

Summary of environmental impacts associated with the Project

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Air Quality Impact					
Construction Phase					
Existing and planned residential premises, commercial premises, Comprehensive Development Area (CDA), government uses, educational institutions, place of worship, hospital/clinic and park/recreational use at TCE and TCW	<p>TSP</p> <ul style="list-style-type: none"> Max. 1-hour average TSP conc.: 407 – 6345 $\mu\text{g}/\text{m}^3$ <p>RSP</p> <ul style="list-style-type: none"> 10th highest 24-hour average RSP conc.: 82 – 342 $\mu\text{g}/\text{m}^3$ Annual average RSP conc.: 40 – 123 $\mu\text{g}/\text{m}^3$ <p>FSP</p> <ul style="list-style-type: none"> 10th highest 24-hour average FSP conc.: 58 – 91 $\mu\text{g}/\text{m}^3$ Annual average FSP conc.: 28 – 41 $\mu\text{g}/\text{m}^3$ 	<ul style="list-style-type: none"> TM-EIAO and AQO 1-hr Average TSP Conc: 500 $\mu\text{g}/\text{m}^3$ 24-hr Average RSP Conc: 100 $\mu\text{g}/\text{m}^3$ (Number of exceedance allowed : 9) Annual Average RSP Conc: 50 $\mu\text{g}/\text{m}^3$ 24-hr Average FSP Conc: 75 $\mu\text{g}/\text{m}^3$ (Number of exceedance allowed : 9) Annual Average FSP Conc: 35 $\mu\text{g}/\text{m}^3$ 	<p>TSP</p> <ul style="list-style-type: none"> Exceed TM-EIAO (1-hr) criterion by up to 5845 $\mu\text{g}/\text{m}^3$ <p>RSP</p> <ul style="list-style-type: none"> Exceed AQO (24-hr) criterion by up to 242 $\mu\text{g}/\text{m}^3$ Exceed AQO (Annual) criterion by up to 73 $\mu\text{g}/\text{m}^3$ <p>FSP</p> <ul style="list-style-type: none"> Exceed AQO (24-hr) criterion by up to 16 $\mu\text{g}/\text{m}^3$ Exceed AQO (Annual) criterion by up to 6 $\mu\text{g}/\text{m}^3$ 	<ul style="list-style-type: none"> Watering once per hour on the active works areas, exposed area; and paved haul roads to reduce dust emission Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices would be carried out to further minimise construction dust impact 	<ul style="list-style-type: none"> No adverse residual impacts anticipated
Operational Phase					
Existing and planned residential premises, commercial premises, Comprehensive Development Area (CDA), government uses, educational institutions, place of worship, hospital/clinic and park/recreational use at TCE and TCW	<p>NO₂</p> <ul style="list-style-type: none"> 19th highest 1-hour Average NO₂ Conc.: 111 – 168 $\mu\text{g}/\text{m}^3$ Annual Average NO₂ Conc.: 22 – 36 $\mu\text{g}/\text{m}^3$ <p>RSP</p> <ul style="list-style-type: none"> 10th highest 24-hour Average RSP Conc.: 73 – 78 $\mu\text{g}/\text{m}^3$ Annual Average RSP Conc.: 38 – 39 $\mu\text{g}/\text{m}^3$ <p>FSP</p>	<ul style="list-style-type: none"> AQO 1-hr Average NO₂ Conc: 200 $\mu\text{g}/\text{m}^3$ (Number of exceedance allowed : 18) Annual Average NO₂ Conc: 40 $\mu\text{g}/\text{m}^3$ 24-hr Average RSP Conc: 100 $\mu\text{g}/\text{m}^3$ (Number of exceedance allowed : 9) Annual Average RSP Conc: 50 $\mu\text{g}/\text{m}^3$ 24-hr Average FSP Conc: 75 $\mu\text{g}/\text{m}^3$ (Number of exceedance allowed : 9) Annual Average FSP Conc: 35 $\mu\text{g}/\text{m}^3$ 	<ul style="list-style-type: none"> No exceedances are predicted at all ASRs 	<ul style="list-style-type: none"> No mitigation measure is required 	<ul style="list-style-type: none"> No adverse residual impacts anticipated

