Appendix B Summary of Implementation Status of Environmental Mitigation

Appendix B

Table B.1	Implementation Schedule for Air Quality Measures for the IWMF at the artificial island near SKC
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	Environmental Protection Measures (lementa	ation St	ages*	Relevant	Implementati on Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
S3b.8.1	 <u>Air Pollution Control (Construction Dust)</u> <u>Regulation & Good Site Practices</u> Use of regular watering, with complete coverage, 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 	During the construction period	Contractor					Air Pollution Control (Construction Dust) Regulation	Deficiency of Mitigation Measures but rectified by the Contractor. N/A for dust control measures for transportation outside site boundary.

	Environmental Protection Measures / Mitigation Measures			Imp	lement	ation S	tages*	Relevant	Implementati
EIA Ref		Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	on Status and Remarks
	 points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit. 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. 								
S3b.6.3	 Odour Removal by Deodorizers Deodorizers with 95% odour removal efficiency would be installed for the air ventilated from the mechanical treatment plant before discharge to the atmosphere 	Waste reception halls, the waste storage area, the mechanical treatment plant / During design & operation phase		✓		✓		EIAO-TM	N/A
S3b.8.2	Air Pollution Control and Stack Monitoring	IWMF stack emissions / During	IWMF Operator	✓		~		EIAO-TM, Supporting Document for	N/A

	Environmental Distortion Magazines /			Imp	lementa	ation S	tages*	Relevant	Implementati
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	on Status and Remarks
	 Air pollution control and stack monitoring system will be installed for the IWMF to ensure that the emissions from the IWMF stack will meet the proposed target emission limits. Voluntary Enhancement Measures in Flue Gas Cleaning and Emission Monitoring: Two-stage bag filter system with reagent recirculation; In addition to SCR, provide SNCR for removal of NO_x; tighten emission limit for half-hourly and daily NO_x to 160 mg/m³ and 80 mg/m₃ respectively; Well-mixed feed waste: to minimize the fluctuation of pollutant loading on the flue gas treatment system; Two more AQMSs would be set up at South Lantau and Shek Kwu Chau respectively; Limit levels will be set under the IWMF DBO contract to require that waste feed shall cease if any of the air pollutant has exceeded 95% of the emission concentration limit as stipulated in the Special Process license; and Each incineration chamber shall be fitted with auxiliary burners to ensure complete burn out of the combustion gases. 	design & operation phase						Application for Variation of Environmental Permit (EP- 429/2012)	

				Imp	lementatio	on Sta	iges*	Relevant	Implementati
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	on Status and Remarks
-	 Treated Fly Ash and Air Pollution Control Residues: During testing and commissioning, the Contractor shall sample and test every container of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2 of the Environmental Permit. If a test result confirms that any one of the samples does not conform to the limits and the criteria, the Contractor shall be required to sample and test every container of treated fly ash and air 	IWMF stack emissions / During design & operation phase	IWMF Operator			 Image: A start of the start of		Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	N/A
	 pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria for the next six months. During the first six months of operation, if the requirements in (a) could be fully conformed with, the Contractor shall sample and test every shipload of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2 of the Environmental Permit. The Contractor shall take two samples from each shipload for testing and the Contractor shall not dispose of any of 								

	Environmental Protection Measures /			Imp	lement	ation S	tages*	Relevant	Implementati
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	on Status and Remarks
	pollution control residues until the test								
	results confirm that the two samples								
	conform to the limits and the criteria. If								
	a test result confirms that any one of								
	the two samples does not conform to								
	the limits and the criteria, the								
	Contractor shall be required to sample								
	and test every shipload of treated fly								
	ash and air pollution control residues								
	for conformance to the Incineration								
	Residue Pollution Control Limits and								
	leachability criteria for the next six								
	months. The Contractor shall make								
	due allowance in the Design and the								
	Operation for the time to sample and								
	test treated fly ash and air pollution								
	control residues before disposal.								
	 Provided that there is no non- 								
	conformance to the Incineration								
	Residue Pollution Control Limits and								
	leachability criteria shown in Table 2 of								
	the Environmental Permit throughout a								
	continuous sixmonth period in the								
	Operation Period, the testing frequency								
	shall be reduced to monthly								
	interval.Two samples from one								
	shipload of treated fly ash and air								
	pollution control residues shall be								
	collected and tested for conformance								
	to the Incineration Residue Pollution								
	Control Limits and leachability criteria.								
	The Contractor shall not dispose of any								
	of the treated fly ash and air pollution								

	Environmental Drotaction Measures (Imp	dementation Stages			Relevant	Implementati
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	on Status and Remarks
	control residues in the shipload which the samples are taken until the test results confirm that the samples conform to the limits and the criteria. If the test result confirm that any one of the samples does not conform to the limits and the criteria, the Contractor shall be required to sample and test every shipload of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2 of the Environmental Permit for the next six months.								
	 Bottom Ash: During testing and commissioning, the Contractor shall sample and test every container of bottom ash for conformance to the leachability criteria shown in Table 2 of the Environmental Permit. If a test result confirms that any one of the samples does not conform to the criteria, the Contractor shall be required to sample and test every container of bottom ash for conformance to the leachability criteria for the next six months. During the first six months of operation, if the requirements in (d) could be fully conformed with, the Contractor shall sample and test one 	IWMF stack emissions / During design & operation phase	IWMF Operator	•		~		Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	N/A

