Appendix 1.2 – Implementation Schedule

EIA & EM&A Ref. (1)	Environmental Mitigation Measures (1)	Location / Timing of the Measures	Implementation Agent	Implementation Stage (2)				Relevant Legislation & Guidelines (3)
				D	C	Post-C	O	
Air Quality								
3.8.1	Construction Phase The following dust control measures stipulated in the *Air Pollution Control (Construction Dust) Regulation* and good site practices will be incorporated into the Contract Specifications and implemented throughout the construction phase: • Impervious sheet shall be provided for skip hoist for material transport; • The area where any dusty work take place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after such work as far as practicable; • All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation; • Dropping heights for excavated materials should be controlled to a practical height to minimise the fugitive dust arising from unloading; • Temporary stockpiles of dusty materials shall be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time; • Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials shall be covered entirely by impervious sheeting sheltered on top and 3-sides; • All exposed areas shall be kept wet to minimise dust emission; • During transportation by truck, materials should not be loaded to a level higher than the side and tail boards, and should be dampened or covered before transport; • Immediately before leaving a construction site, all vehicles should be washed to remove any dusty materials from the bodies and wheels. However, all spraying of materials and surfaces should avoid excessive water usage; • NRMMs shall comply with the prescribed emission standards with a proper label approved by EPD in accordance with the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation;	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 311R* *Cap. 311Z* *Cap. 311I* ETWB-TC(W) No 19/2005

	• ULSD will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites; • On-site construction equipment shall be connected to mains electricity supply and the use of diesel generators and diesel-powered equipment shall be avoided as far as practicable to minimise the gaseous emission from these machineries; • The engine of the construction equipment during idling shall be switched off; • Regular maintenance of construction equipment deployed on-site shall be conducted to prevent black smoke emission; • For construction works that are in close distance (i.e. <10m) to the ASRs, adopt at least 2.4m and higher hoarding height close to the ASRs; and • Avoid dusty works and stockpiling near the ASRs with close distance (i.e. <10m). • Excavated river sediment will be reuse on-site, stockpiling of river sediment will be avoided as far as possible. If temporary stockpiling of river sediment is necessary, the excavated sediment will be covered by tarpaulin to avoid potential dust / odour emission. • To minimize the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediment will be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge will be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.							
3.8.2	Operation Phase If temporary stockpiling of desilted material is necessary, the stockpiles will be covered by tarpaulin to avoid potential odour emission and avoided to be placed near the ASRs with close distance (i.e., <10m). Desilted material shall also be properly covered when placed on trucks or barges.	Whole Site / Operation Phase	Project Proponent				√	-
Noise Impact								
4.9.2	<u>Good Site Practices</u> Good site practices and noise management can considerably reduce the potential noise impact of construction activities on nearby NSRs. The noise benefits of these practices can vary according to specific site conditions and operations. Since the effect of the good construction site practices could not be quantified, the mitigated noise levels calculated in the subsequent sections have not taken	Whole Site / Construction Phase	Contractor(s)		√			*EIAO-TM* *GW-TM* *DA-TM*

	account of this effect. The following site practices should be followed during the construction of the Project: • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment will be utilized where required and will be properly maintained during the construction phase; • Mobile plant, if any, will be sited as far away from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; • Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. • The Project Proponent/ the Contractor will keep close communication with the nearby sensitive receivers on the schedule of the construction works to minimise disturbance to the nearby sensitive receivers.							
4.9.3	Quieter Construction Method / PME The use of quiet PME is considered to be a practicable means to mitigate the construction noise impact. Quiet PME is defined as a PME having actual SWL lower than the value specified in the GW-TM. The total SWL of all plant items to be used on-site at each works area will be specified so that flexibility is allowed for the Contractor to select plant items to suit the construction needs. The Contractor shall select plant items with total SWL equal to or lower than the total SWL specified in the plant inventory in Appendix 4.7 in order to meet the relevant noise criteria.	Whole Site / Construction Phase	Contractor(s)		√			*EIAO-TM* *GW-TM* *DA-TM*
4.9.4	The Contractor shall consider quieter construction methods or technologies to reduce the noise at its source if they are technically feasible and applicable for the proposed construction works. These include using mini-excavator and electric poker, sharing the use of noisy PME from other works areas located further away from NSRs, etc. • Mini-excavator has been adopted as a mitigation measure to replace traditional excavator in all construction works. • Electric poker has also been adopted to replace traditional type poker in construction of crossing bridge, concreting works for wet wall, superstructure for pumping station, concreting works at outlet channel to River Silver, construction of Manhole, construction of box culvert, modification of agricultural weir and fish ladders, construction of low flow	Works area as specific in S.4.9.4 / Construction Phase	Contractor(s)		√			*EIAO-TM* *GW-TM* *DA-TM*

