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APPENDIX B IMPLEMENTATION SCHEDULE OF RECOMMENDED MITIGATION MEASURES

Implementation Schedule of Recommended Mitigation Measures

This section presents the implementation schedule of mitigation measures for the Project. **Table B.1** summarizes the details of the recommended mitigation measures for all works areas. For each recommended mitigation measures, both the location and timing for the measure have clearly been identified as well as the parties responsible for implementing the measure and for maintenance (where applicable).

Table B.1 Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Implementation Stage*			Relevant Legislation & Guidelines
				Des	C	O	
Air Quality Impact							
Construction Phase							
3.2.4 to 3.2.6	<u>Emission Standards and Requirements for PMEs</u> <ul style="list-style-type: none"> Legal control on the types of fuel allowed for use and their sulphur contents in commercial and industrial processes should be observed. Timely application for temporary electricity with a target that the necessary cables laying works can be completed before the commencement of construction works and avoid on-site use of diesel generator. Only approved non-road mobile machinery should be allowed to be used in construction sites. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		Air Pollution Control (Fuel Restriction) Regulation, Air Pollution control (Non-road Mobile Machinery) (Emission) Regulation; DVEB TC (W) No. 13/2010; DVEB TC No. 1/2015; ETWB-TC(W) No. 19/2005
3.2.4	<u>Control on fuel for PMEs</u> <ul style="list-style-type: none"> All construction plants are required to use ultra-low-sulphur diesel (ULSD) (defined as diesel fuel containing not more than 0.005% sulphur by weight). 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		Air Pollution Control (Fuel Restriction) Regulation

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<p>3.8.1</p>	<p>Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices listed below shall be carried out to further minimize construction dust impact:</p> <ul style="list-style-type: none"> • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise. • Temporarily stockpile odorous material as far away from ASRs as possible. • Temporary stockpiles of odorous material will be properly covered with tarpaulin to avoid any odour nuisance arising. • Provision of site hoarding (>4m) for ASRs located in close proximity to works areas (e.g., A5, A12, and A30) 	<p>All construction sites / construction phase / upon completion of all construction activities</p>	<p>Contractor</p>	<p>✓</p>	<p></p>	<p>Air Pollution Control (Construction Dust) Regulation</p>
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3.8.1	To minimize the exhaust emission from NRMMs during the construction phase, below measures shall be applied as far as practicable: <ul style="list-style-type: none"> Connect construction plant and equipment to main electricity supply and avoid use of diesel generators and diesel-powered equipment; Exempted NRMMs are not allowed; 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		
Noise Impact							
Construction Phase							
4.8.1 to 4.8.2	Good site practices listed below and the noise control requirements stated in EPD's "Recommended Pollution Control Clauses for Construction Contracts" should be included in the Contract Specification for the Contractors to follow and should be implemented to further minimize the potential noise impacts during the construction phase of the Project. <ul style="list-style-type: none"> Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme. Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme. Mobile plant, if any, should be sited as far away from noise sensitive receivers (NSRs) as possible. Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. 	All construction sites / construction phase / upon completion of all construction activities	Project Proponent and Contractor	✓	✓		EIAO-TM; Noise Control Ordinance (NCO)
4.8.3 – 4.8.5, Appendix 4.5	Adopting quiet PME is recommended. The type of quiet PME adopted in this assessment is for reference only. The contractors may adopt alternative quiet PME as long as it can be demonstrated that they would not result in construction noise impacts worse than those predicted in this assessment.	All active construction sites / construction phase / upon completion of all construction activities	Contractor		✓		EIAO-TM; NCO
4.8.6,	The use of quieter type blade saw as the substitution for traditional saw.	All active construction sites /	Project	✓	✓		EIAO-TM; NCO

