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1 Introduction

1.1 Project Background

1.1.1.1 The 30-hectare Siu Ho Wan Depot (SHD) has been highlighted in both 2015 and 2016 Policy Address as a potential railway site being explored by MTR Corporation Limited (MTRCL) (the Project Proponent) in collaboration with the Government to provide housing supply.

1.1.1.2 In the 2017 Policy Address, the Chief Executive announced the initiative to commence the statutory planning procedures for SHD this year, with the aim to provide not less than 14,000 residential units in the medium to long term.

1.1.1.3 The Lantau Development Advisory Committee (LanDAC) has also recommended “Strategic Economic and Housing Development” as the planning theme for the North Lantau Corridor. The proposed comprehensive development atop SHD is in line with the planning theme, which has been earmarked as one of the medium-term projects in the First-term Work Report published by LanDAC in January 2016.

1.1.1.4 The Project Proponent supports Government’s policy initiative to make better use of railway land to provide housing supply by commissioning a consultancy study to optimise the development potential of SHD and formulate a development scheme for a Comprehensive Residential and Commercial Development (the Project) which forms the basis of this Environmental Impact Assessment (EIA) Report. A new Siu Ho Wan Station (SHO) has been proposed along the Tung Chung Line (TCL) to meet the transportation needs of the development and enable building of a sustainable community.

1.2 Site Location and History

1.2.1.1 SHD, with a site area of about 30ha reclaimed over 20 years ago, is located in Northshore Lantau at approximately 5km east of Tung Chung New Town and Hong Kong International Airport (HKIA). It is bounded by an existing seawall maintenance access road to its north and the Lantau Airport Railway (LAR) and the North Lantau Highway (NLH) to its south (**Figure 1.1**).

1.2.1.2 SHD provides essential maintenance and support facilities such as stabling, workshop and running/heavy maintenance for the entire fleet of TCL, Airport Express Line (AEL) and Disneyland Resort Line, along with other infrastructure maintenance such as track work maintenance and engineering trains to support the maintenance functions.

1.2.1.3 The site boundary of the proposed comprehensive residential and commercial development atop Siu Ho Wan Depot (hereinafter “proposed development”) is illustrated in **Figure 1.1**. The Project would also include associated facilities, including access roads and utilities outside of the site boundary of the proposed development.

1.2.1.4 Facilities and land uses in the vicinity of SHD include:

Facilities	Landuses
Siu Ho Wan Government Maintenance Depot	Tai Ho Priority Site under New Nature Conservation Policy
Discovery Bay Tunnel Administration Building	Lantau North (Extension) Country Park
New Lantau Bus Company Siu Ho Wan Depot	Luk Hop Yuen Kung
Tai Ho Offtake and Pigging Station	Tai Ho Stream Site of Special Scientific Interest (SSSI) and Conservation Area (CA)
Siu Ho Wan Sewage Treatment Works (SHWSTW)	Pak Mong Village
Organic Waste Treatment Facilities (OWTF) Phase 1 under construction	Coastal Protection Area (CPA)
Siu Ho Wan Water Treatment Works (SHWWTW)	
Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weigh Station	
North Lantau Refuse Transfer Station	

Siu Ho Wan Government Maintenance Depot (at ~90m from proposed development)

1.2.1.5 Siu Ho Wan Government Maintenance Depot is located at about 90m to the southeast of the proposed development. It is currently occupied by Electrical and Mechanical Services Department (EMSD), Architectural Services Department (ArchSD) and Highways Department (HyD). It provides maintenance services for roads, public facilities and government vehicles in North Lantau.

Discovery Bay Tunnel Administration Building (at ~110m from proposed development)

1.2.1.6 Discovery Bay Tunnel Administration Building is located at about 110m to the southeast of the proposed development. It is the administration and toll area for transportation accessing Discovery Bay.

New Lantao Bus Company Siu Ho Wan Depot (at ~140m from proposed development)

- 1.2.1.7** New Lantao Bus Company Siu Ho Wan Depot is located at about 140m to the southeast of the proposed development. It is one of the bus maintenance depots of New Lantao Bus Company located on Cheung Tung Road.

