7 Landscape and Visual Impact

7.1 Introduction

7.1.1 This Section provides an evaluation of the potential landscape and visual impact associated with the construction and operation of the Project. Mitigation measures have been proposed if considered necessary.

7.2 Relevant Legislation, Standards and Guidelines

- 7.2.1 This Landscape and Visual Impact Assessment has been conducted with reference to the local legislation, guidelines, plans and relevant studies as follows.
 - Environmental Impact Assessment Ordinance (EIAO) (Cap.499);
 - Technical Memorandum on EIA Process (EIAO-TM), Annexes 10 and 18;
 - EIAO Guidance Note No.8/2010 Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance;
 - Hong Kong Planning and Standards & Guidelines (HKPSG), particularly Chapter 4, 10 and 11;
 - Countryside Commission (1993) Landscape Assessment Guidance, UK Countryside Commission, Cheltenham;
 - Town Planning Ordinance (Cap. 131);
 - Country Parks Ordinance (Cap. 208);
 - Forest and Countryside Ordinance (Cap. 96) and Forestry Regulations;
 - Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
 - Development Bureau Technical Circular (Works) No. 4/2020 Tree Preservation;
 - Development Bureau (DEVB) Technical Circular (Works) (TC(W)) No.5/2020 Registration and Preservation of Old and Valuable Trees;
 - DEVB TC(W) No. 6/2015 Maintenance of Vegetation and Hard Landscape Features;
 - DEVB TC(W) No.3/2012 Site Coverage of Greenery for Government Building Projects;
 - DEVB TC(W) No.6/2011 Maintenance of Man-made Slopes and Emergency Works to Deal with Landslides;
 - GEO Publication No.1/2011 Technical Guidelines on Landscape Treatment for Slopes;
 - Guidelines promulgated by the Development Bureau at: http://www.greening.gov.hk/en/management;
 - Guidelines on Aesthetic Design of Pumping Station Buildings promulgated by the Drainage Services Department in Oct 2006;
 - Civil Engineering and Development Department (CEDD) Technical Circular No.06/2014 Vetting Committee on Slope Appearance;
 - Agricultural, Fisheries and Conservation Department (AFCD), Nature Conservation Practice Note No. 02/ June 2006 – Measurement of Diameter at Breast Height (DBH);

- AFCD, Nature Conservation Practice Note No. 03 The Use of Plant Names;
- Study on Landscape Value Mapping of Hong Kong.

7.3 Assessment Methodologies

Review of Planning and Development Control Framework

7.3.1 A review of the existing planning studies and documents has been undertaken as part of the baseline study to gain an insight into the planned role of the Project site, its surrounding areas, and its landscape context and to help to determine if the Project fits into the wider existing and future landscape context. This review has considered the approved Tai Po Outline Zoning Plan (OZP) No. S/TP/30. Compatibility of the Project to the landscape related land use and development control framework in the OZP.

Landscape Impact Assessment Methodology

7.3.2 The landscape assessment has been conducted in accordance with Appendix K of the EIA Study Brief No. ESB-321/2019 and with reference to the criteria and guidelines as stipulated in Annex 10 and 18 of EIAO-TM and EIAO Guidance Note No. 8/2010 to include all areas within 500m from the boundaries of the Project site (i.e. the 500m assessment area).

Identification and Examination of Baseline Landscape Resources and Landscape Character Areas

- 7.3.3 With reference to the most recently published EIA studies, literature, topographical maps and aerial photographs, available landscape resources (LRs) and landscape character areas (LCAs) within the 500m assessment area were identified and mapped on plan based on the government base map.
- 7.3.4 Supplementary field surveys were conducted to verify the extent and conditions of the identified LRs and LCAs. LCAs are broader categorizations than LRs that encompass a number of different LRs. Each LCA is a consolidated character derived from holistic reviews of various LRs that result in an overall impression of the landscape. LCAs in the 500m assessment area were mapped with reference to the Landscape Character Map of Hong Kong.
- 7.3.5 Possible landscape resources include physical landscape resources which are natural components of landscape such as soil, vegetation, water bodies (hydrology), geological and topographical features. In urban areas, man-made landscape resources include human/cultural landscape features such as parks, landscaped gardens, recreation areas, open spaces and community spaces. Urbanized areas with densely packed buildings and development infrastructure also comprise landscape resources such as buildings, retaining walls and formed slopes.

Broad-brush Tree Survey

7.3.6 A broad-brush tree survey was carried out in accordance with Appendix K of the EIA Study Brief to provide baseline information for the LRs and LCAs as well as to identify dominant tree species, overall amenity value and any plant species of conservation importance, etc. which would be potentially affected by the Project.

Assessment of Sensitivity of LRs / LCAs

7.3.7 The sensitivity of LRs and LCAs is rated as 'high', 'medium' or 'low' and are influenced by rarity, importance, quality and maturity and the ability of LRs and LCAs to accommodate change.

Identification of Sources and Magnitude of Potential Landscape Impacts

7.3.8 Potential sources of landscape impacts could arise from both construction and operation of the

Project. The magnitude of changes for assessing landscape impacts depends on the following criteria:

- Compatibility of the Project with the surrounding landscape;
- Duration of impacts under construction and operational phases;
- Scale of development; and
- Reversibility of change.
- 7.3.9 The magnitude of landscape change is classified as follows:
 - Large: the landscape or landscape resources would suffer a major change;
 - Medium: the landscape or landscape resources would suffer a moderate change;
 - Small: the landscape or landscape resources would suffer slight or barely perceptible changes;
 - Negligible: the landscape or landscape resources would suffer no discernible change.

Recommendation of Landscape Mitigation Measures

- 7.3.10 Possible landscape mitigation measures may include minimization of extent and duration of construction works, adoption of alternative design, and compensatory measures such as provision of landscape planting/ vegetation.
- 7.3.11 The following approaches, in order of priority, are advocated:
 - Avoidance approach: to avoid direct impacts;
 - Minimization approach: to minimize impacts if avoidance is not possible; and
 - Compensation approach: to compensate for significant residual impacts when there is no other alternative available.

Significance of Residual Landscape Impacts

- 7.3.12 The significance of landscape impacts before and after implementation of mitigation and enhancement measures are defined as follows:
 - Substantial: Adverse/ Beneficial impact where the proposal would cause significant deterioration or improvement in existing landscape quality;
 - Moderate: Adverse/ Beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing landscape quality;
 - Slight: Adverse/ Beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing landscape quality;
 - Insubstantial: No discernible change in existing landscape quality.
- 7.3.13 The degree of significance of landscape impacts has been derived from the combination of the magnitude of change and the sensitivity/ tolerance of the sensitive receivers to change as shown in **Table 7.1** below.

			Receptor Sensitivity										
		Low	Medium	High									
Magnitude of change	Negligible	Insubstantial	Insubstantial	Insubstantial									
	Small	Slight	Slight / Moderate	Moderate									
	Intermediate	Slight / Moderate	Moderate	Moderate / Substantial									
	Large	Moderate	Moderate / Substantial	Substantial									

Table 7.1 Impact Significance of Landscape or Visual Impact

Visual Impact Assessment Methodology

7.3.14 The visual assessment has been conducted in accordance with Appendix K of the EIA Study Brief No. ESB-321/2019 and with reference to the criteria and guidelines as stipulated in Annex 10 and 18 of EIAO TM and EIAO Guidance Note No. 8/2010 to include all areas from which the Project could be seen.

Identification and Examination of Visual Envelope (VE) and Visually Sensitive Receivers (VSRs)

- 7.3.15 Geographical Information System (GIS) software was utilized to prepare the visual envelope. By analyzing the topography and dimensions of buildings, the areas that could potentially see the development during construction and operation can be worked out. Further to the use of GIS, the study of aerial maps and site visits helped to establish locations that could and could not see the Project taking into account factors other than topography.
- 7.3.16 The local VSRs to be affected by the Project are categorized as follows.
 - Residential VSRs (R) who view the proposed Project from their homes;
 - Occupational VSRs (O) who view the proposed Project from their workplaces, institutional and educational buildings;
 - Recreational VSRs (V) who view the proposed Project when they are enjoying leisure, cultural or recreational activities;
 - Travelling VSRs (T) who view the proposed Project when they are travelling on vehicles.

Assessment of Sensitivity of VSRs

7.3.17 The sensitivity of VSRs to change is rated as 'high', 'medium' or 'low' as influenced by the type and estimated population of VSRs, quality of existing views, availability of alternate views, duration or frequency of view and degree of visibility.

Identification of Sources and Magnitude of Potential Visual Impacts

- 7.3.18 Potential sources of visual impacts could arise from both construction and operational phases of the Project. Visual impact assessment shall identify and predict the type and extent of visual impacts relating to visual compatibility with surroundings, visual obstruction and improvement of visual quality. The magnitude of changes for assessing visual impacts includes:
 - Compatibility of the Project with the surrounding landscape;
 - Duration of impacts under construction and operational phases;
 - Scale of development;
 - Reversibility of change;

- Viewing distance; and
- Potential blockage of view.
- 7.3.19 The magnitude of visual change is classified as follows:
 - Large: the VSRs would suffer a major change in their viewing experience;
 - Medium: the VSRs would suffer a moderate change in their viewing experience;
 - Small: the VSRs would suffer a small change in their viewing experience;
 - Negligible: The VSRs would suffer no discernible change in their viewing experience.