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	<ul style="list-style-type: none"> 10th highest 24-hour Average RSP Conc.: 55 – 59 $\mu\text{g}/\text{m}^3$ Annual Average RSP Conc.: 27 – 28 $\mu\text{g}/\text{m}^3$ 				
Noise					
Construction Phase (Airborne Noise)					
Existing, committed and planned residential premises, educational institutions and village type development at TCE and TCW	<ul style="list-style-type: none"> Predicted construction airborne noise levels would range from 67 to 87 dB(A) 	<ul style="list-style-type: none"> TM-EIAO Annex 5 for non-restricted hours for domestic premises: 75 dB(A), for educational institution is 70 dB(A) (65 dB(A) during examination period) 	<ul style="list-style-type: none"> Exceed the TM-EIAO noise criterion by up to 16 dB(A) 	<ul style="list-style-type: none"> Adoption of good site practices to limit noise emissions at the source; Use of quality powered mechanical equipment (QPME); use of temporary noise barriers and noise enclosure to screen noise from relatively static PMEs; and alternative use of plant items within one worksite, wherever practicable 	<ul style="list-style-type: none"> The cumulative mitigated predicted construction noise levels would range from 50 to 75 dB(A) within the criterion All residential premises would comply with criteria. All educational institutions would comply with criterion for normal and examination periods
Construction Phase (Groundborne Noise)					
Planned residential premises at TCW	<ul style="list-style-type: none"> Predicted construction groundborne noise levels would be 38 dB(A) 	<ul style="list-style-type: none"> TM-EIAO Annex 5 for non-restricted hours TM-Places: ANL-10 dB(A) For domestic premises: 65 dB(A), for educational institution is 60 dB(A) (55 dB(A) during examination period) 	<ul style="list-style-type: none"> No exceedance anticipated 	<ul style="list-style-type: none"> No mitigation measure required 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Operational Phase (Road Traffic Noise)					
Existing, committed and planned residential premises, educational institutions, place of worship, village type development, hospital	<ul style="list-style-type: none"> Maximum Predicted road traffic noise levels at various phases of population intake would be: <ul style="list-style-type: none"> - 72dB(A) at Yr 2023 - 73dB(A) at Yr 2025 	<ul style="list-style-type: none"> TM-EIAO Annex 5: For domestic premises, hotels, hostels and offices: 70dB(A); for educational institutions and places of worship: 65dB(A); for hospitals, clinics etc: 55dB(A) 	<ul style="list-style-type: none"> Exceed TM-EIAO criterion by up to 6 dB(A) 	<ul style="list-style-type: none"> Implementation of a package of noise mitigation measures including barriers along some sections, architectural acoustic fins, facades with no openable windows, low noise surfaces, and cantilevered noise barrier 	<ul style="list-style-type: none"> The predicted mitigated operational traffic noise at various phases of population intake would be: <ul style="list-style-type: none"> - 72dB(A) at Yr 2023 - 72dB(A) at Yr 2025

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	<ul style="list-style-type: none"> - 74dB(A) at Yr 2027 - 76dB(A) at Yr 2045 				<ul style="list-style-type: none"> - 73dB(A) at Yr 2027 - 72dB(A) at Yr 2045 • Though exceedance is still predicted at some NSRs after implementation of recommended mitigation measures, the project road noise level would comply the noise criteria, and the project road contribution and project impact significance would be less than 1dB(A). Hence, no further mitigation is required
Operational Phase (Fixed Noise Sources)					
Planned residential premises at TCE and TCW and existing residential premises	<ul style="list-style-type: none"> • Maximum sound power level was predicted to meet the relevant noise criteria 	<ul style="list-style-type: none"> • TM-EIAO Annex 5: ANL-5dB(A) 	<ul style="list-style-type: none"> • No exceedance anticipated 	<ul style="list-style-type: none"> • All the pumps should be enclosed inside a building structure • Proper selection of quiet plant aiming to reduce the tonality at NSRs • Installation of silencer / acoustic enclosure / acoustic louvre for the exhaust of ventilation system • For underground train stations, sound attenuators with sufficient attenuations can be installed to the ventilation shafts • Openings of ventilation systems should be located away from NSRs as far as practicable • Use of cluster of small power loudspeakers instead of a few large power loudspeakers; use of 	<ul style="list-style-type: none"> • No adverse residual impact anticipated

