APPENDIX A Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Landscape and Visual Impact (Construction Phase)							
Table 4.9	CM1- Trees unavoidably affected by the works shall be transplanted as far as possible in accordance with Environment, Transport and Works Bureau (ETWB) Technical Circular (Works) (TC(W))No. 3/2006 – Tree Preservation.	Transplanting and conservation of affected trees	MTR / Contractor	Construction Phase	Technical Memorandum on Environmental Impact Assessment Process (EIAO – TM) and ETWB TC(W) No. 3/2006	DP1, DP2	Works Sites
Table 4.9	CM2a - Compensatory tree planting shall be provided in accordance with ETWB TC(W) No. 3/2006 – Tree Preservation.	Compensation for the removal of existing trees	MTR / Contractor	Construction Phase	EIAO - TM and ETWB TC(W) No. 3/2006	DP1, DP2	Works Sites
Table 4.9	CM2b - Compensatory shrub planting shall be provided to compensate for the loss of shrub planting in amenity areas.	Compensation for removal of existing shrub planting	MTR / Contractor	Construction Phase	EIAO - TM	DP1, DP2	Works Sites
Table 4.9	CM3 - Control of night-time lighting glare	Minimize the night time glare during construction phase of the Project	Contractor	Construction Phase	EIAO - TM	DP1, DP2, DP3	Works Sites
Table 4.9	CM4 - Erection of decorative screen hoarding compatible with the surrounding setting.	Minimize the visual impact of the Project during construction	Contractor	Construction Phase	EIAO - TM	DP1, DP2	Works Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
		phase					
Table 4.9	CM5 - Management of facilities on work sites which give control on the height and disposition/arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs.	Control of height and disposition/arrangement of temporary facilities on work sites	Contractor	Construction Phase	EIAO - TM	DP1, DP2, DP3	Works Sites
Table 4.9	CM6 - All hard and soft landscape areas disturbed temporarily during construction shall be reinstated to equal or better quality, to the satisfaction of the relevant Government Departments.	Minimize the landscape and visual impact of the Project during construction phase	MTR / Contractor	Construction Phase	EIAO - TM	DP1, DP2, DP3	Works Sites
Landscape and Visual Impact (Operation Phase)							
Table 4.10	OM1 - Aesthetically pleasing design as regard to the form, material and finishes shall be incorporated to MTR Ventilation Shafts, Cooling Tower and associated engineering facilities of the Project so as to blend in the structures to the adjacent landscape and visual context.	Enhance the landscape and visual amenity value of the Project and minimize the potential visual impact during operation phase	MTR	Operation Phase	EIAO - TM	DP1, DP2, DP3	Noise Mitigation Measures at Portal 1A, North Side Ventilation Shafts (NSVS) and South Side Ventilation Shafts (SSVS) at Hung Hom

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
							Station (HUH) Cooling Tower at the south of HUH and the realigned Cheong Wan Road.
Table 4.10	OM2a - Climbers shall be incorporated to the Ventilation Shafts and Cooling Tower to soften the structure.	Enhance the landscape and visual amenity value of the Project and minimize the potential visual impact during operation phase	MTR	Operation Phase	EIAO - TM	DP1, DP2	NSVS, SSVS and cooling tower
Table 4.10	OM2b - Trees and Shrub planting shall be incorporated to enhance the landscape and visual amenity value of the area.	Enhance the landscape and visual amenity value of the Project and minimize the potential visual impact during operation phase	MTR	Operation Phase	EIAO - TM	DP1	Reinstated landscape areas
Table 4.10	OM2c - Bamboo planting is proposed along the boundary of the Cooling Tower to provide greening/landscape resources in Hung Hom area.	Enhance the landscape and visual amenity value of the Project and minimize the potential visual impact during operation phase	MTR	Operation Phase	EIAO - TM	DP1	Cooling Tower
Table	OM3 - Green Roof shall be proposed to Cooling Tower, North and South	Enhance the landscape and visual amenity value of the Project and	MTR	Operation Phase	EIAO - TM	DP1	Cooling Tower, NSVS and