				Imp	lement	ation S	tages*	Relevant	Implementati
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	on Status and Remarks
	conformance to the leachability								
	criteria shown in Table 2 of the								
	Environmental Permit. The Contractor								
	shall take two samples from the								
	shipload for testing and the Contractor								
	shall not dispose of any of that								
	shipload of bottom ash until the test								
	results confirm that the two samples								
	conform to the criteria. If a test result								
	confirms that any one of the two								
	samples does not conform to the								
	criteria, the Contractor shall be								
	required to sample and test each shipload of bottom ash for								
	conformance to the leachability								
	criteria for the next six months. The								
	Contractor shall make due allowance								
	in the Design and the Operation for the								
	time to sample and test bottom ash								
	before disposal.								
	 Provided that there is no non- 								
	conformance to the leachability								
	criteria shown in Table 2 of the								
	Environmental Permit throughout a								
	continuous six month period in the								
	Operation Period, the Contractor shall								
	be allowed to take two samples from								
	any one shipload of bottom ash once								
	every six months for conformance to								
	the leachability criteria. The								
	Contractor shall not dispose of any of								
	the bottom ash in the shipload which								
	the samples are taken until the test								

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	Mitigation measures Timing Agent	Imp	lementa	ation S	tages*	Relevant	Implementati	
EIA Ref		ο	Dec	Legislation and Guidelines	on Status and Remarks			
	results confirm that the samples							
	conform to the criteria. If the test result							
	confirm that any one of the samples							
	does not conform to the criteria, the							
	Contractor shall be required to sample							
	and test one shipload of bottom ash							
	each month for conformance to the							
	leachability criteria shown in Table 2							
	of the Environmental Permit for the							
	next six months as stipulated above.							

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table B.2 Implementation Schedule for Noise Impact Measures for the IWMF at the artificial island near SKC

				Imple	ementa	ation	Stages*	Relevant	Implementatio
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	g Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	n Status and Remarks
S4b.8	Good site practices to limit noise emissions a source and use of quiet plant and working methods, whenever practicable.	Construction	EPD and its contractors		~			EIAO-TM	Implemented
S4b.6 & S4b.8	 All the ventilation fans installed in the below will be provided with silencers or acoustics treatment. (i) Stack of the incinerator (ii) Ventilation systems within the IWMF Enclosure and discharge silencer or other acoustic treatment equipment should be installed in the air-cooled chillers Other than provision of silencer or other acoustic treatment equipment for the stack of the incinerator and ventilation system, the detailed design should incorporate the following good practice in order to minimize the nuisance on the neighboring NSRs. (i) The exhaust of the ventilation system and any opening of the building should be located facing away from any NSRs; and (ii) Louver or other acoustic treatment equipment could also be applied to the exhaust of the ventilation system. 	Within IWMF area / Construction Period	EPD and its contractors			V		EIAO-TM	N/A

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-	Voluntary Enhancement Measure	IWMF site	Design team, contractor, IWMF	~	~	Supporting Implemented Document for
	 Provision of air-conditioner and double glazed windows to nearby NSR at Shek Kwu Chau (i.e. SARDA) as precautionary measures. 		operator			Application for Variation of Environmental Permit (EP- 429/2012)

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Table B.3 Implementation Schedule for Water Quality Measures for the Artificial Island near SKC

					ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
S5b.8.1.1	 Drainage and Construction Site Runoff The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. These practices include the following items: At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the construction. 	Work site / During the construction period	Contractor						Remarks Implemented.
	• Boundaries of earthworks should be surrounded by dykes or embankments for flood protection, as necessary.								
	 Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS. The design of efficient silt removal facilities 								

				Imple	menta	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. The detailed design of the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction.								
	 Water pumped out from foundation piles must be discharged into silt removal facilities. 								
	 Measures should be taken to minimize the ingress of site runoff and drainage into excavations. Drainage water pumped out from excavations should be discharged into storm drains via silt removal facilities. 								
	• During rainstorms, exposed slope/soil surfaces should be covered by a tarpaulin or other means, as far as practicable. Other measures that need to be implemented before, during and after rainstorms are summarized in ProPECC PN 1/94.								
	• Exposed soil areas should be minimized to reduce potential for increased siltation and contamination of runoff.								
	 Earthwork final surfaces should be well compacted and subsequent permanent work or surface protection should be immediately performed. 								

				Imple	ementa	tion S	tages*		Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	 Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. 								
S5b.8.1.2	General Construction Activities Construction solid waste should be collected, handled and disposed of properly to avoid entering to the nearby watercourses and public drainage system. Rubbish and litter from construction sites should also be collected to prevent spreading of rubbish and litter from the site area.	Work site / During the construction period	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO	Implemented.
	It is recommended to clean the construction sites on a regular basis.								

				Imple	mentati	ion St	ages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
S5b.8.1.3	There is a need to apply to EPD for a discharge license for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge license. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression and general cleaning etc., can minimize 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 license which is under the ambit of regional office of EPD.		Contractor		✓			EIAO-TM; ProPECC PN 1/94; WPCO	Discharge License was issued on 22/08/2019.
S5b.8.1.4	Accidental Spillage Contractor must register as a chemical waste producer if chemical wastes would be produced from 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.	Work site / During the construction period	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Deficiency of Mitigation Measures but rectified by the Contractor.
S5b.8.1.5	Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas which	During the construction	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Implemented.