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				directional loudspeakers and adjust orientation to point towards the audience and away from the nearby NSRs; and inclusion of a “Limiter” device in the system to set the upper bound of the output sound level during outdoor noise activities at the outdoor sporting facilities	
Operational Phase (Aircraft Noise)					
Planned NSRs at TCE and TCW	<ul style="list-style-type: none"> Based on the 3RS EIA findings, the predicted NEF 25 contours of the 3RS would be away from TCE upon the full commissioning of the 3RS, currently planned for 2023 For TCW, the development boundary will be away from the predicted NEF 25 contours for all the three operation modes for the 3RS 	<ul style="list-style-type: none"> TM-EIAO Annex 5: For domestic premises, hotels, hostels, educational institutions, places of worship; hospitals, clinics etc: NEF 25; for offices: NEF 30 	<ul style="list-style-type: none"> No encroachment of TCE and TCW on NEF 25 contour was anticipated 	<ul style="list-style-type: none"> Appropriate development phasing for TCE will also be considered to ensure all the NSRs within TCE and TCW will be outside the NEF 25 noise contours during the time of population intake. 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Operational Phase (Rail Airborne Noise)					
Planned NSRs at TCE	<ul style="list-style-type: none"> Predicted rail airborne noise levels at various phases of population intake would be: <ul style="list-style-type: none"> - 40 to 62dB(A) before Yr 2026 - 29 to 66dB(A) after Yr 2026 and before Yr 2030 - 29 to 64dB(A) after Yr 2030 L_{max} (2300-0700 hours) at various phases are within 85dB(A) 	<ul style="list-style-type: none"> TM-EIAO Annex 5 Appropriate ANLs shown in Table 2 of the Technical Memorandum for the Assessment of Noise from Places Other than Domestic Premises, Public Places or Construction Sites L_{max} (2300-0700 hours) = 85dB(A) 	<ul style="list-style-type: none"> Exceed TM-EIAO criterion by up to 9 dB(A) 	<ul style="list-style-type: none"> Implementation of semi enclosures on the realigned Tung Chung Line and architectural acoustic fins, facades with no openable windows at planned NSRs 	<ul style="list-style-type: none"> The predicted mitigated operational rail airborne noise at various phases of population intake would be: <ul style="list-style-type: none"> - 40 to 60dB(A) before Yr 2026 - 29 to 57dB(A) after Yr 2026 and before Yr 2030 - 29 to 58dB(A) after Yr 2030 No exceedances after implementation of mitigation measures,

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					hence, no further mitigation is required
Operational Phase (Rail Groundborne Noise)					
Planned NSRs at TCW	<ul style="list-style-type: none"> Predicted rail groundborne noise levels would be in the range of 33 to 43 dB(A) for L_{eq} 30 min 	<ul style="list-style-type: none"> TM-EIAO Annex 5 Appropriate ANLs shown in Table 2 of the Technical Memorandum for the Assessment of Noise from Places Other than Domestic Premises, Public Places or Construction Sites 	<ul style="list-style-type: none"> No exceedance anticipated 	<ul style="list-style-type: none"> No mitigation measure required 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Operational Phase (Helicopter Noise)					
Planned NSRs at TCE and TCW	<ul style="list-style-type: none"> Predicted helicopter noise levels would be in the range of L_{max} 80 to 82 dB(A) for daytime and 79 to 81 dB(A) for evening and night-time periods respectively 	<ul style="list-style-type: none"> TM-EIAO Annex 5: For domestic premises, hotels, hostels, educational institutions, places of worship: hospitals, clinics etc: 85dB(A); for offices: 90dB(A) 	<ul style="list-style-type: none"> No exceedance anticipated 	<ul style="list-style-type: none"> No mitigation measure required 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Operational Phase (Marine Traffic Noise)					
Planned NSRs at TCE	<ul style="list-style-type: none"> Predicted marine traffic noise levels would be 39 to 48 dB(A) for daytime and evening periods and 39 to 44 dB(A) for night-time period 	<ul style="list-style-type: none"> There is no statutory requirement for marine traffic noise Establishment based on prevailing noise measurement Approved EIA report for Proposed Joint User Complex and Wholesale Fish Market at Area 44, Tuen Mun (AEIAR-070/2003) 	<ul style="list-style-type: none"> No exceedance anticipated 	<ul style="list-style-type: none"> No mitigation measure required 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Water Quality					
Construction Phase					
WSRs including ecological sensitive area	Water quality in WSRs would be deteriorated by	<ul style="list-style-type: none"> TM-EIAO 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Provision of temporary drainage system to ensure that the surface run- 	<ul style="list-style-type: none"> No adverse residual impact anticipated