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
4.10	Side Ventilation Shafts to enhance the landscape quality of the structures and mitigate any potential visual impact on adjacent VSRs.	minimize the potential visual impact during operation phase					SSVS
Air Quality Impact (Construction Phase)							
Tables 5.4 Sections 5.20, 5.21, 5.50	Barging Facility: • Unloading of spoils to barge – the unloading process should be undertaken within a 3-sided screen with top tipping hall. Water spraying and flexible dust curtains should be provided at the discharge point for dust suppression. • Transportation of the spoil from the construction sites to the Barging Point – watering once along all paved haul roads to reduce dust emission by 91.7%. This dust suppression efficiency is derived based on the average haul road traffic, average evaporation rate and an assumed application intensity of 1.7 L/m^2 once every working hour. Any potential dust impact and watering mitigation would be subject to the actual site condition. For example, a construction activity that produces	To minimize the construction dust impacts to the nearby sensitive receivers	Contractor	Construction phase	Air Pollution Control Ordinance (APCO)	DP1	Barging point at Hung Hom Freight Pier

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	inherently wet conditions or in cases under rainy weather, the above water application intensity may not be unreservedly applied. While the above watering frequency is to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7L/m^2 to achieve the removal efficiency. The dust levels would be monitored and managed under an EM&A programme as specified in the EM&A Manual. • Vehicles leaving the barging facilities – vehicles would be required to pass through the wheel washing facilities to be provided at site exit.						
Section 5.50	Watering once every working hour on the active works areas, exposed areas and paved haul roads to reduce dust emission by 91.7%. This dust suppression efficiency is derived based on the average haul road traffic, average evaporation rate and an assumed application intensity of 1.7 L/m^2 once every working hour. Any potential dust impact and watering mitigation would be subject to the	To minimize the construction dust impacts to the nearby sensitive receivers	Contractor	Construction phase	APCO	DP1, DP2, DP3	Active works areas, exposed areas and paved haul roads

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	actual site condition. For example, a construction activity that produces inherently wet conditions or in cases under rainy weather, the above water application intensity may not be unreservedly applied. While the above watering frequency is to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7L/m^2 to achieve the removal efficiency. The dust levels would be monitored and managed under an EM&A programme as specified in the EM&A Manual.						
Section 5.51	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices: • 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. • material storage piles near ASRs.	To minimize the construction dust impacts to the nearby sensitive receivers	Contractor	Construction phase	APCO and Air Pollution Control (Construction Dust) Regulation	DP1, DP2, DP3	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	• 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 of barging points, 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. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Instigation of an environmental monitoring and auditing program to						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.						
Section 5.57	Environmental monitoring and audit for dust emission should be conducted in accordance with EM&A Manual.	To monitor and control the construction dust impact	MTR / Contractor	Construction phase	EIAO-TM, APCO	DP1, DP2, DP3	Proposed construction dust monitoring locations
Air Quality Impact (Operation Phase)							
NA	Nil	NA	NA	NA	NA	NA	NA
Airborne Noise Impact (Construction Phase)							
Sections 6.61	The following good site practices should be implemented: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. • Mobile plant, if any, should be sited as far from 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	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2, DP3	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						
Sections 6.62 - 6.63 and Table 6.19	The following quiet PME should be used: • Asphalt Paver (SWL=101dB(A)) • Backhoe (SWL=106dB(A)) • Backhoe with Hydraulic Breaker (SWL=110dB(A)) • Concrete lorry mixer (SWL=96dB(A)) • Concrete mixer truck (SWL=96dB(A)) • Concrete Pump (SWL=106dB(A)) • Concrete Pump Truck (SWL=106dB(A)) • Crane, mobile (SWL=94dB(A)) • Crawler Crane (SWL=102dB(A)) • Drill, hand-held (SWL=98dB(A)) • Dump truck (SWL=104dB(A)) • Excavator (SWL=106dB(A)) • Flat Bed Lorry (SWL=102dB(A)) • Generator (SWL=95dB(A)) • Giken Piler and Power-pack (SWL=94dB(A))	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2, DP3	Works areas where required

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	• Hydraulic breaker (SWL=110dB(A)) • Hydraulic excavator (SWL=106dB(A)) • Lorry (SWL=102dB(A)) • Lorry with crane/ grab (SWL=94dB(A)) • Mini Piling Rig (SWL=112dB(A)) • Piling Rig (SWL=112dB(A)) • Poker, vibrator, hand-held (SWL=98dB(A)) • Road Roller (SWL=101dB(A)) • Rock Drill (SWL = 108dB(A) • Roller (SWL = 101dB(A) • Truck (SWL=103dB(A)) • Vibratory Hammer (SWL=118dB(A))						
Sections 6.64 - 6.65 and Table 6.20	Movable noise barrier should be used for the following PME where practicable: • Asphalt paver • Backhoe • Backhoe with Hydraulic Breaker • Bar Bender and Cutter • Crane, mobile • Concrete Pump • Drill, hand-held • Excavator • Generator • Grout Pump • Hand held Breaker	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2	Affected works areas showing exceedance during un-mitigated scenario