<table>
<tr>
<td></td>
<td>device and concreting works for tidal gate (Items 1.1.2, 1.2.4, 1.2.5, 1.3.3, 1.5.4, 2.3, 3.1.3, 3.1.4 and 4.2).
• For construction of flood walls and reconstruction of gabion wall along Tai Tei Tong River (item 3.1.1) pipe-laying works and backfilling & reinstatement at Ling Tsui Tau, Nam Bin Wai and Ma Po Tsuen (item 1.4.1 and 1.4.2), dump truck and/or concrete lorry mixer from other works areas located further away from NSRs will be used, i.e., dump truck will not be used for item 3.1.1 and item 1.4.2; dump truck and concrete lorry mixer will not be used for item 1.4.1. Material required to delivery or disposal as well as concrete required for casting will be transported manually to / from other works areas located further away from NSRs.</td>
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<td>4.9.5</td>
<td>Sound power levels of quieter equipment are listed in Table below. Other quieter equipment / construction methods not adopted in the assessment shall be considered during the design, tendering and implementation stage of the construction works as appropriate.
<table>
<tr><th>QPME / Quiet PME</th><th>QPME Reference Number</th><th>Brand</th><th>Model Number</th><th>SWL, dB(A)</th></tr>
<tr><td>Generator, silenced</td><td>EPD-12580</td><td>DENYO</td><td>DCA-25LSKE</td><td>88</td></tr>
<tr><td>Air Compressor</td><td>EPD-07503</td><td>AIRMAN</td><td>PDS55S-5C1</td><td>92</td></tr>
<tr><td>Roller, vibratory</td><td>EPD-06779</td><td>SAKAI</td><td>HV620</td><td>94</td></tr>
<tr><td>Asphalt Paver</td><td>EPD-12854</td><td>JOSEPH VOEGELE AG / VOEGELE</td><td>SUPER 1603-3</td><td>104</td></tr>
<tr><td>Crane, mobile</td><td>EPD-07646</td><td>Maeda</td><td>CC1485S-1</td><td>92</td></tr>
</table></td>
<td>Whole Site / Construction Phase</td><td>Contractor(s)</td><td></td><td>√</td><td></td><td></td><td>EIAO-TM
GW-TM
DA-TM</td>
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<td>4.9.6</td>
<td><u>Adoption of Temporary Noise Barriers or Noise Enclosure</u>
The use of noise barriers will be an effective means to mitigate the noise impact arising from the construction works in the works area, particularly for low-rise NSRs. Temporary Noise Barriers of appropriate height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. It is anticipated that</td>
<td>Whole Site / Construction Phase</td><td>Contractor(s)</td><td></td><td>√</td><td></td><td></td><td>EIAO-TM
GW-TM
DA-TM</td>
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	the major noise source of all PMEs, including movable and large PMEs, will be located at a level lower than the top of the proposed movable barriers. All movable barriers are expected to provide noise reductions of at least 5 dB(A) for mobile plant such as excavator and roller and 10 dB(A) for stationary plants such as winch. With reference to A Practical Guide for the Reduction of Noise from Construction Works, the noise barrier material should have a superficial surface density of at least 14 kg/m^2, without openings or gap.							
4.9.7	The use of noise enclosure is to cover stationary PMEs, such as generator which will be completely screened. The construction material of the noise enclosure should have a minimum surface density of 14 kg/m^2 and without openings or gaps. This can achieve at least a 15 dB(A) noise reduction according to the EIAO Guidance Note No.9/2010.	Whole Site / Construction Phase	Contractor(s)		√			*EIAO-TM* *GW-TM* *DA-TM*
4.9.9	Scheduling of Noisy Activities to Avoid Noise Impact on N11 To minimise the construction noise impact on N11, the use of concrete lorry mixer for modification of agricultural weir & fish ladder (item 3.1.3) should be avoided during examination period of N11. The contractor should keep close communication with the operator of Mui Wo School to obtain the updated schedule of examination at the time of conducting the relevant construction works.	Whole Site / Construction Phase	Contractor(s)		√			*EIAO-TM* *GW-TM* *DA-TM*
4.9.13	Telephone number of the 24-hour hotline will be displayed at all vehicular site entrances/ exits or at a convenient location for public enquiry and information at all times during the construction period.	Whole Site / Construction Phase	Contractor(s)		√			-
4.9.16	<u>Operation Phase</u> Noise reduction design measures should be incorporated into the Design and Contract Specifications to minimise the noise nuisance due to the operation of the proposed stormwater pumping station. The following measures should be included in the detailed design and specifications of the relevant contracts: • the ventilation fan exhaust should be orientated to face away from the NSRs as far as practical, acoustic louvers are proposed to be adopted at all ventilation fans; • quieter equipment should be selected during procurement; and • specifications on noise level for all equipment and silencers should be included when ordering equipment.	Proposed Stormwater Pumping Station / Design Phase and Operation Phase	Project Proponent	√			√	*EIAO-TM* *GW-TM* *DA-TM*
Water Quality Impact								
5.10.1	Land-based construction works as well as works within river channels that cover long or large areas should be conducted by segments / smaller areas to allow better control and limit potential water quality impact.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 358* *TM-ICW* *EIAO-TM*

								ProPECC PN1/94
5.10.2	The following standard measures and good site practices from ProPECC PN 1/94 Construction Site Drainage are recommended to be implemented to avoid/minimise the potential impacts from construction activities: • Excavation works for the drainage improvements should be carried out in dry condition. Containment measures such as cofferdam, bunds and barriers should be provided within the river channel and the excavation works areas. The excavation should be carried out in the dry season (typically from November to March) as far as practicable. • Temporary storage of excavated riverbed material should be provided in the stockpile areas for dewatering by natural ventilation. Runoff from these stockpile areas should be collected for treatment by sedimentation. Coagulant should be considered when necessary. The treated water should be reused on site for water spraying or wheel washing. • The dewatered excavated material should be reused on-site as backfilling material, as far as practicable. • Best Management Practices (BMPs) of mitigation measures in controlling water pollution and good site management, as specified in the ProPECC PN 1/94 "Construction Site Drainage" are followed, where applicable, to prevent runoff with high level of SS from entering the surrounding waters • Manholes should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Diversion of natural stormwater away from work site should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimize polluted runoff. • Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped. • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 358* *TM-ICW* *EIAO-TM* *ProPECC PN1/94*

	• The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Regular monitor the construction plants in areas close to the water courses to avoid potential spillage to the adjacent watercourses. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Install sufficient lateral support to avoid loose soil or mud from slipping into the watercourses. • The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • Appropriate numbers of chemical toilets will be provided by a licensed contractor to serve the construction workers over the construction sites to prevent direct disposal of sewage into the water environment. No onsite discharge from these chemical toilets will be allowed. • All fuel tanks and chemical storage areas will be provided with locks and be sited on sealed areas. The storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.							

