

Appendix B Implementation schedule of Recommended Mitigation Measures

Below table summarises the details of the recommended mitigation measures for all works areas. For each recommended mitigation measures, both the location and timing for the measure have clearly been identified as well as the parties responsible for implementing the measure and for maintenance (where applicable).

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Implementation Stage*			Relevant Legislation & Guidelines
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Air Quality Impact							
Construction Phase							
3.8.1	Regular watering on works area every two hours.				√		Air Pollution Control Ordinance (APCO); Air Pollution Control (Construction Dust) Regulation; HKAQO; Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM)
3.8.1	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices listed below shall be carried out to further minimize construction dust impact: <ul style="list-style-type: none"> • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise. 	Construction Sites	Contractor		√		Air Pollution Control Ordinance (APCO); Air Pollution Control (Construction Dust) Regulation; HKAQO; Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM)
Operation Phase							
3.5.2	Biogas generated will be stored in the biogas holders. The stored biogas will go through the sulphur absorption vessels to remove the hydrogen sulphide (H ₂ S) before passing to the combined heat and power (CHP) generator.	YLSEPP / Operation Phase	Operator	√		√	EIAO-TM
3.6.3 & 3.7.3	All the odour sources in YLEPP should be covered and all odourous gas should be treated at the deodourizers (DOs) with 95% odour removal efficiency before venting to the atmosphere.	YLSEPP / Operation Phase	Operator	√		√	EIAO-TM
Noise Impact							
Construction Phase							

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4.8.1	<p>Temporary movable noise barriers are recommended for excavators, mobile cranes, dump trucks, grout mixers and grout pumps. Noise insulating fabric are recommended for drilling rig and piling machines. Ventilated acoustic enclosure are recommended for generators. Quiet excavator and mobile cranes are also recommended.</p> <p>Good site practices listed below and the noise control requirements stated in EPD's "Recommended Pollution Control Clauses for Construction Contracts" should be included in the Contract Specification for the Contractors to follow and should be implemented to further minimize the potential noise impacts during the construction phase of the Project.</p> <ul style="list-style-type: none"> • Quiet PME, such that those listed in EPD's Quality Powered Mechanical Equipment, should be considered for construction works to further minimize the potential construction noise impact. • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme. • Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme. • Mobile plant, if any, should be sited as far away from noise sensitive receivers (NSRs) as possible. • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 	Construction sites	Contractor	√	√		EIAO-TM; Noise Control Ordinance (NCO)
Operation Phase							
4.8.2	Commissioning test should be conducted to ensure fixed plant noise impact would comply with the relevant noise standards	YLSEPP / Operational Phase	Project Proponent	√		√	EIAO-TM; NCO
Water Quality Impact							
5.7.1.2 & 5.7.1.3	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed as far as practicable to minimise surface run-off and the chance of erosion. Surface run-off from construction sites should be discharged into storm drains via adequately designed sand / silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided as necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Construction Sites / Construction Phase	Contractor		√		Water Pollution Control Ordinance (WPCO); EIAO-TM, Professional Persons Environmental Consultative Committee (ProPECC) Practice Note (PN) 1/94
5.7.1.4	Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly (as well as at the onset of and after each rainstorm) to prevent overflows and localised flooding. Before disposal at the public fill reception facilities, the deposited silt and grit should be solicited in such a way that it can be contained and delivered by dump truck instead of tanker truck. Any practical options for the diversion and realignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, ProPECC PN 1/94
5.7.1.5	Construction works should be programmed to minimise soil excavation in the wet season (i.e. April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, temporarily exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm run-off from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of rainstorm.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, ProPECC PN 1/94
5.7.1.6	Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94
5.7.1.7	Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in the wet season is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94

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5.7.1.8	Construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94
5.7.1.9	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94
5.7.1.10	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94
5.7.1.11	All vehicles and plants should be cleaned before they leave a construction site to minimise the deposition of earth, mud and debris on roads. A wheel washing bay should be provided at every site exit if practicable and washwater should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; ProPECC PN 1/94
5.7.1.12	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, Waste Disposal Ordinance (WDO)
5.7.1.13	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM; Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)