Tai Ho Offtake and Pigging Station (at ~280m from proposed development)

- 1.2.1.8** Tai Ho Offtake and Pigging Station is located at about 280m to the south of the proposed development. It is operated by the Hong Kong and China Gas Company Limited to facilitate the launch and receive of the pipeline inspection tools for pigging.

Siu Ho Wan Sewage Treatment Works (at 430m from proposed development)

- 1.2.1.9** Siu Ho Wan Sewage Treatment Works is located at about 430m to the east of the proposed development. It is a chemically enhanced primary treatment works operated by the Drainage Services Department (DSD). It is designed to provide sewage treatment services for the population in Chek Lap Kok, Tung Chung and Disneyland, etc.

Organic Waste Treatment Facilities Phase 1 under construction (at ~770m from proposed development)

- 1.2.1.10** Organic Waste Treatment Facilities Phase 1 is located at about 770m to the northeast of the proposed development. It has a capacity of 200 tonnes of organic waste per day. Anaerobic digestion would be adopted as core technology for converting the organic waste into biogas and compost. It is expected that the facilities would be commissioned in 2017.

Siu Ho Wan Water Treatment Works (at ~840m from proposed development)

- 1.2.1.11** Siu Ho Wan Water Treatment Works is located at about 840m to the east of the proposed development. It is designed to supply water to developments in north Lantau. Different facilities, including chemical facilities, sludge treatment, are installed within the treatment works. In addition, the treatment works is classified as a Potentially Hazardous Installation (PHI) due to the large volume of chlorine stored on site.

Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weigh Station (at ~940m from proposed development)

- 1.2.1.12** Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weigh Station is located at about 940m to the northeast of the proposed development and it is currently operated by the Hong Kong Police Force.

North Lantau Refuse Transfer Station (at ~1km from proposed development)

1.2.1.13 North Lantau Refuse Transfer Station is located at about 1km to the northeast of the proposed development. The current throughput capacity is 650 tonnes per day. The main purpose of the refuse transfer station is to compact and containerise the waste into purposely built containers for onward transportation to the West New Territories Landfill.

Tai Ho Priority Site (at ~110m from proposed development)

1.2.1.14 Tai Ho Priority Site under New Nature Conservation Policy is located at about 110m to the south / southwest of the proposed development and physically separated by the 40m wide NLH. It has a narrow shallow flat plain which rises sharply to Sunset Peak. Different habitats, including shrubland, grassland, riparian woodland, streams and seasonal marshes, are found in the Priority Site.

Lantau North (Extension) Country Park (at ~230m from proposed development)

1.2.1.15 Lantau North (Extension) Country Park is located at about 230m to the south and separated by the 40m wide NLH and occupies a total area of 2,200 ha. Thick woodlands with diverse flora could also be found within the country park. A number of established hiking trails, including the Lo Fu Tau Country Trail and the Hong Kong Olympic Trail are also located within the country park.

Coastal Protection Area (CPA) near Tai Ho Wan (at ~290m from proposed development)

1.2.1.16 According to the latest Draft Tai Ho Outline Zoning Plan (No. S/I-TH/1), portions of the coastal area of Tai Ho Wan are zoned CPA which are intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment. The closest CPA is located at about 290m to the south of the proposed development.

Luk Hop Yuen Kung (at ~770m from proposed development)

1.2.1.17 Luk Hop Yuen Kung is a Taoist Temple which is located at about 770m to the south of the proposed development. It was built in 1962 and next to Tai Ho Wan.

Tai Ho Stream Site of Special Scientific Interest (at ~880m from proposed development) and Conservation Area (at ~820m from proposed development)

1.2.1.18 Tai Ho Stream is located at about 880m to the southwest of the proposed development. It was designated as a Site of Special Scientific Interest (SSSI) in 1999 with a total area of 5 ha. In addition, the Tai Ho Stream is classified as one of the 33 ecologically important streams by Agriculture, Fisheries and Conservation Department (AFCD). Rich ecological resources (including mangroves and mudflat) could be found in this SSSI. According to the latest Draft Tai Ho Outline Zoning Plan (No. S/I-TH/1), buffer areas on both sides of Tai Ho Stream SSSI are zoned CA in order to protect its habitats. The closest CA is located at about 820m to the south of the proposed development.

Pak Mong Village (at ~1.2km from proposed development)

1.2.1.19 Pak Mong Village is located at about 1.2km to the southeast of the proposed development and is a village in Tai Ho.

