Annex 10A Implementation Schedule of Environmental Protection Measures for the Project

EIA &EM&A Ref.[1]	Environmental Protection Measures	Location of the Measures	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
				Pre-C	C	Post-C	O	
1. Air Quality Measures								
S4.8	Relevant dust control measures stipulated in the *Air Pollution Control (Construction Dust) Regulation*, and good site practices will be incorporated as the Contract Specifications for implementation throughout the construction period. These include: • The works area for site clearance and excavation should be sprayed with water before, during and after the operation so as to maintain the entire surface wet. • Restricting heights from which materials are to be dropped, as far as practicable to reduce the fugitive dust arising from unloading/ loading. • 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. • Where a vehicle leaving a construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials will not leak from the vehicle. • Erection of hoarding along the site boundary, where appropriate. • Any stockpile of dusty materials should be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and three sides. • All dusty materials should be sprayed with water immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. • Reduce the traffic induced dust dispersion and re-suspension, the travelling speed of vehicles within the site should be controlled. • Regular maintenance of construction equipment deployed on-site will be	Whole Site	Contractor(s)		✓			Air Pollution Control (Construction Dust) Regulation

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

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	conducted to prevent black smoke emission.							
S4.8	Excavated nullah bed materials that are placed on trucks for disposal should be properly covered with tarpaulin sheets during transportation to minimise the release of any potential odour. The odorous excavated material should be placed as far away from the sensitive receivers as possible. Odorous river bed material excavated during construction phase should be removed off-site as soon as practicable within 24 hours to avoid any odour nuisance.	Whole Site	Contractor(s)		✓		✓	-
S4.8	During operation phase, mitigation measures are considered necessary when materials generated from the maintenance works are found to be odorous, and the following measures should be implemented by the Contractor. • Temporarily stockpile odorous material as far away from ASRs as possible; and • Temporary stockpiles of odorous material will be properly covered with tarpaulin and should be removed off-site as soon as practically possible within 24 hours to avoid any odour nuisance arising.	Whole Site	Contractor(s)				✓	
S4.8	To reduce odour impacts from the DWF pumping station, the following measures should be implemented. • The DWF pumping station should be enclosed inside building structure and maintained with negative pressure; • The DWF pumping station should be equipped with deodourization unit using activated carbon or other equivalent odour removal techniques with odour removal efficiency of 99.5%; • The exhaust outlet of the deodourization unit should be located in a direction away from the nearby ASRs, with a view to maximizing the separation distance between the exhaust outlet and the nearest ASR; and • Regular maintenance of the deodourization unit should be conducted to ensure its effectiveness.	DWF pumping station	Contractor(s)				✓	

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S4.11 of EIA Report, S3.3 and S3.4 of EM&A Manual	Weekly site inspection and monthly odour patrol measurement.	Whole Site	ET & IEC	✓	✓			
2. Noise								
S5.8	The following good site practices should be followed during the construction of the Project: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction phase; • Silencers or mufflers on construction equipment should be utilized where required and should be properly maintained during the construction phase; • Mobile plant, if any, should be sited as far from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Whole Site	Contractor(s)		✓			-
S5.8	Use quiet PME as far as practicable to mitigate the construction noise impact.	Whole Site	Contractor(s)		✓			-
S5.8	Noise insulating sheet would be adopted for PME such as drill rig. The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Whole Site	Contractor(s)		✓			-