5.7.1.14	The practices outlined in ETWB TC (Works) No. 5/2005 " <i>Protection of natural streams / rivers from adverse impacts arising from construction works</i> " should also be adopted where applicable to minimise the water quality impacts on natural streams or surface water systems. Relevant mitigation measures from the ETWB TC (Works) No. 5/2005 are listed below: <ul style="list-style-type: none"> Construction works close to the inland waters should be carried out in the dry season as far as practicable where the flow in the surface channel or stream is low. The use of less or smaller construction plants may be specified in areas close to the water courses to reduce the disturbance to the surface water. Temporary storage of materials (e.g. equipment, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses when carrying out of the construction works. Stockpiling of construction materials and dusty materials should be covered and located away from any water courses. Construction debris and spoil should be covered up and / or disposed of as soon as possible to avoid being washed into the nearby water receivers. Proper shoring may need to be erected in order to prevent soil or mud from slipping into the watercourses 	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, ETWB TC (Works) No. 5/2005
5.7.1.15	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, WDO
5.7.1.16	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM
5.7.1.17	Disposal of chemical wastes should be carried out in compliance with the WDO. The " <i>Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes</i> " published under the Waste Disposal Ordinance should be followed to avoid leakage or spillage of chemicals. General requirements are given as follows: <ul style="list-style-type: none"> Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport 	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM, WDO

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	<ul style="list-style-type: none"> Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes to avoid accidents Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 						
5.7.1.18	Sufficient chemical toilets should be provided in the works area, with a licensed waste collector employed to clean the chemical toilets on a regular basis.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM
5.7.1.19	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site.	Construction Sites / Construction Phase	Contractor		√		WPCO; EIAO-TM
Design and Operation Phases							
5.7.2.1	<p>Given the sensitivity of inner Deep Bay in term of water quality and ecology, extensive effort will be expedited to avoid the occurrence for emergency discharge. In order to achieve this, the design of YLSEPP will be cautiously reviewed to include additional provisions including as follows:</p> <ul style="list-style-type: none"> Applied peaking factors for all major treatment units and electrical and mechanical equipment to avoid equipment failure; By-pass mechanism would be provided for both coarse screens and fine screens in the inlet to avoid/minimize failure in coarse/fine screens; Interim by-pass would be provided after the PST to avoid raw sewage by-pass as much as possible; Standby unit for all major equipment would be provided in case of unexpected breakdown of pumping and treatment facilities such that the standby pumps and treatment facilities could take over and function to replace the broken pumps; and Back-up power for dual power supply would be provided in case of power failure to sustain the function of pumping and treatment facilities. 	Project site / Design and Operation Phase	Project Proponent	√		√	WPCO
5.7.2.2	To provide a mechanism to minimise the impact of emergency discharges and facilitate subsequent management of any emergency, an Emergency Response Plan will be formulated prior to commissioning of YLSEPP to set out the emergency response procedures and actions to be followed in case of equipment or sewage treatment failure. The plant operators of YLSEPP should carry out necessary follow-up actions according to the procedures of the contingency plan to minimise any impacts on the identified WSRs due to emergency bypass. Regular maintenances and inspections to all treatment units, penstocks and plant facilities are necessary to maintain a good operation condition. A follow-up water quality monitoring exercise shall be conducted after each emergency discharge event to monitor the recovery of water quality in the vicinity.	Project site / Design and Operation Phase	Project Proponent	√		√	WPCO
5.7.2.3 to 5.7.2.10	<p>Best Management Practices (BMPs) to reduce storm water and non-point source pollution are also proposed as follows:</p> <p><u>Design Measures</u></p> <ul style="list-style-type: none"> Exposed surface shall be avoided within the the proposed development to minimise soil erosion. The site shall be either hard paved or covered by landscaping area and plantation where appropriate. Green areas / tree / shrub planting etc. should be introduced within the site as far as possible including open space and along roadside amenity strips, which can help to reduce soil erosion. The existing watercourses in adjacent to the Project site will be retained to maintain the original flow path. The drainage system will be designed to avoid any case of flooding based on the 1 in 50 year return period. <p><u>Devices/ Facilities to Control Pollution</u></p> <ul style="list-style-type: none"> Screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system. Road gullies with standard design and silt traps and oil interceptors should be incorporated during the detailed design to remove particles present in storm water runoff. <p><u>Administrative Measures</u></p> <ul style="list-style-type: none"> Good management measures such as regular cleaning and sweeping of road surface / open areas is suggested. The road surface / open area cleaning should also be carried out prior to occurrence of rainstorm. 	Project site / Design and Operation Phase	Project Proponent	√		√	WPCO; ProPECC PN 5/93

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	<ul style="list-style-type: none"> Manholes, as well as storm water gullies, ditches provided at the Project site should be regularly inspected and cleaned (e.g. monthly). Additional inspection and cleansing should be carried out before forecast heavy rainfall. 						