				Imple	menta	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	appropriately equipped to control these discharges.								
S5b.8.1.6	Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas should be sited on sealed areas in order to prevent spillage of fuels and solvents to the nearby watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal.	Work site / During the construction period	Contractor		✓			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Deficiency of Mitigation Measures but rectified by the Contractor.
S5b.8.1.7	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:	Work site / During the construction period	Contractor		•			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Deficiency of Mitigation Measures but rectified by the Contractor.
	 Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 								
S5b.8.1.8	<u>Sewage Effluent</u> Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to	Work site / During the construction period	Contractor		✓			EIAO-TM; ProPECC PN 1/94; WPCO	N/A

			Implementation Agent	Imple	ementa	tion St	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing		Des	С	0	Dec	Legislation and Guidelines	
	handle sewage from the workforce. A licensed contractor would be responsible. for appropriate disposal and maintenance of these facilities.								
S5b.8.1.9	 Reclamation and Construction of Breakwaters The proposed dredging and reclamation should be commenced in phases. The breakwaters and seawalls should be constructed and the reclamation should be started within the enclosed breakwaters after the completion of the breakwater. Silt curtain should be applied around caissons / blockwork during the filling of the cell to prevent the loss of fine in the filling material. The maximum production rate for dredging for the anti-scouring protection layer shall not exceed the permitted maximum daily dredging rate and carried out within its respective distance from the nearest non-translocatable coral community by the dredging contractor as specified in S.2.18 of the Further Environmental Permit (no.:FEP-01/429/2012/A). It is recommended to employ closed grab with small capacity of 2 m³ to control the dredging rate. 	During the marine construction period	Contractor					EIAO-TM; WPCO, Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012) Further Environmental Permit No. FEP- 01/429/2012/A	N/A
	 Any gap that may need to be provided for marine access will be located at the middle of the North Western seawall, away from the identified coral communities and will be shielded by silt curtains systems to control sediment plume dispersion. 								
	• The silt curtain system at marine access opening should be closed as soon as the								

				Imple	menta	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	barges passes through the marine access opening in order to minimize the period of curtain opening. Filling should only be carried out behind the silt curtain when the silt curtain is completely closed.								
	• To enhance the effectiveness of the silt curtain at the marine access, the northern breakwater would be built before the commencement of the reclamation to reduce the current velocity towards the marine access opening.								
	 The silt curtain system at marine access opening should be regularly checked and maintained to ensure proper functioning. 								
	• Where public fill is proposed for filling below +2.5mPD, the fine content in the public fill will be controlled to 25% which is in line with the CEDD's General Specification;								
	• The filling for reclamation should be carried out behind the seawall. The filling material should only consist of public fill, rock and sand. The filling composition and filling rates at each filling area should follow those delineated in Table 1 of the FEP- 01/429/2012/. The filling above high watermark is not restricted;								
	 No dredging should be carried out within 16m to the nearest non-translocatable coral community; 								
	 Daily site audit including full-time on-site monitoring by the ET is recommended during the dredging for anti-scouring protection layer 								

				Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	for checking the compliance with the permitted no. of grab;								
	 Closed grab dredger should be used to minimize the loss of sediment during the raising of the loaded grabs through the water column; 								
	 Frame-type silt curtains should be deployed around the dredging operations; 								
	 Floating-type silt curtains should be used to surround the circular cell during the sheetpiling work; 								
	 The descent speed of grabs should be controlled to minimize the seabed impact speed; 								
	 Barges should be loaded carefully to avoid splashing of material; 								
	 All barges used for the transport of dredged materials should be fitted with tight bottom seals in order to prevent leakage of material during loading and transport; 								
	• All barges should be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.								
	• No DCM works should be carried out within 100m to the nearest non-translocatable coral colony / colonies.								

				Imple	ementatio	on Sta	ages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	• Silt curtains should be employed to enclose DCM field trial and any full scale DCM work to minimize the potential impacts on water aspect.								
	• A sand blanket is to be placed on top of the marine deposit using tremie pipes prior to the DCM ground treatment to avoid seabed sediment disturbance.								
S5b.8.2.3	Operational Phase Discharges A pipeline drainage system will serve the development area collecting surface runoff from paved areas, roof, etc. Sustainable drainage principle would be adopted in the drainage system design to minimize peak surface runoff, maximize permeable surface and maximize beneficial use of rainwater.	Within IWMF site / During the operational phase	IWMF Operator	•		✓		WPCO	N/A
S5b.8.2.4	Oil interceptors should be provided in the drainage system of any potentially contaminated areas (such as truck parking area and maintenance workshop) and regularly cleaned to prevent the release of oil products into the storm water drainage system in case of accidental spillages. Accidental spillage should be cleaned up as soon as practicable and all waste oils and fuels should be collected and handled in compliance with the Waste Disposal Ordinance.	Within IWMF site / During the operational phase	IWMF Operator	×		•		WPCO; WDO	N/A
S5b.8.2.5	Refuse Entrapment Collection and removal of floating refuse should be performed at regular intervals for keeping the water within the Project site	Within the Project site / During the operational phase	IWMF Operator			•		WPCO	N/A