1.3 The Project

1.3.1.1 Key elements as described in EIA Study Brief (ESB-294/2016), the proposed development includes the following:

- Topside development including podium, development of residential towers with building height of about +86mPD to about +106mPD to provide about 14,000 flats, along with commercial / retail facilities, schools and kindergartens, car parking and loading / unloading facilities, public transport interchange (PTI), utility plants rooms and other supporting facilities.
- Upgrading of the sewerage network including installation of new sewage pumping stations and construction of rising mains to cater for sewage generated by the Project;
- A new Siu Ho Wan Station (SHO) and the associated track works;
- Railway depot replanning works within the existing site boundary; and
- Construction of concrete slab within the existing depot for podium decking and property enabling works for the topside development.

- 1.3.1.2** After the issue of EIA Study Brief (ESB-294/2016), more design details on depot replanning and SHO construction were developed. It was proposed to prepare two EIA studies to cover respectively the topside development related works (SHD Topside Development EIA) under ESB-294/2016 and railway related works (Railway EIA) under ESB-296/2016. The arrangement of two separate EIA studies respectively for topside development and railway related works is to streamline for project implementation and for the ease of reference of the public.
- 1.3.1.3** According to the latest arrangement, key elements to be implemented under this Project only include the topside development and the upgrading of the sewerage networks with installation of new sewage pumping station and construction of rising mains. Other key elements including the railway depot replanning, construction of concrete slab above the depot, and the new SHO and the associated track works will be addressed in another EIA report for Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works (Railway EIA), which would be submitted separately for approval under the Environmental Impact Assessment Process of the EIAO.
- 1.3.1.4** This SHD Topside Development EIA and the Railway EIA have been conducted concurrently. Potential environmental interface issues have been addressed in detail collaboratively in the course of the two EIA studies, and findings presented to address the corresponding requirements of the two EIA study briefs (ESB-296/2016 and ESB-294/2016). The two studies have also assessed cumulative impacts of all project elements covered in these two study briefs.
- 1.3.1.5** The Project would also include the eastern connection access on Sham Shui Kok Drive and the western access via Tai Ho Interchange. The eastern connection access on Sham Shui Kok Drive is an at-grade road of about 1000m while the western access via Tai Ho Interchange is a short viaduct of approximately 50m long. The environmental impacts of the eastern connection access and the western access during construction and operational stages would be included in this EIA study. For western access, which would be the access to both Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works (SHO and SHD Replanning Works) and the Project, may be constructed under the Project or the SHO and SHD Replanning Works which would be further delineated in the detailed design stage, both Railway EIA and SHD Topside Development EIA assessed relevant impact associated with the construction and operation of the western access as conservative case scenario.
- 1.3.1.6** The location plan for the proposed development and associated infrastructure works to be implemented is shown in **Figure 1.1**. More detailed description of the proposed comprehensive residential and commercial development atop Siu Ho Wan Depot is given in **Section 2**.

1.3.1.7 Despite the implementation strategy that only some of the elements in EIA Study Brief (ESB-294/2016) will be implemented under this project, the impacts caused by other elements that are described in EIA Study Brief (ESB-296/2016) but covered in the Railway EIA would also be described in this EIA to satisfy the statutory requirements in EIA Study Brief (ESB-294/2016). The cumulative impacts of all elements in EIA Study Brief (ESB-294/2016) will also be discussed in this EIA.

SHO and SHD Replanning Works

1.3.1.8 The SHO will be implemented to meet the future demand of topside development. The construction of SHO and the associated modification of railway tracks will commence in 2019 and are targeted for completion by 2026. The overall environmental impacts including fugitive dust, airborne noise, water quality, ecology, fisheries, sewage and sewerage implications, waste, land contamination, landscape and visual and hazard to life during construction phase of the Project and they have been addressed in this EIA report. In addition, overall impacts on air quality, fixed noise, rail noise, water quality, ecology, fisheries, sewage and sewerage implications, waste, land contamination, hazard to life, and landscape and visual during operational phase are also addressed in this EIA report.