5.7.2.11	Chemical should be stored on site at bunded area and separate drainage system as appropriate should be provided to avoid any spilled chemicals from entering the storm drain in case of accidental spillage. Also, adequate tools for cleanup of spilled chemicals should be stored on site and appropriate training shall be provided to staffs to further prevent potential adverse water quality impacts from happening.	Project site / Design and Operation Phase	Project Proponent	√		√	WPCO
Waste Management Implication							
Construction Phase							
6.6.1	<u>Good Site Practices</u> Recommendations for good site practices during the construction phase include: <ul style="list-style-type: none"> Nomination of an approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility; Training of site personnel in proper waste management and chemical waste handling procedures; Provision of sufficient waste reception/ disposal points, of a suitable vermin-proof design that minimises windblown litter; Arrangement for regular collection of waste for transport off-site and final disposal; Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed; and Preparation of a WMP in accordance with ETWB TCW No. 19/2005 and submit to the Engineer for approval. 	Construction Sites	Contractor		√		Waste Disposal Ordinance (WDO)
6.6.1	<u>Waste Reduction Measures</u> Recommendations to achieve waste reduction include: <ul style="list-style-type: none"> Segregate and store different types of construction related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general refuse generated by the work force, and to encourage collection by individual collectors; Any unused chemicals or those with remaining functional capacity shall be recycled; Maximising the use of reusable steel formwork to reduce the amount of C&D materials; Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and/or recycling to minimise the quantity of waste to be disposed of at landfill; Adopt proper storage and site practices to minimise the potential for damage to, or contamination of, construction materials; Plan the delivery and stock of construction materials carefully to minimize the amount of surplus waste generated; Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as much as possible; Minimise over ordering of concrete, mortars and cement grout by doing careful check before ordering; and Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 	Construction Sites	Contractor		√		WDO
6.6.1	<u>Storage of Waste</u> Recommendations to minimise the impacts include: <ul style="list-style-type: none"> Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; 	Construction Sites	Contractor		√		-

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	<ul style="list-style-type: none"> Maintain and clean storage areas routinely; Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and Different locations should be designated to stockpile each material to enhance reuse. 						
