressed in further detailed EIA study by the respective project proponent.	To be determined

Item	Designated Project	EIAO Reference	Remarks	Project Proponent
DP8	Kwun Tong Transportation Link	Schedule 2, Part I, Item A.8	To be adequately addressed in further detailed EIA study by the respective project proponent.	To be determined
DP9	400kV electricity substation and transmission line	Schedule 2, Part I, Item H.1	To be adequately addressed in further detailed EIA study by the respective project proponent.	CLP Power Hong Kong Limited
DP10	Trunk Road T2 (including the associated dredging works and reconstruction of submarine sewage outfall from Kwun Tong PTW)	Schedule 2, Part I, Items A.1, A.7, C.12 & F.6	To be adequately addressed in further detailed EIA study by CEDD.	CEDD
DP11	Central Kowloon Route	Schedule 2, Part 1, Items A.1 & A.7	To be adequately addressed in further detailed EIA study by HyD in accordance with EIA Study Brief No. ESB-156/2006.	Highways Department
DP12	Shatin to Central Link	Schedule 2, Part I, Items A.2 & A.7	To be adequately addressed in further detailed EIA study by the respective project proponent.	MTRCL
DP13a	Environmentally Friendly Transport System (if the selected transport system is rail type)	Schedule 2, Part I, Item A.2	To be adequately addressed in further detailed EIA study by the respective project proponent.	To be determined
DP13b	Maintenance Depot for Environmentally Friendly Transport System (if the selected type of transport system requires a depot)	Schedule 2, Part I, Item A.4 or A.6	To be adequately addressed in further detailed EIA study by the respective project proponent.	To be determined
DP14	Submarine gas pipeline relocation	Schedule 2, Part I, Items C.12 and H.2	To be adequately addressed in further detailed EIA study by the Hong Kong and China Gas Company Limited in accordance with EIA Study Brief No. ESB-171/2007.	HK and China Gas Co. Ltd.

Item	Designated Project	EIAO Reference	Remarks	Project Proponent
DP15	Pumping station of DWFI Compound for JVBC	Schedule 2, Part I, Item F.3	To be adequately addressed in further detailed EIA study by the respective project proponent.	Drainage Services Department
DP16	Upgrading of Kwun Tong Sewage Preliminary Treatment Works	Schedule 2, Part I, Item F.1	To be adequately addressed in further detailed EIA study by the respective project proponent.	Environmental Protection Department

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

1.5.8 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 deck 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.

1.5.9 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 and the Environmental Permit No. EP-314/2008 covering PS1 and PS3 had been issued to DSD on 6 October 2008. 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 reprovision 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.

1.5.10 DP3a & b - Decommissioning of the remaining parts of the former Kai Tak Airport

- The scope of DP3a and DP3b is primarily to decommission the remaining facilities, structures and buildings 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 remaining sites within the former Kai Tak Airport yet to be decommissioned include the ex-GFS building and the Radar Station in the South Apron area (under DP3a), and the Hong Kong Aviation Club (including the adjacent area) and the EMSD Headquarters in the North Apron area (under DP3b). For the decommissioning of the Hong Kong Aviation Club, no soil remediation works would be necessary (see **Section 10**) and no building demolition is anticipated.
- The decommissioning of airport facilities is classified as DP under Item 1, Part II, Schedule 2 of the EIAO.

1.5.11 DP4 - Decommissioning of the former Kai Tak Airport other than the North Apron

- This DP proposes to decommission the remaining structures and buildings and the abandoned facilities associated with the former Kai Tak Airport and to clean up any contaminated sites within the former Kai Tak Airport other than the North Apron. The objectives of this DP are to:
 - (i) Demolish remaining existing structures / building and remove abandoned facilities of the former Kai Tak Airport within the project boundary of this DP including the off-shore disused fuel dolphin and the associated connecting abandoned fuel pipelines;
 - (ii) Identify and clean up contaminated areas associated with the previous airport operation within the project boundary of this DP as identified during the EIA; and
 - (iii) Implement appropriate mitigation measures to ensure the site would be safe and free of hazards for the planned future use.
- This decommissioning project is classified as DP under Item 1, Part II, Schedule 2 of the EIAO. The potential environmental impacts arising from this DP have been assessed in the approved EIA report (EIAO Register No.: AEIAR-114/2007).