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S5.8	In view of the close proximity between NSRs and the works areas for construction of DWFI system, fixed temporary noise barriers shall be deployed at the working section as far as practicable. Fixed temporary noise barriers of 3m in 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. The noise barrier material should have a sufficient surface density of at least 7 kg/m2 and have no openings or gaps.	Works Areas for DWFI System	Contractor(s)		✓			A Practical Guide for the Reduction of Noise from Construction Works
S5.8	Scheduling of construction activities with identified grouping of PMEs. Only one group of PME would be operated at any one time for each construction activity for reducing the construction noise impact.	Whole Site	Contractor(s)		✓			-
S5.8	<u>Special arrangement during examination period</u> • The contractor shall liaise with the school management about the arrangements during examination weeks. • PMEs shall not be used at the closest works areas (i.e. Section B1 for NSR14 and Section A3 for NSR18) during the examination period.	Relevant Works Areas for Construction of DWFI System	Contractor(s)		✓			
S5.8	During operation phase, the following measures shall be implemented as far as practicable to minimise the potential impact: • Quieter plant should be chosen as far as practical; • Include noise levels specification when ordering new plant items; • All openings, including louvres for ventilation and machine room doors should be oriented away from the NSRs as far as practicable; • Silencers, acoustic louvres or acoustic doors should be used where necessary;	DWF pumping station	Contractor(s)				✓	

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	and • Develop and implement a regularly scheduled plant maintenance programme so that plant items are properly operated and serviced. The programme should be implemented by properly trained personnel.							
S5.7	The specified SWLs presented in **Annex 5C-3** of the EIA Report should be included in the tender specification.	DWF pumping station	Contractor(s)				✓	
S5.11 of EIA and S4.4 of EM&A Manual	Weekly noise monitoring at five monitoring stations and weekly site inspection and audit of construction activities.	Whole Site	ET & IEC	✓	✓			Environmental Impact Assessment Ordinance
3. Water Quality								
S6.7	*General Construction Site Practice* The Contractor should observe and comply with the *Water Pollution Control Ordinance* and its subsidiary regulations and obtain a discharge license under the Ordinance. The Contractor should carry out the Project works in such a manner as to minimize adverse impacts on the water quality during execution of the works. In particular he should arrange his method of working to minimize the effects on the water quality within and outside the Project Site and on the transport routes. In addition, the management of construction site drainage from the Project will follow guidelines provided in *ProPECC PN 1/94*.	Excavation Site	Contractor(s)		✓			-
S6.7	*Construction Site Runoff and Drainage* Proper site management measures should be implemented to control site runoff and drainage, and thereby prevent high sediment loadings from reaching downstream	Whole Site	Contractor(s)		✓			ProPECC PN 1/94 "Construction Site Drainage"

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	sections of the river/stream and adjacent agricultural land, if any. The Contractor should follow the practices, and be responsible for the design, construction, operation and maintenance of all the mitigation measures. The design of the mitigation measures should be submitted by the Contractor to the Engineer for approval. These mitigation measures shall include the following practices to minimize site surface runoff and the chance of erosion, and also to retain and reduce any suspended solids prior to discharge: • Before commencing any work, all sewer and drainage connections should be sealed to prevent debris, soil, sand etc. from entering public sewers/drains. • Provision of perimeter channels to intercept storm-runoff from outside the site. These should be constructed in advance of the construction works. • Temporary ditches such as channels, earth bunds or sand bag barriers should be included to facilitate runoff discharge into the stormwater drain, via a sand/silt basin/trap. • Works programme should be designed to minimize works areas at any one time, thus minimizing exposed soil areas and reducing the potential for increased siltation and runoff. • Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand/silt particles from run-off where necessary. These facilities should be properly and regularly cleaned and maintained. These facilities should be carefully planned to ensure that they would be installed at appropriate locations to capture all surface water generated on site. • Careful programming of the works to avoid excavation works during the rainy season. • Temporary access roads (if any) should be protected by crushed gravel and exposed slope surfaces shall be protected when rainstorms are likely; and • Open stockpiles of construction materials on-site should be covered with tarpaulin or similar fabric during rainstorms to prevent erosion.							

