Summary of environmental impacts associated with the Project

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Air Quality Impact					
Construction Phase					
Existing and planned ASRs	• Adverse construction dust impact is not anticipated with proper implementation of good control measures and environmental monitoring and audit	• AQO • EIAO-TM Annex 4 o 24-hour average RSP concentration: 100 µg/m^3 (Number of exceedance allowed: 9) o Annual average RSP concentration: 50 µg/m^3 o 24-hour average FSP concentration: 50 µg/m^3 (Number of exceedance allowed: 18) o Annual average FSP concentration: 25 µg/m^3	• Not applicable	• Close liaison between the contractors of other concurrent projects and the Project would be maintained to minimise dusty activities to be conducted concurrently as far as practicable Good control measures are recommended: • Watering once per hour on the exposed construction areas with dust emission and paved haul roads to reduce dust emission; • Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good sites practices would be carried out to further minimise construction dust impact; • Follow the requirements stipulated in the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 (16) to minimise the fugitive emissions arising from the operation of concrete batching plant; • Emission control measures for barging facilities, such as provision of enclosed system with 3-side screen with top cover and provision of water spraying system, regular water and covering spoils by tarpaulin; and • The engine of the barge shall be switched-off during berthing as far as practicable. Provision of on-shore power supply shall also be considered wherever possible to minimize air quality impact from the marine vessels, with consideration of actual site constraints or circumstances to be further reviewed during detail design stage.	• No adverse residual impacts anticipated
Operational Phase					
Existing and planned ASRs	NO_2 • 19th highest 1-hr average concentration: 88 – 166 µg/m^3 • Annual average concentration: 17 – 39µg/m^3 RSP • 10th highest 24-hour average RSP concentration: 64 – 73µg/m^3 • Annual average RSP concentration: 26 – 29µg/m^3 FSP • 19th highest 24-hour average FSP concentration: 35 – 41µg/m^3 • Annual average FSP concentration: 15 – 16µg/m^3	• AQO • EIAO-TM Annex 4 o 1-hour average NO_2 concentration: 200 µg/m^3 (Number of exceedance allowed: 18) o Annual average NO_2 concentration: 40 µg/m^3 o 24-hour average RSP concentration: 100 µg/m^3 (Number of exceedance allowed: 9) o Annual average RSP concentration: 50 µg/m^3 o 24-hour average FSP concentration: 50 µg/m^3 (Number of exceedance allowed: 18) o Annual average FSP concentration: 25 µg/m^3	• No exceedance is anticipated	• No mitigation measure is required • During the subsequent design stage and the operational stage, the ventilation engineer should conduct reviews on the ventilation scheme covering different periods of a day, taking into account the contemporary circumstance such as latest traffic forecast, traffic composition, update on the ambient air quality, etc., and then review and update the air quality assessment as necessary to demonstrate full compliance of the AQOs. These reviews would allow the designer and operator to optimize the operation of the ventilation system without compromising the compliance of AQOs. • The planned air sensitive uses within the operation area of the TMB shall be properly designed such that any openings, openable windows, and/or fresh air intakes will be located and avoided from the predicted exceedance zone at 1.5mAG. Further review of the layout and design of operation area will be conducted in Detailed Design Stage to ensure compliance of the AQOs.	• No adverse residual impacts anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Noise					
Construction Phase					
Existing and planned NSRs	• Adverse construction noise impact is not anticipated with proper implementation of good control measures and environmental monitoring and audit • The future Contractor will also be required to prepare a Construction Noise Management Plan (CNMP)	• EIAO-TM Annex 5 and Annex 13 for non-restricted hours: ○ $L_{eq\ (30mins)}$ 75 dB(A) for all domestic premises, temporary housing accommodation, hostel, convalescent homes and homes for the aged ○ $L_{eq\ (30mins)}$ 70 dB(A) for places of public worship, courts of law, hospitals, medical clinics and educational institution (including kindergartens and nurseries) (65 dB(A) during examination period)	• Not applicable	Good control measures are recommended to minimize the construction noise impact as far as practical: • Good site practices to limit noise emissions at the source; • Use of quality powered mechanical equipments (QPMEs) and quieter construction methods; and • Use of temporary noise barriers and enclosures to screen noise from relatively static PM.	• No adverse residual impacts anticipated
Operational Phase (Road Traffic Noise)					
Existing and planned NSRs	• Predicted overall noise levels: 40 – 82dB(A) • Predicted road traffic noise levels of the project roads: ≤40 – 79dB(A) • Maximum contribution from Project roads (When the overall level exceeds respective criterion): 6.6dB(A)	• EIAO-TM Annex 5 and Annex 13: ○ $L_{10\ (1hour)}$ 70dB(A) for all domestic premises, temporary housing accommodation, hostel, convalescent homes and homes for the aged ○ $L_{10\ (1hour)}$ 65dB(A) for places of public worship, courts of law, and educational institution ○ $L_{10\ (1hour)}$ 55dB(A) for medical and clinics	• Exceed EIAO-TM criterion by up to 12 dB(A)	• Provision of highly modified friction course (HMFC) as standard surfacing material on the high speed road sections of new road projects with design speed of 80km/hr or above and expressway; • Provision of 6mm polymer modified stone mastic asphalt (PMSMA6) as low noise surfacing material for other roads without standard surfacing material on suitable Project Road sections; • Provision of noise mitigation measures: ○ Lam Tei: Vertical Barrier (VB) and Cantilever Barrier (CB) along slip roads connecting KSWH / YLH; ○ So Kwun Wat: CB near So Kwun Wat Link Road western portal; and ○ Tsing Lung Tau: VB, CB and semi-enclosure along realigned TMR. • For planned developments, necessary receiving-end mitigation measures will be proposed by the respective project proponent in addition to the proposed at-source mitigation measures	• No adverse residual impacts anticipated
Operational Phase (Fixed Noise)					
Existing and planned NSRs	• Adverse fixed noise impact is not anticipated with good design and control measures, and environmental monitoring and audit • The future Contractor will also be required to prepare a Fixed Noise Management Plan (FNMP)	• EIAO-TM Annex 5 and Annex 13, and IND-TM • Appropriate ANLs and ANLs-5 as shown in Table 2 of IND-TM or the prevailing background noise level	• Not applicable	• Proper selection of quieter equipment and installation of silencer, barrier or enclosure; • Orientating louvres away from adjacent NSRs, preferably onto main roads which are less noise sensitive; and • Selection of façade for ventilation shafts with adequate sound insulation properties.	• No adverse residual impacts anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Water Quality					