1.3.1.9 Similarly, SHD replanning works will be implemented to enable the construction of the proposed development. The construction of SHD replanning works will commence in 2019 and are targeted for completion by 2036. Hence, overall environmental impacts including fugitive dust, airborne noise, water quality, ecology, fisheries, sewage and sewerage implications, waste, land contaminations, hazard to life, and landscape and visual during construction phase of the Project will be addressed in this EIA report. Since the construction of SHD replanning works will be implemented in stages, environmental impact during interim stages will also be addressed. In addition, overall impacts on air quality, fixed noise, rail noise, water quality, ecology, fisheries, waste, land contamination, sewage and sewerage implications, hazard to life, and landscape and visual during operational phase are addressed in this EIA report.

1.4 EIA Study Brief

1.4.1.1 In accordance with the requirements of Section 5(1) of the EIAO, a Project Profile (No. PP-542/2016) for the Project was submitted to the Director of Environmental Protection (DEP) for application for an EIA Study Brief on 20 July 2016. Pursuant to Section 5(7)(a) of the EIAO, the DEP issued a Study Brief (No.: ESB-294/2016 dated 1 September 2016) for the EIA study.

1.4.1.2 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project and related activities that take place concurrently. This information will contribute to decisions by the Director on:

- The acceptability of any adverse environmental consequences that are likely to arise as a result of the Project;
- The conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
- The acceptability of residual impacts after the proposed mitigation measures are implemented.

1.5 Designated Projects

1.5.1.1 The Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot is a DP under Item 1 Schedule 3 of EIAO – Engineering feasibility study of urban development projects within a study area covering more than 20ha or involving a total of population of more than 100,000.

1.5.1.2 It also comprises the following which are classified as a Designated Project (DP) as per Schedule 2, Part I of the EIAO.

- Item F.3(b) – A sewage pumping station with an installed capacity of more than 2000m³ per day and a boundary of which is less than 150m from an existing or planned residential area or educational institution (i.e. ultimate sewage pumping station);
- Item A.2 – Railway Station (i.e. SHO and associated trackworks on AEL/TCL); and
- Item A.4 – A railway siding, depot, maintenance workshop, marshalling yard or goods yard (i.e. operation of SHD).

1.5.1.3 As discussed in **Section 1.3**, Schedule 2 DPs Item A.2 and Item A.4 are railway related DPs which will be separately covered in the Railway EIA to be submitted for approval under the EIAO in order to streamline for project implementation and for the ease of reference of the public. Nonetheless, Schedule 2 DPs Item A.2 and Item A.4 are discussed in this EIA to fulfil the statutory requirements of ESB-294/2016.

Non-Designated Projects in this Project

1.5.1.4

Apart from the Schedule 2 Designated Projects (DP) elements (Details refer to **Section 1.5**), there are a number of Non-Schedule 2 DP elements as discussed in **Sections 1.3.1.1 to 1.3.1.5**. However, should there be any change to the non-Schedule 2 DP element of the proposed development (including but not limited to development scheme, parameter and implementation programme) after the approval of this EIA report, supplementary environmental assessments should be carried out as required by relevant authorities to satisfy the latest planning mechanism and other statutory requirements at that time without the need for a new EIA. The non-DP elements are summarized in **Table 1.1**.

Table 1.1 Summary of key non-DP elements within Proposed Development

Non-DP	Sub-elements
Topside Development	<ul style="list-style-type: none"> • Podium deck • Residential towers • Schools • Utilities • Vehicular transportation facilities • Other supporting facilities, e.g. clubhouses, amenity area, children's play area, civic square, outdoor exercise area etc.
Sewerage Connections	<ul style="list-style-type: none"> • Rising mains connecting to SHWSTW for topside development
Roads	<ul style="list-style-type: none"> • Eastern Access connection to future Road P1 (SHW Section) or Sham Shui Kok Drive during interim period • Western Access connection access via Tai Ho Interchange

1.6 Objectives of the EIA Study

1.6.1.1 According to **Section 1.5** of the EIA Study Brief (No.: ESB-294/2016), this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project and associated works that will take place concurrently. This information will contribute to decisions by the Director of Environmental Protection on:

- The overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project;
- The conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
- The acceptability of residual impacts after the proposed mitigation measures are implemented.