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S6.7	<u>*Use of Containment Structures and Diversion Channels*</u> The use of containment structures and diversion channels is recommended wherever practicable to facilitate a dry or at least confined excavation within the nullah. For example, nullah water should be contained within the works area before the commencement of excavation by the use of sand bag barriers. Water within the contained area should be discharged to the nullah before excavation commences to create the dry conditions. Nullah water should also be diverted from the works area through the use of diversion channel constructed by materials such as concrete blocks. Details of the containment structures and diversion channels should be provided by the Contractor to the Engineer for approval before commencement of construction works for the Project. By limiting or confining the works areas the extent of disturbance to the surrounding water bodies will be significantly reduced, and thus resulting impacts on water quality from sediment re-suspension will be reduced. Furthermore, excavation works in the nullah should be carried out during periods of low flow (dry season from November to March) as far as practicably to reduce impacts on downstream water quality and sensitive receivers. These measures will be implemented to ensure compliance with the *Water Pollution Control Ordinance* and its subsidiary regulations.	Whole Site	Contractor(s)		✓			-
S6.7	<u>*Sewage and Wastewater Discharge*</u> All discharges during the construction phase of the Project are required to comply with the *Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-ICW)* issued under *Section 21* of the *WPCO*. Domestic sewage/wastewater generated by workforce on-site should be collected in a suitable storage facility such as portable chemical toilets. An adequate number of portable toilets will be provided during the construction phase. These toilets should be maintained in a state that will not deter the workers from using them. The collected sewage/wastewater will be discharged into the foul	Whole Site	Contractor(s)		✓			Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-ICW) issued under Section 21 of the WPCO

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	sewer or transferred to the Government sewage treatment works by a licensed collector.							
S6.7	*Storage and Handling of Oil, Other Petroleum Products and Chemicals* The following mitigation measures should be implemented for the storage and handling of oil, other petroleum products and chemicals: • Waste streams classifiable as chemical wastes should be properly stored, collected and treated for compliance with Waste Disposal Ordinance or Disposal (Chemical Waste) (General) Regulation requirements. • All fuel tanks and chemical storage areas should be provided with locks and be sited on paved areas. • The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters. • Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance. • Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should, as far as possible, be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor.	Whole Site	Contractor(s)		✓			Waste Disposal Ordinance or Disposal (Chemical Waste) (General) Regulation
S6.7	*Handling of Spillage / Leakage* In the event that accidental spillage or leakage of hazardous substances / chemical wastes occur, the response procedures as listed below should be followed. It should be noted that the procedures below are not exhaustive and the contractor should propose other response procedures in the emergency contingency plan based on the particular types and quantities of chemicals or hazardous substances used, handled and stored on-site. • Oil leakage or spillage should be contained and cleaned up immediately. Waste	Whole Site	Contractor(s)		✓			Waste Disposal Ordinance

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				Pre-C	C	Post-C	O	
	oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance. • Instruct untrained personnel to keep at a safe distance well away from the spillage area. • If the spillage / leakage involves highly toxic, volatile or hazardous waste, initiate emergency evacuation and call the emergency service. • Only trained persons equipped with suitable protective clothing and equipment should be allowed to enter and clean up the waste spillage / leakage area. • Where the spillage/ leakage is contained in the enclosed storage area, the waste can be transferred back into suitable containers by suitable handheld equipment, such as hand operated pumps, scoops or shovels. If the spillage / leakage quantity is small, it can be covered and mixed with suitable absorbing materials such as tissue paper, dry soft sand or vermiculite. The resultant slurry should be treated as chemical waste and transferred to suitable containers for disposal. • For spillage / leakage in other areas, immediate action is required to contain the spillage / leakage. Suitable liquid absorbing materials such as tissue paper, dry soft sand or vermiculite should be used to cover the spill. The resultant slurry should be treated as chemical waste and transferred to suitable containers for disposal. • Areas that have been contaminated by chemical waste spillage / leakage should be cleaned. While water is a soluble solvent for aqueous chemical wastes and water soluble organic waste, kerosene or turpentine should be used for organic chemical wastes that are not soluble in water. The waste from the cleanup operation should be treated and disposed of as chemical waste. • In incidents where the spillage / leakage may result in significant contamination of an area or risk of pollution, the EPD should be informed immediately.							