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	• Hydraulic breaker • Hydraulic excavator • Lorry with crane/ grab • Saw, concrete						
Section 6.66 and Table 6.20	Noise insulating fabric should be used for the following PME where practicable: • Drill Rig • Mini Piling Rig • Piling Rig • Piling, diaphragm wall, bentonite filtering plant • Piling, large diameter bored, grab and chisel • Vibratory Hammer	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2	Affected works areas showing exceedance during un-mitigated scenario
Section 6.67 and Table 6.20	Noise enclosure/acoustic shed should be used for the air compressors and generator.	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2	Affected works areas showing exceedance during un-mitigated scenario
Section 6.68	Use of temporary hoardings along the works areas which are located close to the NSRs.	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction phase	EIAO-TM	DP1, DP2, DP3	All works areas
Section 6.71	Particularly noisy construction activities be scheduled to avoid school examination period as far as practicable	To minimize the construction noise impacts to the nearby sensitive receivers	Contractor	Construction Phase	EIAO-TM	DP1, DP2	Works areas near the Carmel Secondary School

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Section 6.89	Airborne construction noise monitoring should be conducted in accordance with EM&A Manual.	To monitor and control the construction airborne noise impact	MTR / Contractor	Construction Phase	EIAO-TM	DP1, DP2, DP3	Proposed construction airborne noise monitoring locations
Airborne Noise Impact (Operation Phase)							
Sections 6.57 - 6.59	The maximum permissible sound power levels (Max SWLs) for the fixed plants should be complied during the selection of equipment and mitigation measures.	To ensure the compliance with the legislative requirements for fixed plant noise	MTR / Detailed Design Consultant (DDC)	Detailed design and operation phases	NCO	DP1, DP2	NSVS, SSVS and Cooling Tower
Section 6.82	150m long natural ventilated absorptive noise enclosure extending from portal 1A, typical section is shown in Appendix 6.14 of this EIA report.	To ensure the compliance with the legislative requirements for rail noise	MTR / DDC	Detailed design and operation phases	NCO	DP1	Area near Portal 1A
Section 6.88	The following noise reduction measures should be considered as far as practicable during detailed design of fixed plant equipment: • Choose quieter plant such as those which have been effectively silenced. • Include noise levels specification when ordering new plant (including chillier and E/M equipment). • Locate fixed plant/louver away from any NSRs as far as practicable. • Locate fixed plant in walled plant rooms or in specially designed	To reduce fixed noise impacts	MTR / DDC	Detailed design stage and operation phases	NCO	DP1, DP2	NSVS, SSVS and Cooling Tower

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	enclosures. • Locate noisy machines in a basement or a completely separate building. • Install direct noise mitigation measures including silencers, acoustic louvers and acoustic enclosure where necessary. • Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly operated and serviced in order to maintain controlled level of noise. The programme should be implemented by properly trained personnel.						
Section 6.90	Rail noise monitoring should be conducted during operation phase in accordance with EM&A Manual..	To ensure the compliance with the legislative requirements for rail noise	MTR	Operation Phase	NCO	DP1	Proposed operation airborne noise monitoring locations
Ground-borne Noise Impact (Construction Phase)							
NA	Nil	NA	NA	NA	NA	NA	NA
Ground-borne Noise Impact Operation Phase)							
Section 7.50	Prior to the operation phase of the Project, a commissioning test should be conducted to ensure compliance of the operational ground-borne rail noise levels with the noise criteria.	To ensure compliance of the operational ground-borne rail noise levels with the noise criteria	MTR	Commissioning Stage of the Project	NCO	DP1	Proposed operational groundborne noise monitoring locations-