Construction Phase					
Water Sensitive Receivers	Water quality in WSRs would be deteriorated by land-based construction with the following pollution sources: • Construction run-off and general construction activities; • Tunnelling and underground works; • Construction for ventilation buildings and administration buildings; • Sewage due to construction workforce; • Construction works in close proximity of inland water; • Removal or diversion of Watercourses • Groundwater from contaminated areas and contaminated site run-off; • Operation of barging point; and • Accidental spillage of chemicals. Water quality in WSRs would be affected by marine-based construction with the following pollution sources: • Reclamation at Tsing Lung Tau; • Construction of mud pit; and • Marine works. Quantitative water quality assessment results showed no adverse impact to water quality during reclamation works.	• EIAO-TM Annex 6 and Annex 14 • WPCO (Cap. 358) • TM-DSS • ProPECC PN 1/94 • WSD's Water Quality Criteria for Sea Water Intakes	• Not applicable	• Good site practices in accordance with ProPECC PN1/94 when handling the site sun-off from general site operation; • Suitable water control strategies (e.g. probing ahead and pre-grouting) during tunnel works; • Temporary dewatering to minimize impacts on groundwater table during the works; • Providing temporary sanitary facilities and posting notices about treating discharge at conspicuous locations for the workforce; • Comply with the Conditions for Working within Water Gathering Grounds; • Good site practices in accordance with ETWB TC(Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" for removal or diversion of watercourses; • Proper handling of contaminated groundwater and site run-off; • Proper good site practice to prevent water quality impact during transportation of spoil when using the barging point; • Proper storage of the chemicals used during construction; • Filling works to be conducted within the completed leading seawall; • Mud pit to be completely sealed to prevent any leakage of backfilled sediments to the surrounding marine waters; and • Deployment of single layer silt curtain as enhancement measures.	• No adverse residual impacts anticipated
Operational Phase					
Water Sensitive Receivers	Water quality in WSRs would be affected by the following operational activities: • Surface run-off from paved areas of the Project; • Sewage effluent from the proposed buildings; • Drainage of road surface and tunnel runoff; and • Wastewater generated from washing and maintenance operation. Quantitative water quality assessment results showed no adverse impact to water quality during operational phase.	• EIAO-TM Annex 6 and Annex 14 • WPCO (Cap. 358) • TM-DSS • ProPECC PN 5/93	• Not applicable	• Provision of mitigation measures including 1) standard oil interceptors before discharge to stormwater drainage system and 2) silt trap for the surface runoff at the stormwater drainage system as necessary; • Connection to existing sewerage networks for sewage effluent from proposed buildings; • Collecting and treating wastewater generated by washing and maintenance activities of ventilation systems via an active carbon filter before being discharged to stormwater drainage system; and • Proper collection and disposal of spent lubrication oil by Licensed Chemical Contractor.	• No adverse residual impacts anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Waste Management Implication					
Construction Phase					
The waste transportation routes and the waste disposal site, as well as the waste disposal outlet	• It is estimated that 1,596,600m^3 of soft inert C&D material would be generated and reused on-site as far as practicable or delivered to Tuen Mun Area 38 Fill Bank for reuse in other projects; • It is estimated that 7,701,700m^3 of hard inert C&D material would be reused on-site as much as practicable and the surplus would be delivered to Tuen Mun Area 38 Fill Bank for reuse in other projects; • It is estimated that 64,060m^3 of non-inert C&D materials would be generated and be disposed of at WENT Landfill; • It is estimated that 31,000m^3 of marine sediment would be generated. Reuse of sediment on site would be explored and marine disposal would only be considered as last resort; • It is estimated that 4,705tonnes of general refuse would be generated and be recycled for recyclables or disposed of at WENT Landfill; • A few hundred litres of chemical wastes would be generated per month. It would be collected and disposed of by licensed collector at CWTC; and • Floating refuse of approximately 1.5m^3 per year would be trapped within the Project Area.	• EIAO-TM Annex 7 and Annex 15 • WDO (Cap. 354) • Land (Miscellaneous Provisions) Ordinance (Cap. 28) • Public Health and Municipal Services Ordinance (Cap. 132) – Public Cleansing and Prevention of Nuisances Regulations • DASO (Cap. 466) • DEVB TCW No. 06/2010 • ETWB TC(W) No. 34/2002 • WBTC No. 12/2000 Fill Management	• Not applicable	• Waste reduction should be considered at the planning and design phase, as well as by ensuring the implementation of good site practices; • Carry out on-site sorting to retrieve recyclable materials as much as possible; • Inert construction waste shall not be in liquid form such that it can be contained and delivered by water-tight containers. Inert C&D materials in liquid form shall be solidified before delivering to the public fill reception facilities; • A trip-ticket system shall be implemented and GPS or equivalent system shall be installed in dump trucks and vessels for delivery of inert C&D materials or marine sediment from the site to disposal locations to avoid illegal dumping and landfilling; • If chemical wastes are produced at the construction site, the contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste collector; • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis; • Good management practices for handling and disposal of marine sediments at dedicated marine disposal sites; and • Regular inspection and monitoring of floating refuse will be conducted by contractor at biweekly interval. Waste collection by the contractor will be arranged at biweekly interval.	• No adverse residual impact anticipated
Operational Phase					
The waste transportation routes and the waste disposal site, as well as the waste disposal outlet	• It is estimated that approximately 260kg of general refuse would be generated per day; • It is estimated that maximum of a few hundred litres of chemical waste would be generated per month; and • An estimation of 1.5m^3 of floating refuse will be accumulated and collected by the contractor.	• Waste Disposal Ordinance (Cap. 354) • DEVB TCW No. 06/2010	• Not applicable	• Reputable waste collector should be employed to remove municipal solid waste regularly; • Recycling companies should be arranged to collect the recycled waste as required; • Requirements given in the Code of Practice on Packaging, Labelling and Storage of Chemical Wastes should be followed; • A trip-ticket system should be operated to monitor all movements of chemical wastes, which would be collected by a licensed collector to a licensed facility; • Chemical waste should be recycled as far as possible; and • Regular inspection and monitoring of floating refuse will be conducted by MD's contractor, and waste collection and disposal will be arranged as required.	• No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Land Contamination					