	• The contractors shall ensure that leakages or spillages are contained and cleaned up immediately.							
5.10.3	All runoff and wastewater generated from the works areas should be collected and treated to the meet standards as listed in the TM-DSS under WPCO. The contractor will need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 358* *TM-ICW* *EIAO-TM* *ProPECC PN1/94*
5.10.4	Control measures outlined under ETWB Technical Circular (Works) No. 5/2005 Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works should be considered: • The proposed works should preferably be carried out during the dry season (typically from November to March) where flow in the stream/river is low. • Temporary access to the works site should be carefully planned and located to minimise disturbance caused to the substrates of streams/rivers and riparian vegetation by construction plant. • The use of less or smaller construction plant may be specified to reduce disturbance to the riverbed where aquatic inhabitants are located. • Temporary sewerage system should be designed and installed to collect wastewater and prevent it from entering rivers and streams. • Proper locations well away from rivers/streams for temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil should be identified before commencement of the works. • The proposed works site inside or in the proximity of natural rivers and streams should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props, to prevent adverse impacts on the stream water qualities. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work site. • The natural bottom and existing flow in the river should be preserved as much as possible to avoid disturbance to the river habitats. If temporary access track on riverbed is unavoidable, this should be kept to the minimum width and length. Temporary river crossings should be supported on stilts above the riverbed. Construction debris and spoil should be covered up and/or properly disposed of as soon as possible to avoid being washed into nearby rivers/streams by rain. • Construction effluent, site run-off and sewage should be properly collected and/or treated. Proper locations for discharge outlets of wastewater treatment facilities well away from the natural streams/rivers should be	Whole Site / Construction Phase	Contractor(s)		√			*ETWB Technical Circular (Works) No. 5/2005*

	identified. Adequate lateral support may need to be erected in order to prevent soil/mud from slipping into the stream/river, but without unduly impeding the flow during heavy rain. • Supervisory staff should be assigned to station on site to closely supervise and monitor the works.							
5.10.5	For sediment removal before the installation of tidal gate at River Silver, cofferdam would be first installed to create dry work area for part of the cross section without significantly impeding the flow to contain any loss of sediment into the water column. No open dredging in river would be conducted.	Whole Site / Construction Phase	Contractor(s)		√			-
5.10.6	The following measures should be implemented to allow proper control, handling and disposal of chemicals, reduce risk of accidental spillage and allow proper clean up of spillage: • The Contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as listed in Section 6.5.12. • Other applicable measures listed under Sections 6.5.13 to 6.5.15 should be followed on handling of chemical waste. • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemicals and chemical waste containers should be suitably labelled, to allow handlers to be warned about the potential risk. • Chemicals and chemical waste should be stored at secured sheltered location on site with bunded areas or drip tray to control any risk of spillage. • An emergency spillage handling procedure to deal with chemical spillage should be prepared according to the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C). Adequate training to the staff should be provided.	Whole Site / Construction Phase	Contractor(s)		√			-
5.10.7	The design of the Project should take into account the guiding principles outlined in Drainage Services Department Practice Note No. 3/2021: Guidelines on Design for Revitalisation of River Channel to ensure the water quality and hydrology of the revitalized rivers suit the intended purpose of the planned beneficial uses.	Whole Site / Operation Phase	Project Proponent				√	-
5.10.8	DSD staff will inspect rivers and other drainage systems after heavy rainstorm and arrange for necessary maintenance.	Whole Site / Operation Phase	Project Proponent				√	-
5.10.9	The following standard measures are recommended to be implemented to avoid/minimise the potential impacts from maintenance works:	Whole Site / Operation Phase	Project Proponent				√	-

	• Containment structures such as sandbags barrier should be used for the desilting works area to facilitate a dry and confined working area within the drainage channel. • Channel maintenance works and debris/vegetation clearance should be undertaken in dry condition. Light machinery and hand-held machine should be considered when undertake maintenance desilting works and debris clearance. • Where no maintenance access is available for the channel, temporary access to the works site should be well planned to minimize disturbance caused to the drainage channel and nearby water quality sensitive receivers. • The waste material /dredged materials should be temporary stored away from the channel and cover with tarpaulin sheet. These materials should be disposed of in a timely and appropriate manner. Disposal locations of the materials should be agreed with relevant departments before commencement of the maintenance works/desiltation. • Avoid and minimize the use of concrete or the like.							
Waste Management								
6.5.3	The Contractor must ensure that all the necessary waste disposal or licences are obtained prior to the commencement of the construction works.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 354* *Cap. 354N* *Cap. 354C* *Cap. 466* *Cap. 28*
	Waste Management Hierarchy							
6.5.4-6.5.5	The various waste management options are categorised in terms of preference from an environmental viewpoint. The options considered to be most preferable have the least environmental impacts and are more sustainable in the long term. The hierarchy is as follows: • Avoidance and reduction; • Re-use of materials; • Recovery and recycling; and • Treatment and disposal. The above hierarchy is used to evaluate and select waste management options. The aim is to reduce waste generation and reduce waste handling and disposal costs.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 354* *Cap. 354N* *Cap. 354C* *Cap. 466* *Cap. 28* *CoP under Cap. 354* *WBTC No. 2/93* *WBTC No. 2/93B* *WBTC No. 4/98* *WBTC No. 4/98A*