1.6.1.2 The objectives of the EIA study are as follows:

- To describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project;
- To identify and describe elements of community and environment likely to be affected by the Project and / or likely to cause adverse impacts to the Project, including natural and man-made environment and the associated environmental constraints;
- To identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- To identify and quantify any potential losses or damage to flora, fauna and natural habitats;
- To propose the provision of infrastructure or mitigation measures to minimize pollution, environmental disturbance and nuisance during construction and operation of Project;
- To investigate the feasibility, effectiveness and implications of the proposed mitigation measures;
- To identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation phases of the Project 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 which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;

- To design and specify environmental monitoring and audit requirements; and
- To identify any additional studies necessary to implement the mitigation measures of monitoring and proposals recommended in the EIA report.

1.7 Concurrent Projects

1.7.1.1 The potential impacts of concurrent projects during the construction and operation phase of the proposed Project are identified as follows. **Figure 1.2** shows the locations of these concurrent projects, which includes the following:

- Tung Chung New Town Extension;
- Additional sewage rising main and rehabilitation of the existing sewage rising main between Tung Chung and Siu Ho Wan;
- Hong Kong – Zhuhai – Macao Bridge (HZMB) Hong Kong Boundary Crossing Facilities (HKBCF);
- Topside development at the HKBCF Island;
- Hong Kong International Airport (HKIA) Three-Runway System (3RS);
- North Commercial District at the HKIA;
- Organic Waste Treatment Facilities Phase I (OWTF);
- Tuen Mun – Chek Lap Kok Link (TM-CLK Link);
- HZMB Hong Kong Link Road (HKLR); and,

1.7.1.2 Detailed justifications on consideration of various environmental cumulative impacts from individual concurrent projects has been included in corresponding technical sections.

Tung Chung New Town Extension (TCNTE)

1.7.1.3 The project comprises approximately 130ha of reclaimed land and 120ha existing land for the development of Tung Chung East and Tung Chung West developments respectively. Besides the residential and commercial development, different infrastructural works would also be carried out. The Road P1 (Tung Chung - Tai Ho Section) would also be built under the Tung Chung New Town Extension project. The construction phase of the project would commence in 2017 and would be completed by 2030.

1.7.1.4 There is a large separation distance of about 1.2km between the Tung Chung New Town Extension (Tung Chung East Planning Area) and the proposed development. However, the Road P1 (Tung Chung – Tai Ho Section) is only 50m away from the western boundary of the proposed development. Cumulative environmental impacts (including airborne noise and water quality) during construction phase of the Project is therefore anticipated. The vehicular emissions and road traffic noise generated would have certain cumulative impacts on the Project. Cumulative visual impacts may be generated due to visual character changes by the appearance and building structures of TCNTE development.

Additional sewage rising main and rehabilitation of the existing sewage rising main between Tung Chung and Siu Ho Wan

1.7.1.5 The scope of this concurrent project comprises construction of an additional sewage rising main of about 6.5km with diameter 1,200mm from Tung Chung sewage pumping station to Siu Ho Wan sewage treatment works and rehabilitation of the existing sewage rising main with diameter of 1,200mm.

1.7.1.6 This concurrent project has no major site formation and thereby it is anticipated that there is no cumulative impact on fugitive dust. However, use of powered mechanical equipments (PMEs) would lead to cumulative impacts on airborne noise.

Hong Kong – Zhuhai – Macao Bridge (HZMB) Hong Kong Boundary Crossing Facilities (HKBCF)

1.7.1.7 The proposed HZMB HKBCF is built on an artificial island that reclaimed from open waters off northeast of HKIA. The HZMB HKBCF comprises cargo and passenger clearing and vehicle inspection facilities, government offices, public transport interchange and the like. It is connected by the Hong Kong-Zhuhai-Macao Bridge Link Road (HZMB HKLR), TM-CLK Link, and other roads to HKIA.

1.7.1.8 The construction of HZMB HKBCF commenced in 2011, and is targeted to achieve readiness by the end of 2017. However, given the large separation distance of about 2km from HZMB HKBCF, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project.

Topside Development of HKBCF

1.7.1.9 Besides the essential cargo and passenger clearing and vehicle inspection facilities and government offices on HZMB HKBCF, a planning, engineering and architectural study is now being conducted to explore the feasibility of developing large-scale hotel, dining, shopping and entertainment facilities to develop bridgehead economy and optimize the HKBCF. There is currently no programme for the construction of the topside development of HKBCF.