Recommendation of Visual Mitigation Measures

- 7.3.20 Possible visual mitigation measures will primarily take the form of adoption of alternative design/ orientation to avoid or minimize visual obstruction resulting from the Project, careful consideration in colour and texture treatment of building features and finishes to soften the visual effects; and provision of green features and screening to neutralize the negative impacts from hard elements.
- 7.3.21 Computer-generated photomontages will be prepared based on photographs taken at selected vantage points (to be selected and confirmed based on ground-truth surveys) to illustrate visual impacts on key VSRs at four stages (existing conditions, day 1 without mitigation measures, day 1 with mitigation measures and Year 10 with mitigation measures) to demonstrate the comparison of scenarios and the effectiveness of proposed mitigation measures over time.

Significance of Residual Visual Impacts

- 7.3.22 The significance of residual visual impacts before and after implementation of mitigation and enhancement measures are defined as follows:
 - Substantial: Adverse/ Beneficial impact where the proposal would cause significant deterioration or improvement in existing visual quality;
 - Moderate: Adverse/ Beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing visual quality;
 - Slight: Adverse/ Beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing visual quality;
 - Insubstantial: No discernible change in existing visual quality.
- 7.3.23 The degree of significance of visual impacts has been derived from the combination of the magnitude of change and the sensitivity of the visually sensitive receivers as shown in Table7.5 similar to the matrix for determining significance of Landscape Impacts.

Overall Result of Landscape and Visual Impact Assessment

- 7.3.24 An overall assessment of the acceptability, or otherwise of the impacts according to the criteria in Annex 10 of the EIAO-TM has been conducted. The overall assessment has been made on the development based on the identified landscape and visual impacts described as follows.
 - Beneficial: The impact is beneficial if the Project will complement the landscape and visual character of its setting, will comply with the relevant planning objectives and will improve overall landscape and visual quality

- Acceptable: The impact is acceptable if the assessment indicates that there will be no significant effects on the landscape, no significant visual effects caused by the appearance of the Project, or no interference with key views.
- Acceptable with Mitigation Measures: The impact is acceptable with mitigation measures if there will be adverse effects, but these can be eliminated, reduced or offset to a large extent by specific measures.
- Unacceptable: The impact is unacceptable if the adverse effects are considered too excessive and are unable to mitigate practically.
- Undetermined: The impact is underdetermined if significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required for the specific effects in question.

7.4 Review of Planning and Development Control Framework

- 7.4.1 The proposed Project site falls within the approved Tai Po Outline Zoning Plan (OZP) No. S/TP/30. The land use zones within 500m assessment area is shown in **Figure 7.1**.
- 7.4.2 The Site falls within an area largely zoned "Other Specified Uses" annotated "Sewage Treatment Works" ("OU(STW)") subject to a maximum building height of 3 storeys, with a very minor portion zoned "Other Specified Uses" annotated "Industrial Estate" ("OU(IE)") on the approved Tai Po Outline Zoning Plan (OZP) No. S/TP/30. According to the Notes of the OZP, the proposed TPSTW upgrading works of not more than 3 storeys high are regarded as 'Sewage Treatment Works' use, which is a Column 1 use always permitted on the OZP. For part of the subject site that falls within the "OU(IE)" zone, planning permission is not required as it is a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected.
- 7.4.3 The maximum building height restrictions of "OU" (Sewage Treatment Works) and "OU" (Industrial Estate) are 3 storeys and 40 mPD, respectively. According to the latest design, the maximum no. of storeys of the building would be 3 with maximum height of not more than 40mPD, which are within the building height restrictions.

7.5 Landscape Baseline

Broad-brush Tree Survey

- 7.5.1 A broad-brush tree survey was carried out in 2021 and the survey findings are provided in **Appendix 7.1**.
- 7.5.2 It is estimated that a total of 15,170 nos. of trees are within the 500m assessment area. These trees are with height ranging from 1.5 to 18m and fair in health condition and tree form in general. The dominant tree species include *Acacia confuse, Ficus microcarpa* and *Leucaena leucocephala*, which contribute about 40% of total tree quantity.
- 7.5.3 A total of 530 nos. of trees of 51 species are identified within the proposed Project site. The trees are of fair health condition and tree form with height ranging from 1.5 to 18m. The dominant tree species include *Cinnamomum burmanni, Archontophoenix alexandrae* and *Syagrus romanzoffiana*. There is no Old & Valuable Tree (OVT) but 1 no. of tree (i.e. one individual of *Aquilaria sinensis*) is of species of conservation importance. Eight individuals of *Lagerstroemia speciosa* were identified in the Project site, which are plant species listed under Forests and Countryside Ordinance (Cap. 96). However, as *Lagerstroemia speciosa* are exotic species commonly cultivated in urban area of Hong Kong, they are not considered species of conservation importance under this Project. Ten mature trees (DBH ≥ 1m / crown spread ≥

25m), including six *Ficus microcarpa* and four *Ficus benjamina*, have been identified as tree of particular interest (TPI) (details refer to **Appendix 7.1**). A summary of tree species and their quantities recorded within the Project site is provided in **Table 7.2**.

	2 Sarrey en 1100 Species and Quantit	<u> </u>	
	Botanical Name	Chinese Name	Quantity (nos.)
1	Acacia confusa	台灣相思	2
2	Acacia mangium	馬占相思	1
3	Adenanthera microsperma	海紅豆	1
4	Albizia lebbeck	大葉合歡	1
5	Aquilaria sinensis	土沉香	1
6	Archontophoenix alexandrae	假檳榔	67
7	Artocarpus heterophyllus	菠蘿蜜	1
8	Averrhoa carambola	楊桃	1
9	Bauhinia purpurea	紅花羊蹄甲	4
10	Bischofia javanica	秋楓	7
11	Bombax ceiba	木棉	1
12	Callistemon viminalis	串錢柳	6
13	Carica papaya	番木瓜	14
14	Caryota mitis	短穗魚尾葵	6
15	Cassia fistula	豬腸豆	2
16	Celtis sinensis	朴樹	2
17	Cinnamomum burmanni	陰香	71
18	Cinnamomum camphora	樟樹	13
19	Citrus maxima	柚	5
20	Clausena lansium	黄皮	1
21	Dimocarpus longan	龍眼	9
22	Dypsis lutescens	散尾葵	4
23	Elaeocarpus hainanensis	水石榕	4
24	Eriobotrya japonica	枇杷	2
25	Ficus benjamina	垂葉榕	5
26	Ficus microcarpa	細葉榕	11
27	Ficus virens	大葉榕	1
28	Hyophorbe lagenicaulis	酒瓶椰子	4
29	Lagerstroemia speciosa	大花紫薇	8
30	Leucaena leucocephala	銀合歡	5
31	Livistona chinensis	蒲葵	1
32	Macaranga tanarius var. tomentosa	血桐	51
33	Mallotus paniculatus	白楸	1
34	Mangifera indica	芒果	38
35	Melaleuca cajuputi subsp. cumingiana	白千層	16

Table 7.2 Surveyed Tree Species and Quantity within the Project Boundary

	Botanical Name	Chinese Name	Quantity (nos.)
36	Morus alba	桑樹	2
37	Musa x paradisiaca	蕉	30
38	Pachira aquatica	東瓜	2
39	Phoenix roebelenii	日本葵	1
40	Phyllanthus emblica	餘甘子	3
41	Plumeria rubra	雞蛋花	1
42	Psidium guajava	番石榴	1
43	Roystonea regia	王棕	31
44	Sapium sebiferum	烏桕	16
45	Schefflera actinophylla	傘樹	1
46	Sterculia monosperma	蘋婆	1
47	Syagrus romanzoffiana	皇后葵	56
48	Syzygium jambos	蒲桃	1
49	Trachycarpus fortunei	棕櫚	1
50	Viburnum odoratissimum	珊瑚樹	15
51	Dead tree	死樹	1
		Total	530

Landscape Resource

7.5.4 Landscape resources (LRs) identified within the 500m assessment area include amenity planting within Project site, plantation, managed grassland, mixed woodland, roadside amenity planting, inland watercourse, Tai Po Waterfront Park, Tolo Harbour and developed area. The locations of LRs are shown on **Figure 7.2** and their photographic record is provided in **Figures 7.3a** and **7.3b**. The baseline condition and sensitivity of the identified LRs are summarized in **Table 7.3**.