6.5.6	The Contractor will consult the relevant authorities for the final disposal of wastes and, as appropriate, implement the good site practices and mitigation measures recommended in this EIA Report and those given below. • Nomination of approved personnel to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site; • Training of site personnel in proper waste management and chemical handling procedures; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to reduce windblown/ floating litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre; and • A recording system for the amount of wastes generated, recycled and disposed of and the disposal sites.	Whole Site / Construction Phase	Contractor(s)		√			*WBTC No. 12/2000* *WBTC No. 19/2001* *WBTC No. 12/2002* *ETWB TC(W) No. 19/2005* *DEVB TC(W) No. 6/2010* *DEVB TC(W) No. 8/2010* *DEVB TC(W) No. 2/2011* *DEVB TC(W) No. 9/2011* *CEDD TC No. 11/2019* *PAH 2022 Chapter 4* *HKPSG Chapter 9*
	Waste Reduction Measures							
6.5.7	Good management and control can prevent the generation of significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance re-use or recycling of waste materials and their proper disposal; • Encourage collection of aluminium cans and waste paper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce; • Any unused chemicals, and those with remaining functional capacity, be recycled as far as possible; • Use of reusable non-timber formwork to reduce the amount of C&D materials; • Prior to disposal of C&D materials, wood, steel and other metals will be separated, to the extent practical for re-use and/or recycling to reduce the quantity of waste to be disposed in a landfill; • Proper storage and site practices to reduce the potential for damage or contamination of construction materials; and • Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste	Whole Site / Construction Phase	Contractor(s)		√			*WBTC No. 2/93* *WBTC No. 2/93B* *WBTC No. 4/98* *WBTC No. 4/98A* *WBTC No. 12/2000* *WBTC No. 19/2001* *WBTC No. 12/2002* *ETWB TC(W) No. 19/2005* *DEVB TC(W) No. 6/2010* *DEVB TC(W) No. 8/2010* *DEVB TC(W) No. 2/2011* *DEVB TC(W) No. 9/2011* *CEDD TC No. 11/2019* *PAH 2022 Chapter 4* *HKPSG Chapter 9*

	Management of Waste Disposal							
6.5.8	The Contractor will open a billing account with the EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Every construction waste or public fill load to be transferred to Government waste disposal facilities (e.g. public fill reception facilities, sorting facilities and landfills) will be provided with a valid "chit" which contains the information of the account holder to facilitate waste transaction recording and billing to the waste producer. A trip-ticket system will also be established in accordance with DEVB TC(W) No. 6/2010 to monitor the disposal of construction waste at landfill and to control fly-tipping. In addition, all dump trucks should be equipped with GPS or equivalent system for monitoring of their transportation routes and parking locations to prohibit illegal dumping and landfilling of C&D materials, particularly on ecological sensitive areas in Mui Wo and South Lantau. The Contractor should maintain a recording system to record the amount of C&D materials generated, recycled and disposed of at the disposal sites as well as the transportation routing and parking locations of the dump trucks. The trip-ticket system and the abovementioned recording system will be included as part of the contractual requirements and implemented by the Contractor(s).	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 354N* *DevB TC(W) No. 6/2010*
6.5.9	Recyclables (e.g. plastics, cardboard) generated during the construction phase will be segregated and sent to recycler for recycling as far as practicable.	Whole Site / Construction Phase	Contractor(s)		√			-
6.5.10	As per recommendation under ETWB TC(W) No. 19/2005, a WMP, with details of the amount of waste generated, recycled and disposed of (including the disposal sites), will be established and implemented during the construction phase as part of the EMP. The Contractor will be required to prepare the EMP and submit it to the Engineer with the Project Proponent under the Contract for approval prior to implementation	Whole Site / Construction Phase	Contractor(s)		√			*ETWB TC(W) No. 19/2005*
	Measures for Management of C&D Materials							
6.5.11	C&D materials will be segregated on-site into public fill and non-inert C&D materials and stored in different containers or skips to facilitate re-use of the public fill and proper disposal of the non-inert C&D materials. Specific areas within the construction sites will be designated for such segregation and storage, if immediate re-use is not practicable. Prefabrication will be adopted as far as practicable to reduce the C&D materials arising.	Whole Site / Construction Phase	Contractor(s)		√			*WBTC No. 2/93* *WBTC No. 2/93B* *WBTC No. 4/98* *WBTC No. 4/98A* *WBTC No. 12/2000* *WBTC No. 19/2001* *WBTC No. 12/2002* *ETWB TC(W) No. 19/2005* *DEVB TC(W) No. 6/2010* *DEVB TC(W) No. 8/2010*

								DEVB TC(W) No. 2/2011 *DEVB TC(W) No. 9/2011* *CEDD TC No. 11/2019* *PAH 2022 Chapter 4* *HKPSG Chapter 9*
6.5.12	The C&D materials generated during the construction phase will be transported by trucks with cover or enclosed containers to minimize the potential environmental impact. All dump trucks for C&D materials transportation and disposal will be equipped with GPS or equivalent system for real time tracking and monitoring of their travel routings and parking locations to prohibit illegal dumping or landfilling of C&D materials. The data collected by GPS or equivalent system relating to travel routings and parking locations of dump trucks engaged will be recorded properly	Whole Site / Construction Phase	Contractor(s)		√			*WBTC No. 2/93* *WBTC No. 2/93B* *WBTC No. 4/98* *WBTC No. 4/98A* *WBTC No. 12/2000* *WBTC No. 19/2001* *WBTC No. 12/2002* *ETWB TC(W) No. 19/2005* *DEVB TC(W) No. 6/2010* *DEVB TC(W) No. 8/2010* *DEVB TC(W) No. 2/2011* *DEVB TC(W) No. 9/2011* *CEDD TC No. 11/2019* *PAH 2022 Chapter 4* *HKPSG Chapter 9*
	Measures for Management of Chemical Waste							
6.5.13	The Contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 354C* *CoP under Cap. 354*
6.5.14	Containers used for storage of chemical wastes will: • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450L unless the specifications have been approved by the EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.	Whole Site / Construction Phase	Contractor(s)		√			
6.5.15	The storage area for chemical wastes will: • Be clearly labelled and used solely for the storage of chemical waste; • Be enclosed on at least 3 sides;	Whole Site / Construction Phase	Contractor(s)		√			