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Water Quality Impact (Construction Phase)							
Sections 8.41 – 8.49	Construction site run-off and general construction activities: • 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 or 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 on site boundaries where 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. • Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all	To minimize water quality impact from construction site runoff and general construction activities	Contractor	Construction phase	EIAO-TM, Water Pollution Control Ordinance (WPCO), The Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN 1/94), Technical Memorandum on Effluent Discharge Standard (TM-DSS)	DP1, DP2, DP3	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	drains. Minimum distances of 100 m should be maintained between the discharge points of construction site run-off and the existing saltwater intakes. • Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary 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. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. • 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						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	intercepting channels should be provided where necessary. • Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons 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. • Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. • 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. • Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	construction sites on a regular basis.						
Section 8.50	Wheel Washing Water: • All vehicles and plant 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.	To minimize water quality impact from wheel washing	Contractor	Construction phase	EIAO-TM; WPCO	DP1, DP2, DP3	All works areas
Sections 8.51-52	Bentonite Slurries: • Bentonite slurries used in diaphragm wall construction should be reconditioned and used again wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry should either be dewatered or mixed with inert fill	To minimize water quality impact from bentonite slurries	Contractor	Construction phase	EIAO-TM; WPCO	DP1, DP2	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	material for disposal to a public filling area. • If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewer, storm drains or the receiving waters as set out in the TM-DSS.						
Sections 8.53 – 8.54	Wastewater from Building Construction: • Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains • Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as	To minimize water quality impact from building construction	Contractor	Construction phase	EIAO-TM, WPCO	DP1, DP2	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	necessary.						
Section 8.55	Acid Cleaning, Etching and Pickling Wastewater: • Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers.	To minimize water quality impact from acid cleaning , etching and pickling	Contractor	Construction phase	EIAO-TM, WPCO	DP1, DP2	All works areas
Section 8.56	Effluent Discharge: • There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel	To minimize water quality impact from effluent discharge	Contractor	Construction phase	EIAO-TM, WPCO	DP1, DP2	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence which is under the ambit of regional office of EPD.						
Sections 8.57-59	Accidental Spillage of Chemicals: • Contractor should register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (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. • Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided.	To minimize water quality impact from accidental chemical spillage	Contractor	Construction phase	EIAO-TM, WPCO, Waste Disposal Ordinance (WDO)	DP1, DP2	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	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. • Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: - Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. - Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. - Storage area should be selected at a safe location on site and adequate space should be allocated to the						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	storage area						
Sections 8.60-61	Sewage Effluent from Construction Workforce: • The construction workforce on site will generate sewage. It is recommended that all the sewage generated from the workforce should be discharged into the public foul sewers. If disposal of sewage to public sewerage system is not feasible, appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment. • 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 will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site.	To minimize water quality impact from sewage effluent	Contractor	Construction phase	EIAO-TM, WPCO, WDO	DP1, DP2, DP3	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Section 8.62	Excavation Activities: • The construction programme should be properly planned to minimise soil excavation, if any, in rainy seasons. This prevents soil erosion from exposed soil surfaces. Any exposed soil surfaces should also be properly protected to minimise the potential for dust emission, increased siltation and contamination of runoff. In areas where a large amount of exposed soils exist, earth bunds or sand bags should be provided. Exposed stockpiles should be covered with tarpaulin or impervious sheets at all times. The stockpiles of materials should be placed at locations away from water environment so as to avoid releasing materials into the water bodies. Final surfaces of earthworks should be compacted and protected by permanent work.	To minimize water quality impact from excavation activities	Contractor	Construction phase	EIAO-TM, WPCO,	DP1, DP2	All excavation works areas
Section 8.63	Diaphragm Wall • The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be implemented to control site	To minimize water quality impact from diaphragm walling	Contractor	Construction phase	EIAO-TM, WPCO,	DP1, DP2	All excavation works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	run-off and drainage as well as any site effluents generated from the works areas, and to prevent run-off and construction wastes from entering nearby water environment. Proper handling of bentonite slurries used in diaphragm wall construction should be adopted.						
Section 8.64	Groundwater Seepages: • A cofferdam wall should be built as necessary to limit groundwater inflow to the excavation works areas. Appropriate measures will be deployed to minimize the intrusion of groundwater into excavation works areas. In case seepage of uncontaminated groundwater occurs, groundwater should be pumped out from the works areas and discharged into the storm system via silt removal facilities. Uncontaminated groundwater from dewatering process should also be discharged into the storm system via silt traps.	To minimize water quality impact from groundwater seepage	Contractor	Construction phase	EIAO-TM, WPCO,	DP1, DP2	All excavation works areas
Sections 8.65 – 8.67	Hydrogeological Impact: • For the construction works for the	To minimize groundwater hydrogeological impact and groundwater	Contractor	Construction phase	EIAO-TM	DP1, DP2	All works areas