6.6.1	<p><u>Collection of Waste</u></p> <p>Licensed waste haulers should be employed for the collection and transportation of waste generated. The following measures should be enforced to minimise the potential adverse impacts:</p> <ul style="list-style-type: none"> Remove waste in a timely manner; Waste collectors should only collect wastes prescribed by their permits; Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers; Obtain relevant waste disposal permits from the appropriate authorities; Dispose of waste at licensed waste disposal facilities; and Maintain records of quantities of waste generated, recycled and disposed. 	Construction Sites	Contractor		√		WDO; Waste Disposal (Charges for Disposal of Construction Waste) Regulation; Land (Miscellaneous Provisions) Ordinance
6.6.1	<p><u>Transportation of Waste</u></p> <p>In order to monitor the disposal of C&D materials at PFRFs and landfills and to control fly-tipping, a trip-ticket system should be established in accordance with DEVB TCW No. 6/2010. A recording system for the amount of waste generated, recycled and disposed, including the disposal sites, should also be set up. Warning signs should be put up to remind the designated disposal sites. CCTV should be installed at the vehicular entrance and exit of the site as additional measures to prevent fly-tipping.</p>	Transportation Route of Waste / Construction Phase	Contractor		√		DEVB TC(W) No. 6/2010
6.6.1	<p><u>Construction and Demolition Material</u></p> <p>Careful design, planning together with good site management can reduce over-ordering and generation of C&D materials such as concrete, mortar and cement grouts. Formwork should be designed to maximize the use of standard wooden panels, so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</p>	Construction Sites	Contractor	√	√		-
6.6.1	<p>The excavated material arising from site formation and foundation works should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below:</p> <ul style="list-style-type: none"> A WMP, which becomes part of the EMP, should be prepared in accordance with ETWB TCW No.19/2005; A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and In order to monitor the disposal of C&D materials at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to DEVB TCW 06/2010). 	Construction Sites	Contractor		√		WDO; ETWB TCW No.19/2005; ETWB TCW No. 6/2010
6.6.1	<p>It is recommended that specific areas should be provided by the Contractors for sorting and to provide temporary storage areas (if required) for the sorted materials. Control measures for temporary stockpiles on-site should be taken in order to minimize the noise, generation of dust and pollution of water. These measures include:</p> <ul style="list-style-type: none"> Surface of stockpiled soil should be regularly wetted with water especially during dry season; Disturbance of stockpile soil should be minimised; Stockpiled soil should be properly covered with tarpaulin especially when heavy storms are predicted; and Stockpiling areas should be enclosed where space is available. 	Construction Sites	Contractor		√		ETWB TCW No.19/2005
6.6.1	<p>The Contractor should prepare and implement an EMP in accordance with ETWB TCW No. 19/2005, which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities. Such a management plan should incorporate site-specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor, preferably on a monthly basis.</p>	Construction Sites	Contractor		√		ETWB TCW No.19/2005

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6.6.1	The Contractor would be responsible for devising a system to work for on-site sorting of C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimise temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.	Construction Sites	Contractor		√		-
6.6.1	Suitable containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to the licensed CWTC, or other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation	Construction and Operation Phases	Contractor / Operator		√	√	ETWB TC(W) 19/2005; TC(W) 6/2010; WDO; Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
6.6.1	It is recommended to place clearly labelled recycling bins at designated locations with convenient access. Other general refuse should be separated from chemical and industrial waste by providing separated bins or skips for storage to maximise the recyclable volume. A reputable licensed waste collector should be employed to remove general refuse on a daily basis to minimise odour, pest and litter impacts.	Construction and Operation Phases	Contractor / Operator		√	√	Public Health and Municipal Services Ordinance (Cap.132)
Operation Phase							
6.6.2	The below good housekeeping practices for the proposed YLSEPP should be followed to further ameliorate any odour impact from handling, collection, transportation and disposal of screenings, grits and sludge: <ul style="list-style-type: none"> • Screens should be cleaned regularly to remove any accumulated organic debris; • Screening and grit transfer systems should be flushed regularly with water to remove organic debris and grit; • Grit and screened materials should be transferred to closed containers; • Scum and grease collection wells and troughs should be emptied and flushed regularly to prevent putrefaction of accumulated organics; • Skim and remove floating solids and grease from primary clarifiers regularly; • Frequent sludge withdrawal from tanks is necessary to prevent the production of gases; • Organic waste should be transported to YLSEPP by fully enclosed trucks to avoid odour nuisance; • Organic waste should be stored in closed containers at the reception area; • During the unavailability of digesters (e.g. maintenance or co-digestion period), the diluted organic waste should remain inside the Diluted Food Waste Preparation Tank under continuously mixed condition; • Sludge should be transported to the STF by water-tight containers to avoid H₂S/odour emission and ingress of water into the containers which would lower the sludge dryness during transportation; • Sludge cake should be transferred to closed containers; • Sludge containers should be flushed with water regularly; and • Sludge trucks and containers should be washed thoroughly before leaving the YLSEPP to avoid any odour nuisance during transportation. 	Operation Phase	Operator			√	WDO