ID	LR	Area	Description Sens				
		(ha)					
LR 1 – Amenity Planting within Project Site							
LR 1.1	Amenity Planting within Existing TPSTW	12.17	This LR covers at grade trees within the existing TPSTW. Trees are found in the landscape areas. Approximately 483 trees can be found in this LR, composed of dominant species including <i>Cinnamomum burmanni</i> (15%), <i>Archontophoenix alexandrae</i> (13%), <i>Syagrus romanzoffiana</i> (12%) and <i>Macaranga tanarius var. tomentosa</i> (10%). The majority of them are fair health conditions and poor to fair tree forms. They are in a range of heights from 1.5m to 18m. There is no OVT but one individual of <i>Aquilaria sinensis</i> , which is protected under Cap 586 and considered as species of conservation importance, within LR 1.1. Another nine mature trees, including five <i>Ficus microcarpa</i> and four <i>Ficus benjamina</i> , have been identified as TPI within the LR1.1. The trees along the periphery of the LR form a	Medium			

Table 7.3Baseline LRs and their Sensitivity

ID	LR	Area (ba)	Description	Sensitivity
			screening and greening enhancement to the adjacent industrial estate. This LR is considered to have high tolerance to change and medium sensitivity to the development.	
LR 1.2	Amenity Planting within Proposed Expansion Site for TPSTW	1.64	The area for the proposed expansion site for TPSTW is currently used for temporary office or industrial uses (such as recycling industry). Approximately 47 trees can be found in this LR, composed of dominant species including <i>Acacia confusa</i> (24%), <i>Ficus microcarpa</i> (20%) and <i>Leucaena leucocephala</i> (11%). The majority of them are fair health conditions and poor to fair tree forms. They are in a range of heights from 2m to 14m. There is no OVT but eight individuals of <i>Lagerstroemia</i> <i>speciosa</i> *, which is protected under Cap 96 within LR 1.2. One <i>Ficus microcarpa</i> with DBH over 1000mm has been identified as TPI within the LR1. This LR is considered to have high tolerance to change and medium sensitivity to the development.	Medium
LR 2 – I	Plantation	T		
LR 2	Plantation on Shuen Wan Restored Landfill	31.71	Most of the slopes of the Shuen Wan Restored Landfill are covered by plantation. The man-made slopes surround and extend along the peripheries of the Shuen Wan Restored Landfill. LR 2 occupies over 60% of the Shuen Wan Restored Landfill. Approximately 8,948 trees can be found in this LR, composed of dominant species including <i>Acacia confuse</i> (24%), <i>Ficus microcarpa</i> (20%) and <i>Leucaena leucocephala</i> (11%). Two important trees (<i>Lagerstroemia indica</i> *, protected under Cap 96) are identified on slope of this LR. The plantation with continuous tree canopy provides greenery to the area. Given a large area of plantation with high significance to the local and presence of important trees, despite of fair to poor tree conditions, it is considered to have less tolerance to change and high sensitivity to the development.	High
LR 3 – I	Managed Grassland			
	Managed Grassland on Shuen Wan Restored Landfill	14.79	There are two patches of grassland, surrounded by slopes with plantation, at the top level of the Shuen Wan Restored Landfill. These grasslands are managed and maintained with grass cut short. Approximately 1,052 trees can be found in this LR, composed of dominant species including <i>Acacia confuse</i> (32%) and <i>Leucaena leucocephala</i> (29%). Turf grass species include <i>Axonopus compressus</i> and <i>Paspalum spp.</i> . Considering the fair tree conditions and man-made resource, it is considered to have high tolerance to change and low sensitivity to the development.	Low
LR 4 - N	Mixed Woodland			TT: 3
LR 4	Ting Kok Road North Mixed Woodland	6.65	Ting Kok Road North Mixed Woodland extends from hillside at the north to Ting Kok Road. The mixed woodland forms a significant and large piece of vegetation within the landscape context at district level. Approximately 1,456 trees can be found in this LR, composed of dominant species including	High

ID	LR	Area (ha)	Description	Sensitivity
			<i>Eucalyptus spp.</i> (18%), <i>Acacia mangium</i> (11%) and <i>Acacia auriculiformis</i> (8%). 125 important trees (<i>Lagerstroemia speciosa</i> *, protected under Cap 96) are identified in this LR. There is not much understory particularly on slopes abutting to the road. The trees and vegetation are fair in condition. Given the maturity and importance of this LR to the landscape and visual amenity of the road corridor and district, it is considered to have less tolerance to change and high sensitivity to the development.	
LR 5 – I	Roadside Amenity Plan	ting		
LR 5.1	Ting Kok Road Roadside Amenity Planting	0.29	The roadside amenity planting is composed of planters adjacent to carriageway and at-grade planting areas next to footpath/cycle track. Approximately 284 trees can be found in this LR, composed of dominant species including <i>Acacia mangium</i> (34%), <i>Melaleuca cajuputi</i> <i>subsp. cumingiana</i> (31%) and <i>Eucalyptus spp.</i> (13%). Two important trees (<i>Lagerstroemia speciosa</i> *, protected under Cap 96) are identified in this LR. The trees in this LR are in fair condition. The hillside mixed woodland (LR 4) on the north side of Ting Kok Road also contributes to the landscape context of road corridor. Given the importance of LR 5.1 to the landscape and the visual amenity corridor for vehicle travellers, cyclists and pedestrians, it is considered to have less tolerance to change and medium sensitivity to the development.	Medium
LR 5.2	Tai Po Industrial Estate (TPIE) Roadside Amenity Planting	4.00	Roadside amenity plantings of different levels are observed along the roads in TPIE. The most common planting type is tree pits or narrow planting strip on pavement. Approximately 1,210 trees can be found in this LR, composed of dominant species including <i>Acacia mangium</i> (17%), <i>Melaleuca cajuputi subsp.</i> <i>cumingiana</i> (8%), <i>Ficus microcarpa</i> (8%) and <i>Aleurites</i> <i>moluccana</i> (8%). Two individuals of <i>Lagerstroemia</i> <i>speciosa</i> and one individual of <i>Michelia x alba</i> *, which are protected under Cap 96, are identified in this LR. The trees in this LR are in fair condition. Given the medium quality and amenity value of LR5.2 and the significance to the landscape context of industrial estate, it is considered to have medium tolerance to change and medium sensitivity to the development.	Medium
LK 6 - 1	Matercourse at	0.02	This I R is a semi-natural watercourse located at north	Modium
I.R 7 - 1	North of Ting Kok Road	0.03	of Ting Kok Road, next to a horticulture garden. This small tributary originated from the northern hilly areas, ended up joining the underground culvert with modification and connected to Tolo Harbour. The bankside vegetation was dominated by exotic species <i>Wedelia trilobata</i> and <i>Ipomoea cairica</i> . Given this LR is partly modified and with relatively low vegetation coverage, it is considered to have medium tolerance to change and medium sensitivity to the development.	Methum

ID	LR	Area	Description	Sensitivity
LR 7	Tai Po Waterfront Park	7.27	Tai Po Waterfront Park is formed by a promenade along seashore for jogging and cycling, a pier at the eastern end, extensive planting areas, other leisure areas. It is an important seaside public open space with high frequency of use in Tai Po District. It Approximately 1,449 trees can be found in this LR, composed of dominant species including <i>Lagerstroemia speciosa</i> (11%), <i>Bombax ceiba</i> (8%) and <i>Acacia confusa</i> (8%), which are common ornamental tree species. 155 important trees (<i>Lagerstroemia speciosa</i> *, protected under Cap 96) are identified in this LR. The majority of them are fair health conditions and fair tree forms. Given the significance of the public enjoyment at district level and high amenity value of this LR, it is considered to have medium tolerance to change and high sensitivity to the development.	High
LR 8 – 7	Folo Harbour			
LR 8	Tolo Harbour	15.39	Tolo Harbour is a sheltered harbor in northeast New Territories with low marine traffic. It is confined by urbanized areas of Ma On Shan, Tai Po Kau and Tai Po. The water edge is composed of promenade and built- up areas extend all along the coastline except a short section to the further east of the Shuen Wan Restored Landfill. Given this LR is dominated by man-made coastal line, it is considered to have high tolerance to change and medium sensitivity to the development.	Medium
LR 9 – I	Developed Area			
LR 9.1	Golf Driving Range and Facilities on Shuen Wan Restored Landfill	2.96	This LR is composed of several access road, two platforms of driving range, offices and auxiliary facilities formed by temporary structures. Approximately 65 trees can be found in this LR, composed of dominant species <i>Acacia confusa</i> (70%). The majority of them are fair health conditions and tree forms. Given the man-made feature and low amenity value of this LR, it is considered to have high tolerance to change and low sensitivity to the development.	Low
LR 9.2	Low-rise Residential Area	1.58	This LR 9.2 is low-rise residential area located at the north of Ting Kok Road. It includes a 3-storey development Casa Brava and other village type developed areas. Approximately 176 trees can be found in this LR, composed of dominant species <i>Acacia mangium</i> (51%) and <i>Acacia confuse</i> (8%). The majority of them are fair health conditions and tree forms. Given the man-made feature and low amenity value of this LR, it is considered to have high tolerance to change and low sensitivity to the development.	Low
LR 9.3	Tai Po Industrial Estate	69.56	TPIE is a reclaimed area and highly urbanized. It occupied by industrial buildings and facilities. Very little vegetation is found other than the roadside amenity planting (LR 5.2). Given the highly urbanized landscape and sparse vegetation, this LR is considered to have high tolerance to change and low sensitivity to the development.	Low

ID	LR	Area	Description	Sensitivity
		(ha)		
LR 9.4	Existing Road	3.07	Ting Kok Road is the primary transport corridor for Tai Po district connecting Tai Po town centre at the west to Tai Mei Tuk at the east. It associated with cycle track and footpath all along the road. Lo Fai Road is the only vehicular connection to the hillside residential developments. There is some roadside tree planting	Low
			(LR 5.1) and woodland adjacent to the Ting Kok Road and Lo Fai Road. Given the highly urbanized landscape, this LR is considered to have high tolerance to change and low sensitivity to the development.	