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with conservation importance, commercial fishing resources, areas of direct human contact, e.g. bathing beaches, and seawater extraction points	<p>land-based construction with the following pollution sources:</p> <ul style="list-style-type: none"> • Site runoff from general construction activities • Sewage from Workforce; • Construction Works near Tung Chung Stream; • Bridge Works at Tung Chung Stream; • Construction Work of Sewage Pumping Stations; • Construction Work of Fresh Water and Salt Water Reservoirs; • Construction of Storm water Management Facilities and Polder Scheme; • Groundwater and Runoff for Tunnel Works <p>Water quality in WSRs would be deteriorated by marine-based construction with the following pollution sources:</p> <ul style="list-style-type: none"> • Reclamation of Tung Chung East and Seafront Works for Road P1 • Seawall construction • Stone column installation 	<ul style="list-style-type: none"> • Water Pollution Control Ordinance (WPCO) (Cap. 358) • Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) • Practice Note for Professional Persons (ProPECC) PN 1/94 		<p>off with high concentration of suspended solid (SS) would not be discharged to the existing wet woodland area located at the north of the site.</p> <ul style="list-style-type: none"> • Best management practices with reference to ProPECC PN 1/94 should be implemented • Provision of temporary sanitary facilities e.g. portable chemical toilets, and sewage holding tank • Use of non-dredging reclamation methodology, installation of silt curtain and construction of about 200m leading seawall before filling 	

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	<ul style="list-style-type: none"> Deep cement mixing Construction work of proposed marina Marine traffic 				
Operational Phase					
WSRs including ecological sensitive area with conservation importance, commercial fishing resources, areas of direct human contact, e.g. bathing beaches, and seawater extraction points	<p>Water quality in Tung Chung would be deteriorated by:</p> <ul style="list-style-type: none"> Drainage Discharge and Runoff Sewerage / Sewage Discharge Change in Hydrodynamic Regime due to Reclamation of Tung Chung East and Road P1 (Tung Chung – Tai Ho Section) Emergency Overflow from Proposed Sewage Pumping Stations Maintenance Dredging and Wastewater & Sewage generated at Proposed Marina Potential Polluted Runoff from Sports Ground Facility Maintenance Flushing for Freshwater and Saltwater Reservoirs Emergency Discharge due to Pipe Bursting 	<ul style="list-style-type: none"> Relevant standards/ criteria stipulated under the TM-EIAO, WPCO, TM-DDS, HKPSG and ProPECC 5/93 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Runoff control by best management practice Provision mitigation measures including of 1) 100% standby pump capacity with spare pump of 50% pump capacity; 2) Dual-feed power supply; 3) Wet well storage providing up to 6-hours ADWF capacity (equivalent to about 4 hours of response time during peak flow condition); and 4) Emergency communication mechanism amongst relevant government departments, on proposed TCV East, North and West SPS, upgraded CMRSPS, proposed TCE West SPS and TCE East SPS. Emergency sewage overflow to Tung Chung Stream from SPSs at TCW or to the sea at the north side of TCE from SPSs at TCE is not anticipated Provision of high density polyethylene (HDPE) pipe for proposed gravity sewers and rising mains and further protection on proposed rising mains with concrete surround to prevent pipe bursting and bursting discharge Silt curtain should be deployed to reduce the sediment dispersion from the dredging inside the marina The recovered C&D materials for filling would be ensured no floating or 	<ul style="list-style-type: none"> No adverse residual impact anticipated