6.6.2	The screenings and grits would be collected and disposed of at landfill regularly by a reputable waste collector while the dewatered sludge would be disposed of at STF in Tuen Mun to reduce the potential pest, odour and litter impacts. In addition, all wastewater generated from the sludge dewatering process and all contaminated water from the cleaning operations recommended for odour control will be diverted to the proposed YLSEPP for proper treatment.	Operation Phase	Operator			√	WDO
Land Contamination							
7.8.1	Site re-appraisal should be conducted for the potentially contaminated sites once site access is available (e.g. after land resumption) in order to identify the need for SI for any additional hotspots as a result of the on-going land contaminating activities. In addition, re-appraisal would be required for the other remaining areas of the proposed YLSEPP site to assess the latest site situation in order to address any change in land use that may give rise to potential land contamination issues.	Proposed YLSEPP site / When site access is available (e.g. after land resumption) and prior to construction /	Project Proponent / Consultant / Contractor under the Yuen Long South Development	√	√		Guidance Note for Contaminated Land Assessment and Remediation; Practice Guide for Investigation and Remediation of Contaminated Land; Guidance Manual for Use of Risk-based

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				Des	C	O	
	Findings of the re-appraisal and strategy of the recommended SI, if required, will be presented in a supplementary CAP. Upon approval of the supplementary CAP and completion of the SI works, a Contamination Assessment Report (CAR) would be prepared to present findings of the SI works. If contamination has been identified, a RAP would be prepared to recommend specific remediation measures. Upon completion of the remediation works, if any, a Remediation Report (RR) would also be prepared to demonstrate that the clean-up works are adequate. The CAR, RAP and RR would be submitted to EPD for approval prior to commencement of any construction / development works at the identified contaminated sites.	development works at the identified contaminated sites.	Area (YLS DA) project				Remediation Goals for Contaminated Land Management
7.8.3	<p>The mitigation measures will be recommended in the RAP and would typically include the following:</p> <ul style="list-style-type: none"> Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; Supply of suitable clean backfill material (or treated soil) after excavation; Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust emission. If this is not practicable due to frequent usage, regular watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff. Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions; Speed control for the trucks carrying contaminated materials shall be enforced; Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and <p>Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines.</p>	Proposed YLSEPP site / During remediation works and prior to construction / development works at the identified contaminated sites.	Contractor under the YLS DA project		√		Guidance Note for Contaminated Land Assessment and Remediation; Practice Guide for Investigation and Remediation of Contaminated Land; Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management
Ecological Impact (Terrestrial and Aquatic)							
Construction Phase							
8.9.2	<p><u>Avoidance of Recognised Site of Conservation Importance during the Design Stage of the Project</u></p> <p>All works for the Project shall be confined within the proposed boundary for the YLS EPP, such that no sites of conservation importance would be directly affected, in particular the Conservation Area.</p>	Planning and design stage	Project proponent and consultant	√			EIAO-TM
8.9.3	<p><u>Minimising Construction Disturbance</u></p> <p>Noise – Noise disturbance can be reduced through erection of noise reducing barriers and/or tarpaulins, use of Quality Powered Mechanical Equipment (QPME), avoidance of prolonged period and minimisation on the use of heavy-duty machinery operations, as well as appropriate scheduling of works to minimise noise emission during season or time of high ardeid activities (e.g. dawn and dusk, or between April to August).</p> <p>Glare – Glare disturbance can be reduced through erection of non-transparent hoarding around the Project site, restriction of construction work hours, night-time lighting control and avoidance of any directional lights to the adjoining habitats.</p> <p>Dust – Dust disturbance can be reduced through erection of dust reducing barriers and/or tarpaulins, suppression via regular spraying of haul roads, proper storage and covering of construction materials, and strict adherence to relevant control measures as stipulated in the Air Pollution Ordinance (Construction Dust) Regulation.</p> <p>Increased human presence – Disturbance arising from increased human presence during construction works can be reduced through erection of hoarding to avoid trespassing into nearby habitats and sites of conservation importance, as well as strict adherence of good construction site practices including regular monitoring and audit and staff training on site cleanliness, waste management and handling etc.</p>	Construction Sites and Construction Phase	Contractor		√		EIAO-TM, Noise Control Ordinance (Cap. 400), Air Pollution Ordinance (Construction Dust) Regulation (Cap. 311R), Best Practice Guide for Environmental Protection on Construction Site (HKCA, 2013), Waste Disposal Ordinance (Cap. 354), ERWB TCW No. 19/2005
8.9.3	<u>Ecological Enhancement through Greening Opportunities</u>	Planning and design stage, operational phase	Project Proponent and consultant	√		√	EIAO-TM

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Implementation Stage*			Relevant Legislation & Guidelines
				Des	C	O	
	Opportunities to incorporate the YLS EPP with surrounding environment and the future reedbed could be explored, including ecological planting within and along the periphery of YLS EPP to act as buffer planting and potential perching/ sheltering trees for birds, as well as increasing the overall ecological value of the site for future wildlife use.						