Note: * *Lagerstroemia speciosa, Lagerstroemia indica, Michelia x alba* are exotic or introduced species commonly planted or cultivated in urban or village areas of Hong Kong. Although they are listed under Cap 96, their conservation status is considered low.

Landscape Character Area

7.5.5 Landscape Character Area (LCAs) identified within the 500m assessment area include Ting Kok Road Low-rise Residential Landscape, Restored landfill Site Landscape, Tai Po Waterfront Park Landscape and Tai Po Industrial Estate Landscape. The locations of LCAs are shown in Figure 7.4 and their photographic record is provided on Figure 7.5. The baseline condition and sensitivity of the identified LCAs are summarized in Table 7.4.

ID	LCA	Area	Description	Sensitivity
		(ha)		
LCA 1	Ting Kok Road Low- rise Residential Landscape	11.73	This LCA is located to the north of Ting Kok Road. It comprises of landscape elements including village type development (e.g. Casa Brava), access roads, public facilities, horticulture garden and mixed woodland. Given partially urbanized landscape with high greenery coverage, it is considered to have medium tolerance to change and medium sensitivity to the development.	Medium
LCA 2	Restored Landfill Site Landscape	49.46	This LCA is the restored Shuen Wan Landfill located to the east of TPIE. The landfill was closed in 1995 and restored with vegetation in 1997. The restored landfill has been landscaped and converted into a golf driving range with 145 driving bays for general public use. This LCA comprises of landscape elements including vegetated ex-landfill site, driving ranges, offices and access roads. This LCA is dominated by plantation on the man-made slopes along the periphery as well as the turf and grassland at two knolls. Given recreational facilities and man-made engineering features with high greenery coverage, it is considered to have medium tolerance to change and medium sensitivity to the development.	Medium
LCA 3	Tai Po Waterfront Park Landscape	22.65	This LCA is located to the south of TPIE along Tolo Harbour. The waterfront area provides recreation facilities to the residents and visitors. There is amenity planting in the sitting-out areas along the promenade and cycle track. Sheltered built structures along the promenade are key features and pier at the eastern is a popular fishing location. Given the man-made feature, high amenity value and high significance at	Medium

Table 7.4Baseline LCAs and their Sensitivity

ID	LCA	Area	Description	Sensitivity
		(ha)		
			district level, it is considered to have medium tolerance	
			to change and medium sensitivity to the development.	
LCA 4	Tai Po Industrial	87.27	This LCA is located to the east of Tai Po New Town and	Low
	Estate Landscape		to the south of Ting Kok Road. It is dominated by	
			industrial facilities and buildings with height ranging	
			from 8 to 71 mPD. Other landscape elements include	
			internal access roads, on street vehicle parking areas,	
			bus terminal and some roadside amenity planting.	
			Given the industrial nature with limited roadside	
			vegetation, highly urbanized landscape and low	
			amenity value, it is considered to have high tolerance	
			to change and low sensitivity to the development.	

7.6 Visual Baseline

Visual Envelope

7.6.1 The predicted visual envelope (VE) within 7km from the Project Site is illustrated in Figure 7.6. The VE extends to Shuen Wan Restored Landfill and Ma Shi Chau to the east, Ping Fung Shan to the north, Pak Tai To Yan to the west. Tai Po Kau to the south, Tiu Shau Ngam at Ma On Shan to the south-east.

Visually Sensitive Receivers

7.6.2 Within the VE, a total of 25 representative visually sensitive receivers (VSRs) have been identified and grouped into four types, namely Residential (R), Occupational (O), Recreational (L) and Travelling (T), as described in **Section 7.3**. The identified VSRs are listed in **Table 7.5** and their locations are shown in **Figure 7.6**.

Residential VSRs

- 7.6.3 The residents of main housing estates and buildings with different heights, angles of view and distances from the Project site have been selected as representative residential VSRs. R1 to R9 are the selected representative residential VSRs who are living in low to high-rise residential developments within VE and would be potentially visually affected by the proposed Project.
- 7.6.4 R1, R2, R4, R8 and R9 represent the residents of low-rise village houses / residential developments with different distances from the proposed Project and different view directions of northeast (R1), northwest (R2, R8), southwest (R4) and south (R9). R3, R5, R6 and R7 represent the residents of high-rise residential developments with potential view to the proposed Project from southwest (R3 & R7), south (R5) and southeast (R6) directions.

Occupational VSRs

7.6.5 Occupants working in buildings in TPIE with different view directions have been selected as representative occupational VSRs. 01, 02 and 03 represent the occupants in TPIE with potential views from north, west and south to the Project site, respectively. The occupational VSRs who have window view to the proposed Project would be visually impacted.

Recreational VSRs

7.6.6 Visitors of golf course (V1), parks (V2 and V8), promenades (V3 and V4), hiking trails (V5, V6, V7 and V10) and multifunctional recreational facilities (V9 and V11) with different distances and angles of the view to the Project site have been selected as representative recreational VSRs.

Travelling VSRs

- 7.6.7 Travellers on public routes with different distances from the Project site have been selected as representative travelling VSRs. T1 is VSR within the TPIE and close to the Project site while T2 is VSR at north of TPIE and relatively distant from the Project site.
- 7.6.8 The sensitivity of the representative VSRs are summarized in **Table 7.5** and their visual context is presented in **Figure 7.7**.
- 7.6.9 R1, R2, R4, R8 and R9 are the residents of low-rise developments and the numbers of individual are considered as medium while R3, R5, R6 and R7 are residents of high-rise developments and the numbers of individuals are considered as many. For O1 to O3, in view of the large scale of the industrial/commercial areas, the numbers of individuals are considered as many. Considering the popularity and the nature of the facilities, the numbers of individuals for V2, V3 and V4 are considered as medium while that for V1, V5 to V11 are considered as few. Considering the potential traffic and pedestrian flow of the road/street, the numbers of individuals are considered as medium for T1 and T2.
- 7.6.10 Most of the representative VSRs have views of plantation/harbour and their quality of existing view is considered as fair to good. For those VSRs within TPIE, as their major view are industrial buildings/facilities and scattered roadside amenity planting, their quality of existing view is considered as poor. Alternative views are available for all representative VSRs.
- 7.6.11 Regarding the degree of visibility, O1 to O3 would experience full view to the proposed Project at higher level and the view of lower level would be obstructed by existing buildings and roadside plantings in the TPIE. The view to the proposed Project would be partly screened by fences / buildings / vegetation surrounding the TPSTW and partial view would be experienced by V5, V6 and T1. For R1 to R9, V1 to V4, V7 to V11 and T2, glimpse view to the proposed Project would be anticipated due to screening by existing buildings and trees nearby.
- 7.6.12 The duration and frequency of view are evaluated by the nature of the VSRs. Generally, the residential VSRs are expected to have long and frequent view to the Project. On the other hand, the occupational and recreational VSRs are expected to have medium long and occasional view while the travelling VSRs are expected to have short and intermittent view to the proposed Project.
- 7.6.13 The sensitivity of residential VSRs are basically considered as high for their long and frequent view to the development. However, in view of the blockage of view to the Project by plantations/ buildings, the sensitivity of R1 to R9 is considered as low.
- 7.6.14 For occupational VSRs within the TPIE (i.e. 01 to 03), considering the poor quality of existing view, and occasional view and partial blockage of the view to the Project by existing buildings / plantation, the sensitivity of these VSRs is considered as low.
- 7.6.15 The sensitivity of recreational VSRs are basically considered as medium for their medium long and occasional view to the development. For V1 to V4 and V7 to V11, considering the obstructed view to the proposed Project, the sensitivity of these VSRs is considered as low.
- 7.6.16 For travelling VSRs, considering the short and intermittent view to the development as well as the blockage of view to the proposed Project, the sensitivity of these VSRs is considered as low.