Construction workers and future users within the Project	• 15 potentially contaminated sites have been identified. When site access is available, environmental site investigation (SI) will be carried out to determine the extent of the contamination, if any.	• EIAO-TM Section 3 (Potential Contaminated Land Issues) of Annex 19 "Guidelines for Assessment of Impact on Sites of Cultural Heritage and Other Impacts" • Guidance Note for Contaminated Land Assessment and Remediation • Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management • Practice Guide for Investigation and Remediation of Contaminated Land	• The extent of the contamination of 15 potentially contaminated sites if any, will be determined when site access is available and SI works will be carried out.	• Supplementary CAP will be submitted to EPD for endorsement before the commencement of environmental SI; • Following the completion of SI and lab testing works, a CAR would be prepared to present the findings of the SI and evaluate the level and extent of potential contamination; • If potential contamination is identified and remediation actions are required, a RAP will be prepared for submission to EPD; and • A Remediation Report (RR) would also be prepared to demonstrate that the clean-up works are adequate.	• No adverse residual impact anticipated
Hazard to Life					
Construction Phase					
Population in the vicinity of the Project	• The societal risk for use of explosives, overnight storage of explosives and transport of explosives are within the "ALARP" region separately; • The individual risk complies with the criterion of Annex 4 of the EIAO-TM; • The overall societal risk lies within the "ALARP" region; and • Tai Lam Chung No.2 Chlorination Station will be delisted from Potentially Hazardous Installations Register by the time when the construction works commence and thus risk during the construction phase is not anticipated.	• Annex 4 of the EIAO-TM • Practice Note for Authorized Persons and Registered Structural Engineers – Control of Blasting (APP-72) • Guidance Note No. GN 8 How to Apply for a Mode A Store Licence for Storage of S1DG (Blasting Explosives) • Guidance Note No. GN 2 Approval of an Explosives Delivery Vehicle • Guidance Note No. GN 3 Application and Handling of a Conveyance Permit	• Not applicable	• The truck should be designed and improved to reduce the amount of combustibles in the cabin. The fuel carried in the fuel tank should also be minimized to reduce the duration of any fire; • The accident frequency of the explosive truck should be minimized through the implementation of a defensive driving attitude and a dedicated training programme for both driver and his attendants which includes regular briefing sessions. Moreover, drivers should be selected based on good safety record and provided with regular medical checks; • The required quantity of explosives should only be transported for a particular blast to avoid any unused explosives send back to the magazine; • The contractor should combine the explosive deliveries for a given work area as far as practicable; • A minimum headway between two consecutive truck convoys of 10 minutes should be maintained whenever practicable; • To reduce the explosive truck fire involvement frequency, a better emergency response and training should be implemented to ensure adequate fire extinguishers are used and attempt is made to evacuate the area of the incident or securing the explosive load if possible. All explosive vehicles should also be equipped with bigger capacity aqueous film forming forma (AFFF)-type extinguishers; • Each blasting activities including storage and transport of explosives should be supervised and audited by competent site staff to ensure strict compliance with the blasting permit condition; • Security plan should address different alert security level to reduce opportunity for arson or deliberate initiation of explosives; • Follow good practices listed in Practice Note for Authorized Persons and Registered Structural Engineers – Control of Blasting (APP-72), "Guidance Note No. GN 8 How to Apply for a Mode A Licence for Storage of Schedule 1 Dangerous Goods (Blasting Explosives)", "Guidance Note No. GN 2 Approval of an Explosives Delivery Vehicle" and "Guidance	• No adverse residual impact anticipated

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				Note No. GN 3 Application and Handling of a Conveyance Permit"; and • Formulate a Hazard Management Plan with a view to aligning the understanding of the risk of the three projects (i.e. Route 11 (R11), Tuen Mun Bypass (TMB) and Lam Tei Underground Quarrying (LTUQ)) so that all the working populations at Lam Tei Quarry area, which includes the workforce induced under the construction and operational stage of three projects, could be considered as on-site populations in the QRA for all the three projects. The measures stipulated in the Hazard Management Plan may include, but not limited to, the adjustment of the blasting schedules of the three projects to minimize the potential cumulative impact, provision of common trainings and drills to the workforce of all the three projects, etc. The Hazard Management Plan, which would be agreed among the three projects, would be submitted to EPD for agreement prior to the tender invitation of construction phases of R11, TMB and LTUQ, whichever is earlier.	
Operational Phase					
Population in the vicinity of the Project	• No potential risk identified since it does not involve any use of explosives • Tai Lam Chung No.2 Chlorination Station will be delisted from Potentially Hazardous Installations Register by the time when the construction works commence and thus risk during the operational phase is not anticipated	• Annex 4 of the EIAO-TM	• Not applicable	• No mitigation measure is required	• Not applicable
Ecology					
Construction Phase					

Ecological resources likely to be impacted by the Project	• Habitat loss
	  ○ Permanent loss of around 0.16ha of backshore, 257m of channel, 24.60ha of developed area, 17.54ha of mixed woodland, 91m of natural coastline, 13.93ha of plantation, 4.1ha of seabed, 122m of seawall, 16.47ha of shrubland/grassland and 164m of watercourse; and
	  ○ Temporary loss of 0.09ha of backshore, 90m of channel, 16.85ha of developed area, 6.54ha of mixed woodland, 298m of natural coastline, 5.88ha of plantation, 13ha of sea, 49m of seawall and 5.72ha of shrubland/grassland.
	• Harm/Mortality to species of conservation importance/wildlife
	  ○ Potential direct impact to five flora species of conservation importance (including *Aquilaria sinensis*, *Diospyros vaccinioides*, *Gnetum luofuense*, *Ixonanthes reticulata* and *Nepenthes mirabilis*) recorded within the aboveground works area; and
	  ○ Potential direct impact to one fauna species of conservation importance of relatively low mobility (Hong Kong Cascade Frog).