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				Imple	mentati	on S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	boundary and the neighboring water free from rubbish.								
S5b.8.2.6	Transportation of bottom ash, fly ash and <u>APC residues to WENT Landfill for disposal</u> Covered container should be used in the shipping of the incineration waste to limit the contact between the incineration waste and the marine water. A comprehensive emergency response plan for any accidental spillage should be submitted by the operation contractor to the EPD for agreement before the operation of the facilities. Salvage and cleanup action to recover the spilled incineration waste containers following the spillage should be carried out according to the emergency response plan to mitigate the environmental impact in case of spillage.	Transportat ion of Incineration Ash / During the operational phase	IWMF Operator			•			N/A

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Table B.4 Implementation Schedule for Waste Management Measures for the IWMF at the artificial island near SKC

				Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
6b.5.1.2	 <u>Good Site Practices</u> Adverse environmental impacts in relation to waste management are not expected, provided that good site practices are strictly followed. Recommendations for good site practices during the construction activities would include: Obtain relevant waste disposal permits from appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and subsidiary Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap. 28); Provide staff training for proper waste management and chemical handling procedures; Provide sufficient waste disposal points and regular waste collection; Provide appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; Separate chemical wastes for special handling and disposed of to licensed facility for treatment; and Employ licensed waste collector to collect waste. 	0011011001011	Contractor					WDO; LDO; ETWB TCW No. 19/2005; EIAO-TM	Implemented.

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	Environmental Protection Measures / Mitigation Measures			Imple	ementa	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref		Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
6b.5.1.3	 Waste Reduction Measures Good management and control can prevent the generation of a 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: Design foundation works that could minimize the amount of excavated material to be generated. Provide training to workers on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling; Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; Encourage the collection of aluminum cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force; Proper storage and site practices to minimize the potential for damage or contamination of construction materials; 	Construction	Contractor						Implemented. N/A for foundation and demolition items

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					Imple	menta	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementati Agent	ion	Des	С	0	Dec	Legislation and Guidelines	
	 Plan and stock construction materials carefully to minimize amount of waste to be generated and to avoid unnecessary generation of waste. 									
6b.5.1.7	Dredged Sediment – Application of Dumping Permit The project proponent should agree in advance with MFC of CEDD on the site allocation. The project proponent or contractor for the dredging works shall then apply for the site allocations of marine sediment disposal based on the prior agreement with MFC/CEDD. The project proponent or contractor should also be responsible for the application of all necessary permits from relevant authorities, including the dumping permit as required under DASO from EPD, for the disposal of dredged sediment prior to the commencement of the dredging works.	Seawall and Reclamation site / Construction Period	EPD and contractor	its		✓			DASO ETWB TCW 34/2002	Implemented
6b.5.1.8	Dredged Sediment – Sediment Quality Report The project proponent or contractor will need to satisfy the appropriate authorities that the quality of the marine sediment to be dredged has been identified according to the requirements of ETWB TCW 34/2002. This should be completed well before the dredging works and would include at least the submission of a formal Sediment Quality Report under Tier I of ETWB TCW No. 34/2002 to DEP for approval. Subject to advice from DEP, it is possible that further marine SI in accordance with ETWB TCW 34/2002 might be necessary for the	Reclamation site / Construction Period	EPD and contractor	its					DASO ETWB TCW 34/2002	Implemented

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				Imple	ementa	tion Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	O Dec	Legislation and Guidelines	
	application of dumping permit under DASO. In such case, a sediment sampling and testing proposal shall be submitted to and approved by DEP before the additional marine SI works.							
6b.5.1.9	Dredged Sediment – Sediment Transportation The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self- monitoring devices as specified by the DEP.	Reclamation site / Construction	EPD and its contractor		×	DAS ETV TCV 34/2	VB V	Implemented
6b.5.1.10	 <u>Construction and Demolition Materials</u> In order to minimize the impact resulting from collection and transportation of C&D materials for off-site disposal, the excavated material arising from site formation and foundation works should be reused onsite as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below: A Waste Management Plan (WMP), which becomes part of the Environmental Management Plan (EMP), should be prepared in accordance with ETWB TCW No.19/2005; 	Work Site/ During Design & Construction Period	Contractor	~	×	ETV 19/2		Implemented

				Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 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 tripticket system should be adopted (refer to ETURE TOWN 21/2004) 								
6b.5.1.11 - 6b.5.1.12	ETWB TCW No. 31/2004). The Contactor 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. All surplus C&D materials arising from or in connection with construction works should become the property of the Contractor when it is removed unless otherwise stated. The Contractor would be responsible for devising a	During Design & Construction	Contractor					ETWB TCW No. 19/2005	Implemented

				Imple	ementa	tion Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	O Dec	Legislation and Guidelines	
	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 minimize 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.							
6b.5.1.13	<u>Chemical Wastes</u> Should chemical wastes be produced at the construction site, the Contractor would be required to register with EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality 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, or corrosive). The Contractor should employ a licensed collector to transport and dispose of the chemical waste Treatment Centre at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General)		Contractor			(Ch Wa	aste Disposal nemical aste) (General) gulation	Implemented.