Sensitivity to Change (High/ Medium/ Low)	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Frequency of View (Frequent/ Occasional/ Intermittent/ Rare)	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Occasional	Occasional	Occasional	Occasional
Duration of View (Short/ Medium/ Long)	Long	Long	Long	Long	Long	Long	Long	Long	Long	Medium	Medium	Medium	Medium
Degree of Visibility (Obstructed/ Glimpse/ Partial/Full)	Glimpse	Glimpse	Glimpse	Glimpse	Glimpse	Glimpse	Glimpse	Glimpse	Glimpse	Full (HL) / Obstructed (LL)	Full (HL) / Partial (LL)	Full (HL) / Obstructed (LL)	Glimpse
Availability of Alternative Views	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quality of Existing View (Poor/ Fair/ Good)	Good	Good	Fair	Good	Good	Good	Fair	Good	Good	Poor	Poor	Poor	Good
Number of Individuals (Few/ Medium/ Many)	Medium	Medium	Many	Medium	Many	Many	Many	Medium	Medium	Many	Many	Many	Few
Nature of Sensitive Receiver	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Occupational	Occupational	Occupational	Recreational
VSR Description	Residents of Low-rises along Low Fai Road	Residents of Low-rises along Ting Kok Road	Residents of High-rises along Yuen Shin Road	Residents of Low-rises along Tai Po Road (Tai Po Kau)	Residential Development along Pak Shek Kok Promenade	Residential Development along Ma On Shan Promenade	Residential Development in Tai Po New Town	Residential Development around Mak Uk	Residential Development along Hung Lam Drive	Occupants of Tai Po Industrial Estate (from North)	Occupants of Tai Po Industrial Estate (from West)	Occupants of Tai Po Industrial Estate (from South)	Visitors of Golf Course at Shuen Wan Restored Landfill
Ð	R1	R2	R3	R4	R5	R6	R7	R8	R9	01	02	03	V1

Representative Visually Sensitive Receivers and their Sensitivity Table 7.5

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Treatment Works	
Po Sewage	
grading of Tai l	
Upgrading	

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		,	Number of	Quality of	Availability	Degree of	Duration	Frequency of	Sensitivity
ID VSR Description Nature of Individuals Receiver Sensitive (Few/ Receiver Medium/ Many)	Nature of Individuals Sensitive (Few/ Receiver Medium/ Many)	Individuals (Few/ Medium/ Many)		Existing View (Poor/ Fair/ Good)	of Alternative Views	Visibility (Obstructed/ Glimpse/ Partial/ Full)	of View (Short/ Medium/ Long)	View (Frequent/ Occasional/ Intermittent/ Rare)	to Change (High/ Medium/ Low)
/2 Visitors of Tai Po Waterfront Recreational Medium Park	Recreational Medium	Medium		Good	Yes	Glimpse	Medium	Occasional	Low
V3 Visitors of Pak Shek Kok Recreational Medium Promenade Promenade Medium Medium	Recreational Medium	Medium		Good	Yes	Glimpse	Medium	Occasional	Low
V4 Visitors of Ma On Shan Recreational Medium Promenade and Ma On Shan Park Park Park	Recreational Medium	Medium		Good	Yes	Glimpse	Medium	Occasional	Low
 Visitors of Ngau Kwu Leng Recreational Few Hiking Trail 	Recreational Few	Few		Good	Yes	Partial	Medium	Occasional	Medium
76 Visitors of Wilson Trail Recreational Few	Recreational Few	Few		Good	Yes	Partial	Medium	Occasional	Medium
V7 Visitors of Hiking Trail in Sam Recreational Few Mun Tsai Mun Tsai <td>Recreational Few</td> <td>Few</td> <td></td> <td>Good</td> <td>Yes</td> <td>Glimpse</td> <td>Medium</td> <td>Occasional</td> <td>Low</td>	Recreational Few	Few		Good	Yes	Glimpse	Medium	Occasional	Low
 V8 Visitors of Ha Hang Village Recreational Few Sitting-out Area 	Recreational Few	Few		Good	Yes	Glimpse	Medium	Occasional	Low
V9 Visitors of Recreational Recreational Few Facilities near Fung Mei Wai Ferminian Ferminian Ferminian	Recreational Few	Few		Good	Yes	Glimpse	Medium	Occasional	Low
10 Visitors of Tai Po Kau Nature Recreational Few Trail	Recreational Few	Few		Good	Yes	Glimpse	Medium	Occasional	Low
11 Visitors of Wu Kwai Sha Youth Recreational Few Village	Recreational	Few		Good	Yes	Glimpse	Medium	Occasional	Low
Travellers of Dai Kwai Street Travelling Medium (Transient)	Travelling Medium (Transient)	Medium		Poor	Yes	Partial	Short	Intermittent	Low
T2 Travellers of Ting Kok Road Travelling Medium (Transient)	Travelling Medium (Transient)	Medium		Fair	Yes	Glimpse	Short	Intermittent	Low
Note:	-								

- HL: at Higher Level; LL: at Lower Level

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7.7 Identification and Assessment of Landscape Impact

Potential Sources of Landscape Impact

7.7.1 This Project would upgrade the design capacity of TPSTW from 120,000 m³/day to 160,000 m³/day to meet the projected sewage treatment demand. In order to maintain normal sewage treatment services of the existing TPSTW during the construction phase, a New West Plant would be built in the proposed expansion site outside existing TPSTW boundary. After the New West Plant is fully commissioned, the existing West Plant would be partially demolished to make room for the construction of new facilities such as the sludge treatment and co-digestion works. The reconstruction works in the existing TPSTW would be split into stages to maintain adequate sludge treatment capacity throughout the construction phase. Provision of green roof and solar panel will be considered for this Project. Detailed project description and construction activities are provided in **Section 2**. The preliminary layout of the Project is illustrated in **Figure 7.9** and the tentative dimensions of the proposed buildings and facilities within the Project site are presented **Table 7.6**.

Proposed Buildings / Facilities	ID	Dimensions	Maximum
			Height
			(mPD)
Proposed Buildings	B1	42m (L) × 17m (W)	21
	B2	42m (L) × 10m (W)	18
	B3	40m (L) × 8m (W)	18
	B4	27m (L) × 27m (W)	18
Proposed Biogas Recovery and Storage	G1	42m (L) × 20m (W)	13
Facilities	G2	27m (L) × 27m (W)	13
	G3	16m (L) × 23m (W)	22
	G4 G6	18m (Dia.) × 20m	23
Proposed Sewage Treatment Facilities	S1	36m (L) × 76m (W)	18
	S2	135m (L) × 65m (W)	25
Proposed Co-digestion and Sludge Related	C1	40m (L) × 70m (W)	35
Facilities	C2	40m (L) × 28m (W)	24
	C3	55m (L) × 10m (W)	10
	C4 – C5	18m (Dia.)	28
	C6	55m (L) × 50m (W)	20
	C7	55m (L) × 25m (W)	6
	C8	55m (L) × 10m (W)	10
	С9	55m (L) × 63m (W)	23
	C10 – C23	25m (Dia.)	33
	C24 – C30	9m (Dia.)	15
	C31	30m (L) × 13m (W)	18
	C32 – C34	15m (Dia.)	7
	C35	6m (L) × 15m (W)	12
	C36	14m (L) × 16m (W)	25
	C37	12m (L) × 12m (W)	13
	C38	22m (L) × 22m (W)	22
	C39 – C41	12m (L) × 12m (W)	33
Proposed Effluent Pumping Station	P1	40m (L) × 70m (W)	18
Proposed Reclaimed Water Plant	R1	25m (L) × 20m (W)	18

Table 7.6 Tentative Dimensions of Proposed Buildings and Facilities

- 7.7.2 During construction phase, potential landscape impacts would arise from removal of existing trees and construction activities including demolition of existing structures, excavation works, construction of new buildings/facilities.
- 7.7.3 During operational phase, potential landscape impacts would arise from presence of the new buildings and facilities of the upgraded TPSTW.
- 7.7.4 During planning and design of Project location, layout, design, built-form and construction method, considerations have been given to minimize the landscape impacts. As described in **Section 2**, more space would be required to accommodate the new co-digestion and upgraded treatment facilities. Compared with upgrading only within the existing TPSTW, utilization of the proposed expansion site, which is the preferred option, could avoid high-rise building facilities and more space could be reserved for tree planting / greenery. The heights of new buildings / facilities of this Project shall be similar to that of the surrounding existing buildings in TPIE. In addition, compact-type sewage treatment technology is proposed at the proposed expansion site to allow more space for tree planting / greenery. For the demolition works, a faster demolition method of using breakers mounted on excavator is adopted to shorten the construction period and minimize the duration of impacts associated with the construction of the Project.

Impacts on Existing Trees

7.7.5 According to the broad brush tree survey findings, there were 530 existing trees within the proposed Project Site. According to the preliminary design, tentatively approximate 456 nos. of trees would directly conflict with the proposed works and tree removal would be unavoidably required. Regarding trees of species of conservation importance, the one individual of *Aquilaria sinensis* would be preserved. The ten mature trees of species *Ficus microcarpa* or *Ficus benjamina* would directly conflict with the Project and would be unavoidably removed (details refer to **Appendix 7.1**). Tree transplanting and/or compensatory planting shall be provided either on-site or off-site for the affected trees in accordance with DEVB TCW No. 4/2020, subject to further tree felling application. Tree Preservation and Removal Proposal (TPRP) shall be prepared in accordance with DEVB TCW No. 4/2020.

Impacts on LRs

7.7.6 Magnitude of unmitigated landscape impacts to the identified LRs are summarized in **Table 7.7** while the significance of unmitigated landscape impacts on LRs are illustrated in **Table 7.8**.

Construction Phase

- 7.7.7 409 out of 483 nos. of tree within LR1.1 and all 47 nos. of tree within LR1.2 would be affected due to direct conflict with the proposed works. The Project would be fairly compatible with the urbanized/industrial environment of the existing TPSTW and proposed expansion site. As the existing trees within the Project Site would be affected, the change of landscape for LR1.1 and LR1.2 would be considered as permanent and irreversible. Considering there would be a large number of trees, including 10 mature trees, to be affected within LR1.1 and LR1.2, the magnitude of change to these LRs would be Large and the landscape impact to both LR 1.1 and LR 1.2 is expected to be Moderate / Substantial during construction phase.
- 7.7.8 For other LRs, as all the proposed works will be carried out within the existing TPSTW and proposed expansion site only, the magnitude of change to other LRs would be **negligible** and hence the significance of impact would be **insubstantial**.