	• Impact resulting from terrestrial and marine habitat fragmentation;
	• Construction disturbance (e.g. dust, light glare, noise and marine traffic of works vessels) to
		• Annex 8 and Annex 16 of EIAO-TM	• Not applicable	• Locate all aboveground works areas outside recognized sites of conservation importance (such as Tai Lam Country Park, "Conservation Area" and Siu Lang Shui Site of Special Scientific Interest), important habitats (Fung Shui Woodlands in So Kwun Wat, Siu Lang Shui Butterfly Habitat and Ma Wan Egretry, Day Roost and Night Roost) and roosting grounds (Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6, 7 and 8) to avoid direct impact on them;
				• Avoid reclamation in North Lantau;
				• Adopt tunnelling design if practicable (e.g. within Tai Lam Country Park), refinement/shifting the alignment to minimize mixed woodland loss and slope cutting, maximization of haul road extent overlapping with the main alignment and minimize reclamation footprint in Tsing Lung Tau to minimize habitat loss;
				• Select habitat edges as aboveground works areas, maximize the proportion and extent of the tunnel sections and adopt considerable length of viaduct section of the main alignment of the Project to minimize habitat fragmentation;
				• Raise the gradient of and elevate the viaduct above the eastern patch of Ching Uk Tsuen Fung Shui Woodland to minimize direct injury/mortality to species of conservation importance (i.e. *Ixonanthes reticulata*);
				• Provide a 7-metre gap between the viaduct above the eastern patch of Ching Uk Tsuen Fung Shui Woodland to minimize shading impact on it;
				• Direct artificial lighting towards areas with necessity of lighting only and away from natural habitats at and immediately outside TLCP to minimize light glare impact;
				• Adopt the mitigation measures listed in **Section 5** to minimize water quality impacts;
					• No adverse residual impact is anticipated

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	habitats, wildlife (including species of conservation importance), roosting grounds (especially bat roosts inside Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6, 7 and 8)
	• Ground-borne vibration impact to Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6,7 and 8;
	• Light glare impact;
	• Impact on quality of terrestrial waterbodies (e.g. surface runoff) and wildlife therein and in the vicinity;
	• Groundwater infiltration/drawdown impact**;**
	• Impact on recognized sites of conservation importance
	  o Tai Lam Country Park
	  o "Conservation Area"
	  o Siu Lang Shui Site of Special Scientific Interest
	• Impact on important habitats (i.e. Siu Lang Shui Butterfly Habitat and Ma Wan Egretry, Day Roost and Night Roost);
	• Impact on terrestrial species of conservation importance other than cave-dwelling bats inside catchwater tunnels and marine species of conservation importance;
	• Indirect marine water quality impact
	• Disturbance due to marine traffic works vessels
				• Adopt good site practice (e.g. confine works within construction site boundary) to minimize indirect disturbance;
				• Adopt mitigation measures listed in **Section 5** to minimize groundwater infiltration and site runoff;
				• Maximise distance between the tunnelling works and the bat roosts to minimize ground-borne vibration impact on the identified bat roosts;
				• Suspend blasting works and adopt remedial actions, including review explosive charge weight and explore alternative tunnelling method, when ground-borne vibration reaches or is above the limit level, to reduce risk of injury to bats roosting inside the concerned catchwater tunnels;
				• Control charge weight and continuous monitoring on ground-borne vibration at Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6, 7 and 8 to minimize disturbance to bat roosts, and conduct ecological monitoring on the bat roost usage and bats;
				• Conduct continuous adaptive review on the Alert, Action and Limit Levels of ground-borne vibration based on the ground-borne vibration and bat roost monitoring results to be collected during the pre-blasting and blasting phases;
				• Divert sections of watercourses falling within the aboveground works area and to be potentially directly impacted and adopt green channel design where applicable;
				• Conduct compensatory woodland planting to mitigate the area of mixed woodland to be permanently lost and temporarily lost, the feasibility of reinstatement of the latter of which should be confirmed unfeasible to be reinstated during the detailed design phase in advance;
				• Conduct pre-construction detailed vegetation survey, submit a detailed preservation, transplantation and/or compensatory planting plan for the flora species of conservation importance anticipated to be directly impacted, including but not limited to *Aquilaria sinensis*, *Diospyros vaccinioides*, *Gnetum luofuense*, *Ixonanthes reticulata* and *Nepenthes mirabilis*, at detailed design stage and conduct preservation, transplantation and/or compensatory planting, as well as monitoring of plant of species of conservation importance where applicable and feasible;
				• Conduct pre-construction survey of aquatic and water-dependent fauna species of conservation importance at the section of watercourses to be directly impacted (i.e. the ditch, W4, W22, W23 and W24), including but not limited to Hong Kong Cascade Frog, and submit translocation plan, conduct translocation of aquatic and water-dependent fauna species of conservation importance and/or monitoring of aquatic and water-dependent fauna species of conservation importance where necessary;
				• Conduct detailed reconnaissance dive survey to confirm the feasibility of coral translocation; and
				• Enhance the seawall with ecological features to increase the overall ecological value, integrity and complexity; and
				• Monitoring of the effectiveness of mitigation measures on groundwater infiltration.	

Operational Phase					
Ecological resources likely to be impacted by the Project	• Disturbance (noise and ground-borne vibration) impact; • Light glare impact; • Terrestrial and marine habitat fragmentation impact;	• Annex 8 and Annex 16 of EIAO-TM	• Not applicable	• Upon all blasting works are completed, ground-borne vibration monitoring, bat acoustics survey, emergence survey, and bat roost survey will be conducted for Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6, 7 and 8 for at least 9 months, following the same method and frequency as the baseline monitoring. In	• No adverse residual impact is anticipated

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	• Barrier effect to the flight-lines of and loss of foraging habitats of ardeids;
	• Roadkill and bird collision impacts;
	• Adverse water quality impact on terrestrial and marine habitats;
	• Shading effect on the eastern patch of Ching Uk Tsuen Fung Shui Woodland;
	• Impact on recognized sites of conservation importance, important habitats, roosting grounds and terrestrial fauna species of conservation importance other than cave-dwelling bats:
	  o Tai Lam Country Park;
	  o "Conservation Area";
	  o Fung shui wood in So Kwun Wat;
	  o Siu Lang Shui Butterfly Habitat;
	  o Ma Wan Egretry, Day Roost and Night Roost;
	  o Terrestrial fauna species of conservation importance other than cave-dwelling bats; and
	  o Marine species of conservation importance (i.e. corals)
	• Impact on marine hydrological regime;
	• Spillage of chemicals/pollutants; and
	• Impact due to increased marine traffic.