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	tunnel, station and ventilation shafts, which will require dewatering temporarily during their construction, the following measures should be put in place in order to mitigate any drawdown effects to the groundwater table during the operation of the temporary dewatering works: - Toe grouting should be applied beneath the toe level of the temporary/permanent cofferdam walls as necessary to lengthen the effective flow path of groundwater from outside and thus control the amount of water inflow to the excavation. - Recharge wells should be installed as necessary outside the excavation areas. Water pumped from the excavation areas should be recharge back into the ground. • In addition, the Contractor should initially adopt suitable water control strategies as far as practicable while undertaking the excavation works. The water control strategies are given as follow:	drawdown					

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	- Probing Ahead: The Contractor will undertake rigorous probing of the ground ahead of tunnel excavation works to identify zones of significant water inflow. The probe drilling results will be evaluated to determine specific grouting requirements in line with the tunnel advance. In such zones of significant water inflow that could occur as a result of discrete, permeable features, the intent would be to reduce overall inflow by means of cut-off grouting executed ahead of the tunnel advance. - Pre-grouting: Where water inflow quantities are excessive, pre-grouting will be required to reduce the water inflow into the tunnel. The pre-grouting will be achieved via a systematic and carefully specified protocol of grouting. - In principle, the grout pre-treatment would be designed on the basis of probe hole drilling ahead of the tunnel face. • In the event of excessive drawdown being observed within the ground water table as a result of the tunnelling works even after						

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	incorporation of the water control strategies, post-grouting should be applied as far as practicable as described below: - Post-grouting: Groundwater drawdown will be most likely due to inflows of water into the tunnel that have not been sufficiently controlled by the pre-grouting measures. Where this occurs post grouting will be undertaken before the lining is cast. Whilst unlikely to be required in significant measure, such a contingency should be allowed for reduction in permeability of the tunnel surround (by grouting) to limit inflow to acceptable levels.						
Section 8.68	Barging Facility: • Mitigation measures for minimizing water quality impacts from construction site runoff and general construction activities should be applied. Other good site practices include: - All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that	To minimize water quality impact from use of barging facility	Contractor	Construction phase	EIAO-TM, WPCO, ProPECC PN1/94, TM-DSS	DP1	Barging Point at Hung Hom Freight Pier

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	undue turbidity is not generated by turbulence from vessel movement or propeller wash. - All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material. - Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. - Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation.						
Section 8.72	Regular site inspections should be undertaken to inspect the construction activities and works areas	To ensure the recommended water quality mitigation measures are properly implemented	MTR / Contractor	Construction Phase	EIAO-TM, WPCO, ProPECC PN 1/94, TM-DSS, WDO	DP1, DP2, DP3	All works areas
Water Quality Impact (Operation Phase)							
Section 8.69	Tunnel Run-off and Drainage: • Track drainage channels discharge should pass through oil/grit	To control runoff from rail track	MTR	Operation phase	WPCO	DP1, DP2	Tunnels and rail tracks