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S6.7	*Maintenance Works* The following considerations should be included in planning for the maintenance works during operation: (a) Maintenance of the channels should be restricted to annual silt removal when the accumulated silt will adversely affect the hydraulic capacity of the channel, except during emergency situations where flooding risk is imminent. Desilting should be carried out by hand or light machinery during the dry season when water flow is low. (b) Vegetation removal should be limited to manual cutting to be carried out during dry season and only when growth of vegetation is very likely to impede channel flow. (c) Phasing of the works should be considered to better control and reduce any impacts caused. Where possible, works should be carried out along half width of the drainage channel in short sections. A free passage along the drainage channel is necessary to avoid forming stagnant water in any phase of the works. (d) Containment structures (such as sand bags barrier) should be provided for the desilting works area to facilitate a dry or at least confined working area within the drainage channel. (e) The locations for the disposal of the removed materials should be identified and agreement sought with the relevant departments before commencement of the maintenance works. Temporary stockpile of waste materials should be located away from the channel and properly covered. These waste materials should be disposed of in a timely and appropriate manner. (f) Effective temporary flow diversion scheme should be implemented and the generated wastes should be collected and disposed off-site properly to avoid adversely affecting the water quality of the drainage system.	Maintenance works area	Contractor(s)				✓	-
S6.7	*Emergency Response Plan*	Project Site	DSD				✓	-

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	An Emergency Response Plan should be developed before the commencement of the Project's operation in order to provide details on the emergency arrangement in case of breakdown of the DWFI system. The proposed system includes overflowing pipes with outlets on both sides of the nullah. When water rises to a certain level, stormwater within the underground system will be released and directly discharged into the nullah. This prevents further back-up into the upstream system and the side branches. The discharge of stormwater directly into the nullah is consistent with the existing drainage pattern.							
S6.10 of EIA and S5.2 of EM&A Manual	Baseline monitoring should be undertaken for three times per week for a period of four weeks before commencement of the construction works to establish baseline water quality conditions of the area. Impact monitoring should be undertaken for three times per week during the construction period to obtain water quality data of the area throughout the construction period for comparison with the baseline water quality data and hence determine any water quality impacts from the construction activities. Post Project monitoring should also be undertaken three times per week for four weeks after the completion of construction works.	Upstream and downstream of the Work Area	Contractor(s)	✓	✓	✓		-
4. Waste Management								
S7.6	*General* The HKSAR Government's construction and demolition waste management policy follows the same hierarchy as for other wastes i.e. in order of desirability: avoidance, minimisation, recycling, treatment and safe disposal of waste.	Contract mobilisation	Contractor(s)	✓	✓			Waste Disposal Ordinance DEVB TC(W) No 6/2010, Trip Ticket

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	Training of construction staff should be undertaken by the contractor about the concept of site cleanliness and appropriate waste management procedures. The contractor should develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials. Requirements for staff training should be included in the contractor's Environmental Management Plan (EMP). Good planning and site management practice should be employed to eliminate over ordering or mixing of construction materials to reduce wastage. Proper storage and site practices will minimise the damage or contamination of construction materials. Where waste generation is unavoidable, the potential for recycling or reuse should be rigorously explored. If waste cannot be recycled, disposal routes described in the EMP should be followed. A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be implemented. In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be included. One may make reference to DEVB TC(W) No. 6/2010 for details. Regular cleaning and maintenance of the waste storage area should be provided.							System for Disposal of Construction & Demolition Materials
S7.6	*On-site Sorting, Reuse and Recycling* All waste materials should be segregated into categories covering: • Inert C&D materials suitable for reuse on-site; • Inert C&D materials suitable for public fill reception facilities; • Recyclable C&D waste for recycling; • Remaining C&D waste for landfill; • Chemical waste; and • General refuse for landfill.	Contract mobilisation	Contractor(s)		✓			Waste Disposal Ordinance WBTC Nos. 6/2002 and 6/2002A, Enhanced Specification for Site Cleanliness and