				addition, within one year from the commencement of operational phase, conduct monitoring on ground-borne vibration and roosting bats for Tai Lam Chung Catchwater Tunnel Nos. 1, 5, 6, 7 and 8 for at least 9 months;
				• Direct artificial lighting towards areas with necessity of lighting only and away from natural habitats to minimize light glare impact;
				• Adopt mitigation measures in "Water quality" section to mitigate water quality impact;
				• Monitoring of compensatory woodland;
				• Monitoring of flora species of conservation importance to be preserved, transplanted and/or compensated, if transplantation and/or compensatory planting of flora species of conservation importance is/are confirmed necessary;
				• Monitoring of aquatic and water-dependent fauna species of conservation importance (e.g. Hong Kong Cascade Frog) to be translocated, if translocation is necessary;
				• Adopt tinted materials and superimposing dark patterns or strips on noise barriers to minimize risk of potential bird collision with noise barriers; and
				• Monitoring of effectiveness of mitigation measures on groundwater infiltration	

Fisheries					
Construction Phase					
Fisheries resources and habitats likely to be impacted by the Project	• Permanent loss of 4.1ha of fishing ground and temporary loss of 13ha fishing ground; • Indirect impact on marine works required for the reclamation of landing area for Tsing Lung Tau including dredging and filling activities that may impact water quality; and • Indirect impacts on underwater noise	• Annex 9 and Annex 17 of EIAO-TM	• Not applicable	• Follow mitigation measures, good practices and guidelines to minimise water quality impacts.	• No adverse residual impact anticipated
Operational Phase					
Fisheries resources and habitats likely to be impacted by the Project	• Permanent loss of 4.1ha fishing ground; and • No adverse fisheries impact on change of hydrodynamics and deterioration of water quality induced by the footprint of the landing area for Tsing Lung Bridge at Tsing Lung Tau is identified	• Annex 9 and Annex 17 of EIAO-TM	• Not applicable	• No specific mitigation measure is required	• Not applicable
Landscape and Visual Impact					
Construction Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs)	• Sources of impact include construction works, temporary works and night-time lighting; • Around 5,000 out of 11,982 nos. of existing trees will be felled; • Substantial adverse impacts on LRs including Secondary Woodlands in So Kwun Wat and Shrublands in North Lantau; • Moderate / Substantial adverse impacts on LRs including Secondary Woodlands in Lam Tei, and Shrublands in So Kwun Wat; • Moderate adverse impacts on LRs including Plantations in Lam Tei, So Kwun Wat, and North Lantau, Carriageway and Roadside planter in Tsing Lung Tau and North Lantau; Plantations / Mixed Woodlands in Tsing Lung	• TM-EIAO Annexes 3, 10, 11, 18, 20 and 21 • EIAO (Cap. 499. S16) and EIAO-TM Annexes 3, 10, 11, 18, 20 and 21 • EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment • HKPSG Chapters 4, 10 and 11 • Protection of Endangered Species of Animals and Plants Ordinance (Cap.586) • Town Planning Ordinance	• Not applicable	• Tree preservation; • Tree transplanting; • Tree and woodland compensation with 1:1 compensatory ratio • Landscape reinstatement; • Lighting control; • Erection of screen hoarding; and • Optimisation of construction areas.	• Residual impacts are considered acceptable. • Substantial adverse impacts on LRs including Shrublands in North Lantau. • Moderate adverse impacts on LRs including Secondary Woodlands in Lam Tei and So Kwun Wat, Plantations in Lam Tei, So Kwun Wat, and North Lantau, Shrublands in So Kwun Wat, Carriageway and roadside planter in Tsing Lung Tau and North Lantau; Plantations / Mixed Woodlands in Tsing Lung Tau;. • Slight adverse impacts on LRs including Watercourses in Lam Tei, Developed Areas in Lam Tei, So Kwun Wat, Tsing Lung Tau and North Lantau, Carriageway and roadside planter in So Kwun Wat and Secondary

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	Tau; • Moderate / Slight adverse impacts on LRs including Watercourses in Lam Tei, Developed Areas in Tsing Lung Tau and North Lantau, and Secondary Woodlands in North Lantau; • Slight adverse impacts on LRs including Carriageway and Roadside Planter in So Kwun Wat; • Slight / Insubstantial adverse impacts on LRs including Developed Areas in Lam Tei and So Kwun Wat; • Insubstantial adverse impacts on LRs including Watercourses in So Kwun Wat, Tsing Lung Tau and North Lantau, Secondary Woodlands in Tsing Lung Tau, Shrublands in Tsing Lung Tau and Seawater Body and Shorelines at Ha Pang Fairway; • Substantial adverse impacts on LCAs including Tai Lam Country Park Upland Landscape, Tai Lam Chung Foothill Landscape and Ng Kwu Leng Peninsula Landscape; • Moderate / Substantial adverse impacts on LCAs including Lam Tei Upland Landscape; • Moderate adverse impacts on LCAs including Lam Tei Rural Landscape, Tai Lam Chung River Valley Landscape; • Moderate / Slight adverse impacts on LCAs including So Kwun Wat Village Landscape, Tuen Mun Road Urban Corridor Landscape, Tsing Lung Tau Urban Landscape and North Lantau Highway Corridor Landscape; • Slight adverse impacts on LCAs including Lam Tei Upland Fringe Landscape; • Slight / Insubstantial adverse impacts on LCAs including Lam Tei Rural Fringe Landscape; • Insubstantial adverse impacts on LCAs including To Hang Tung Foothill Landscape, North Lantau Fa Peng Teng Upland Landscape and Ha Pang Fairway Maritime Landscape; • Substantial adverse impacts on VSRs including Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai, Trail Walkers on MacLehose Trail Section 10 (West and East), Vehicle Travellers on Tuen Mun Road, Residents of The Bloomsway, Students and Staff at Harrow International School Hong Kong, Residents of Aegean Coast, Residents of Avignon, Vehicle Travellers