Operational Phase

- 7.7.9 There would be new buildings and treatment facilities with proposed height up to 30 mPD (or about 25 m above ground) in the upgraded TPSTW. These elevated structures are fairly compatible with the existing environment of LR1.1 and LR1.2. Considering a significant decrease in the no. of trees within LR1.1 and LR1.2, the magnitude of change to these LRs would be **Large** and the landscape impact to both LR1.1 and LR1.2 is expected to be **Moderate / Substantial** during operational phase.
- 7.7.10 For other LRs, as all the proposed structures would be built within the existing TPSTW and proposed expansion site only, the magnitude of change to other LRs would be **negligible** and hence the significance of impact would be **insubstantial**.

	I able /./ Magilluue of Lallu	scape IIIIpact of	I FLVS					
		Area Affected	No. of Trees	Compatibility of	Duration of	Reversibility	Magnitude (of Impact *
Ð	Description	by Project	Affected	Project	Impacts	of Change		
		(na)		(Construction/ Operation) #	(Construction) / Operation)	(Construction / Operation)	Construction	Operation
LR 1.1	Amenity Planting within Existing TPSTW	12.17	409	Fair / Fair	Permanent/ Permanent	Irreversible / Irreversible	Large	Large
LR 1.2	Amenity Planting within Proposed Expansion Site for TPSTW	1.64	47	Fair / Fair	Permanent/ Permanent	Irreversible / Irreversible	Large	Large
LR 2	Plantation on Shuen Wan Restored Landfill	Nil	liN	V/N	N/A	N/A	Negligible	Negligible
LR 3	Managed Grassland on Shuen Wan Restored Landfill	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 4	Ting Kok Road North Mixed Woodland	Nil	liN	V/N	N/A	N/A	Negligible	Negligible
LR 5.1	Ting Kok Road Roadside Amenity Planting	Nil	liN	V/N	N/A	N/A	Negligible	Negligible
LR 5.2	Tai Po Industrial Estate (TPIE) Roadside Amenity Planting	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 6	Watercourse at North of Ting Kok Road	Nil	liN	V/N	N/A	N/A	Negligible	Negligible
LR 7	Tai Po Waterfront Park	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 8	Tolo Harbour	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 9.1	Golf Driving Range and Facilities on Shuen Wan Restored Landfill	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 9.2	Low-rise Residential Area	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 9.3	Tai Po Industrial Estate	Nil	Nil	N/A	N/A	N/A	Negligible	Negligible
LR 9.4	Existing Road	Nil	liN	N/A	N/A	N/A	Negligible	Negligible

Magnitude of Landscane Imnact on LRs Table 7.7

Note: # Classified as High/ Fair/ Low * Classified as Large/ Intermediate/ Small/ Negligible

	Table 7.8 Significanc	e of Landsca	ape Impact on	LRs					
f	:	:	Magnitude of C Mitiga	hange BEFORE ation#	Impact Signific: BEFORE M	ance Threshold litigation*	Residual Imp UF	act Significance ON Mittigation	e Threshold *
9	LK Description	Sensitivity	Construction	Operation	Construction	Operation	Construction	Operation Day 1	Operation Year 10
LR 1.1	Amenity Planting within Existing TPSTW	Medium	Large	Large	Moderate / Substantial	Moderate / Substantial	Moderate	Moderate	Slight
LR 1.2	Amenity Planting within Proposed Expansion Site for TPSTW	Medium	Large	Large	Moderate / Substantial	Moderate / Substantial	Moderate	Moderate	Slight
LR 2	Plantation on Shuen Wan Restored Landfill	High	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 3	Managed Grassland on Shuen Wan Restored Landfill	Low	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 4	Ting Kok Road North Mixed Woodland	High	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 5.1	Ting Kok Road Roadside Amenity Planting	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 5.2	Tai Po Industrial Estate (TPIE) Roadside Amenity Planting	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 6	Watercourse at North of Ting Kok Road	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 7	Tai Po Waterfront Park	High	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 8	Tolo Harbour	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 9.1	Golf Driving Range and Facilities on Shuen Wan Restored Landfill	Low	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 9.2	Low-rise Residential Area	Low	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 9.3	Tai Po Industrial Estate	Low	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LR 9.4	Existing Road	Low	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
	Note: # Classified as Large/ * Classified as Insubsi	'Intermediate tantial/Slight,	/ Small/ Negligib / Moderate/ Subs	le stantial; Mitigatior	i measures are de	scribed in Section	7.9.		

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Impacts on LCAs

7.7.11 Magnitude of unmitigated landscape impact to the identified LCAs are summarized in Table7.9 while the significance of unmitigated landscape impact on LCAs are illustrated in Table7.10.

Construction Phase

- 7.7.12 As all the proposed works would not directly affect LCA 1 to LCA 3, the magnitude of change to these LCAs would be **negligible** and hence the significance of impact would be **insubstantial**.
- 7.7.13 The proposed demolition of existing structures and construction of new buildings and facilities would affect 13.81 ha out of 87.27 ha of the total area of LCA 4 (15.8%). As the existing trees within the Project Site would be affected, the change of landscape for LCA 4 would be considered as permanent and irreversible. The magnitude of change to LCA 4 would be **Intermediate** and the landscape impact is expected to be **Slight/Moderate** during construction phase.

Operational Phase

- 7.7.14 As all the proposed new buildings and facilities would not directly affect LCA 1 to LCA 3, the magnitude of change to these LCAs would be **negligible** and hence the significance of impact would be **insubstantial**.
- 7.7.15 There would be new buildings and treatment facilities with proposed height up to 30 mPD which is compatible with the heights of other buildings (7.1 to 71.4 mPD) within this LCA 4. These elevated structures are highly compatible with the industrial landscape of LCA 4. The magnitude of change to LCA 4 would be **Small** and the landscape impact is expected to be **Slight** during operational phase.

	of Impact *	Operation	Negligible		Negligible	Negligible	Small		
	Magnitude	Construction	Negligible		Negligible	Negligible	Intermediate		
	Reversibility of Change	(Lonstruction/ Operation)	N/A		N/A	N/A	Irreversible /	Irreversible	
	Duration of Impacts	(construction/ Operation)	W/N		N/A	N/A	Permanent /	Permanent	
T FOAS	Compatibility of Project	(Construction/ Operation) #	N/A		N/A	N/A	Fair / High		
scape inipact of	Area Affected by Project	(na)	liN		Nil	Nil	13.81		
I aDIC / ' MAGIIIMUC DI FAIIN	Description		Ting Kok Road Low-rise	Residential Landscape	Restored Landfill Site Landscape	Tai Po Waterfront Park Landscape	Tai Po Industrial Estate Landscape		Note: # Classified as High / Fair / Low
	ID		LCA 1		LCA 2	LCA 3	LCA 4		

Magnitude of Landscape Impact on LCAs Table 7.9

Note: # LIASSINED as HIGN/ FAIT/ LOW * Classified as Large/ Intermediate/ Small/ Negligible

Table 7.10 Significance of Landscape Impact on LCAs

	I aDIE / 'TO DIBITITICATIC	e of railase	ape mupace on						
			Magnitude of C Mitig	hange BEFORE ation#	Impact Significa BEFORE M	ance Threshold litigation*	Residual Impa UP	act Significance ON Mitigation*	e Threshold
8	LR Description	Sensitivity	Construction	Operation	Construction	Operation	Construction	Operation Day 1	Operation Year 10
LCA 1	Ting Kok Road Low-rise Residential Landscape	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LCA 2	Restored Landfill Site Landscape	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LCA 3	Tai Po Waterfront Park Landscape	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Insubstantial	Insubstantial	Insubstantial
LCA 4	Tai Po Industrial Estate Landscape	Low	Intermediate	Small	Slight / Moderate	Slight	Slight	Insubstantial	Insubstantial
	Note: # Classified as Large/	. Intermediate	/ Small/ Negligih	le					

* Classified as Insubstantial/ Slight/ Moderate/ Substantial; Mitigation measures are described in Section 7.9.

7.8 Identification and Assessment of Visual Impact

Potential Sources of Visual Impact

- 7.8.1 During construction phase, potential visual impacts would arise from construction activities including demolition of existing structures, excavation works, construction of new buildings/facilities.
- 7.8.2 During operational phase, potential visual impacts would arise from presence of the new buildings and facilities of the upgraded TPSTW.
- 7.8.3 During planning and design of Project location, layout, design, built-form and construction method, considerations have been given to minimize the visual impacts as similar to landscape impacts described in **Section 7.7**.