1.7.1.10 Given the large separation distance of about 2km between HZMB HKBCF and the proposed development, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project.

Hong Kong International Airport (HKIA) Three-Runway System (3RS)

1.7.1.11 The 3RS would be located on a new reclaimed land of approximately 650ha to the north of the HKIA. The project would involve a new third runway with associated taxiways, aprons and aircraft stands, new passenger concourse building, expansion of the existing Terminal 2 Building and related works and facilities.

1.7.1.12 Given the large separation distance of about 5km between 3RS and the proposed development, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project.

North Commercial District (NCD) at the Hong Kong International Airport (HKIA)

1.7.1.13 The area of NCD is currently occupied by the Asia-World Car Park and the Skycity Nine Eagles Gold Course. Different commercial developments and business activities, such as hotel, office, retail and recreational facilities would be developed within the NCD. The planning studies of the NCD is now being conducted by the Airport Authority Hong Kong and first phase of NCD is targeted for completion in 2021.

1.7.1.14 Given the large separation distance of about 4.2 km between the NCD and the proposed development, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project.

Organic Waste Treatment Facilities – Phase 1 (OWTF-Phase 1)

1.7.1.15 OWTF-Phase 1 is a biological treatment facility with a capacity of about 200 tonnes per day for converting organic waste into reusable compost and biogas. The facility comprises pre-treatment facilities, an anaerobic digestion process, post-treatment facilities, energy recovery system and air and wastewater treatment facilities. It is anticipated that the OWTF-Phase 1 would be commissioned in 2017.

1.7.1.16 Due to the large separation of about 770m between OWTF-Phase 1 and the proposed development and the construction of OWTF-Phase 1 would be completed before the commencement of construction phase of the proposed Project, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project. Besides, odour emission from OWTF is also anticipated during operational phase.

Tuen Mun – Chek Lap Kok Link (TM-CLK Link)

1.7.1.17 TM-CLK Link includes a 9-km long dual two-lane carriageway between Tuen Mun and North Lantau. This strategic road link is designed to meet the anticipated road traffic demand generated by HZMB and to provide significant reduction in travelling distance and time across, northwest New Territories, HKIA and North Lantau.

1.7.1.18 The TM-CLK Link Southern Connection is anticipated to be completed in the 1st half of 2019 at the earliest whilst the Northern Connection is anticipated to be completed by 2020 at the earliest. Therefore there would be no cumulative impacts during construction phase. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project and would be addressed in this EIA study.

Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR)

1.7.1.19 The HZMB HKLR is a 12km-long road connecting the HZMB HKBCF to the HZMB Main Bridge. The HZMB HKLR comprised of a 9.4km long viaduct from Hong Kong boundary to Scenic Hill on the airport island, a 1km long tunnel section to the land formation formed along the east coast of the airport island and a 1.6km long at-grade road section on the land formation connecting to HZMB HKBCF. The construction of HZMB HKLR commenced in 2012 and is target to achieve readiness for commissioning by end 2017.

1.7.1.20 Given the large separation distance of about 3.8km between HZMB HKLR and the proposed development, cumulative environmental impacts during construction phase of the Project is not anticipated. However, the vehicular emissions and road traffic noise would have certain cumulative impacts on the Project.