1.5.12 DP5 - Kai Tak Airport North Apron decommissioning

- Kai Tak Airport North Apron covers an area of about 164 hectares. The purpose of this DP is to decommission the disused facilities and clean up the ground contaminations at the north apron of the former Kai Tak Airport for providing ground work for future residential, commercial and industrial development and landscaping. The key activities of the DP include decommission of airport related facilities, decontamination of the airport site, building and pavement demolition and site preparation. The potential environmental impacts arising from this DP have been assessed in the approved EIA report (EIAO Register No.: AEIAR-002/1998). All the decommissioning and decontamination works associated with this DP have already been completed.

1.5.13 DP6 - Dredging works for proposed cruise terminal at Kai Tak

- Development of the cruise terminal at Kai Tak would require dredging operations exceeding 500,000m³ at the existing seawall at the southern tip of the former Kai Tak Airport runway for construction of a berth structure and transition structures, and the seabed fronting the new berth structure to provide necessary manoeuvring basin. The dredging works is classified as a DP under Item C.12, Part I, Schedule 2 of the EIAO. The potential environmental impacts arising from this DP have been assessed in the approved EIA report (EIAO Register No.: AEIAR-115/2007).

1.5.14 DP7 – Open air concert venue and outdoor sporting facility of the proposed Stadium Complex

- The Stadium Complex site is located on the southeastern side of the former Kai Tak Airport Terminal Building which will be in the central district of KTD. The proposed Stadium Complex will provide 40,000 to 50,000 seats and includes a main and a secondary stadium, offices, possible commercial facilities and other supporting facilities.
- The proposed main Stadium with a capacity to accommodate more than 10,000 persons is classified as a DP under Item O.6 & O.7, Part I, Schedule 2 of the EIAO. The proposed Stadium Complex will be designed, constructed and operated by the others. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by the respective project proponent.

1.5.15 DP8 - Kwun Tong Transportation Link

- The separation between Kwun Tong waterfront and the Runway tip is around 600m and the walking distance between key destinations on either side could be over 1km. Given the very strong public request and in view of the potential economic and social benefits in providing such link, a reservation has nevertheless been made on the RODP.
- The implementation strategy of such transportation link is still under investigation and it will be designed, constructed and operated by the others. Since the proposed transportation link would constitute a road or railway bridge more than 100 m in length between abutments, it would therefore be classified as a DP under Item A.8, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by the respective project proponent.

1.5.16 DP9 – 400kV Electricity Substation

- New 400kV electricity substation will be provided at Site 2A7 to cater for the electricity demand generated by KTD. The (400 kV) substation and transmission line are classified as a DP under Item H.1, Part I, Schedule 2 of the EIAO.
- The Electro-Magnetic Field (EMF) effects would be the operational issue of a 400kV electricity substation. With reference to the Project Profile for Extension Project for Tsuen Kwan O 400kV substation, the electric and magnetic field strength of a 400kV electricity substation is well below relevant criteria even at substation boundary (~10m from the substation building). Given the distance between the proposed electricity substation at Site 2A7 and the adjacent sub-divisional fire station, ambulance depot with department quarters (Site 2A8) and the nearest residential site (Site 2B6) is 10m and 35m respectively. The EMF effects would be insignificant.
- In addition, the new substation will be designed, constructed and operated by the respective electricity provider. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by the respective project proponent.