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Appendix 4.5		construction phase / upon completion of all construction activities	Proponent and Contractor				
4.8.7	The contractor shall adopt quieter construction method, such as self-compacting concrete for concreting work to minimise the use of vibratory poker for concreting works.	All active construction sites / construction phase / upon completion of all construction activities	Contractor		✓		EIAO-TM; NCO
4.8.7, Appendix 4.5	The contractor shall adopt non-percussive equipment and method, such as silent piling by "Press-in" Method, to carry out sheet piling works as far as practicable.	All active construction sites / construction phase / upon completion of all construction activities	Contractor		✓		EIAO-TM; NCO
4.8,4, Appendix 4.5	The contractor shall implement movable noise barrier and purpose-built barrier for the following PME, such that the line of sight between the NSRs and the PME is blocked. Or otherwise, equivalent noise mitigation measures should be implemented. <ul style="list-style-type: none"> • Breaker, hand-held, mass > 10kg and < 20kg • Excavator • Dump truck • Lorry • Generator • Asphalt paver • Road roller • Paint line marker • Air compressor • Concrete pump • Poker, vibratory, hand • Crane, mobile • Bar bender and cutter (electric) • Quieter type blade saw • Excavator, mini-robot mounted • Rock drill, crawler mounted (hydraulic) 	All Active construction sites / construction phase / upon completion of all construction activities	Contractor		✓		EIAO-TM; NCO

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4.6.3, Appendix 4.5	The contractor shall limit the operation of PMEs to not more than or equal to the utilization rate stated in Appendix 4.5. Or otherwise, equivalent noise mitigation measures should be implemented.	All Active construction sites / construction phase / upon completion of all construction activities	Contractor		✓		
Operation Phase							
4.8.8	In accordance with HyD <i>Guidance Notes on Road Surface Requirements for Expressways and High Speed Road (RD/GN/032A)</i> , highly modified friction course (HMFC) is proposed as the standard surfacing material on the road sections with design speed of 80km/h or above without traffic lights and classified as trunk road/high speed road.	Along the Project road/ Permanent/ Prior to first operation of the Project road	Project Proponent and Contractor	✓	✓	✓	HyD <i>Guidance Notes on Road Surface Requirements for Expressways and High Speed Road (RD/GN/032)</i>
4.8.9	At-receiver mitigation, namely provision of acoustic window by Housing Department at planned public housing development at Ping Shan South and Tan Kwai Tsuen, and at-source mitigation measures, including the provision of low noise road surfacing, vertical barrier, and cantilever barrier have been proposed at appropriate locations along the Project road. Extents and locations of proposed direct mitigation measures are presented in Table 4.7, Table 4.8, Table 4.9, 60695325/EIA/Figure 4.8a, and 60695325/EIA/Figure 4.8b of the EIA Report.	Along the Project road/ Permanent/ Prior to first operation of the Project road	Project Proponent and Contractor	✓	✓	✓	EIAO-TM
Water Quality Impact							
Construction Phase							
5.8.5	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed where applicable to minimise surface run-off and the chance of erosion. Surface run-off from construction sites should be discharged into storm drains via adequately designed sand / silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided as necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94

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5.8.6	Silt removal facilities, channels, and manholes should be maintained and the deposited silt and grit should be removed regularly (as well as at the onset of and after each rainstorm) to prevent overflows and localised flooding.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.7	Construction works should be programmed to minimise soil excavation in the wet season (i.e., April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, temporarily exposed slope surfaces should be covered e.g., by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to prevent storm run-off from washing across exposed soil surfaces.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.8	Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.9	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in the wet season is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.10	Open stockpiles of construction materials (e.g., aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94

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5.3.4	All vehicles and plants should be cleaned before they leave a construction site to minimize the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.18	Sufficient chemical toilets should be provided in the works areas. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.19	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site should be conducted to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ProPECC PN 1/94
5.8.15	The Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The WDO (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; Waste Disposal Ordinance (WDO)
5.8.16	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM
5.8.17	Disposal of chemical waste should be carried out in compliance with the WDO. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the WDO should be followed to avoid leakage or spillage of chemicals.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; WDO