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	interceptors/chambers to remove oil, grease and sediment before being pumped to the public storm drainage/foul sewerage systems. • The silt traps and oil interceptors should be cleaned and maintained regularly. • Oily contents of the oil interceptors should be transferred to an appropriate disposal facility, or to be collected for reuse, if possible.						
Section 8.70	Sewage Effluents: • Connection of domestic sewage generated from the Project should be diverted to the foul sewer wherever possible. All the discharge should comply with the requirements stipulated in the TM-DSS. • For handling, treatment and disposal of other operation stage effluent, the practices outlined in ProPECC PN 5/93 should be adopted where applicable.	To control water quality impact from sewage effluent discharged from the HUH	MTR	Operation phase	EIAO-TM, WPCO, TM-DSS, ProPECC PN 5/93	DP1	HUH
Waste Management (Construction Phase)							
Sections 9.72	Good Site Practices and Waste Reduction Measures: • Prepare a Waste Management Plan (WMP) approved by the Engineer/Supervising Officer of the	To minimize impacts arising from the handling and disposal of construction wastes	Contractor	Construction Phase	Waste Disposal Ordinance (WDO) Land	DP1, DP2, DP3	All Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	Project based on current practices on construction sites; • Training of site personnel in, site cleanliness, proper waste management and chemical handling procedures; • Provision of sufficient waste disposal points and regular collection of waste; • Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and • Separation of chemical wastes for special handling and appropriate treatment.				(Miscellaneous Provisions) Ordinance Development Bureau Technical Circular (Works) (DEVB TC(W)) No.6/2010		
Sections 9.73	Good Site Practices and Waste Reduction Measures (con't): • Sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.); • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Encourage collection of aluminum	To achieve waste reduction	Contractor	Construction Phase	WDO Land (Miscellaneous Provisions) Ordinance	DP1, DP2, DP3	All Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	cans by providing separate labeled bins to enable this waste to be segregated from other general refuse generated by the workforce; • 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; and • Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycle.						
Section 9.74	Good Site Practices and Waste Reduction Measures (con't): • The Contractor shall prepare and implement a WMP as part of the Environmental Management Plan (EMP) in accordance with ETWB TCW No. 19/2005. Such management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement the waste management	To implement proper waste management system on site	Contractor	Construction Phase	ETWB TCW No. 19/2005	DP1, DP2, DP3	All Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor.						
Sections 9.76-79	Storage, Collection and Transportation of Waste: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution. • Maintain and clean storage areas routinely. • Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away. • Different locations should be designated to stockpile each material to enhance reuse. • Waste haulier with appropriate permits should be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets. - Waste should be removed in timely manner. - Waste collectors should only collect wastes prescribed by their permits.	To minimize potential adverse environmental impacts arising from waste storage, collection and disposal	Contractor	Construction Phase	DEVB TC(W) No.6/2010	DP1, DP2, DP3	Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	- Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers.; - Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28). - Waste should be disposed of at licensed waste disposal facilities. - Maintain records of quantities of waste generated, recycled and disposed • Implementation of trip ticket system with reference to DEVB TC(W) No.6/2010 to monitor disposal of waste and to control fly-tipping at PFRFs or landfills. A recording system for the amount of waste generated, recycled and disposed (including disposal sites) should be proposed.						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Sections 9.80 – 9.83	Sorting of C&D Materials: • Sorting to be performed to recover the inert materials, reusable and recyclable materials before disposal off-site. • Specific areas should be provided for sorting and to provide temporary storage areas for the sorted materials. • The C&D materials should at least be segregated into inert and non-inert materials, in which the inert portion could be reused and recycled as far as practicable before delivery to PFRFs as mentioned for beneficial use in other projects. While opportunities for reusing the non-inert portion should be investigated before disposal of at designated landfills. • Possibility of reusing the spoil in the Project will be continuously investigated, it includes backfilling to cut and cover construction works for the Hung Hom south and north approach tunnels.	To maximize reuse of C&D materials	Contractor	Construction Phase	DEVB TCW No. 6/2010 Section 4.1.3, Section 4.1.3, Chapter 4 of Project Administration Handbook ETWB TCW No. 19/2005	DP1, DP2, DP3	Work Sites
Sections 9.84 – 9.93	Sediments: • The basic requirements and procedures for excavated sediment disposal specified under ETWB TC(W) No. 34/2002 shall	To ensure the sediment is handled and disposed of in a least impacted way and in accordance to the statutory	MTR / Contractor	Detailed Design Stage and Construction Phase	ETWB TC(W) NO. 34/2002, Dumping at Sea Ordinance (DASO),	DP1, DP2	All works areas with sediments concern

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	be followed. • The Project Proponent should agree in advance with MFC of CEDD on the site allocation. Subject to the final decision by MFC, Type 1 sediments are typically disposed to South Cheung Chau and/or East of Ninepin as open sea disposal while Type 2 sediments are disposed to East Sha Chau as confined marine disposal. • Sampling and Testing Plan(s) should be prepared in accordance with ETWB TC(W) No. 34/2002. Site investigation, based on the Sediment Sampling and Testing Plan(s), should be carried out in order to confirm the disposal arrangements for the proposed excavated sediments. A Sediment Quality Report (SQR) should then be submitted to EPD for agreement prior to the tendering of the construction contract, discussing in details the site investigation, testing results as well as the delineation of each of the categories of excavated materials and the corresponding types of disposal. • The excavated sediments is	requirements			APCO and WPCO		