Landscape and Visual Impact							
Table 9.10	<u>Preservation of Existing Vegetation</u> All the existing vegetation and trees to be retained and not to be affected by the Project shall be carefully protected during construction accordance with DEVB TC(W) No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB. Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project shall be carefully preserved.	Construction sites / Design and Construction phase	Project Proponent / Contractor	√	√		DEVB TC(W) No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB, Guidelines for Tree Risk Assessment and Management Arrangement issued by DEVB
Table 9.10	<u>Minimize Disturbance on Watercourses</u> The design shall minimize disturbance on watercourses, particularly for natural watercourse. Good site practices as described in ETWB TCW No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" shall also be adopted to avoid any pollution entering the watercourses nearby where applicable. Should temporarily or indirect disturbance on watercourse is unavoidable, it shall be reinstated to the satisfaction of relevant Government Departments.	Construction sites / Design and Construction phase	Project Proponent / Contractor	√	√		ETWB TCW No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works"
Table 9.10	<u>Management of Construction Activities and Facilities</u> The facilities and activities at works sites and areas, which include site office, temporary storage areas, temporary works etc., shall be carefully managed and controlled on the height, deposition and arrangement to minimise any potential adverse landscape and visual impacts.	Construction sites / Construction phase	Contractor		√		-
Table 9.10	<u>Reinstatement of Temporarily Disturbed Landscape Areas</u> All hard and soft landscape areas disturbed temporarily during construction due to temporary excavations, temporary works sites and works areas shall be reinstated to equal or better quality, to the satisfaction of the relevant Government Departments.	Construction sites / Construction phase	Contractor		√		-
Table 9.10	<u>Control of Night-time Lighting Glare</u> Any lighting provision of the construction works at night shall be carefully control to prevent light overspill to the nearby VSRs and into the sky. Relevant best practices as suggested in the "Guidelines on Industry Best Practices for External Lighting Installations" promulgated by ENB shall be adopted.	Construction sites / Construction and Operational phase	Project Proponent / Contractor		√	√	"Guidelines on Industry Best Practices for External Lighting Installations" promulgated by ENB
Table 9.10	<u>Erection of Decorative Screen Hoarding</u> Decorative Hoarding, which is compatible with the surrounding natural settings, shall be erected during construction to minimise the potential landscape and visual impacts due to the construction works and activities.	Construction sites / Construction phase	Project Proponent / Contractor		√		-
Table 9.11	<u>Compensatory Tree Planting for Loss of Existing Trees</u> Any trees to be removed under the Project shall be compensated in accordance with DEVB TC(W) No. 4/2020 - Tree Preservation. The compensatory plantings shall be realistic, practicable and sustainable with a holistic consideration to balance the quantity and quality of tree planting and follow the "right tree for the right place" principles. The proposed planting species shall be made reference to the Greening Master Plan issued by CEDD and the Street Tree Selection Guide issued by DEVB. Approximately 417 heavy standard trees are proposed within site under OM1, the exact number and location subject to the detailed design at design and construction stage of this Project.	Construction sites / Design, Construction and Operational phase	Project Proponent / Contractor/ Operator	√	√	√	DEVB TC(W) No. 4/2020 - Tree Preservation, GEO Publication No. 1/2011, the Greening Master Plan issued by CEDD, the Street Tree Selection Guide issued by DEVB and DEVB TC(W) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features