	• Have an impermeable floor and 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 entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and • Be arranged so that incompatible materials are appropriately separated.							
6.5.16	Chemical waste will be disposed of: • Via a licensed waste collector; and • To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary chemical waste storage containers.	Whole Site / Construction Phase	Contractor(s)		√			
	Measures for Management of General Refuse							
6.5.17	General refuse will be stored in enclosed bins separately from C&D materials and chemical wastes. General refuse will be delivered separately from C&D materials and chemical wastes for offsite disposal on a daily basis to reduce odour, pest and litter impacts.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 354* *Cap. 354N* *Cap. 132* *ETWB TC(W) No. 19/2005* *HKPSG Chapter 9*
6.5.18	Recycling bins will be provided at strategic locations within the construction site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the construction site. Materials recovered will be sold for recycling.	Whole Site / Construction Phase	Contractor(s)		√			
	Measures for Management of Excavated Sediments							
6.5.19	The sediment will be excavated, handled, transported and disposed of in a manner that would minimize adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal of excavated sediment	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 466* ETWB TC(W) No. 34/2002
6.5.20	Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, should be adhered to during excavation, transportation and disposal of the sediment.	Whole Site / Construction Phase	Contractor(s)		√			
6.5.21	The workers will wear appropriate personal protective equipment (PPE) when handling contaminated sediment to minimize the exposure to contaminated materials. Adequate washing and cleaning facilities will also be provided on site.	Whole Site / Construction Phase	Contractor(s)		√			
6.5.22	Stockpiling of contaminated sediment will be avoided as far as possible. If temporary stockpiling of contaminated sediment is necessary, the excavated sediment will 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 surrounding water bodies. The stockpiling areas for contaminated sediment	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 466* ETWB TC(W) No. 34/2002

	should be paved with impermeable linings 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 be collected and discharged according to the Water Pollution Control Ordinance (WPCO).							
6.5.23	In order to minimize the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediment will be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge will be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 466* ETWB TC(W) No. 34/2002
6.5.23	To ensure disposal space is allocated for the Project, the Project Proponent will obtain agreement from MFC on the rationale for sediment removal and the allocation of the disposal site. The Contractor, on the other hand, will apply for the marine dumping permit under DASO from EPD for the sediment disposal.	Whole Site / Construction Phase	Contractor(s)		√			*Cap. 466* ETWB TC(W) No. 34/2002
	Staff Training							
6.5.24	At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, re-use and recycling.	Whole Site / Construction Phase	Contractor(s)		√			*ETWB TC(W) No. 19/2005 DEVB TC(W) No. 8/2010,*
Ecological Impact								
	Avoid Direct and Indirect Impacts to Ecologically Sensitive Habitats							
7.10.2	The Project site has been selected based on environmental and other considerations (refer to Chapter 2). Potential impacts to the identified Night Roosting Site for ardeid have been avoided to the maximum extent practicable by adopting suitable Project's alignment/ works area. The Project site has also avoided encroaching onto Fung Shui Woods, Country Parks, and other ecologically sensitive receivers.	Whole Site / Design Phase	Project Proponent	√				-
	Minimisation of Habitat Disturbance and Impacts to Fauna Species of Conservation Importance							
7.10.3	Unavoidable impacts to natural terrestrial habitats have been minimised by taking appropriate and practicable measures such as restriction of river reprofiling works at Tai Tei Tong River to dry season as far as practicable and confining works in specific area during daytime hours.	River reprofiling works at Tai Tei Tong River / Design Phase	Project Proponent	√	√			-
7.10.4	While the Project has avoided to affect any flora species of conservation importance recorded within the Assessment Area, as discussed in Sections 7.9.9 to 7.9.13, fauna species of conservation importance including Hong Kong Newt, Neon Goby, Akihito's Neon Goby, Scaly Neon Goby, Small Snakehead, Dark-	Whole Site / Construction Phase	Contractor(s)		√			-

	margined Flagtail, Emerald Cascader (Larva) and Greasyback Shrimp were recorded within the works area.							
7.10.5	To avoid the potential direct impact on these species, prior to commencement of construction at the affected watercourse(s), an update ecological survey should be conducted with focus to the presence of the herpetofauna and freshwater community. The survey should be conducted by a qualified ecologist as part of the Environmental Team (ET) and cover the stretch of the watercourse 5m upstream and downstream of the works area. Should species of conservation importance be found within the surveyed watercourse section(s), a Translocation Plan should be prepared. Translocation should be conducted to move the individuals from the works area to suitable recipient sites.	Affected watercourse(s) / Design Phase	Contractor(s)	√				
7.10.6	The Translocation Plan should be prepared by the qualified ecologist as a part of the ET, certified by the Independent Environmental Checker (IEC) and submitted to AFCD within one month upon completion of the update aquatic survey to agree the detailed translocation procedures including the identified receptor site(s). Agreement from relevant authorities (e.g. AFCD and EPD) should be sought prior to conducting the translocation work.	Affected watercourse(s) / Design Phase	Contractor(s)		√			-
7.10.7	The translocation work should be conducted as close to the commencement of the relevant site works as possible, following the approved Translocation Plan. Upon the completion of the translocation work, post-translocation survey should be conducted at the recipient site to monitor the effectiveness of translocation.	Whole Site / Construction Phase	Contractor(s)		√			-
	<u>Minimization of disturbance to Tai Wai Yuen night roost</u>							
7.10.8	As discussed in Sections 7.9.28 to 7.9.29, Tai Wai Yuen night roost was observed actively in use by Ardeids in October 2021 to August 2022. The night roost was 250 m away from the works area of the proposed stormwater drain near Mui Wo Municipal Services Building. As a precautionary measure, construction works at the works area of stormwater drain near Mui Wo Municipal Services Building during night-time from 17:00 to 07:00 should be avoided to minimize potential disturbance to the Ardeids. In addition, strong artificial lighting should not be used in the area at night to avoid disturbance to the roosting ardeids. Lighting required for safety purpose should keep minimal and pointed inward. Clear signs should be erected on site to alert all site staff and workers about the requirement.	Drainage works near Mui Wo Municipal Services Building / Construction Phase	Contractor(s)		√			-
	<u>Measures and Good Site Practice for Minimization of Physical Disturbance to the Surrounding Habitats</u>							
7.10.9	The following construction phase mitigation measures are proposed to reduce predicted disturbance impacts and impact of water pollution to an acceptable level: • Restriction of river reprofiling works at Tai Tei Tong River under the Project to dry season as far as practicable;	River reprofiling works at Tai Tei Tong River and Whole site /	Contractor(s)		√			-