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	expected to be loaded onto the dumping trucks and transferred to the barging point where the sediments would be transported via barge to the existing designated disposal sites allocated by the MFC. The excavated sediment would be disposed of according to its determined disposal options and ETWB TC(W) No. 34/2002. • Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of sediments. • Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment should be covered by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiling areas should be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	be collected and discharged according to the Water Pollution Control Ordinance (WPCO). • In order to minimize the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments should be wetted during excavation / material handling and should be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. • The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. • In order to minimize the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on site.						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
Section 9.94	Containers for Storage of Chemical Waste: • The Contractor should 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. Containers used for storage of chemical waste should: - Be compatible with the chemical wastes being stored, maintained in good condition and securely sealed. - Have a capacity of less than 450 litters unless the specifications have been approved by EPD. - Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation.	To properly store the chemical waste	Contractor	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes Waste Disposal (Chemical Waste) (General) Regulation	DP1, DP2, DP3	Chemical waste storage area
Section 9.95	Chemical Storage Area: • Be clearly labeled to indicate corresponding chemical characteristics of the chemical waste and used for storage of chemical waste only. • Be enclosed on at least 3 sides. • Have an impermeable floor and	To provide appropriate storage areas for chemical waste	Contractor	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes	DP1, DP2, DP3	Chemical waste storage area

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest. • Have adequate ventilation. • Be covered to prevent rainfall from entering. • Be properly arranged so that incompatible materials are adequately separated.				Waste Disposal (Chemical Waste) (General) Regulation		
Section 9.96	Used lubricant and waste oil: • Used lubricants and waste oil should be collected and stored in individual containers which are fully labeled in English and Chinese and stored in a designated secure place. • These chemical wastes should be sent to oil recycling companies, if possible, and the empty oil drums should be collected by appropriate companies for reuse or refill. • They should not be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.	To minimize the impacts arising from the spent lubricants and waste oil	Contractor	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, WPCO	DP1, DP2, DP3	Work Sites
Section 9.97	Collection and Disposal of Chemical Waste:	To ensure the chemical wastes are handled and disposed of in	Contractor	Construction Phase	Waste Disposal (Chemical	DP1, DP2, DP3	Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	• A trip-ticket system should be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation to monitor all movements of chemical waste. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to either the approved CWTC at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	accordance with the statutory requirements.			Waste) (General) Regulation		
Sections 9.98-99	Asbestos Wastes: • All storage of asbestos waste should be carried out properly in a secure place isolated from other substances so as to prevent any possible release of asbestos fibres into the atmosphere and contamination of other substances. The storage area should bear warning panels to alert people of the presence of asbestos waste. Collection, transportation and disposal of asbestos waste will follow the trip-ticket system. • Licensed asbestos waste collectors will be appointed to collect the asbestos waste and deliver to the designated landfill	To ensure the asbestos wastes are handled and disposed of in accordance with the statutory requirements	Contractor	Construction Phase	Code of practice on the Handling, Transportation and Disposal of Asbestos Waste	DP1, DP2, DP3	Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	for disposal. The Project Proponent should notify to EPD in advance for disposal of asbestos waste. After processing the notification, EPD will issue specific instructions and directions for disposal. The waste producer must strictly follow these directions						
Sections 9.100 - 102	General Refuse: • General refuse should be stored in enclosed bins or compaction units separated from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. Preferably, an enclosed and covered area should be provided to reduce the occurrence of windblown light material. • The recyclable component of general refuse, such as aluminum cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.	To encourage recycling of useful materials and to ensure the general refuse is handled and disposed of in a least impacted way	Contractor	Construction Phase	NA	DP1, DP2, DP3	Work Sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	• The Contractor should carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins should also be provided in the sites as reminders.						
Waste Management (Operation Phase)							
Sections 9.105 – 9.106	Chemical Waste: • The requirements given in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes should be followed in handling of chemical waste as in construction phase. A trip-ticket system should be adopted by the operator to monitor disposal of chemical waste. • Non-recyclable chemical waste should be disposed of at appropriate facility like CWTC by licensed collectors. Recyclable chemical waste should be collected and transported off-site by licensed collectors.	To minimize environmental impacts arising from handling, storage and disposal of chemical waste	MTR	Operation Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes Waste Disposal (Chemical Waste) (General) Regulation	DP1	SCL – Mong Kok East to Hung Hom Section
Sections 9.107 – 9.108	General Refuse: • Recycling of waste paper, aluminum cans and plastic bottles should be encouraged, it is recommended to place clearly labeled recycling bins at designated locations which could be accessed conveniently. Other general refuse	To encourage recycling of useful materials and to ensure the general refuse is handled and disposed of in a least impacted way	MTR	Operation Phase	Public Health and Municipal Services Ordinance (Cap. 132)	DP1	SCL – Mong Kok East to Hung Hom Section