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	Proper segregation and disposal of construction waste should be implemented. Separate containers should be provided for inert and non-inert wastes. Sorting is important to recover materials for reuse and recycling. Specific area should be allocated for on-site sorting of C&D materials and to provide a temporary storage area for those sorted materials. If area is limited, all C&D materials should at least be sorted on-site into inert and non-inert components. Non-inert materials (C&D waste) such as bamboo, timber, vegetation, packaging waste and other organic materials should be reused and recycled wherever possible and disposed of to designated landfill only as a last resort. Inert materials (public fill) such as concrete, stone, clay, brick, soil, asphalt and the like should be separated and reused in this or other projects (subject to approval by the relevant parties in accordance with the *DEVB TC(W) No. 6/2010*) before disposed of at a public filling facility operated by CEDD. Steel and other metals should be recovered from demolition waste stream and recycled. The reuse of inert materials such as soil, rock and broken concrete should be maximised. Waste should be separated into fine, soft and hard materials. With the use of a crusher coarse material can be crushed to make it suitable for use as fill material where fill is required in the works. This minimises the use of imported material and maximises use of the C&D material produced.							Tidiness. DEVB TC(W) No. 6/2010
S7.6	*Excavated Materials* Control measures for temporary stockpiles on-site should be taken in order to minimize the noise, generation of dust, pollution of water and visual impact. These measures include: • Surface of stockpiled soil should be regularly wetted with water especially during dry season; • Disturbance of stockpiled soil should be minimized;	Contract mobilisation	Contractor(s)	✓	✓			Waste Disposal Ordinance DEVB TC(W) No. 6/2010

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	• Stockpiled soil should be properly covered with tarpaulin especially when heavy rain storms are predicted; • Stockpiling areas should be enclosed where space is available; • Stockpiling location should be away from the water bodies; and • An independent surface water drainage system equipped with silt traps should be installed at the stockpiling area. The identification of final disposal sites for C&D materials generated by the construction works will be considered during the detailed design stage of the Project when the volume and types of C&D materials can be more accurately estimated. The Public Fill Committee of CEDD should be consulted on designated outlets (e.g. public filling area) for public fill, whilst EPD should be consulted on landfills for C&D waste. Disposal of C&D waste to landfill must not have more than 50% (by weight) inert material. The C&D waste delivered for landfill disposal should contain no free water and the liquid content should not exceed 70% by weight: In order to avoid dust or odour impacts, any vehicle leaving a works area carrying C&D waste or public fill should have their load covered up before leaving the construction site. C&D materials should be disposed of at designated public fill reception facilities or landfills. Disposal of these materials for use at other construction projects is subject to the approval of the Engineer and/or other relevant reception authorities. Furthermore, unauthorized disposal of C&D materials in particular on private agricultural land is prohibited and may be subject to relevant enforcement and regulating actions. The disposal of public fill and C&D waste will be controlled through trip-ticket system in accordance with *DEVB TC(W) No. 6/2010.*							
S7.6	*Chemical Waste* Where the construction processes produce chemical waste, the contractor must	Whole Site	Contractor(s)		✓			Waste Disposal (Chemical Waste)

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	register with EPD as a chemical waste producer. Wastes classified as chemical wastes are listed in the *Waste Disposal (Chemical Waste) (General) Regulation*. These wastes are subject to stringent disposal routes. EPD requires information on the particulars of the waste generation processes including the types of waste produced, their location, quantities and generation rates. A nominated contact person must be registered with EPD. An updated list of licensed chemical waste collector can be obtained from EPD. Storage, handling, transport and disposal of chemical waste should be arranged in accordance with the *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes* published by EPD, and should be collected by a licensed chemical waste collector. Suitable containers should be used for specific types of chemical wastes, containers should be properly labelled (English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations), resistance to corrosion, stored safely and closely secure. Stored volume should not be kept more than 450 liters unless the specification has been approved by the EPD. Storage area should be enclosed by three sides by a wall, partition of fence that is at least 2 m height or height of tallest container with adequate ventilation and space. Hard standing, impermeable surfaces draining via oil interceptors should be provided in works area compounds. Interceptors should be regularly emptied to prevent release of oils and grease into the surface water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain. Oil and fuel bunkers should be bunded and/or enclosed on three sides to prevent discharge due to accidental spillages or breaches of tanks. Bunding should be of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste, whichever is largest. Waste collected from any grease traps should be collected and disposed of by a licensed contractor.							(General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes DEVB TC(W) No. 6/2010