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5.8.14	The practices outlined in Environment, Transport and Works Bureau (ETWB) TC (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" should also be adopted where applicable to minimise the water quality impacts upon any natural streams or surface water systems.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WPCO; EIAO-TM; ETWB TC (Works) No. 5/2005
Operation Phase							
5.8.20	During the operation phase, surface run-off from the at-grade and viaducts of Yuen Long Highway WSR would be collected by the integrated road drainage system with gully pots to collect silt and discharged to the nearby existing drainage system. The design of site drainage should follow the relevant guidelines and practices as given in the ProPECC PN 5/93. Best Management Practices (BMPs) for storm water discharge are recommended to reduce the stormwater pollution arising from the Project.	Operation Phase	Operator			✓	WPCO; ProPECC PN 5/93
5.8.21	Exposed surface shall be avoided within the proposed site to minimise soil erosion. Proposed site shall be either hard paved or covered by landscaping area where appropriate to reduce soil erosion. The existing watercourses adjacent to the Project site will be retained to maintain the original flow path. The drainage system will be designed to avoid flooding based on the 1 in 50-year return period in accordance with "Stormwater Drainage Manual (5th Edition)" published by Drainage Services Department (DSD).	Operation Phase	Operator			✓	WPCO; "Stormwater Drainage Manual (5th Edition)"
5.8.22	Screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system. Road gullies with standard design and silt traps and oil interceptors should be incorporated during the detailed design to remove particles present in storm water runoff.	Operation Phase	Operator			✓	WPCO
5.8.23	Good management measures such as regular cleaning and sweeping of road surface / open areas is suggested. The road surface / open area cleaning should also be carried out prior to occurrence of rainstorm. Manholes, as well as storm water gullies, ditches provided among the development areas should be regularly inspected and cleaned (e.g. monthly). Additional inspection and cleansing should be carried out before forecast heavy rainfall.	Operation Phase	Operator			✓	WPCO

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Waste Management Implication							
Construction Phase							
6.10.2	<p><u>Good Site Practices</u> Recommendations for good site practices during the construction phase include:</p> <ul style="list-style-type: none"> • Nomination of an approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility, of all wastes generated at the site; • Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors. • A Waste Management Plan (WMP) should be prepared by the contractor and submitted to the Engineer for approval. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		Waste Disposal Ordinance (WDO)

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6.10.3	<p><u>Waste Reduction Measures</u> Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> • Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Proper storage and site practices to minimize the potential for damage or contamination of construction materials • Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste. • Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and • Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WDO
6.10.5	<p><u>Storage of Waste</u> Recommendations to minimise the impacts include:</p> <ul style="list-style-type: none"> • waste such as soil should be handled and stored well to ensure secure containment; • Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and • Different locations should be designated to stockpile each material to enhance reuse. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		-

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6.10.6	<p><u>Collection and transportation of Waste</u> Waste haulers should be employed for the collection and transportation of waste generated. The following measures should be enforced to minimise the potential adverse impacts:</p> <ul style="list-style-type: none"> • Remove waste in timely manner; • Employ trucks and vessels with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; including Chemical Waste Permits / licenses under the Waste Disposal Ordinance (Cap 354), Water Pollution Control Ordinance (Cap 358), Public Dumping Licence under the Land (Miscellaneous Provisions) Ordinance (Cap 28), Effluent Discharge Licence under the Water Pollution Control Ordinance, and • Disposal of waste should be done at licensed waste disposal facilities. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		WDO; Waste Disposal (Charges for Disposal of Construction Waste) Regulation; Land (Miscellaneous Provisions) Ordinance; WPCO
6.10.8	<p><u>C&D Materials</u> Careful design, planning together with good site management can reduce over-ordering and generation of C&D materials such as concrete, mortar and cement grouts. Formwork should be designed to maximize the use of standard wooden panels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</p>	All construction sites / construction phase / upon completion of all construction activities	Contractor	✓	✓		ETWB TC(W) No. 19/2005 Project Administration Handbook (PAH)
6.10.9	<p>The excavated materials arising from excavation works should be reused on-site as backfilling materials and for landscaping works as far as practicable. Other mitigation requirements are listed below:</p> <ul style="list-style-type: none"> • A WMP, which becomes part of the EMP, should be prepared in accordance with ETWB TCW No.19/2005; • A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and • In order to monitor the disposal of C&D materials at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to DEVB TCW No. 06/2010). In addition, it is also recommended that the Contractor should examine the possibility of adopting global positioning system (“GPS”) or equivalent system at C&D waste collection vehicles to prevent fly-tipping of C&D waste more effectively. 	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		ETWB TC(W) No. 19/2005; DEVB TCW No. 06/2010