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				non-inert material by visual inspection, quality assurance, etc.	
Sewerage and Sewage Treatment Implications					
Construction Phase					
Refer to the relevant parts of the Water Quality - Construction Phase					
Operational Phase					
Water quality and ecological sensitive receivers at or near the Project	<ul style="list-style-type: none"> Emergency discharge from proposed sewage pumping stations and sewer bursting discharge 	<ul style="list-style-type: none"> EPD Report No. EPD/TP 1/05 Guidelines for Estimating Sewage Flows (GESF) for Sewerage Infrastructure Planning Version 1.0 DSD Sewerage Manual Part 1 (Key Planning Issues and Gravity Collection System) and Part 2 (Pumping Stations and Rising Mains) 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Provision mitigation measures including of 1) 100% standby pump capacity with spare pump of 50% pump capacity; 2) Dual-feed power supply; 3) Wet well storage providing up to 6-hours ADWF capacity and 4) Emergency communication mechanism amongst relevant government departments, on proposed TCV East, North and West SPS, upgraded CMRSPS, proposed TCE East and West SPS. Emergency sewage overflow to Tung Chung Stream and Tung Chung Bay is not anticipated Provision of high density polyethylene (HDPE) pipe for proposed gravity sewers and rising mains and further protection on proposed rising mains with concrete surround to prevent pipe bursting and bursting discharge Silt curtain should be deployed to reduce the sediment dispersion from the dredging inside the marina 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Waste					
Construction Phase					
Water quality, air and noise sensitive receivers at or near the Project site, the	<ul style="list-style-type: none"> It is estimated that 744,800m³ of inert soft C&D material would be 	<ul style="list-style-type: none"> TM-EIAO Annex 7 and Annex 15 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Standard formwork or pre-fabrication should be used as much as possible in order to minimise the arising of C&D 	<ul style="list-style-type: none"> No adverse residual impact anticipated

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waste transportation routes and the waste disposal site.	<p>generated in which all of them would be reused within the site as much as possible.</p> <ul style="list-style-type: none"> • It is estimated that 157,000m³ of rock would be generated in which all of them would be reused within the site as much as possible. • It is estimated that 241,300m³ of artificial hard material would be generated in which all of them would be reused within the site as much as possible. • It is estimated that 42,800m³ of top soil would be generated in which all of them would be reused within the site as much as possible. • It is estimated that 38,000m³ of vegetation would be generated and all of them will be disposed to Landfill. • It is estimated that 3,755 tonne of general refuse, paper, metals, plastics, etc. would be generated. The general refuse will be disposal to landfill while the paper, metals and plastics etc. will be collected by recycler. A 	<ul style="list-style-type: none"> • Waste Disposal Ordinance (Cap. 354) • Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) • Land (Miscellaneous Provisions) Ordinance (Cap. 28) • Public Health and Municipal Services Ordinance (Cap. 132) - Public Cleansing and Prevention of Nuisances Regulation • Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N) 		materials. Any C&D materials generated would be reused (i.e. within the site and other concurrent projects) as far as practicable	

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	few hundred litres of chemical waste will be generated per month and it would be recycled by licensed facility as far as possible. The remaining chemical waste would be disposed of at CWTC. An estimation of 11.5m ³ of floating refuse will be accumulated and collected by future Contractor of the Project.				
Operational Phase					
Water quality, air and noise sensitive receivers at or near the Project Site, the waste transportation routes and the waste disposal site.	<ul style="list-style-type: none"> It is estimated that 300tpd of municipal solid waste (MSW) would be generated in which 120tpd of them will be recycled and 180tpd of them will be disposed to Landfill. An estimation of 11.5m³ of floating refuse will be accumulated and collected by MD's contractor. 	<ul style="list-style-type: none"> Waste Disposal Ordinance (Cap. 354) Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) 	<ul style="list-style-type: none"> Not applicable. 	<ul style="list-style-type: none"> Avoiding illegal dumping and landfilling General refuse should be collected with lidded bins and delivered to a central collection point and stored in enclosed containers. Daily collection should be arranged by the waste collector. A 4-bin recycling system for paper, metals, plastics and glass should be adopted together with a general refuse bin. They should be placed in prominent places to promote waste separation at source. All recyclable materials should be collected by recyclers. 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Land Contamination					
Construction Phase					
Potentially contaminated sites within TCW	<ul style="list-style-type: none"> Four potentially contaminated sites has been identified. After land 	<ul style="list-style-type: none"> Section 3 (Potential Contaminated Land Issues) of Annex 19 "Guidelines for 	<ul style="list-style-type: none"> The extent of the contamination of the 4 potentially contaminated 	<ul style="list-style-type: none"> Following the completion of SI and lab testing works, a CAR would be prepared to present the findings of the 	<ul style="list-style-type: none"> No adverse residual impact anticipated