1.5.17 DP10 – Trunk Road T2

- The proposed Trunk Road T2 starting at the downstream end of Kai Tak Nullah is a dual 2-lane trunk road runs mostly at grade along the South Apron area and then drops down after crossing the Jordan Valley multi-cells box culvert running in tunnel form beneath the Kwun Tong Typhoon Shelter (KTTS) and further connects with Tseung Kwan O-Lam Tin Tunnel at Cha Kwo Ling side. The proposed Road T2 is about 3.6km long with 2km long of immersed tunnel. For the construction of the immersed tunnel, dredging works would be required in the vicinity of the tunnel alignment along the waterfront of the Kwun Tong area. It will also be required to realign a section of the existing Kwun Tong submarine outfall. The estimated total dredging volume would likely exceed 500,000 m³. Road T2 is classified as a DP under Items A.1, A.7, C.12 & F.6, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and separately submitted under the EIAO by CEDD.

1.5.18 DP11 – Central Kowloon Route (CKR)

- The proposed CKR is a 4.7km long dual 3-lane trunk road, including a dual 3-lane tunnel of about 3.9km length. On the west, it connects with the West Kowloon Highway at Yau Ma Tei Interchange and transverses across the Kowloon Peninsula. On the east, it matches with Road T2 at the mouth of Kai Tak Nullah and interchanges with Kai Fuk Road and Kai Cheung Road. It is mainly an underground route with both ends of connecting elevated structures.
- The proposed CKR will be an expressway and is classified as a DP under Items A.1 and A.7, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a separate EIA report to be prepared and submitted under the EIAO by the Highways Department in accordance with the EIA Study Brief No. ESB-156/2006 issued under the EIAO in November 2006.

1.5.19 DP12 – Shatin to Central Link (SCL)

- The proposed SCL is a railway extension of the Ma On Shan Railway commencing at the existing MTRC Tai Wai Station, terminating in the Central Business District of Hong Kong Island at a station entitled Central West. Part of the route falls within the Kai Tak Development area. The tunnel section will likely be constructed inside the Kai Tak Development. The Kai Tak Station and To Kwa Wan Station of the proposed SCL will be located inside the Kai Tak Development.
- The proposed SCL is classified as a DP under Items A.2 and A.7 Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by the respective project proponent.

1.5.20 DP13a & DP13b – Environmentally Friendly Transport System (if the selected transport system is rail type and requires a depot)

- The transport depot for the proposed Environmentally Friendly Transport System (EFTS) is still subject to further detailed study and will be designed, constructed and operated by private developer. Based on the EFTS routings reserved on the RODP, a depot is required as the maintenance and storage facilities for the EFTS.
- At this time, the design for EFTS depot is generic, with no detail provided, and the requirements and layout of the maintenance facility are subject to development as the planning and system design progresses, which would be investigated by the future developer / operator of the EFTS.
- If the proposed transport depot is located less than 200m from the nearest boundary of an existing or planned residential area; place of worship; educational institution; or health care institution, it would be classified as a DP under Item A.6, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by the respective project proponent.

1.5.21 DP14 – Submarine Gas Pipeline Relocation

- Twin 400mm diameter steel submarine gas pipelines are currently aligned 235m west of and parallel to the former Kai Tak Airport runway. The pipelines serve as a strategic gas supply to Hong Kong Island and is covered under an existing wayleave agreement. They run between a gas offtake and pigging station at Ma Tau Kok and a gas pigging station at Quarry Bay. The existing pipeline is located within the manoeuvring space and the dredging zone of the Phase II Berth of the proposed cruise terminal at Kai Tak. Hence, the pipeline would need to be reprovisioned before dredging can commence for the Phase II Berth.
- The proposed submarine gas pipeline relocation is classified as a DP under Items C.12 and H.2, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a separate EIA report to be prepared and submitted under the EIAO by the Hong Kong and China Gas Company Limited in accordance with the EIA Study Brief No. ESB-171/2007 issued under the EIAO in November 2007.