				Imple	ementa	ation Stages		Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	O Dec	Legislation and Guidelines	Status and Remarks
6b.5.1.14	<u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D materials. A licensed waste collector should be employed by the Contractor to remove general refuse from the site, separately from C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Work Site/ During Construction Period	Contractor		1		Public Health and Municipal Services Ordinance	•
6b.5.1.16 - 6b.5.1.33	Biogas Generation The Contractor shall review the data and analysis results, and the data from further Site Investigation, if any. Subject to the review findings, the following gas protection measures may be considered if necessary: - gas monitoring after reclamation; - passive ventilation; - gas impermeable membrane; - ventilation with "at risk" rooms; - protection of utilities or below ground services; - precautions during construction works; - precautions prior to entry of belowground services	Reclamation site (if dredging at the reclamation site is not required) / Design & Construction Period	Designer and/or contractor				EPD/TR8/97	N/A
6b.5.2.1	Good Site Practices	IWMF Site/During	IWMF Operator			~	Waste Disposal Ordinance (Cap.354);	N/A

				Imple	menta	tion S	tages*		Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 It is recommended that the following good operational practices should be adopted to minimise waste management impacts: Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and Waste Disposal (Chemical Waste) (General) Regulation; Nomination of an approved person to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site; Use of a waste haulier licensed to collect specific category of waste; A trip-ticket system should be included as one of the contractual requirements and implemented by the Environmental Team to monitor the disposal of solid wastes at landfills, and to control fly tipping. Reference should be made to ETWB TCW No. 31/2004. Training of site personnel in proper waste management and chemical waste handling procedures; Separation of chemical wastes for special handling and appropriate treatment at a licensed facility; Routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 	Operation Period						Waste Disposal (Chemical Waste) (General) Regulation; ETWB TCW No. 1/2004	

				Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Status and Remarks
	 Provision of sufficient waste disposal points and regular collection for disposal; Adoption of appropriate measures to minimize windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers; and Implementation of a recording system for the amount of wastes generated, and disposed of (including recycled the disposal sites). 								
6b.5.2.2	 Waste Reduction Measures Good management and control can prevent the generation of significant amounts of waste. It is recommended that the following good operational practices should be adopted to ensure waste reduction: Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; Encourage collection of aluminum cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separate labelled bins should be provided to help segregate this waste from other general refuse generated by the work force; and Any unused chemicals or those with remaining functional capacity should be 		IWMF Operator						Implemented

				Imple	menta	tion S	tages*	* Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
6b.5.2.3	 <u>Storage, Handling, Treatment, Collection</u> and Disposal of Incineration By-Products The following measures are recommended for the storage, handling and collection of the incineration by-products: Ash should be stored in storage silos; Ash should be handled and conveyed in closed systems fully segregatedfrom the ambient environment; Ash should be wetted with water to control fugitive dust, where necessary; All fly ash and APC residues should be treated, e.g. by cement solidification or chemical stabilization, for compliance with the proposed Incineration Residue Pollution Control Limits and leachability criteria prior to disposal; The ash should be transported in covered trucks or containers to the designated landfill site. 	IWMF Site/ During Operation Period	IWMF Operator			•		Incineration Residue Pollution Control Limits	N/A
	The Contractor should provide EPD with chemical analysis results of the bottom ash, and treated fly ash and APC residues to confirm that the ash/residue can comply with the proposed Incineration Residue Pollution Control Limits before disposal.								

				Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	Ο	Dec	Legislation and Guidelines	Status and Remarks
6b.6.3.1	 Fuel Oil Tank Construction and Test The fuel tank to be installed should be of specified durability. Double skin tanks are preferred. Underground fuel storage tank should be placed within a concrete pit. The concrete pit shall be accessible to allow regular tank integrity tests to be carried out at regular intervals. Tank integrity tests should be conducted by an independent qualified surveyor or structural engineer. Any potential problems identified in the test should be rectified as soon as possible. 	Fuel Oil Storage Tank/ During Design, Construction and Operation Periods	IWMF Contractor	•					N/A
6b.6.3.1	 Fuel Oil Pipeline Construction and Test Installation of aboveground fuel oil pipelines is preferable; if underground pipelines are unavoidable, concrete lined trenches should be constructed to contain the pipelines. Double skin pipelines are preferred. Distance between the fuel oil refuelling points and the fuel oil storage tank shall be minimized. 	Fuel Oil Pipelines/ During Design, Construction and Operation Periods	IWMF Contractor	×	✓				N/A

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				Imple	ementat	ion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 Integrity tests for the pipelines should be conducted by an independent qualified surveyor or structural engineer at regular intervals. Any potential problems identified in the test should be rectified as soon as possible. 								
6b.6.3.1	 Fuel Oil Leakage Detection Installation of leak detection device at storage tank and pipelines. Installation and use of pressure gauges (e.g. at the two ends of a filling line) in fuel filling, which allows unexpected pressure drop or difference and sign of leakage to be detected. 	Fuel Oil Storage Tank and Pipelines/ During Design, Construction and Operation Periods	IWMF Contractor	×	 Image: A start of the start of	V			N/A
6b.6.3.1	 Fuel Oil Storage Tank Refuelling Storage tank refuelling (from road tanker) should only be conducted by authorized staff of the oil company using the company's standard procedures. 	During Operation	IWMF Operator			•			N/A
6b.6.3.1	Fuel Oil Spillage ResponseAn Oil Spill Response Plan should be prepared by the operator to document the appropriate response procedures for oil spillage incidents in detail. General procedures to be taken in case of fuel oil spillage are presented below.• Training	IWMF Site/ During Operation Period	IWMF Operator			V			N/A