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	resumption at a later stage, environmental site investigation (SI) will be carried out to determine the extent of the contamination, if any	<p>Assessment of Impact on Sites of Cultural Heritage and Other Impacts” of the TM-EIAO</p> <ul style="list-style-type: none"> Guidance Note for Contaminated Land Assessment and Remediation” Practice Guide for Investigation and Remediation of Contaminated Land Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management 	sites if any, will be determined after land resumption when SI works will be carried out	SI and evaluate the level and extent of potential contamination. If land contamination is identified and remediation actions are required, a RAP will be prepared for submission to EPD	
Operational Phase					
Not applicable	• Not applicable	• Not applicable	• Not applicable	• Not applicable	• Not applicable
Ecology					
Construction Phase					
Project area	<p>Habitat loss</p> <ul style="list-style-type: none"> 4.77ha of Abandoned Agricultural Land (Dry) 1.68ha of Abandoned Agricultural Land (Wet) 1.92ha of Active Agricultural land (dry) 0.20ha of Fung Shui Wood 18.11ha of Orchard 1.94ha of Plantation 0.85ha of Secondary Woodland (Mature) 4.87ha of Secondary Woodland (Young) 	<ul style="list-style-type: none"> Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislation, the Forestry Regulations Wild Animals Protection Ordinance (Cap. 170) Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and relevant annexes 8, 11, 16, 20 and 21 of the associated Technical Memorandum Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) and its subsidiary legislation 	• Not applicable	<ul style="list-style-type: none"> Compensation woodland planting Planting of emergent plant inside the future River Park Capture-and-translocation survey Preservation and/or translocation of plant species of conservation importance Defining and maintaining construction site boundaries Protection of Tung Chung Stream Standard site practices Prevention of emergency discharge overflow of proposed SPSs and Upgraded CMRSPS in TCW 	• No adverse residual impact anticipated

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	<ul style="list-style-type: none"> • 5.61ha of Shrubland / Grassland • 27.46ha of Urbanised / Disturbed • 0.16ha of Watercourse • 3.8km of Artificial Seawall • 145ha of Coastal Waters 	<ul style="list-style-type: none"> • Hong Kong Planning Standards and Guidelines (HKPSG) Chapter 10, "Conservation" 		<ul style="list-style-type: none"> • Risk minimisation of emergency discharge overflow of proposed SPSs in TCE • Implementation of Eco-shoreline • Mitigation for marine water quality • Control and minimisation of marine traffic • Mitigation measures for maintenance dredging for proposed Marina 	
Operational Phase					
Project area	<ul style="list-style-type: none"> • Noise, traffic and human activities • Air Pollution • Surface runoff and drainage discharge into stream courses • Sewage and emergency discharge • Terrestrial Habitat fragmentation • Artificial lightings • Barrier effect and bird collision 	<ul style="list-style-type: none"> • Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislation, the Forestry Regulations • Wild Animals Protection Ordinance (Cap. 170) • Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and relevant annexes 8, 11, 16, 20 and 21 of the associated Technical Memorandum • Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) and its subsidiary legislation • Hong Kong Planning Standards and Guidelines (HKPSG) Chapter 10, "Conservation" • Planning, Environment and Lands Bureau Technical Circular 1/97 / Works Branch Technical Circular 4/97,"Guidelines for Implementing the Policy on 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • No adverse residual impact anticipated