on Castle Peak Road – So Kwun Wat, Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road, Residents of So Kwun Wat Tsuen, Residents of So Kwun Wat San Tsuen, Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre, Vehicle Travellers on Siu Lam Road, Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road, Residents of Palatial Coast, Residents of Siu Lam, Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, Pedestrians on Footbridge	and Town Planning (Amendment) Ordinance (Cap. 131) • Country Parks Ordinance (Cap. 208) • The Forests and Countryside Ordinance (Cap. 96) – Prohibiting the Felling, Cutting, Burning or Destruction of Tress, Growing Plants and Forests on Government Land • ETWB TC(W) No. 5/2020 – Registration and Preservation of Old and Valuable Trees			Woodlands in North Lantau. • Insubstantial adverse impacts on LRs including Watercourses in So Kwun Wat, Tsing Lung Tau and North Lantau, Secondary Woodlands in Tsing Lung Tau, Shrublands in Tsing Lung Tau and Seawater Body and Shorelines at Ha Pang Fairway. • Substantial adverse impacts on LCAs including Ng Kwu Leng Peninsular Landscape. • Moderate adverse impacts on LCAs including Lam Tei Rural Landscape, Lam Tei Upland Landscape, Tai Lam Country Park Upland Landscape and Tai Lam Chung Foothill Landscape. • Slight adverse impacts on LCAs including Lam Tei Rural Fringe Landscape, Lam Tei Upland Fringe Landscape, So Kwun Wat Village Landscape, Tuen Mun Road Urban Corridor Landscape, Tsing Lung Tau Urban Landscape and North Lantau Highway Corridor Landscape. • Insubstantial adverse impacts on LCAs including To Hang Tung Foothill Landscape, North Lantau Fa Peng Teng Upland Landscape and Ha Pang Fairway Maritime Landscape. • Substantial adverse impacts on VSRs including Residents of Parkland Villas, Fu Tai Estate, Lo Fu Hang, Sherwood, Avignon, So Kwun Wat Tsuen, Kwun Wat San Tsuen, Palatial Coast, Siu Lam and Sea Crest Villa Phase 4; Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road, Trail Walkers on MacLehose Trail Section 10 (East), Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road, Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, Pedestrians on Footbridge over Tai Lam Chung River, Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau, Travellers in Tsing Lung Tau Ferry Pier, Travellers in Ma Wan Public Pier, Maritime Travellers in Ha Pang Fairway. • Moderate adverse impacts on VSRs including Residents of Fuk Hang Tsuen, Tsoi Yuen Tsuen, The Bloomsway, Hong Kong Gold Coast, Aegean Coast, Tai Lam Chung Tsuen, Bellagio, Ocean Pointe, Hong Kong Garden, Vistacove, L'Aquatique and Park Island, Vehicle Travellers on Kong Sham Western Highway (Southbound), Vehicle Travellers on Yuen Long Highway (Westbound), Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai, Trail Walkers on MacLehose Trail Section 10 (West), Vehicle Travellers on Tuen Mun Road, Students and Staff at Harrow International School Hong Kong, Vehicle Travellers on Castle Peak Road – So Kwun Wat, Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre, Vehicle

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	over Tai Lam Chung River, Trail Walkers on Summit of Hill 141, Residents of Tai Lam Chung Tsuen, Residents of Hong Kong Garden, Vistacove and L'Auatique, Students and Staff at Hong Kong Customs College, Staff and Visitors at Tai Lam Correctional Institution, Vehicle Travellers on North Lantau Highway (Westbound) and Vehicle Travellers at Lantau Link Toll Plaza; • Moderate adverse impacts on VSRs including Residents of Parkland Villas, Residents of Fu Tai Estate, Residents of Lo Fu Hang, Vehicle Travellers on Yuen Long Highway (Eastbound and Westbound), Residents of Fuk Hang Tsuen, Residents of The Sherwood, Vehicle Travellers on Kong Sham Western Highway (Southbound), Residents of Tsoi Yuen Tsuen, Residents of Hong Kong Gold Coast, Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School, Students and Staff at Chu Hai College of Higher Education, Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam, Trail Walkers at South of To Hang Tung, Vehicle Travellers on Tuen Mun Road (Westbound and Eastbound), Residents of Bellagio and Ocean Pointe, Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound), Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau, Travellers in Tsing Lung Tau Ferry Pier, Travellers in Sham Tseng Public Pier, Residents of Sea Crest Villa Phase 4, Trail Walkers on Summit of Fa Peng Teng, Travellers in Ma Wan Public Pier, Vehicular Travellers on Kap Shui Mun Bridge, Visitors at Sunny Bay Promenade, Maritime Travellers in Ha Pang Fairway, Residents of Park Island, Future Users at Planned Sunny Bay Reclamation Area and Future Vehicle Travellers on Planned Road P1; and • Negligible adverse impacts on VSRs including Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir				Travellers on Siu Lam Road, Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam, Trail Walkers on Summit of Hill 141, Trail Walkers at South of To Hang Tung, Students and Staff at Hong Kong Customs College, Staff and Visitors at Tai Lam Correctional Institution, Vehicle Travellers on Tuen Mun Road (Westbound), Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound), Vehicle Travellers on Tuen Mun Road (Eastbound), Travellers in Sham Tseng Public Pier, Vehicle Travellers on North Lantau Highway (Westbound), Trail Walkers on Summit of Fa Peng Teng, Vehicle Travellers at Lantau Link Toll Plaza, Vehicular Travellers on Kap Shui Mun Bridge, Visitors at Sunny Bay Promenade and Future Users at Planned Sunny Bay Reclamation Area; • Slight adverse impacts on VSRs including Vehicle Travellers on Yuen Long Highway (Eastbound), Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School, Students and Staff at Chu Hai College of Higher Education and Future Vehicle Travellers on Planned Road P1; and • Insubstantial adverse impacts on VSRs including Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir.