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				Imple	ementa	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	 Training on oil spill response actions should be given to relevant staff. The training shall cover the followings: 								
	 Tools & resources to combat oil spillage and fire, e.g. locations of oil spill handling equipment and fire fighting equipment; General methods to deal with oil spillage and fire incidents; Procedures for emergency drills in the event of oil spills and fire; and Regular drills shall be carried out. 								
	Communication								
	-Establish communication channel with the Fire Services Department (FSD) and EPD to report any oil spillage incident so that necessary assistance from relevant department can be quickly sought.								
	Response Procedures								
	-Any fuel oil spillage within the IWMF site should be immediately reported to the Plant Manager with necessary details including location, source, possible cause and extent of the spillage.								
	-Plant Manager should immediately attend to the spillage and initiate any appropriate action to confine and clean up the spillage. The response								

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				Imple	ementa	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	 procedures shall include the following: >Identify and isolate the source of spillage as soon as possible. >Contain the oil spillage and avoid infiltration into soil/ groundwater and discharge to storm water channels. >Remove the oil spillage. 								
	≻Clean up the contaminated area.								
	 If the oil spillage occurs during storage tank refuelling, the refueling operation should immediately be stopped. Recovered contaminated fuel oil and the associated material to remove the spilled oil should be considered as chemical waste. The handling and disposal procedures for chemical wastes are discussed in the following paragraphs. 								
6b.6.3.2	 <u>Chemicals and Chemical Wastes Handling &</u> <u>Storage</u> Chemicals and chemical wastes should only be stored in suitable containers in purpose-built areas. The storage of chemical wastes should comply with the requirements of the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. 	Chemicals and Chemical Wastes Storage Area / During Operation Period	IWMF Operator						N/A
	• The storage areas for chemicals and chemical wastes shall have an								

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				Imple	menta	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	impermeable floor or surface. The impermeable floor/ surface shall possess the following properties:								
	 Not liable to chemically react with the materials and their containers to be stored. 								
	 Able to withstand normal loading and physical damage caused by container handling 								
	 The integrity and condition of the impermeable floor or surface should be inspected at regular intervals to ensure that it is satisfactorily maintained 								
	For liquid chemicals and chemical wastes storage, the storage area should be bunded to contain at least 110% of the storage capacity of the largest containers or 20% of the total quantity of the chemicals/chemical wastes stored, whichever is the greater.								
	Storage containers shall be checked at regular intervals for their structural integrity and to ensure that the caps or fill points are tightly closed.								
	 Chemical handling shall be conducted by trained workers under supervision. 								
6b.6.3.2	Chemicals and Chemical Wastes Spillage Response	IWMF Site/ During	IWMF Operator			~			N/A

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			Implementation Agent	Imple	ementat	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing		Des	С	0	Dec	Legislation and Guidelines	
	A Chemicals and/ or Chemical Wastes Spillage Response Plan shall be prepared by the operator to document in detail the appropriate response procedures for chemicals or chemical wastes spillage incidents. General procedures to be undertaken in case of chemicals/ chemical waste spillages are presented below.	Operation Period							
	Training								
	 Training on spill response actions should be given to relevant staff. The training shall cover the followings: 								
	Tools & resources to handle spillage, e.g. locations of spill handling equipment;								
	General methods to deal with spillage; and								
	Procedures for emergency drills in the event of spills.								
	Communication								
	 Establish communication channel with FSD and EPD to report the spillage incident so that necessary assistance from relevant department can be quickly sought. 								
	Response Procedures								

				Imple	ementa	tion S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	 Any spillage within the IWMF site should be reported to the Plant Manager. 								
	 Plant Manager shall attend to the spillage and initiate any appropriate actions needed to confine and clean up the spillage. The response procedures shall include the followings: 								
	 Identify and isolate the source of spillage as soon as possible; 								
	Contain the spillage and avoid infiltration into soil/ groundwater and discharge to storm water channels (in case the spillage occurs at locations out of the designated storage areas);								
	Remove the spillage; the removal method/ procedures documented in the Material Safety Data Sheet (MSDS) of the chemicals spilled should be observed;								
	 Clean up the contaminated area (in case the spillage occurs at locations out of the designated storage areas); and 								

			Implementation Agent	Imple	mentat	ion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing		Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	The waste arising from the cleanup operation should be considered as chemical wastes.								
6b.6.3.3	 Preventive Measures for Incineration By- products Handling The recommended measures listed below can minimize the potential contamination to the surrounding environment due to the incineration by-products: Ash should be stored in storage silos; Ash should be handled and conveyed in closed systems fully segregated from the ambient environment; Ash should be wetted with water to control fugitive dust, where necessary; All fly ash and APC residues should be treated, e.g. by cement solidification or chemical stabilization, for compliance with the proposed Incineration Residue Pollution Control Limits and leachability criteria prior to disposal; 	Storage, Handling & Collection of Incineration Ash at IWMF/ During Operation Period	IWMF Operator						N/A
6b.6.3.4 - 6b.6.3.6	Incident Record	IWMF Site/ During	IWMF Operator			✓		Guidance Manual for Use of Risk- based Remediation	