1.5.22 DP15 – Pumping Station of DWFI Compound for JVBC

- In order to alleviate the pollution problem at the Kai Tak Approach Channel (KTAC), the Drainage Services Department (DSD) will commission a project which includes the construction of a dry weather flow intercepting (DWFI) compound and sewage pumping station and the associated discharge pipe at JVBC.
- The proposed sewage pumping station of the DWFI compound, is with an installed capacity of more than 2000 m³ per day and is located within 150m from a planned hospital development, so the proposed sewage pumping station is classified as a DP under Item F.3, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by DSD.

1.5.23 DP16 – Upgrading of Kwun Tong Sewage Preliminary Treatment Works

- For the long-term sewerage impact, the sewerage impact assessment results show that the capacity of To Kwa Wan PTW would be exceeded only because of the potential population increase in Kwun Tong TPTW catchments in 2030 and beyond. It is understood that the project of investigation for the upgrading of Kwun Tong Sewage Preliminary Treatment Works by EPD will commence in June/July 2008 and will last for 17 months. The details of the upgrading of Kwun Tong PTW will be determined under that project.
- The proposed upgrading of Kwun Tong PTW is classified as a DP under Item F.1, Part I, Schedule 2 of the EIAO. The associated environmental impacts will be adequately addressed in a further detailed EIA study to be prepared and submitted under the EIAO by EPD.

1.5.24 The proposed 600m gap opening at the northern section of the former Kai Tak Airport runway (see Section 2.8.17 and 9.4.7) serve to improve the water circulation and water quality in KTAC. The KTAC is part of the Victoria Harbour and the proposed gap opening works is not considered as a drainage channel or river training and diversion works as described under Item I.1, Part 1, Schedule 2 of the EIAO or other designated projects listed in Schedule 2 of the EIAO.

1.6 **Relevant Approved EIA Reports**

1.6.1 This EIA study has made reference to previously approved EIA studies which are relevant to the Project. These EIA studies have been reviewed and findings have been incorporated where appropriate in this EIA study. The relevant EIA reports include:

- (i) Comprehensive Feasibility Study for the Revised Scheme of South East Kowloon Development (SEKDCFS) (EIAO Register No. AEIAR-044/2001, approved with conditions on 25 September 2001);
- (ii) Kai Tak Airport North Apron Decommissioning EIA Report (EIAO Register No. AEIAR-002/1998, approved with conditions on 4 September 1998);
- (iii) Decommissioning of the former Kai Tak Airport other than the North Apron (EIAO Register No. AEIAR-114/2007, approved with conditions on 19 December 2007); and
- (iv) Dredging works for proposed cruise terminal at Kai Tak (EIAO Register No. AEIAR-115/2007, approved without conditions on 19 December 2007).

1.7 Structure of this Report

- 1.7.1 The background of the Project and objectives of this EIA Report together with the list of identified Schedule 2 DPs are introduced in Section 1. A description of the Project is provided in Section 2. Separate stand-alone section for each of the individual Schedule 2 DPs, i.e. DP1, DP2 and DP3a as listed in Table 1.1, that have been adequately addressed under this Schedule 3 EIA are presented in Sections 3 to 5.
- 1.7.2 Sections 6 to 16 detail the results of the environmental impact assessment, covering relevant legislation, environmental conditions, assessment criteria and methods, assessment findings, and the proposed mitigation measures as follows:
- Section 6 – Air Quality Impact
 - Section 7 – Noise Impact
 - Section 8 – Water Quality Impact
 - Section 9 – Waste Management Implications
 - Section 10 – Land Contamination Impact
 - Section 11 – Hazard to Life
 - Section 12 – Impact on Cultural Heritage
 - Section 13 – Landscape and Visual Impact
 - Section 14 – Ecological Impact
 - Section 15 – Fisheries Impact
 - Section 16 – Sewage and Sewage Treatment Implications
- 1.7.3 An outline of the requirements for the environmental monitoring and audit (EM&A) programme is presented in Section 17. The EM&A programme is also presented in detail in a separate EM&A Manual. A summary of the environmental impacts associated with the Project are presented in Section 18. A detailed implementation schedule of the recommended mitigation measures is provided in Section 19 and Section 20 presents the summary of environmental outcomes of this Project.