Table 9.11	<u>Roadside and Amenity Planting</u> Roadside amenity trees and understory planting to be planted along EVA and access road within YLSEPP, as green buffers for the new proposed structures. The proposed planting species shall be made reference to the Greening Master Plan issued by CEDD and the Street Tree Selection Guide issued by DEVB.	Construction sites / Design, Construction and Operational phase	Project Proponent / Contractor/ Operator	√	√	√	DEVB TC(W) No. 4/2020 - Tree Preservation, GEO Publication No. 1/2011, the Greening Master Plan issued by CEDD, the Street Tree Selection Guide issued by DEVB and DEVB TC(W) No. 6/2015 - Maintenance of

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Implementation Stage*			Relevant Legislation & Guidelines
				Des	C	O	
							Vegetation and Hard Landscape Features
Table 9.11	<p><u>Sensitive and Aesthetically Pleasing Design of Aboveground Structures</u></p> <p>Sensitive and aesthetically pleasing design as regard to the form, material and finishes shall be incorporated to the proposed above-ground structures e.g. effluent polishing plant, etc. so as to minimise any potential adverse landscape and visual impacts, and to blend in the structures to the adjacent landscape and visual context.</p>	Construction sites / Design, Construction and Operational phase	Project Proponent / Contractor/ Operator	√	√	√	-
Table 9.11	<p><u>Enhancement of Landscape Buffer</u></p> <p>With the retained existing trees surrounding the YLSEPP perimeter, thickening of understory plantings and/ or mounding in YLSEPP will be created as much as possible. For planting to be proposed on slopes, the guidelines for planting stipulated in GEO Publication No. 1/2011 will be followed.</p>	Construction sites / Design, Construction and Operational phase	Project Proponent / Contractor/ Operator	√	√	√	GEO Publication No. 1/2011, the Greening Master Plan issued by CEDD, the Street Tree Selection Guide issued by DEVB and DEVB TC(W) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features
Table 9.11	<p><u>Provision of Green Roof</u></p> <p>Green Roof shall be proposed to enhance the landscape quality of the Aboveground Structures including Primary Sedimentation Tanks and mitigate any potential adverse visual impact on adjacent VSRs. The extent of roof greening shall be in accordance with DEVB TC(W) No. 3/2012 – Site Coverage of Greenery for Government Building Projects.</p>	Construction sites / Design, Construction and Operational phase	Project Proponent / Contractor/ Operator	√	√	√	DEVB TC(W) No. 3/2012 – Site Coverage of Greenery for Government Building Projects
Hazard to Life							
Operation Phase							
10.9.1	<ul style="list-style-type: none"> Process plant building should be provided with adequate number of gas detectors distributed over various areas of potential leak sources to provide adequate coverage. All electrical equipment inside the building should be classified in accordance with the electrical area classification requirements. No unclassified electrical equipment should be used during operations or maintenance. All safety valves should be designed to discharge the released fluid to a safe location and stop misdirection of fluid flows in order to avoid hazardous outcome. Safety markings and crash barriers should be provided to the aboveground piping, digesters and gas holders near the entrance. Fixed crash barriers should be provided in areas where process equipment is adjacent to the internal roadway to protect against vehicle collision. Adequate warning signage and lighting should also be provided and maximum speed limit should also be in place. Lightning protection installations should be installed following IEC 62305, BS EN 62305, AS/NZS 1768, NFPA 780 or equivalent standards. Suitable fire extinguishers should be provided within the site. An External Water Spray System (EWSS) should be installed in appropriate areas, such as around the gasholders, digester and sulphur removal vessels. The facilities should also be equipped with fire and gas detection system and fire suppression system. Stringent procedures should be implemented to prohibit smoking or naked flames to be used on-site. 	YLSEPP / Operational Phase	Project Proponent, Operators	√		√	-