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				Imple	mentat	ion S	tages*	* Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Timing Agent	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	After any spillage, an incident report should be prepared by the Plant Manager. The incident report should contain details of the incident including the cause of the incident, the material spilled and estimated spillage amount, and also the response actions undertaken. The incident record should be kept carefully and able to be retrieved when necessary.							Goals for Contaminated Land Management and the Guidance Note for Contaminated Land and Remediation.	
	The incident report should provide sufficient details for the evaluation of any environmental impacts due to the spillage and assessment of the effectiveness of measures taken.								
	In case any spillage or accidents results in significant land contamination, EPD should be informed immediately and the IWMF operator should be responsible for the cleanup of the affected area. The responses procedures described in Section 6b.6.3.1 and Section 6b.6.3.2 of EIA report should be followed accordingly together with								
	the land contamination assessment and remediation guidelines stipulated in the <i>Guidance Manual for Use of Risk-based</i> <i>Remediation Goals for Contaminated Land</i> <i>Management and the Guidance Note for</i> <i>Contaminated Land and Remediation.</i>								

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

				Imple	ment	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
7b.8.2.1	 Measures to avoid direct loss of intertidal habitat The site boundary has been proposed to avoid direct contact with the intertidal natural rocky shore of Shek Kwu Chau. It avoids direct loss of intertidal communities and the existing natural rocky shore habitat, where Reef Egret and White-bellied Sea Eagle have been recorded within and in the vicinity of this habitat. 	IWMF site	Design team	~			E	EIAO-TM	N/A
7b.8.2.2	 Measures to minimise loss of coastal subtidal habitat Extensive coral colonies were recorded at the coastal hard bottom habitat at Shek Kwu Chau. To avoid and minimise the extensive direct impact on the coral colonies, the proposed reclamation area has been moved further offshore to minimise loss of subtial habitat near shore. 	IWMF site	Design team	~			E	EIAO-TM	N/A
7b.8.2.3	 Zero Discharge Scheme The design scheme of the Project has avoided discharge of wastewater into the marine environment. A zero discharge scheme would be adopted during the operation of the Project. An on-site wastewater treatment plant would be provided to treat the wastewater generated from the IWMF (mainly human sewage). The treated effluent would be re-used in the incineration 	IWMF site	Design team, IWMF operator	~		V		WPCO	N/A

Table B.5 Implementation Schedule for Ecological Quality Measures for the IWMF at the artificial island near SKC

Integrated Waste Management Facilities, Phase 1

			Implementation Agent		Imple	ement	ation \$	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing			Des	Des C		Dec	Legislation and Guidelines	Status and Remarks
	plant and mechanical treatment plant, or for onsite washdown and landscape.									
7b.8.2.4	Measures to avoid loss of plant species of <u>conservation</u> importance Landing portal construction works would	Cheung Sha Ianding portal	Design Contractor	team,	~	✓		~	EIAO-TM	N/A
	 not cause direct lost to the recorded individual of protected plant species, Aquilaria sinensis, at the coastal shrubland habitat at Cheung Sha. As a 									
	precautionary measure, the plant should be tagged with eye-catching tape and fenced off prior to works, in order to avoid any damage by workers.									
7b.8.3.1- 7b.8.3.15	 Measures to minimise water quality impact Measures for water quality as recommended in Section 5b of the EIA Report should be implemented. 	Work site	Design contractor, operator	team, IWMF	~	~	~	✓	EIAO-TM; ProPECC PN 1/94; WPCO	Implemented
7b.8.3.16 - 7b.8.3.30	Measures to minimise disturbance on FinlessPorpoiseMinimisation of Habitat Loss for Finless Porpoise	IWMF site, work site, marine traffic route	Design contractor, operator	team, IWMF	✓ ✓	✓	✓	~	EIAO-TM, Supporting Document for Application for Variation of the	Implemented for avoidance of construction works that may produce underwater acoustic
	• Substantial revision has been made on the layout plan and form of the breakwater, in order to minimise the potential loss of important habitat for Finless Porpoise. The revision has greatly reduced the size of the embayment area, as well as the Project footprint. As a result, the size of habitat loss for Finless Porpoise has								Environmental Permit (EP- 429/2012)	disturbance, Vessel Travel Route implementation, training of staff; N/A for others

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				Imple	ement	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	reduced from the original ~50 ha, down to ~31 ha.								
	Avoidance of peak season for finless porpoise occurrence								
	 To minimise potential acoustic disturbance from construction activities on Finless Porpoise, construction works that may produce underwater acoustic disturbance should be scheduled outside the months with peak Finless Porpoise occurrence (December to May), including: sheet piling works for construction of cofferdam surrounding the reclamation area (Phase 1); sheet piling works for construction of the shorter section of breakwater (Phase 1); sheet piling works for construction of the remaining section of breakwater (Phase 3) and bored piling works for berth area (Phase 3) 								
	Such works should be restricted within June to November. This approach would not only avoid the peak season for Finless Porpoise occurrence, the magnitude of impacts arise from acoustic disturbance would also be minimised.								