Impacts on VSRs

- 7.8.4 Magnitude of unmitigated visual impacts to the identified VSRs assessed based on the viewing distance, compatibility of the Project, duration of impacts, scale of works, reversibility of change and potential blockage of view are summarized in **Table 7.11**. The significance of unmitigated visual impacts on VSRs are illustrated in **Table 7.12**.
- 7.8.5 During construction phase, all construction works will be limited to the Project Boundary with site hoarding for the delineation and screening purposes. The existing roadside trees and some retained trees within Project Site along the perimeter will also form a natural screen and buffer during construction. The proposed construction works is fairly compatible to the existing TPSTW. The footprint of proposed Project site would be approximately 13.8 ha and scale of works is considered as intermediate. The construction works of this Project are tentatively scheduled to commence in 2025 for completion in 2036. The visual impact arising from the construction works will be temporary and reversible. Generally, the potential blockage of view by development would be negligible for most of the VSRs. However, there would be intermediate blockage of view for O1 to O3, and small blockage of view for T1 due to the construction of new buildings and structures.
- 7.8.6 During operational phase, the proposed new buildings and facilities will be erected within the upgraded TPSTW. The heights of the proposed building / facilities would be up to 40 mPD (or about 35 m above ground) which is comparable with that for the existing building / structures within the TPIE (7.7 to 71.4 mPD). The proposed upgraded TPSTW is considered as compatible to the surrounding industrial environment. Similar to the construction phase, the scale of works is considered as intermediate during operational phase. The visual impact arising from operation of the Project would be permanent and irreversible. However, there would be intermediate blockage of view for 01 to 03, and small blockage of view for T1 due to the presence of new buildings and structures
- 7.8.7 During both construction and operational phases, considering the medium / high compatibility of the Project and potential blockage of view by development, the magnitude of change to 01 to 03 and T1 would be **intermediate** during both construction and operational phases. In view of medium / high compatibility of the Project and negligible potential blockage of view by development, the magnitude of change to R1 to R4, R7, R8, V1 to V3, V8 to V9 and T2 would be **small**. Considering long viewing distance and negligible potential blockage of view by development, the magnitude of change to R5, R6, R9, V4 to V7 and V10 to V11 would be **negligible** during both construction and operational phases.
- 7.8.8 With reference to the **Table 7.1**, the significance of visual impacts on VSRs before mitigation measures would be Insubstantial to Slight / Moderate and the evaluations are summarized in **Table 7.12**.

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		Shortest	Compatibility	Duration of		Reversibility	Potential	Magnitude of
ſ	VCB Description	Viewing	of the Project #	Impacts	Scale of	of Change	Blockage of	Change
9		Distance	(Construction	(Construction	Works *	(Construction	View by	*(Construction /
		(m)	/ Operation)	/ Uperation)		/ Operation)	Development *	Operation)
R1	Residents of Low-rises along	560	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Low Fai Road			Permanent		Irreversible		
R2	Residents of Low-rises along	490	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Ting Kok Road			Permanent		Irreversible		
R3	Residents of High-rises along	1,140	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Yuen Shin Road			Permanent		Irreversible		
R4	Residents of Low-rises along Tai	1,630	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Po Road (Tai Po Kau)			Permanent		Irreversible		
R5	Residential Development along	2,500	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Pak Shek Kok Promenade			Permanent		Irreversible		Negligible
R6	Residential Development along	4,950	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Ma On Shan Promenade			Permanent		Irreversible		Negligible
R7	Residential Development in Tai	1,700	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Po New Town			Permanent		Irreversible		
R8	Residential Development	1,040	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	around Mak Uk			Permanent		Irreversible		
R9	Residential Development along	2,020	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Hung Lam Drive			Permanent		Irreversible		Negligible
01	Occupants of Tai Po Industrial	<10	Medium/ High	Temporary/	Intermediate	Reversible/	Intermediate	Intermediate /
	Estate (from North)			Permanent		Irreversible		Intermediate
02	Occupants of Tai Po Industrial	20	Medium/ High	Temporary/	Intermediate	Reversible/	Intermediate	Intermediate /
	Estate (from West)			Permanent		Irreversible		Intermediate
03	Occupants of Tai Po Industrial	<10	Medium/ High	Temporary/	Intermediate	Reversible/	Intermediate	Intermediate /
	Estate (from South)			Permanent		Irreversible		Intermediate
V1	Visitors of Golf Course at Shuen	06	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Wan Restored Landfill			Permanent		Irreversible		
V2	Visitors of Tai Po Waterfront	833	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Park			Permanent		Irreversible		
V3	Visitors of Pak Shek Kok	1,500	Medium/ High	Temporary/ Permanant	Intermediate	Reversible/ Irravarsible	Negligible	Small / Small
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Environmental Impact Assessment Report

		Shortest	Compatibility	Duration of		Reversibility	Potential	Magnitude of
ſ	VCD Decemination	Viewing	of the Project #	Impacts	Scale of	of Change	Blockage of	Change
n	Now Description	Distance	(Construction	(Construction	Works *	(Construction	View by	*(Construction /
		(m)	/ Operation)	/ Operation)		/ Operation)	Development*	Operation)
V4	Visitors of Ma On Shan	4,920	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Promenade and Ma On Shan			Permanent		Irreversible		Negligible
V5	Visitors of Neall Kwil Leng	5 400	Medium/High	Temnorary/	Intermediate	Reversihle/	Negligihle	Neolioihle /
-	Hiking Trail			Permanent		Irreversible	0.0010000	Negligible
9V	Visitors of Wilson Trail	3,780	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
				Permanent		Irreversible		Negligible
V7	Visitors of Hiking Trail in Sam	2,200	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Mun Tsai			Permanent		Irreversible		Negligible
V8	Visitors of Ha Hang Village	540	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Sitting-out Area			Permanent		Irreversible		
6Λ	Visitors of Recreational	780	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
	Facilities near Fung Mei Wai			Permanent		Irreversible		
V10	Visitors of Tai Po Kau Nature	2,590	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Trail			Permanent		Irreversible		Negligible
V11	Visitors of Wu Kwai Sha Youth	5,440	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Negligible /
	Village			Permanent		Irreversible		Negligible
Τ1	Travellers of Dai Kwai Street	<10	Medium/ High	Temporary/	Intermediate	Reversible/	Small	Intermediate /
				Permanent		Irreversible		Intermediate
Т2	Travellers of Ting Kok Road	350	Medium/ High	Temporary/	Intermediate	Reversible/	Negligible	Small / Small
				Permanent		Irreversible		
	Note: # Classified as High/ Med	dium/ Low						

Particle as High/ Medium/ Low Classified as Large/ Intermediate/ Small/ Negligible SEPTEMBER 2022

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	Table 7.12 Signific	ance of Vis	sual Impact							
ID	VSR Description	Sensitivity	Magnitude BEFORE Mi	of Change itigation#	Impact Sig Threshold Mitiga	nificance BEFORE tion*	Proposed Mitigation Measures	Residual Impa UP	act Significance ON Mitigation*	Threshold
			Construction	Operation	Construction	Operation	(Section 7.9)	Construction	Operation Day 1	Operation Year 10
R1	Residents of Low-rises along Low Fai Road	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R2	Residents of Low-rises along Ting Kok Road	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R3	Residents of High-rises along Yuen Shin Road	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R4	Residents of Low-rises along Tai Po Road (Tai Po Kau)	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R5	Residential Development along Pak Shek Kok Promenade	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R6	Residential Development along Ma On Shan Promenade	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R7	Residential Development in Tai Po New Town	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R8	Residential Development around Mak Uk	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
R9	Residential Development along Hung Lam Drive	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantia
01	Occupants of Tai Po Industrial Estate (from North)	Low	Intermediate	Intermediate	Slight / Moderate	Slight / Moderate	CM1 to CM4 OM1 to OM4	Slight	Slight	Slight
02	Occupants of Tai Po Industrial Estate (from West)	Low	Intermediate	Intermediate	Slight / Moderate	Slight / Moderate	CM1 to CM4 OM1 to OM4	Slight	Slight	Slight
03	Occupants of Tai Po Industrial Estate (from South)	Low	Intermediate	Intermediate	Slight / Moderate	Slight / Moderate	CM1 to CM4 OM1 to OM4	Slight	Slight	Slight

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Upgrading of Tai Po Sewage Treatment Works

			Magnitude	of Change	Impact Sig Threshold	nificance BEFORE	Proposed Mitigation	Residual Impa	act Significance	Threshold
OI	VSR Description	Sensitivity	BEFUKE M	lugauon#	Mitiga	tion*	Measures	UL	UN MIUGAUON*	
			Construction	Operation	Construction	Operation	(Section 7.9)	Construction	Operation Day 1	Operation Year 10
V1	Visitors of Golf Course at Shuen Wan Restored Landfill	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V2	Visitors of Tai Po Waterfront Park	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V3	Visitors of Pak Shek Kok Promenade	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V4	Visitors of Ma On Shan Promenade and Ma On Shan Park	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V5	Visitors of Ngau Kwu Leng Hiking Trail	Medium	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
Λ6	Visitors of Wilson Trail	Medium	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
٧٦	Visitors of Hiking Trail in Sam Mun Tsai	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V8	Visitors of Ha Hang Village Sitting-out Area	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
6Λ	Visitors of Recreational Facilities near Fung Mei Wai	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V10	Visitors of Tai Po Kau Nature Trail	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
V11	Visitors of Wu Kwai Sha Youth Village	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
T1	Travellers of Dai Kwai Street	Low	Intermediate	Intermediate	Slight / Moderate	Slight / Moderate	CM1 to CM4 OM1 to OM4	Slight	Slight	Slight
Т2	Travellers of Ting Kok Road	Low	Small	Small	Slight	Slight	CM1 to CM4 OM1 to OM4	Insubstantial	Insubstantial	Insubstantial
	Note: # Classified as L:	arge / Interme	diate/Small/Ne	بمانعنام						

* Classified as Insubstantial/ Slight/ Moderate/ Substantial; Mitigation measures are described in Section 7.9.