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6.10.10	The Contactor should prepare and implement an EMP in accordance with ETWB TCW No. 19/2005, which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		ETWB TC(W) No. 19/2005
6.10.11	The Contractor would be responsible for devising a system to work for on-site sorting of C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimize temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		ETWB TC(W) No. 19/2005; Project Administration Handbook (PAH)
6.10.12	<u>Chemical Wastes</u> If chemical wastes are produced at the construction site, the Contractor during construction or the operator during operation will be required to register with EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Suitable containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to the licensed CWTC, or other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		Waste Disposal (Chemical Waste) (General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
6.10.13	<u>General Refuse</u> Recycling of wastepaper, aluminium cans and plastic bottles should be encouraged, it is recommended to place clearly labelled recycling bins at designated locations with convenient access. Other general refuse should be separated from chemical and C&D materials by providing separated bins or skips for storage to maximize the recyclable volume. A reputable licensed waste collector should be employed to remove general refuse on a daily basis to minimize odour, pest and litter impacts.	All construction sites / construction phase / upon completion of all construction activities	Contractor		✓		Public Health and Municipal Services Ordinance (Cap.132)
Operation Phase							

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6.11.2	<p><u>Chemical Waste</u> The operators of various industrial uses should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Operation Phase	Operator			✓	Waste Disposal (Chemical Waste) (General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
6.11.3	<p><u>General Refuse</u> Adequate number of rubbish bins should be provided to collect the roadside littering and frequent clearing of bins should be arranged by Food and Environmental Hygiene Department (FEHD). Scrap metal from maintenance of widened Yuen Long Highway will be collected and recycled at licensed metal recycling collectors.</p>	Operation Phase	Operator			✓	Public Health and Municipal Services Ordinance (Cap.132)

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Land Contamination							
7.9.2 – 7.9.3	<p>Further site appraisal will be carried out by Project Proponent (PP)'s appointed consultants once site access is available (e.g. after land resumption), in order to identify the presence of “potential contaminant” for intrusive site investigation and confirm the evaluation of the contaminated site in initial land contamination assessment.</p> <p>The PP's consultants should prepare a supplementary CAP to summarise the relevant findings of the further site appraisal at Site C10. The supplementary CAP for Site C1 to C7 and C8 to C9 will be prepared by the relevant contractors under YL/2022/01 and Yuen Long South Stage 2B respectively. After approval of the supplementary CAP and upon completion of the SI works, if any, the PP should prepare a CAR to present findings of the SI works. If contamination has been identified, a RAP should be prepared to formulate appropriate remedial measures to deal with the contamination identified. Following completion of any necessary remediation works, a RR should be prepared to demonstrate adequate clean-up and submit to EPD for approval prior to the commencement of any development works at the contaminated sites.</p>	Project Area / Construction Phase (after land resumption and after decommissioning of the existing structures/ areas but prior to the construction works at the concerned areas)	Project Proponent / Contractor		✓		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
7.11.2 – 7.11.3	<p>According to the Practice Guide, the need to remediate the contaminated area and the nature, level and extent of contamination would be determined based on the findings of the SI works to be presented in the CAR(s). The appropriate remediation methods should be selected based on the findings of the SI works and would be presented in the RAP(s).</p> <p>A Remediation Report (RR) to demonstrate adequate remediation shall be prepared and submitted to EPD for endorsement prior to the commencement of any construction/ development works within the Project Site. No construction/ development works shall be carried out before the endorsement of the RR.</p>	Project Area / Construction Phase (after land resumption and after decommissioning of the existing structures/ areas but prior to the construction works at the concerned areas)	Project Proponent / Contractor		✓		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