Operational Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs)	• Substantial adverse impacts on LRs including Secondary Woodlands in So Kwun Wat and Shrublands in North Lantau; • Moderate / Substantial adverse impacts on LRs including Secondary Woodlands in Lam Tei and Shrublands in So Kwun Wat; • Moderate adverse impacts on LRs including Plantations in Lam Tei, Plantations in So Kwun Wat and Carriageway and roadside planter in Tsing Lung Tau and Plantations in North Lantau; Plantations / Mixed Woodlands in Tsing Lung Tau;; • Moderate / Slight adverse impacts on LRs including Watercourses in Lam Tei, Developed Areas in Tsing Lung Tau and North Lantau, and	• TM-EIAO Annexes 3, 10, 11, 18, 20 and 21 • EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment • HKPSG Chapters 4 and 10 • Protection of Endangered Species of Animals and Plants Ordinance (Cap.586) • ETWB TC(W) No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation	• Not applicable	• Compensatory tree planting; • Optimisation green provision on structure; • Landscape integration and screen planting; • Architectural aesthetic design of built structures; and • Aesthetic design on noise barrier.	• Moderate adverse impacts on LRs including Secondary Woodlands in So Kwun Wat and Shrublands in North Lantau. • Slight adverse impacts on LRs including Secondary Woodlands in Lam Tei, Plantations in Lam Tei, So Kwun Wat, and North Lantau, and Watercourses in Lam Tei; Plantations / Mixed Woodlands in Tsing Lung Tau;. • Insubstantial adverse impacts on LRs including Developed Areas in Lam Tei, So Kwun Wat, Tsing Lung Tau and North Lantau; Shrublands in So Kwun Wat; Watercourses in So Kwun Wat, Tsing Lung Tau and North Lantau; Carriageway and roadside planter in So Kwun Wat, Tsing Lung Tau and North Lantau;

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	Secondary Woodlands in North Lantau; • Slight adverse impacts on LRs including Carriageway and roadside planter in So Kwun Wat; • Slight / Insubstantial adverse impacts on LRs including Developed Areas in Lam Tei and So Kwun Wat; • Insubstantial adverse impacts on LRs including Watercourses in So Kwun Wat, Tsing Lung Tau and North Lantau, Secondary Woodlands in Tsing Lung Tau, Shrublands in Tsing Lung Tau and Seawater Body and Shorelines at Ha Pang Fairway; • Substantial adverse impacts on LCAs including Tai Lam Country Park Upland Landscape, Tai Lam Chung Foothill Landscape and Ng Kwu Leng Peninsular Landscape. • Moderate / Substantial adverse impacts on LCAs including Lam Tei Upland Landscape; • Moderate adverse impacts on LCAs including Lam Tei Rural Landscape and Tai Lam Chung River Valley Landscape; • Moderate / Slight adverse impacts on LCAs including So Kwun Wat Village Landscape, Tuen Mun Road Urban Corridor Landscape, Tsing Lung Tau Urban Landscape and North Lantau Highway Corridor Landscape; • Slight adverse impacts on LCAs including Lam Tei Upland Fringe Landscape; • Slight / Insubstantial adverse impacts on LCAs including Lam Tei Rural Fringe Landscape. • Insubstantial adverse impacts on LCAs including To Hang Tung Foothill Landscape, North Lantau Fa Peng Teng Upland Landscape and Ha Pang Fairway Maritime Landscape; • Substantial adverse impacts on VSRs including Trail Walkers on MacLehose Trail Section 10 (West), Residents of Hong Kong Garden, Vistacove and L'Aquatique; • Moderate adverse impacts on VSRs including Residents of Parkland Villas, Residents of Fu Tai Estate, Residents of Lo Fu Hang, Residents of Fuk Hang Tsuen, Residents of The Sherwood, Residents of Tsoi Yuen Tsuen, Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai, Vehicle Travellers on Tuen Mun Road, Residents of The Bloomsway, Students and Staff at Harrow International School Hong Kong, Residents of Aegean Coast, Residents of Avignon, Vehicle Travellers on Castle Peak Road – So Kwun Wat, Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road, Trail Walkers on MacLehose Trail Section 10 (East), Residents of So Kwun Wat Tsuen, Residents of So Kwun Wat San Tsuen, Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre, Vehicle Travellers on Siu Lam Road, Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road, Residents of	• Land Administration Office, Lands Department Practice Note Nos. 7/2007 and 7/2007A Tree Preservation and Tree Removal Application for Building Development in Private Projects			Secondary Woodlands in Tsing Lung Tau and North Lantau, Shrublands in Tsing Lung Tau, Seawater Body and Shorelines at Ha Pang Fairway. • Moderate adverse impacts on LCAs including Ng Kwu Leng Peninsular Landscape. • Slight adverse impacts on LCAs including Lam Tei Rural Landscape, Lam Tei Upland Landscape, Tai Lam Country Park Upland Landscape, Tai Lam Chung Foothill Landscape and Tai Lam Chung River Valley Landscape. • Insubstantial adverse impacts on LCAs including Lam Tei Rural Fringe Landscape, Lam Tei Upland Fringe Landscape, So Kwun Wat Village Landscape, Tuen Mun Road Urban Corridor Landscape, Tsing Lung Tau Urban Landscape, To Hang Tung Foothill Landscape, North Lantau Fa Peng Teng Upland Landscape, Ha Pang Fairway Maritime Landscape and North Lantau Highway Corridor Landscape. • Substantial adverse impacts on VSRs including Residents of So Kwun Wat San Tsuen. • Moderate / Substantial adverse impacts on VSRs including Residents of Sea Crest Villa Phase 4. • Moderate adverse impacts on VSRs including Residents of Fu Tai Estate, Lo Fu Hang, The Sherwood, So Kwun Wat Tsuen, Palatial Coast, Siu Lam, Tai Lam Chung Tsuen, Hong Kong Garden, Vistacove, L'Aquatique and Park Island; Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road, Trail Walkers on MacLehose Trail Section 10 (East), Vehicle Travellers on Siu Lam Road, Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road, Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, Pedestrians on Footbridge over Tai Lam Chung River, Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound), Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau, Travellers in Tsing Lung Tau Ferry Pier, Trail Walkers on Summit of Fa Peng Teng, Travellers in Ma Wan Public Pier and Maritime Travellers in Ha Pang Fairway. • Slight adverse impacts on VSRs including Residents of Parkland Villas, Fuk Hang Tsuen, Tsoi Yuen Tsuen, The Bloomsway, Hong Kong Gold Coast, Aegean Coast, Avignon, Bellagio and Ocean Pointe; Vehicle Travellers on Yuen Long Highway (Eastbound and Westbound), Vehicle Travellers on Kong Sham Western Highway (Southbound), Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai, Trail Walkers on MacLehose Trail Section 10 (West), Vehicle Travellers on Tuen Mun Road, Students and Staff at Harrow International School Hong Kong, Vehicle

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	Palatial Coast, Residents of Siu Lam, Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, Pedestrians on Footbridge over Tai Lam Chung River, Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam, Trail Walkers on Summit of Hill 141, Trail Walkers at South of To Hang Tung, Residents of Tai Lam Chung Tsuen, Students and Staff at Hong Kong Customs College, Staff and Visitors at Tai Lam Correctional Institution, Vehicle Travellers on Tuen Mun Road (Westbound and Eastbound), Residents of Bellagio and Ocean Pointe, , Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound), Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau, Travellers in Tsing Lung Tau Ferry Pier, Travellers in Sham Tseng Public Pier, Residents of Sea Crest Villa Phase 4, Vehicle Travellers on North Lantau Highway (Westbound), Trail Walkers on Summit of Fa Peng Teng, Vehicle Travellers at Lantau Link Toll Plaza, Travellers in Ma Wan Public Pier, Vehicular Travellers on Kap Shui Mun Bridge, Visitors at Sunny Bay Promenade, Maritime Travellers in Ha Pang Fairway, Residents of Park Island, Future Users at Planned Sunny Bay Reclamation Area and Future Vehicle Travellers on Planned Road P1; • Insubstantial adverse impacts on VSRs including Vehicle Travellers on Yuen Long Highway (Eastbound), Vehicle Travellers on Kong Sham Western Highway (Southbound), Vehicle Travellers on Yuen Long Highway (Westbound), Residents of Hong Kong Gold Coast, Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School and Students and Staff at Chu Hai College of Higher Education; and • Negligible adverse impacts on VSRs including Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir.				Travellers on Castle Peak Road – So Kwun Wat, Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School, Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre, Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam, Trail Walkers on Summit of Hill 141, Trail Walkers at South of To Hang Tung, Students and Staff at Hong Kong Customs College, Staff and Visitors at Tai Lam Correctional Institution, Vehicle Travellers on Tuen Mun Road (Westbound and Eastbound), Travellers in Sham Tseng Public Pier, Vehicle Travellers on North Lantau Highway (Westbound), Vehicle Travellers at Lantau Link Toll Plaza, Vehicular Travellers on Kap Shui Mun Bridge, Visitors at Sunny Bay Promenade and Future Users at Planned Sunny Bay Reclamation Area. • Insubstantial adverse impacts on VSRs including Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir, Students and Staff at Chu Hai College of Higher Education and Future Vehicle Travellers on Planned Road P1.