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	should be separated from chemical and industrial waste by providing separated bins 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.						
Section 9.109	***Industrial Waste*** • Industrial waste, generated mainly from the maintenance works, should be separated from other types of waste during disposal. Moreover, steel should be sorted out for their resalable value. A licensed collector should be employed for the collection of industrial waste.	To recycle useful materials and ensure industrial waste is handled and disposed of in a proper manner	MTR	Operation Phase	NA	DP1	SCL – Mong Kok East to Hung Hom Section
Land Contamination							
Sections 10.24–10.34	Precautionary Measures: • Precautionary measures such as visual inspection are recommended to be undertaken during construction activities that disturb	To act as a general precautionary measure to screen soils for the presence contamination during construction.	MTR/Contractor	Construction Phase	"Guidance Note for Contaminated Land Assessment	DP1, DP2	Within Project Boundary where signs of

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	soil. The inspection process should involve a visual observation of excavated soils for discolouration and the presence of oils, together with identifying the presence of odours, which may also indicate soil and/or groundwater contamination. • If soil discolouration or the presence of oil/unnatural odour is noted during visual inspection, sampling and testing should also be undertaken to verify the presence of contamination.				and Remediation" "Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management		contamination is identified
Section 10.35	Potential Remediation of Contaminated Soil: • If land contamination is identified, CAR and RAP detailing the proposed remediation works should be prepared. RR should then be prepared and submitted to EPD to demonstrate that the decontamination work is adequate and has been carried out in accordance with the endorsed CAR and RAP. Information such as soil treatment/disposal records (including trip tickets), confirmatory sampling results and photographs should be included in the RR. No construction work should be carried out prior to endorsement of the RR	To remediate contaminated soil	Contractor	Site remediation	"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards and Car Repair /Dismantling Workshop"	DP1, DP2	Identified contaminated sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	by EPD. • In order to minimise environmental impacts arising from the handling of potentially contaminated materials, the following environmental precautionary measures are recommended to be utilised during the course of any required site remediation: - Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; - Excavation should be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; - Supply of suitable clean backfill material is needed after excavation; - If proposed remediation methods employ chemical oxidation methods as the contaminant mass reduction technology, chemicals will be securely and separately stored away from sources of ignition or oxidisable items. Handling will be undertaken by personnel with appropriate training and Personal Protective Equipment; - Vehicles containing any						

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	excavated materials should be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or during wet conditions; - Speed control for the trucks carrying contaminated materials should be enforced; - Vehicle wheel and body washing facilities at the site's exit points should be established and used; and - Pollution control measures for air emissions e.g. from biopile blower, noise emissions e.g. from blower, and water discharges e.g. runoff control should be implemented and complied with relevant regulations and guidelines."						
Section 10.36	The Occupation Safety and Health Ordinance (OSHO) (Chapter 509) and its subsidiary Regulations should be followed by all site personnel working on the site at all times. In addition, the following basic health and safety measures should be implemented as far as possible: • Set up a list of safety measures for	To minimise the potentially adverse effects on health and safety of construction workers during the course of site remediation.	Contractor	Site remediation and prior to construction phase	"Guidance Note for Contaminated Land Assessment and Remediation" "Guidance	DP1, DP2	Identified contaminated sites

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	When to implement the measures?	Requirements	Applicable to Relevant Designated Elements (see Remark)	Location of the measure
	site workers. • Provide written information and training on safety for site workers. • Keep a log-book and plan showing the contaminated zones and clean zones. • Maintain a hygienic working environment. • Avoid dust generation. • Provide face and respiratory protection gear to site workers. • Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers. • Provide first aid training and materials to site workers.				Manual for Use of Risk-based Remediation Goals for Contaminated Land Management "Occupation Safety and Health Ordinance (Chapter 509)"		

Remarks: Designated Elements under the Project -

Item DP1: A railway from Portal 1A to the new North Ventilation Building, Plant Rooms and Emergency Access and the HUH.

Item DP2: A railway tunnel more than 800m in length between portals from Chatham Road Interchange to the new North Ventilation Building, Plant Rooms and Emergency Access.

Item DP3: Realignment of the existing Cheong Wan Road which is a district distributor.