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		Off-site Ecological Mitigation Measures"			
Fisheries					
Construction Phase					
Fishing grounds in North Lantau Waters	<ul style="list-style-type: none"> • Permanent loss of 145ha fishing ground • Indirect impacts on water quality, site runoff in TCW, disturbance on fishing operation 	<ul style="list-style-type: none"> • Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) • TM-EIAO Annex 9 and Annex 17 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Non-dredged reclamation and seawall construction method • Good site practices • Strict enforcement on no-dumping • Spill response plan 	<ul style="list-style-type: none"> • No adverse residual impact anticipated
Operational Phase					
Fishing grounds in North Lantau Waters	<ul style="list-style-type: none"> • Permanent loss of 149.2ha for fishing activities (145ha from reclamation footprint and 4.2ha for marina) • Indirect impacts on water quality, site runoff in TCW, disturbance on fishing operation 	<ul style="list-style-type: none"> • Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) • TM-EIAO Annex 9 and Annex 17 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Application of speed limits and regular routes on marine traffic 	<ul style="list-style-type: none"> • No adverse residual impact anticipated
Fisheries resources in TCE and TCW	<ul style="list-style-type: none"> • Emergency discharge from proposed sewage pumping stations and sewer bursting discharge 	<ul style="list-style-type: none"> • EPD Report No. EPD/TP 1/05 Guidelines for Estimating Sewage Flows (GESF) for Sewerage Infrastructure Planning Version 1.0 • DSD Sewerage Manual Part 1 (Key Planning Issues and Gravity Collection System) and Part 2 (Pumping Stations and Rising Mains) 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Provision mitigation measures including of 1) 100% standby pump capacity with spare pump of 50% pump capacity; 2) Dual-feed power supply; 3) Wet well storage providing up to 6-hours ADWF capacity; and 4) Emergency communication mechanism amongst relevant government departments, on proposed TCV East, North and West SPS, upgraded CMRSPS, proposed TCE East and West SPS. Emergency sewage overflow to Tung Chung Stream and Tung Chung Bay is not anticipated • Provision of high density polyethylene (HDPE) pipe for proposed gravity 	<ul style="list-style-type: none"> • No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				sewers and rising mains and further protection on proposed rising mains with concrete surround to prevent pipe bursting and bursting discharge <ul style="list-style-type: none"> Silt curtain should be deployed to reduce the sediment dispersion from the dredging inside the marina 	
Landscape and Visual Impact					
Construction Phase					
Existing Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<p>Key Affected LR:</p> <ul style="list-style-type: none"> 3ha of Secondary Woodland ; 115ha of Coastal Waters; 9ha of Abandoned Agricultural land; 20ha of Active Agricultural land; 0.2ha of Fung Shui Woods; <p>Key Affected LCAs:</p> <ul style="list-style-type: none"> 115ha of Inshore Water Landscape; 8ha of Coastal Upland and Hillside Landscape; 32ha of Miscellaneous Rural Fringe Landscape; <p>Broad Brush Tree Survey is within the comprehensive development areas of the project, approximately 70% of the trees within the boundary of RODP would be affected.</p> <p>Key Affected VSRs:</p>	<ul style="list-style-type: none"> Environmental Impact Assessment Ordinance (Cap.499) and the Technical Memorandum on Environmental Impact Assessment Process (TM), particularly Annexes 10 and 18; EIAO Guidance Note No. 8/2010 on Preparation of Landscape and Visual Impact Assessment under the EIAO; DEVB (GLTM) – Guidelines on Tree Preservation during Development, April 2015; DEVB (GLTM) – Guidelines on Tree Transplanting, September 2014; ETWB TCW No. 5/2005 – Protection of streams/rivers from adverse impacts arising from construction works; HyD Guidelines HQ/GN/13 - Interim Guidelines for Tree Transplanting Works under 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> MM1 - Optimization of Construction Areas & Providing Temporary Landscape on Temporary Construction ; MM2 - Minimize Topographical Changes; MM3 - Preservation of Potentially Registerable OVTs, Rare and Protective Vegetation; MM4 - Transplanting of Existing Trees; MM5 - Screen Hoarding ; MM6 - Adopting Non-dredge Method for the Reclamation ; MM7 - Protection of Natural Rivers and Streams; MM8 - Preservation of Natural Coastline; MM9 - Providing Natural Rock Material / Planting for Artificial Seawall; MM10 - Compensatory Planting; MM11 - Woodland Restoration ; MM12 - Screen Planting; MM13 - Roadside Planting; MM14 - Aesthetic Design of Built Development; 	<ul style="list-style-type: none"> There will be Slight to Moderate/Substantial impact on LR There will be Slight to Moderate/Substantial impact on LCAs There will be Slight to Moderate/Substantial impact on VSRs