	• Implementing measures to minimise magnitude of construction runoff and to avoid/ minimise the potential impact of spillage events, if any, and • Appropriate measures including the provision of temporary movable toilets should be adopted. Controlled wastewater discharge to the nearby water bodies will be implemented in accordance with the guidelines stipulated in Environmental Protection Department (EPD)'s Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN1/94) during the construction works to properly control site run-off and drainage and to minimise the potential water quality impact.	Pre-Construction Phase						
7.10.10	Good site practice should also be adopted to minimize potential disturbances to the surrounding habitats, including: • Avoid any damage and disturbance, particularly those caused by filling and illegal dumping to the surrounding habitats, especially wetland habitats and any watercourses; • Excavated materials will be covered and/or properly disposed of as soon as possible to avoid being washed into nearby water bodies; • Regularly check the site boundaries to ensure that they are not breached and that no damage occurs to surrounding ecologically sensitive habitats (e.g. woodlands, marsh and watercourses); • Prohibit and prevent open fires within the site boundary during construction and provide temporary firefighting equipment in the works area; • Reinstate temporary work sites/disturbed areas, immediately after completion of the construction works; and • Only well-maintained plant to be operated on-site and plant to be serviced regularly during the construction program.	Whole Site / Construction Phase	Contractor(s)		√			-
	Mitigation measures for operation phase							
7.10.11	As discussed in Section 7.9.31 to 7.9.34, there will be no major works such as dredging to be carried out during routine maintenance works in the operation phase. Hydrology and hydraulics would not be affected by the drainage improvement works of Project. Nevertheless, good site practice in Section 7.10.12 should be followed during maintenance work, and also, the following measures are recommended to minimise potential impacts resulting from operational phase activities: • For maintenance desilting of the re-profiled river channels, temporary barrier walls shall be used to provide a dry zone for desilting work; • The implementation of de-silting and other activities that could disturb aquatic fauna should be scheduled section by section and the works will be confined in a small works zone which is isolated from the rest of the channel by temporary	Whole Site / Operation Phase	Project Proponent				√	-

	barrier walls to ensure some areas of relatively undisturbed habitat remain available for resident aquatic fauna at all times; and • Waste material produced during de-silting should be disposed of in a timely and appropriate manner							
7.10.12	In addition, DSD commits to implement blue-green elements, including revitalised river channel as suggested in DEVB TC(W) No. 9/2020 Blue-Green Drainage Infrastructure, to the drainage channel design and that ecological enhancement features for restoring natural stream habitat will be incorporated into this Project. The Project will be beneficial in the long term with the drainage efficiency enhancement and the incorporation of environmental friendly drainage structures into the proposed works including greening works and fish ladders (i.e. which will aid fish migration and perpetuate fish population in the area) to enhance rivers ecological connectivity and wildlife movement.	Whole Site / Construction and Operation Phase	Project Proponent Contractor(s)		√		√	*DEVB TC(W) No. 9/2020*
Landscape and Visual Impact								
Table 8.10 – CM1	Minimise Disturbance – temporary structures and construction works should be planned with care to minimise disturbance to vegetation including riparian vegetation along the river as well as existing built structures. The footprint of the Project should be kept to a practical minimum and form, textures and colours selected to be as compatible with the existing surroundings as possible.	Whole Site / Construction Phase	Project Proponent Contractor(s)	√	√			*EIAO-TM* *DEVB TCW No.04/2020*
Table 8.10 – CM2	Tree Protection and Preservation – Trees/ woodland within the Works Area will be protected and preserved as far as possible in accordance with DEVB TC(W) No. 04/2020. For example, the Project will be designed to avoid tree felling wherever possible.	Whole Site / Construction Phase	Project Proponent Contractor(s)	√	√			*EIAO-TM* *DEVB TCW No.04/2020*
Table 8.10 – CM3	Tree Transplantation – Should removal of trees be unavoidable due to construction impacts, trees will be transplanted or felled according to Clause 3.97 of the General Specification of Civil Engineering Works – Section 3 Landscape Softworks and Establishment Works, including ensuring transplanted trees are treated with establishment works immediately after transplanting works, for a period of no less than 12 months. At the detailed design stage the tree transplantation plan should be refined to ensure the locations proposed to receive the transplanted tree is suitable. Established trees of value are to be re-located where practically feasible. The transplant planting will be included in a detailed landscape design and planting plan, which is recommended to be implemented as early as practicable in the Project timeline.	Whole Site / Construction Phase	Project Proponent Contractor(s)		√			*EIAO-TM* *DEVB TCW No.04/2020*
Table 8.10 – CM4	Compensatory Tree Planting - Where loss of existing trees is unavoidable, compensatory planting of trees should be provided in accordance with DEVB TC(W) No. 04/2020 to compensate for those trees felled. Implementation of	Whole Site / Construction Phase	Project Proponent Contractor(s)		√			*EIAO-TM* *DEVB TCW No.04/2020*