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	Lubricants, waste oils and other chemical wastes are likely to be generated during the maintenance of vehicles and mechanical equipment. Used lubricants should be collected and stored in individual containers which are fully labelled in English and Chinese and stored in a designated secure place. If possible, such waste should be sent to oil recycling companies, and the empty oil drums collected by appropriate companies for reuse or refill. The registered chemical waste producer (i.e. the contractor) has to arrange for the chemical waste to be collected by licensed collectors. The licensed collector should regularly take chemical waste to a licensed chemical waste treatment facility (such as the Chemical Waste Treatment Centre in Tsing Yi). A trip ticket system operates to control the movement of chemical wastes. No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.							
S7.6	*General Works Waste* **Concrete Waste** Dry concrete waste (considered as public fill) should be sorted out from the other wastes and recycled for reuse or sorted out for disposal at designated public filling facilities. **Wooden Materials** All wooden materials used on-site should be kept separate from other wastes to avoid damage and to facilitate reuse. Timber which cannot be reused should be sorted out from other waste and stored separately from all inert waste before being	Whole Site	Contractor(s)		✓			Waste Disposal (Chemical Waste) (General) Regulation WBTC No. 19/2001 - Metallic Site Hoardings and Signboards

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	disposed of to landfill. Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimise wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork. Only waste material need be taken to a landfill. It should be separated from recyclable wood and steel materials. As for all waste types these materials should be reused on-site or other approved sites before disposal is considered as an option. Disposal to landfill should only be considered as a final option. Contractors are responsible for storage of re-useable materials on-site. **General Refuse** General refuse generated on-site should be stored in enclosed bins or skips and collected separately from other construction and chemical wastes and disposed of at designated landfill. A temporary refuse collection point should be set up by the contractor to facilitate the collection of refuse by licensed contractors. The removal of waste from the site should be arranged on a daily or at least on every second day by the contractor to minimise any potential odour impacts, minimise the presence of pests, vermin and other scavengers and prevent unsightly accumulation of waste. The recyclable component of the general waste generated by the workforce, such as aluminium cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the contractor. The contractor should also be responsible for arranging recycling companies to collect these materials.							

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	Floating Refuse Any floating refuse trapped within the Project Area shall be collected by contractor and disposed to landfill.							
S7.6	During operation phase, the silt materials and debris collected during maintenance should be properly packed and transported to designated landfill for disposal as soon as possible. All chemical waste should be properly stored, labelled and removed by licensed waste collectors in accordance with Waste Disposal (Chemical Waste) (General) Regulation.	Whole Site	Contractor(s)				✓	Waste Disposal (Chemical Waste) (General) Regulation
S7.9	To facilitate monitoring and control over the contractors' performance on waste management, a waste monitoring and audit programme will be implemented throughout the construction phase and a Waste Management Plan (WMP) will be prepared and implemented by the contractor in accordance with ETWB TC(W) No. 19/2005. The aims of the monitoring and audit programme are. • To review the WMP, which will form part of the EMP in accordance with ETWB TC(W) No. 19/2005, including the quantities and types of C&D materials generated, reused and disposed of off-site; the amount of fill materials exported from/imported to the site and the quantity of timber used in temporary works construction for each process/activity; • To monitor the implementation and achievement of the WMP on site to assess its effectiveness; and • To monitor the follow-up actions on deficiencies identified. Site inspections will be undertaken each week. Particular attention will be given to the contractor's provision of sufficient spaces, adequacy of resources and facilities for on-site sorting and temporary storage of C&D materials. The C&D materials to be disposed of from the site will be visually inspected to ensure the absence of non-	All facilities	Contractor(s)		✓			ETWB TC(W) No. 19/2005