Cultural Heritage					
Construction Phase					
Terrestrial archaeology	• No adverse impact on the sites of archaeological interest identified within or near the Project; and • An area of archaeological potential at the east of Area A at the lower slopes to the north of Lam Tei Quarry within the works area would require further archaeological investigation to verify the presence of any archaeological remains.	• Antiquities and Monuments Ordinance (Cap. 53) • EIAO including EIAO-TM • Guidelines for Cultural Heritage Impact Assessment	• Not applicable	• Testing including field scan, auger tests and test pit excavation within the non-tested area of archaeological potential is recommended to be conducted by an archaeologist who obtains a licence under the Antiquities and Monuments Ordinance (Cap. 53); and • AMO should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of the project works for discussion of appropriate mitigation measures to be agreed by AMO before implementation by the project proponent to the satisfaction of AMO.	• No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Built heritage	• There is no Declared Monuments, Proposed Monuments, Graded Historic Buildings and Government Historic Sites. Former Perowne Barracks, Gurkha Temple, a grade 3 structure will require mitigation during the construction phase as it is in close proximity of earthworks (around 11m).	• Antiquities and Monuments Ordinance (Cap. 53) • EIAO including EIAO-TM • Guidelines for Cultural Heritage Impact Assessment • AMO Proposed Vibration Limits • Proposed Grading and Graded Historic Buildings Classification	• Not applicable	• A condition survey be undertaken by qualified building surveyor or engineer prior and after the construction phase. The relevant works drawings and proposal shall be submitted to AMO for consideration; • The Condition Survey Report for the graded historic building shall be submitted to AMO for comment before commencement and after construction activities. The locations of proposed monitoring points in the building should avoid damaging the historic fabric and agreed by the owner and Antiquities and Monuments Office (AMO). The contractor should implement the approved monitoring and precautionary measures; • Any vibration and building movement induced from the construction works should be strictly monitored to ensure no disturbance and physical damages made to the heritage site during the course of works. Monitoring proposal for the heritage sites, including checkpoint locations, installation details, response actions for each of the Alert/ Alarm/ Action (3As) levels and frequency of monitoring should be submitted for AMO's consideration. The recommended 3As levels for Grade 3 heritage site are specified in the EM&A Manual; • A buffer zone should be provided to separate the Former Perowne Barracks, Gurkha Temple building from the construction works. The buffer zone should be clearly marked out by temporary fencing. The buffer zone should be made at least 5m from the proposed works or if this is not possible as large as the site restrictions allow; • Special attention should be paid to the heritage site to avoid adverse physical impact arising from the construction of the Project. Design proposal, method of works and choice of machinery will be targeted to minimize adverse impacts to the heritage site; • Foundation information of the historic structure shall be verified on site if needed, sufficient lateral support should be provided and de-watering (if required) should be carried out with great cautions to control ground movement and change of ground water regime at the heritage site; and • AMO should be informed immediately in case of discovery of buildings / structures both at-grade and underground with potential heritage value that would likely be affected by the development in the course of the project works for discussion of appropriate mitigation measures to be agreed by AMO before implementation by the project proponent to the satisfaction of AMO.	• No adverse residual impact anticipated
Marine archaeology	• 19 anomalies were identified from geophysical surveys; • In addition, due to shallow water depth along the coast, geophysical survey could not be conducted in this area. Therefore, it is proposed to dive every 50m along this area (i.e. 35 dive targets); and • After consulting with Marine Department, it is recommended to conduct the marine diver survey when fencing off of the diving area could be safely implemented but prior to any reclamation works, i.e. during the detailed design stage.	• Antiquities and Monuments Ordinance (Cap. 53) • EIAO including EIAO-TM • Guidelines for Cultural Heritage Impact Assessment	• Not applicable	• Marine diver survey shall be conducted during the detailed design stage when fencing off can be implemented but prior to any reclamation works; • Should there be any marine archaeological resources identified during the marine GI works and MAI, proper mitigation measures including but not limited to rescue excavation shall be proposed for agreement with AMO before the commencement of reclamation works.; • If the marine ground investigation works is required prior to the diver survey, it shall be arranged to avoid all the anomalies identified by geophysical survey conducted, by allowing sufficient setback distance (around 50m) from the anomalies; • Any marine GI works at the anomalies is required to be conducted after confirming their nature by MAI and seeking agreement with AMO; and • In case antiquities or supposed antiquities are identified during	• No adverse residual impact anticipated

Sensitive Receivers / Assessment Points	Impact Prediction Results	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				the construction works, the works should be suspended, and the project proponent should notify AMO immediately for discussion of appropriate mitigation measures to be agreed by AMO before implementation by the project proponent to the satisfaction of AMO.	
Operational Phase					
Terrestrial archaeology, built heritage and marine archaeology	• Adverse impact to terrestrial archaeology, built heritage and marine archaeology is not anticipated.	• Antiquities and Monuments Ordinance (Cap. 53) • EIAO including EIAO-TM; • Guidelines for Cultural Heritage Impact Assessment • HKPSG • Proposed Grading and Graded Historic Buildings Classification	• Not applicable	• No mitigation measure is required	• No adverse residual impact anticipated