	compensatory tree planting will be of a ratio not less than 1:1. Plants will have 12 months to establish. At the detailed design stage the tree compensation and transplantation plan should be refined to confirm the separation distance of the heavy standard compensatory trees and ensure the outlined areas are sufficient for the planting necessary to compensate for the affected trees. The selection of planting species shall be made with reference to the species identified in the Tree Survey and be predominantly native to Hong Kong or the South China region. The compensatory planting will be applied along the proposed river alignment. But the actual implementation will be subject to detailed landscape design and planting plan, and recommended to be implemented as early as practicable in the Project timeline.							
Table 8.10 – CM5	Buffer Planting – Tall screen/buffer trees shall be planted to screen the Luk Tei Tong Bypass Channel and proposed stormwater pumping station. This measure may additionally form part of the compensatory planting and will improve compatibility with the surrounding environment.	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Construction Phase	Project Proponent Contractor(s)		√			*EIAO-TM* *DEVB TCW No.04/2020*
Table 8.10 – CM6	Natural Bedding Substrate – River sediment and / or boulders excavated during river reprofiling works are to be reused at Tai Tei Tong River as natural bedding substrate.	Tai Tei Tong River / Construction Phase	Project Proponent Contractor(s)		√			*DSD Practice Note No. 3/2021*
Table 8.10 – CM7	Screening – Stockpiles of materials should be covered or hoarding erected where possible to reduce undesirable views of the construction site, having consideration for safety and security. It is proposed that screening (via decorative hoarding) be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Hoarding should be taken down at the end of the construction period.	Whole Site / Construction Phase	Project Proponent Contractor(s)		√			*DSD Practice Note No. 3/2021*
Table 8.10 – CM8	Light Control – The guidelines in "Charter on External Lighting" and "Guidelines on Industry Best Practices for External Lightning Installations" promulgated by ENB for glare control will be implemented.	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Construction Phase	Project Proponent Contractor(s)		√			*DSD Practice Note No. 3/2021*
Table 8.10 – CM9	River Revitalization and Landscape Work for Infrastructure – River Revitalization work in terms of planting and provision of leisure facilities will be conduct along Luk Tei Tong Bypass Channel to enhance ecological and amenity value of the surrounding. Native species will be selected for planting and landscape works as far as possible. Environmental friendly material and nature colour will be selected for leisure facilities and other associated facilities / hard landscape. Green roof	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Construction Phase	Contractor(s)		√			

	and corresponding landscape work such as planting of climbers, shrubs and bamboo would be carried out for proposed stormwater pumping station in order to enhance the greenery of proposed structure. A minimum 20% greenery is proposed for the areas within the proposed stormwater pumping station boundary. Vertical planting is also proposed for the boundary fence of the proposed stormwater pumping station. Please refer to Figure 8.11 – Landscape and Visual Mitigation Plan for their location and Figure 8.13a for the section.							
Table 8.11 – OM1	Colours of Structures - Colours for the structures e.g. fences should be chosen to complement the surrounding area. Lighter colours such as shades of light grey, off-white and light brown may be utilised where technically feasible to reduce the visibility of the structures.	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Table 8.11 – OM2	Tree Transplantation – Should removal of trees be unavoidable due to construction impacts, trees will be transplanted or felled according to Clause 3.97 of the General Specification of Civil Engineering Works – Section 3 Landscape Softworks and Establishment Works, including ensuring transplanted trees are treated with establishment works immediately after transplanting works, for a period of no less than 12 months. At the detailed design stage the tree transplantation plan should be refined to ensure the locations proposed to receive the transplanted tree is suitable. Established trees of value are to be re-located where practically feasible. The transplant planting will be included in a detailed landscape design and planting plan, which is recommended to be implemented as early as practicable in the Project timeline.	Whole Site / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Table 8.11 – OM3	Compensatory Tree Planting - Where loss of existing trees is unavoidable, compensatory planting of trees should be provided in accordance with DEVB TC(W) No. 04/2020 to compensate for those trees felled. Implementation of compensatory tree planting will be of a ratio not less than 1:1. Plants will have 12 months to establish. At the detailed design stage the tree compensation and transplantation plan should be refined to confirm the separation distance of the heavy standard compensatory trees and ensure the outlined areas are sufficient for the planting necessary to compensate for the affected trees. The selection of planting species shall be made with reference to the species identified in the Tree Survey and be predominantly native to Hong Kong or the South China region. The compensatory planting will be applied along the proposed river alignment. But the actual implementation will be subject to detailed landscape design and planting plan and recommended to be implemented as early as practicable in the Project timeline.	Whole Site / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*