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7.9 Mitigation Measures

7.9.1 The potential landscape and visual impacts arising from the Project have been identified in the previous sections. A series of mitigation measures have been proposed to alleviate the effects of these impacts. The proposed mitigation measures during construction and operational phases are summarized in **Table 7.13** and **Table 7.14**.

ID	Mitigation Measures	Funding	Implementation Agency
12		Agency	imprementation rigeney
CM1	<u>Good site management and practice</u> Construction site should be kept clean and tidy and construction material should be stored in order. All stockpiling areas and idled area shall be covered by tarpaulin sheet as far as possible.	DSD	DSD
CM2	<u>Erection of decorative screen hoarding</u> Each site should be provided with decorative screen hoarding compatible with surrounding setting.	DSD	DSD
СМЗ	<u>Tree preservation</u> The existing trees shall be preserved as far as possible. The retained existing trees on site shall be protected carefully during construction. The requirement specified DEVB TCW No. 4/2020 and "Guidelines on Tree Preservation during Development" issued by Development Bureau shall be followed. Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project shall be carefully preserved.	DSD	DSD
CM4	Tree transplanting / compensatory tree planting Trees unavoidably affected by the Project shall be transplanted in accordance with "Guidelines on Tree Transplanting" issued by Development Bureau as far as possible. Any unavoidable tree felling shall be mitigated by compensatory tree planting in accordance with DEVB TCW No. 4/2020. In particular, compensatory planting for the same species of the mature trees (in LR1.1 and LR1.2) to be felled would be provided with sufficient planting space within the Project site, nearby off-site area or other DSD's facilities.	DSD	Drainage Services Department / Leisure and Cultural Services Department/ Agriculture, Fisheries and Conservation Department / Lands Department/ Allocatee department (Dependent on location of new planting in accordance with DEVB TC(W) No. 6/2015)

Table 7.13 Proposed Mitigation Measures for Construction Phase

Table 7.14 Proposed Mitigation Measures for Operational Phas	se
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ID	Mitigation Measures	Funding	Implementation	Maintenance/
		Agency	Agency	Management
				Agency
OM1	Infill Planting	DSD	DSD	DSD
	Infill planting of trees, shrubs and/or groundcovers			
	shall be provided where space is available.			
OM2	<u>Tree Planting along Site Boundary</u>	DSD	DSD	DSD
	Tree planting shall be provided along the site			
	boundary as far as practicable to provide visual			
	screening effect.			
0M3	Green Roof and Vertical Greening	DSD	DSD	DSD
	Where practicable, green roof and vertical greening			
	on the external walls without the coverage of			
	architectural elements will be provided.			

ID	Mitigation Measures	Funding Agency	Implementation Agency	Maintenance/ Management Agency
0М4	<u>Responsive Design of Building</u> Aesthetically pleasing design as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities so as to blend in the buildings and structures to the adjacent landscape and visual context.	DSD	DSD	DSD

7.9.2 The tentative landscape master plan is presented in **Figure 7.8** and location plan of proposed mitigation measures of the Project is provided in **Figure 7.9**. According to the preliminary design, tentatively approximate 140 nos. of trees would be transplanted/compensated within the proposed Project Site. Tree transplanting and/or compensatory planting would also be provided off-site for other affected trees subject to agreement of relevant parties. Detailed landscape and engineering design of the Project shall be undertaken during detailed design stage.

7.10 Residual and Cumulative Impacts

- 7.10.1 During construction phase, good site practice (CM1) and erection of decorative screen hoarding (CM2) would reduce the landscape and visual impact arising from construction works. Tree preservation (CM3) and tree transplanting / compensatory tree planting (CM4) can minimize the landscape and visual impacts arising from tree removal.
- 7.10.2 During operational phase, infill planting (OM1), tree planting along site boundary (OM2) and vertical greening (OM3) can screen the new buildings and facilities as well as enhance the aesthetic quality of the upgraded TPSTW and hence reduce the landscape and visual impacts arising from the operation of the Project.
- 7.10.3 The residual landscape impacts on LRs and LCAs after implementation of mitigation measures proposed in **Section 7.9** are illustrated in **Table 7.8** and **Table 7.10**. For LR1.1 and LR1.2, compensatory planting for the same species of the mature trees to be felled and other trees to be felled would be provided with sufficient planting space within the Project site, nearby off-site area or other DSD's facilities. With implementation of compensatory planting for the matures trees as well as other mitigation measures described in **Sections 7.10.1** and **7.10.2**, the significance of residual landscape impacts on these two LRs would be reduced to **moderate** during construction as well as Day 1 of operation and **slight** during Year 10 of operation. For other LRs, the significance of residual landscape impacts would be **insubstantial** during construction as well as both Day 1 and Year 10 of operation. The significance of residual landscape impacts to **insubstantial** to **slight** during construction and **insubstantial** during both Day 1 and Year 10 of operation.
- 7.10.4 The residual visual impacts on representative VSRs after implementation of mitigation measures proposed in **Section 7.9** are illustrated in **Table 7.12**. The significance of residual visual impacts on VSRs would be reduced to **insubstantial** to **slight** during construction as well as both Day 1 and Year 10 of operation.
- 7.10.5 The photomontages of proposed Project without and with mitigation measures at selected viewpoints VP1 to VP7 (i.e. R1, R3, O2, V6, T1, R9 and V1) are demonstrated in **Figures 7.10** to **7.16**. The locations of the viewpoints are indicated in **Figure 7.6**. The viewpoints used to represent different VSRs is presented in **Table 7.15**.

Table 7.15 Viewpoints (ised for Photomontages
Viewpoint	VSR Represented
VP1	R1, R2, R8, V8, V9, T2
VP2	R3, R7, V2, V5
VP3	01, 02, 03
VP4	V6
VP5	T1
VP6	R4, R5, R6, R9, V3, V4, V10, V11
VP7	V1, V7

Table 7.15 Viewnoints used for Photomontages

- 7.10.6 The proposed development would be viewed from VP1, VP3, VP4 and VP5 and screened by buildings and vegetation for VP2, VP6 and VP7. The tree planting (OM2) along the site boundary of the Project can screen the proposed buildings and facilities. Infill planting (OM1) and green roof / vertical greening (OM3) can provide greenery to soften the industrial nature of the development as well as increase the aesthetic quality of the Project Site. Responsive design of the buildings (OM4) would blend in the proposed buildings / structures to the surrounding environment and visual context. With proper implementation of the mitigation measures, the potential residual visual impacts arising from the proposed Project to the VSRs could be effectively reduced.
- 7.10.7 The potential concurrent projects are described in Section 2. With implementation of mitigation measures recommended under this Project and proposed under the separate concurrent projects. No unacceptable cumulative landscape and visual impact would be anticipated.

7.11 **Environmental Monitoring and Audit**

Landscape monitoring and site audit shall be carried out regularly to ensure the proper 7.11.1 implementation of the recommended mitigation measures during construction phase and 12month establishment period during operational phase.

7.12 Conclusion

- 7.12.1 Landscape and visual assessment have been conducted in accordance with Appendix K of the EIA Study Brief No. ESB-321/2019 and with reference to the criteria and guidelines as stipulated in Annex 10 and 18 of EIAO TM and EIAO Guidance Note No. 8/2010.
- 7.12.2 Approximately 456 nos. of trees would be unavoidably affected by the Project. The affected trees shall be transplanted in accordance with "Guidelines on Tree Transplanting" issued by Development Bureau as far as possible. Any unavoidable tree felling shall be mitigated by compensatory tree planting in accordance with DEVB TCW No. 4/2020. Among the affected trees, 10 nos. of *Ficus microcarpa* or *Ficus benjamina* are mature trees with direct conflict with the proposed works and would be unavoidably removed. Compensatory planting for the same species of the affected mature trees and other affected trees would be provided with sufficient planting space within the Project site, nearby off-site area or other DSD's facilities.
- 7.12.3 The most affected landscape resources would be the amenity planting in the existing TPSTW site and the proposed expansion site for the Project (LR 1.1 and LR1.2). Upon full implementation of all proposed mitigation measures, the residual impacts on all landscape baseline are anticipated to be insubstantial to moderate during construction as well as Day 1 of operation and **insubstantial** to **slight** during Year 10 of operation.
- 7.12.4 The most affected visual sensitive receivers would be the occupants of Tai Po Industrial Estate (01 – 03) and travellers of Dai Kwai Street (T1). Upon full implementation of all proposed

mitigation measures, the residual impacts on all VSRs are anticipated to be **insubstantial** to **slight** during construction as well as both Day 1 and Year 10 of operation.

7.12.5 It is considered the Landscape and Visual Impacts are acceptable with mitigation measures implemented during construction and operational phases.