Table 1.2 Potential impacts of concurrent projects

Concurrent Projects ^[5]	Project Proponent	Programme		Potential Cumulative Environmental Impacts	
		Start	Complete	Construction Phase	Operation Phase
Tung Chung New Town Extension (Construction of Road P1 (Tung Chung – Tai Ho Section))	CEDD	2017	2030	<ul style="list-style-type: none"> • Airborne noise • Water quality 	<ul style="list-style-type: none"> • [2] • Landscape and Visual
Additional sewage rising main and rehabilitation of the existing sewage rising main between Tung Chung and Siu Ho Wan	DSD	2016	2025	<ul style="list-style-type: none"> • Airborne noise • Water quality 	<ul style="list-style-type: none"> • Nil
HZMB HKBCF	HyD	2011	2017	<ul style="list-style-type: none"> • [1] • [3] 	<ul style="list-style-type: none"> • [2]
Topside development at the HKBCF Island ^[6]	CEDD & PlanD	-	-	<ul style="list-style-type: none"> • [1] 	<ul style="list-style-type: none"> • [2]
HKIA 3RS	Airport Authority Hong Kong	2017	2023	<ul style="list-style-type: none"> • [1] 	<ul style="list-style-type: none"> • [2]
NCD at the HKIA ^[7]	Airport Authority Hong Kong	-	[7]	<ul style="list-style-type: none"> • [1] 	<ul style="list-style-type: none"> • [2]
OWTF Phase I	EPD	2014	2016	<ul style="list-style-type: none"> • [1] • [3] • Construction Dust 	<ul style="list-style-type: none"> • [2] • Operational Phase Odour Impact • Operational Phase Air Quality Impact
TM-CLK Link	HyD	2011	<p>Northern connection: 2020 at the Earliest</p> <p>Southern connection: 1st Half of 2019 at the Earliest</p>	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • [2] • Landscape and Visual

Concurrent Projects ^[5]	Project Proponent	Programme		Potential Cumulative Environmental Impacts	
		Start	Complete	Construction Phase	Operation Phase
HZMB HKLR	HyD	2012	2017	<ul style="list-style-type: none"> • [1] • [3] 	<ul style="list-style-type: none"> • [2]

Notes:

- [1] The concurrent projects are located outside of the 500m assessment area of the proposed development.
- [2] Traffic noise and vehicular emission caused by induced traffic.
- [3] The construction phase of the concurrent projects would be completed before the commencement of construction phase of the proposed Project. Thus, cumulative environmental impacts are not anticipated.
- [4] As advised by CEDD, Siu Ho Wan (SHW) Reclamation and Road P1 (SHW Section) are in feasibility stage and has no implementation programme, thus not considered as concurrent project. These future projects, if proceed, will observe requirements in EIAO and take the SHD development as a committed project for the purpose of assessing cumulative impacts as appropriate.
- [5] Development at Siu Ho Wan and Associated Transport Infrastructures, Sediment Disposal Facility in South of Brothers, and the remaining identified Potential Near Shore Reclamation Sites in Western Waters of Hong Kong under Increasing Land Supply by Reclamation and Rock Cavern Development cum Public Engagement (i.e. Sunny Bay and Lung Kwu Tan) are also some concurrent projects in the North Lantau Waters but they would not contribute to any potential cumulative environmental impacts as the Project does not consist of any marine based development. These projects have been further discussed in **Section 9**.
- [6] This concurrent project is still under planning stage and the programme has yet to be confirmed.
- [7] First phase of NCD is targeted for completion in 2021.

1.8 Structure of This EIA Report

1.8.1.1 The structure of this EIA study is as follows:

<u>Chapter</u>	<u>Title</u>	<u>Aims</u>
1	Introduction	Introduces the project background and the objectives of the report
2	Project Description	Summarises the various options and scope for various environmental aspects Describes relevant main construction / engineering aspects for the recommended layout
3	Air Quality Impact	Presents the legislation, methodology, assessment and recommendations for air quality impacts

4	Noise Impact	Presents the legislation, methodology, assessment and recommendations for noise impacts
5	Water Quality Impact	Presents the legislation, methodology, assessment and recommendations for water quality impacts
6	Sewerage and Sewage Treatment Implications	Presents the legislation, baseline conditions, assessment methodology, impact assessment and mitigation measures required for sewerage and sewage treatment
7	Waste Management	Presents the legislation, methodology, assessment and recommendations for waste management
8	Land Contamination Impact	Presents the legislation, methodology, assessment and recommendations for land contamination
9	Ecology Impact	Presents the legislation, methodology, assessment and recommendations for ecology impacts
10	Fisheries Impact	Presents the legislation, methodology, assessment and recommendations for fisheries impacts
11	Landscape and Visual Impact	Presents the legislation, methodology, assessment and recommendations for landscape and visual impacts
12	Hazard	Presents the legislation, methodology, assessment and recommendations for hazard impacts
13	Environmental Monitoring & Audit Requirements	Presents the EM&A requirements
14	Summary of Environmental Outcomes	Presents a summary of the key environmental outcomes arising from the EIA study
15	Conclusion	Summarises the findings and concludes the overall acceptability of the project