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Ecological Impact (Terrestrial)							
8.7.3 – 8.7.5	<p><u>Potential Disturbance through Disturbance from Construction Works</u></p> <ul style="list-style-type: none"> • Proper phasing and sectional completion of works • A site hoarding will be in place before the commencement of work, to ensure that disturbance from the proposed work is minimized. • Construction workers will also be briefed regarding the sensitivity of the areas before the commencement of the works and requested not to disturb any areas nearby, for example, bat roosts in the vicinity of works area. • The site boundary will be clearly defined (i.e., fenced with the screening materials mentioned). • Any works beyond the boundary strictly prohibited. • Use of quieter Quality Powered Mechanical Equipment (QPME). • Use of movable noise barriers or noise shield for mechanical equipment. • Provision of higher density fixed opaque and non-reflective temporary noise barrier (3m tall) with color scheme blended with the environment will also be implemented to reduce construction noise and disturbances with better noise insulation. • A properly designed temporary drainage system within the site will be implemented and direct discharge away from watercourses downstream to the existing storm drain nearby will occur. • The drainage system will be equipped with sand/silt removal facilities to treat the surface run-off. 	Project sites / Design, Pre-construction and Construction phases	Project Proponent / Contractor	✓	✓	✓	EIAO-TM
8.7.6	<p><u>Potential Bird Collision</u></p> <ul style="list-style-type: none"> • Bird friendly design should be adopted for the noise barriers, such as using falcon sticker and tinted materials. • Use of transparent/reflective materials should be avoided or minimized. • Guidelines on Design of Noise Barriers (EPD & HyD, 2003) and Practice Notes No. BSTR/PN/003 (Revision E) Noise Barriers with Transparent Panels (HyD, 2020) could be referred for the design of the noise barrier/enclosure to avoid and minimize bird mortality from collisions. 	Project sites / Design and Pre-construction phases	Project Proponent and Contractor	✓	✓		EIAO-TM

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8.7.7 – 8.7.8	<p><u>Potential impact to potential bat roosts</u></p> <ul style="list-style-type: none"> Any potential roosts in the close vicinity of the works area (i.e. 50m) should be inspected by a suitably qualified ecologist, prior to the commencement of works Suitable screening should be applied to separate disturbance due to workers and/or noise from the potential bat roosts. Prior to the felling and/or transplanting of trees, sites should be checked for the presence of bat roosts by a suitably qualified ecologist. If roosts are found, any tree removal work should be postponed until the roost is vacated 	Project sites / Construction phase	Contractor	✓	✓		EIAO-TM, Guidelines on Tree Preservation during Development and TC(W) No. 4/2020 Tree Preservation
Landscape and Visual Impact							
Table 9.13	<p><u>Careful Site Planning and Management (CM1)</u></p> <p>Careful planning of construction site layout to avoid encroachment and minimize disturbance impacts to sensitive landscape and visual receivers, and water bodies such as watercourse. The details of measures for protection of watercourse should be referenced to ETWB TCW No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works".</p>	Construction sites / Design and Construction phase	Project Proponent/ Consultant/ Contractor	✓	✓		DEVB TC(W) No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB
Table 9.13	<p><u>Tree Preservation and Inspection of Tree Works (CM2A)</u></p> <p>All the existing trees to be retained and not to be affected by the Project shall be carefully protected during construction accordance with DEVB TCW No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTM Section of DevB. Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project shall be carefully preserved. To implement proper tree protection measures, conduct regular tree monitoring and inspection of tree works.</p> <p><u>Transplantation of Affected Trees (CM2B)</u></p> <p>The affected two TPIs (TPI-24 and TPI-25) will be preserved as far as practicable, and if affected, transplanting will be considered subject to the detailed tree assessment.</p>	Construction sites / Construction phase	Project Proponent/ Contractor		✓		DEVB TC(W) No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB

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Table 9.13	<u>Provision of Decorative Site Hoarding (CM3)</u> To minimize the visual impact to the VSRs closed the project boundary, decorative site hoarding (which is compatible with the surrounding settings) should be installed around the construction site used to cover the unsightly construction site. Greening measure such as planting of peripheral screening plants/vertical green along hoarding shall be explored.	Construction sites / Construction phase	Project Proponent/ Contractor		✓		-
Table 9.13	<u>Minimisation of Light Impact (CM4)</u> To control night time lighting during construction phase, the lighting installation should follow “Guidelines on Industry Best Practices for External Lighting Installations” promulgated by ENB.	Construction sites / Construction phase	Contractor		✓		“Guidelines on Industry Best Practices for External Lighting Installations” promulgated by ENB
Table 9.13	<u>Reinstatement of Temporarily Disturbed Areas (CM5)</u> Any grounds/ landscaped area(s) temporarily disturbed during construction shall be reinstated through revegetation and/or re-provision of pavements/ concrete surfaces to the satisfaction of the relevant Government Departments.	Construction sites / Construction phase	Contractor		✓		-
Table 9.13	<u>Landscape and Compensatory Planting (OM1)</u> To provide aesthetic plantings and maximize the greening effect at the Project site, trees, shrubs and ground cover species will be planted at planting areas (as illustrated in the LVMP). The compensatory planting should follow the compensation requirements, including the compensatory ratio, in accordance with DevB TCW No. 4/2020 - Tree Preservation. The size of compensatory trees at their maturity should be appropriate to the location and function in reference to Appendix C of DevB TCW No. 4/2020. For trees to be compensated on slopes, the guidelines for tree planting stipulated in GEO Publication No. 1/2011 should be followed.	Construction sites / Design, Construction and Operational phase	Project Proponent/ Consultant Contractor/ Operator	✓	✓	✓	DEVB TC(W) No. 4/2020 - Tree Preservation, GEO Publication No. 1/2011, the Greening Master Plan issued by CEDD, the Street Tree Selection Guide issued by DEVB and DEVB TC(W) No. 6/2015-Maintenance of Vegetation And Hard Landscape Features
Table 9.13	<u>Slope Greening and Compensatory Planting (OM2)</u> To maximize greening opportunities on all newly created slope features/ areas subject to slope improvement works through hydroseeding and/or shrub/ tree planting on slopes.	Construction sites / Design, Construction and Operational phase	Project Proponent/ Contractor/ Operator	✓	✓	✓	DEVB TC(W) No. 4/2020 - Tree Preservation, GEO Publication No. 1/2011, the Guiding Principles on Use of Native Plant Species in Public Works Projects issued by DEVB and DEVB TC(W) No.6/2015 -

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							Maintenance of Vegetation and Hard Landscape Features
Table 9.13	<p><u>Provision of Aesthetically Pleasing Design of Noise Barrier (OM3)</u> To provide responsive design of noise barriers to enhance permeability and appearance of the proposed noise barrier to minimize visual obstruction to key public viewing points. The detail design of noise barriers shall make reference to "Guidelines on Greening of Noise Barriers" published by EPD and HyD in appropriate locations, subject to the agreement of future maintenance departments.</p>	Construction sites / Design, Construction and Operational phase	Project Proponent/ Contractor/ Operator	✓	✓	✓	-
Table 9.13	<p><u>Provision of Sensitively Designed Building Structures (OM4)</u> Highways structures shall be sensitively designed to blend in with the existing landscape and visual context. Opportunities for incorporation of green features shall be fully explored. Greening measures such as climbers along highway structures shall be explored in design stage.</p>	Construction sites / Design, Construction and Operational phase	Project Proponent/ Contractor/ Operator	✓			-
Cultural Heritage Impact							
10.6	<p><u>Inform AMO immediately in case of discovery of antiquities or supposed antiquities</u> As a precautionary measure, AMO should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</p>	Construction sites / Construction phase	Contractor		✓		EIAO-TM Annexes 10 and 19; Guidelines for Cultural Heritage Impact Assessment; Antiquities and Monuments Ordinance (A&MO) (Cap.53)

*Des = Design; C = Construction; O = Operation