Table 8.11 – OM4	Buffer Planting – Tall screen/buffer trees shall be planted to screen the Luk Tei Tong Bypass Channel and proposed stormwater pumping station. This measure may additionally form part of the compensatory planting and will improve compatibility with the surrounding environment.	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Table 8.11 – OM5	Natural Bedding Substrate – River sediment and / or boulders excavated during river reprofiling works are to be reused at Tai Tei Tong River as natural bedding substrate.	Tai Tei Tong River / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Table 8.11 – OM6	Light Control – The guidelines in "Charter on External Lighting" and "Guidelines on Industry Best Practices for External Lightning Installations" promulgated by ENB for glare control will be implemented.	Proposed Stormwater Pumping Station / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Table 8.11 – OM7	River Revitalization and Landscape Work for Infrastructure – River Revitalization work in terms of planting and provision of leisure facilities will be conduct along Luk Tei Tong Bypass Channel to enhance ecological and amenity value of the surrounding. Native species will be selected for planting and landscape works as far as possible. Environmental friendly material and nature colour will be selected for leisure facilities and other associated facilities / hard landscape. Green roof and corresponding landscape work such as planting of climbers, shrubs and bamboo would be carried out for proposed stormwater pumping station in order to enhance the greenery of proposed structure. A minimum 20% greenery is proposed for the areas within the proposed stormwater pumping station boundary. Vertical planting is also proposed for the boundary fence of the proposed stormwater pumping station. Please refer to Figure 8.11 – Landscape and Visual Mitigation Plan for their location and Figure 8.13a for the section.	Luk Tei Tong Bypass Channel and Proposed Stormwater Pumping Station / Operation Phase	Project Proponent Contractor(s)				√	*EIAO-TM*
Cultural Heritage								
	<u>Archaeological Mitigation Measures</u>							
9.6.1	Chung Hau SAI is found within the CHAA, at a distance of about 20m from the proposed works area of the Project. No excavation works of the project will exist in or adjacent to the SAI, therefore no adverse archaeological impact due to the proposed development is anticipated and thus, no mitigation measure is required.	Whole Site / Construction Phase	Project Proponent Contractor(s)		√			*Cap. 53*
9.6.2	As mentioned in Sections 9.4.15 to 9.4.21, no archaeological potential area has been identified within proposed works area of the Project, no archaeological impact arising from the proposed work is anticipated. Therefore, no mitigation measure is required.	Whole Site / Construction Phase	Project Proponent Contractor(s)		√			*Cap. 53*
9.6.3	As a precautionary measure, the project proponent and his/her contractor are required to inform AMO immediately when any antiquities or supposed	Whole Site /	Project Proponent		√			*Cap. 53*

<table>
<tr><td></td><td>antiquities under the A&M Ordinance (Cap. 53) are discovered during the course of works.</td><td>Construction Phase</td><td>Contractor(s)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="8"><u>Built Heritage Mitigation Measures</u></td></tr>
<tr><td>9.6.6</td><td>Seven (7) graded historic sites/buildings/structures identified in the CHAA are located over 70m from the boundary of Works Area. Due to adequate separate distance between the proposed works and graded historic sites/buildings/structures, no impact is anticipated. However, Special attention should be paid to avoid adverse physical impact arising from the proposed works to these graded historic sites/buildings/structures. Design proposal, method of works and choice of machinery should be targeted to minimize adverse impacts to them. Any vibration and building movement induced from the proposed works should be strictly monitored to ensure no disturbance and physical damages made to them 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. Recommended 3As levels for these graded historic sites/buildings/structures are as shown below:
<table>
<tr><th>Type of Monitoring for</th><th>Alert</th><th>Alarm</th><th>Action</th></tr>
<tr><td>Vibration (PPV)</td><td>5mm/s</td><td>6mm/s</td><td>7.5mm/s</td></tr>
<tr><td>Settlement</td><td>6mm</td><td>8mm</td><td>10mm</td></tr>
<tr><td>Tilting</td><td>1/2000</td><td>1/1500</td><td>1/1000</td></tr>
</table>
Installation of monitoring checkpoints shall be carried out in great care and adequate protection shall be provided so as to avoid unnecessary disturbance / damage to nearby historic fabrics. Photo records of monitoring checkpoints shall be submitted upon installation for AMO's records; Monitoring records should be submitted to AMO on regular basis and alert AMO should the monitoring reach Alert/ Alarm/ Action levels; and pre and post condition survey should be carried out to record conditions of these graded historic sites/buildings/structures and survey reports should be submitted for AMO's record.</td><td>Retaining wall and buildings of Yuen's Mansion / Construction Phase</td><td>Contractor(s)</td><td></td><td>√</td><td></td><td></td><td>-</td></tr>
<tr><td>9.6.7</td><td>Apart from two agricultural weirs (HB- 22 and HB-76), potential direct impact to the built heritage items identified and listed in Table 9.2 is not expected to be anticipated due to adequate separate distance between the proposed works and built heritage items. HB- 22 and HB-76 are located within works area of the proposed river reprofiling work and fish ladder works at Tai Tei Tong River. Modification of the agricultural weirs and construction of fish ladder are proposed on site in order to achieve beneficial ecological impact like improvement of the</td><td>HB-22 and HB-76 / Construction Phase</td><td>Project Proponent Contractor(s)</td><td></td><td>√</td><td></td><td></td><td>-</td></tr>
</table>

	river hydraulic performance and fish movement. The existing agricultural weirs (HB-22 and HB-76) are constructed with concrete and have already undergone various modification and repair works. For instance, HB-22 was modified with wide steps at downstream in 1960s and a further modification in 1970s; while HB-76 underwent significant modification in the early of 1990s, only two concrete block and floor steps remained on site. Hence, their cultural heritage significance are considered relatively low due to high level of modifications underwent. Therefore, although the modification of the agricultural weir and construction of fish ladder of this project will bring direct impact to the weirs, the impact would be acceptable with mitigation measures. It is recommended that cartographic and photographic records be conducted to record the weirs prior to commencement of modification works.							

(1) Unless otherwise stated, the reference refers to the relevant section of the EIA Report.

(2) Implementation Stage "D" denoted as "Design Phase", "C" denoted as "Construction Phase", "Post-C" denoted as "Post-Construction Phase" and "O" denoted as "Operation Phase".