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<ul style="list-style-type: none"> Visitors of Tung Chung North Waterfront Area in TCE and future recreational/occupational users of Topside Development at HKBCF Island would result in an impact of substantial significance. Residents of Yat Tung Estate, villages near Yuen Tan Temple, villages near Shek Lau Po and residents near Wong Ka Wai would result in an impact of substantial significance. Hikers/visitors of Scenic Hill facing east, visitors of Planned Open Space at Ma Wan Hill, hikers along 360 Rescue Trail and Passengers/ drivers of Ngong Ping 360 Cable Car would result in an impact of substantial significance. 	<ul style="list-style-type: none"> Highways Department's Vegetation Maintenance Ambit; Development Bureau Technical Circular (Works) (DEVB TCW) No. 10/2013 – Tree Preservation 		<ul style="list-style-type: none"> MM15 - Maximise Greening on Structures; MM16 - Noise Barrier Design ; MM17 - Landscape Treatment for Polders & Attenuation Ponds; MM18 - Landscaping on Slopes; MM19 - Landscape Treatment on Channelized Watercourses ; and MM20 - Lighting Control. 	
Operational Phase					
Existing Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<ul style="list-style-type: none"> Same as those for construction phase The overall visual character in Tung Chung area would be completely changed by the proposed development after the construction. 	<ul style="list-style-type: none"> Environmental Impact Assessment Ordinance (Cap.499.S.16) and the Technical Memorandum on Environmental Impact Assessment Process (TM), particularly Annexes 10 and 18 EIAO Guidance Note No. 8/2010 on Preparation of Landscape and Visual 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Same as those for construction phase Tree compensation within or outside the RODP would be required. 	<ul style="list-style-type: none"> There will be Slight to Slight/Moderate or Moderate impacts on LR for Day 1 and Year 10 scenarios respectively There will be Slight to Slight/Moderate or Moderate impacts on LCAs for Day 1 and

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
		Impact Assessment under the EIAO; <ul style="list-style-type: none"> Development Bureau Technical Circular (Works) (DEVB TCW) No. 10/2013 – Tree Preservation; DEVB (GLTM) – Management Guidelines for Mature Trees, December 2014; ETWB TCW No. 2/2004 – Maintenance of Vegetation and Hard Landscape Features; ETWB TCW No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation. 			Year 10 scenarios respectively <ul style="list-style-type: none"> There will be Slight to Slight/Moderate impacts on VSRs for Day 1 and Year 10 scenarios respectively
Cultural Heritage					
Construction Phase					
Terrestrial Archaeology - Sites of Archaeological Interest	<ul style="list-style-type: none"> Archaeological findings might be present within the development inside Sha Tsui Tau Site of Archaeological Interest 	<ul style="list-style-type: none"> Guidelines for Cultural Heritage Impact Assessment TM-EIAO Annex 10 and Annex 19 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Implementation of rescue excavation and watching brief during construction phase 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Marine Archaeology	<ul style="list-style-type: none"> No impact anticipated 	<ul style="list-style-type: none"> Guidelines for Cultural Heritage Impact Assessment TM-EIAO Annex 10 and Annex 19 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> No mitigation required 	<ul style="list-style-type: none"> No adverse residual impact anticipated
Built Heritage	<ul style="list-style-type: none"> No impact anticipated 	<ul style="list-style-type: none"> Guidelines for Cultural Heritage Impact Assessment TM-EIAO Annex 10 and Annex 19 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> No mitigation required 	<ul style="list-style-type: none"> No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
		<ul style="list-style-type: none"> • AMO Proposed Vibration Limits 			
Operational Phase					
Terrestrial Archaeology - Sites of Archaeological Interest	<ul style="list-style-type: none"> • If any finds are discovered in either rescue excavation/ survey-cum-excavation after land resumption prior to construction works, and watching brief during construction phase, AMO should be contacted immediately for further arrangement on practical and feasible handling procedures during construction phase. No impact would be anticipated 	<ul style="list-style-type: none"> • Guidelines for Cultural Heritage Impact Assessment • TM-EIAO Annex 10 and Annex 19 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Erecting signage on information board of heritage resources. 	<ul style="list-style-type: none"> • No adverse residual impact anticipated
Marine Archaeology	<ul style="list-style-type: none"> • No impact anticipated 	<ul style="list-style-type: none"> • Guidelines for Cultural Heritage Impact Assessment • TM-EIAO Annex 10 and Annex 19 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • No mitigation required 	<ul style="list-style-type: none"> • No adverse residual impact anticipated
Built Heritage	<ul style="list-style-type: none"> • No impact anticipated 	<ul style="list-style-type: none"> • Guidelines for Cultural Heritage Impact Assessment • TM-EIAO Annex 10 and Annex 19 • AMO Proposed Vibration Limits 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • No mitigation required 	<ul style="list-style-type: none"> • No adverse residual impact anticipated