EIA &EM&A Ref.[1)]	Environmental Protection Measures	Location of the Measures	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
				Pre-C	C	Post-C	O	
	inert materials (e.g. general refuse, timber, etc). The waste to be disposed of at landfills will as practicable contain no observable inert or reusable/recyclable C&D materials (e.g. soil, broken rock, metal, and paper/cardboard packaging, etc). Any irregularities observed during the site inspections will be raised promptly to the contractor for rectification. The findings of the waste inspections will be reported in the monthly Environmental Monitoring and Audit Report.							
5. Ecology								
S8.9	The construction of rising main shall be conducted outside dry season (i.e. November to March) as an avoidance measure.	Site within WBA (i.e. rising mains)	Contractor(s)		✓			-
S8.9	With implementation of mitigation measures for air quality, noise and water quality stipulated in Sections 4.8, 5.8 and 6.7, no unacceptable adverse ecological impact arising from the Project during construction phase is anticipated.	Whole Site	Contractor(s)		✓			-
6. Landscape & Visual								
S9.6	<u>Good site practice</u> Construction site should be kept clean and tidy and construction material should be stored in order. Canvas sheets should be used to cover the exposed earth. Unused construction and demolition (C&D) debris should be removed as soon as the reinstatement works are completed.	Whole Site	Contractor(s)		✓			-
S9.6	<u>Erection of decorative screen hoarding</u> Each site should be provided with decorative screen hoarding compatible with surrounding setting.	Whole Site	Contractor(s)	✓	✓			-
S9.6	<u>Tree preservation</u> The existing trees shall be preserved as far as possible. The retained existing trees on	Whole Site	Contractor(s)	✓	✓			

EIA &EM&A Ref.(1)	Environmental Protection Measures	Location of the Measures	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
				Pre-C	C	Post-C	O	
	site shall be protected carefully during construction. The requirement specified in "Guidelines on Tree Preservation during Development" issued by Development Bureau shall be followed. Tree preservation should include protection measures for existing trees and greenery.							
S9.6	Tree transplanting / compensatory tree planting According to the latest design, all trees will be preserved and no tree felling is expected. In case of trees unavoidably affected by the Project during construction, tree transplanting shall be conducted as far as possible. Any unavoidable tree felling shall be mitigated by compensatory tree planting.	Whole Site	Contractor(s)	✓	✓	✓		
S9.6	A minimum lighting will be maintained at night time as general lighting provision for security reason.	DWF Pumping Station	Contractor(s)				✓	
S9.6	Green roof and shrub planting will be provided for the DWF pumping station. The roof structure will be planted with trees and groundcovers to reduce glaring effect and give a green appearance of the roof structure. Shrub planting is proposed to be planted within the site boundary to further enhance the development with lush greenery.	DWF Pumping Station	Contractor(s)		✓	✓	✓	
S9.6	Vertical greening will be provided on the external walls without the coverage of architectural elements.	DWF Pumping Station	Contractor(s)		✓	✓	✓	
S9.6	The proposed architectural design of the DWF pumping station will utilize the surrounding landscape to blend the buildings with the surrounding environment. The building will maintain a low profile to reduce the visual impact.	DWF Pumping Station	Contractor(s)	✓	✓	✓	✓	
S7.3 of EM&A Manual	A photographic record of the Project Site at the time of the Contractor's possession should be prepared by the Contractor and approved by the Engineer Representative (ER).	Whole Site	Contractor(s)	✓				
S7.4 of EM&A Manual	A specialist Landscape Sub-Contractor should be employed by the Contractor for the implementation of landscape construction works and subsequent maintenance operations during the 12-month establishment period.	Whole Site	Contractor(s)		✓	✓		

EIA &EM&A Ref.(1)	Environmental Protection Measures	Location of the Measures	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
				Pre-C	C	Post-C	O	
S7.4 of EM&A Manual	All measures undertaken by both the Contractor and the specialist Landscape Sub-Contractor during the construction phase and first year of the operation phase should be audited by a Registered Landscape Architect, as a member of the Environmental Team (ET), on a regular basis to ensure compliance with the intended aims of the measures.	Whole Site	ET		✓	✓		
S7.4 of EM&A Manual	Site audits should be undertaken at least once every two weeks during the construction phase of the Project and once every two months during the operation phase to ensure that the proposed mitigation measures and good site practices proposed to manage and mitigate landscape and visual impacts, are implemented.	Whole Site	ET		✓	✓		