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				Imple	ement	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	• Since the DCM ground treatment and the								
	installation of precast seawalls and breakwaters should generate no underwater acoustic disturbance to Finless Porpoise, no specific mitigation measures are required.								
	Opt for quieter construction methods and plants								
	 Considering the sensitivity of marine mammals to underwater acoustic disturbance, instead of the previously proposed conventional breakwater and reclamation peripheral structure, which requires noisy piling works, the current circular cells structure for breakwater and reclamation peripheral structure is proposed. A quieter sheet piling method using vibratory hammer or hydraulic impact hammer, should be adopted for the installation of circular cells for cellular cofferdam and northern breakwater during Phase 1, and southern breakwater Phase 3; 								
	• Non-percussive bore piling method would be adopted for the installation of tubular piles for the berth construction during Phase 3.								
	 Monitored exclusion zones During the installation/re- installation/relocation process of floating type silt curtains, in order to avoid the accidental 								

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				Imple	ement	tation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	entrance and entrapment of marine mammals within the silt curtains, a monitored exclusion zone of 250 m radius from silt curtain should be implemented. The exclusion zone should be closely monitored by an experienced marine mammal observer at least 30 minutes before the start of installation/re- installation/relocation process. If a marine mammal is noted within the exclusion zone, all marine works should stop immediately and remain idle for 30 minutes, or until the exclusion zone is free from marine mammals.								
	• The experienced marine mammal observer should be well trained to detect marine mammals. Binoculars should be used to search the exclusion zone from an elevated platform with unobstructed visibility. The observer should also be independent from the project proponent and has the power to call-off construction activities.								
	 In addition, as marine mammals cannot be effectively monitored within the proposed monitored exclusion zone at night, or during adverse weather conditions (i.e. Beaufort 5 or above, visibility of 300 meters or below), marine works should be avoided under weather conditions with low visibility. 								

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				Imple	ment	ation	Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	Marine mammal watching plan								
	 Upon the completion of the installation/re-installation/relocation of floating type silt curtain, all marine works would be conducted within a fully enclosed environment within the silt curtain, hence exclusion zone monitoring would no longer be required. Subsequently, a marine mammal watching plan should be implemented. 								
	The plan should include regular inspection of silt curtains, and visual inspection of the waters surrounded by the curtains. Special attention should be paid to Phase 2 (reclamation) where the floating type still curtain would be opened occasionally for vessel access, leaving a temporary 50 m opening. An action plan should be devised to cope with any unpredicted incidents such as the case when marine mammals are found within the waters surrounded by the silt curtains.								
	Small openings at silt curtains								
	• The openings for vessel access at the silt curtains should be as small as possible to minimise the risk of accidental entrance.								
	Adoption of regular travel route								

Integrated Waste Management Facilities, Phase 1

				Imple	ement	tation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	• During construction and operation, captains								
	of all vessels should adopt regular travel route, in order to minimize the chance of vessel collision with marine mammals, which may otherwise result in damage to health or mortality. The regular travel route should avoid areas with high sighting density of Finless Porpoise as much as								
	possible.								
	Vessel speed limit								
	 The frequent vessel traffic in the vicinity of works area may increase the chance of mammal mammals being killed or seriously injured by vessel collision. A speed limit of ten knots should be strictly enforced within areas with high density of Finless Porpoise. 								
	 Passive acoustic monitoring and land-based theodolite monitoring surveys should be adopted to verify the predicted impacts and effectiveness of the proposed mitigation measures. 								
	Training of Staff								
	 Staff, including captains of vessels, should be aware of the guidelines for safe vessel operations in the presence of cetaceans during construction and 								

Integrated Waste Management Facilities, Phase 1

					Imple	ement	tation \$	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementa Agent	tion	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	operation phases. Adequate trainings should be provided									
7b.8.3.31	Measures to minimise impact on corals	IWMF site	•	eam,	✓	\checkmark	~	✓	EIAO-TM	Implemented, tagged
- 7b.8.3.34	Coral translocation		contractor, l' operator	WMF						coral found missing after hitting by typhoons
	 Coral communities within and in proximity to the proposed dredging sites would be disturbed by the Project due to the dredging operations. In order to minimise direct loss of coral communities, translocation of corals that are attached to movable rocks with diameter less than 50 cm are recommended. In order to avoid disturbance to corals during the spawning period, the spawning season of corals (June to August) should be avoided; and that translocation should be carried out during the winter season (November- March). 									Re-tagging of 10 coral colonies at indirect impact site and contro site were conducted ir November and December 2018 respectively.
	• The REA survey results suggest that the 198 directly affected coral colonies were attached to movable rocks (less than 50 cm in diameter). It is technically feasible to translocate them to avoid direct loss.									
	 Prior to coral translocation, a more detailed baseline survey, including a coral mapping survey, is recommended to further confirm the exact number and location of 									

			/	Impl	ementa	ation	Stages*	* Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	coral colonies within the potentially affected								
	area. A more detailed coral translocation								
	plan, including selection of suitable recipient site, plan for coral translocation,								
	and event / action plan for coral monitoring								
	should be submitted upon approval of this								
	Project, prior to commencement of								
	construction works. Advice from relevant								
	governmental departments (i.e. AFCD)								
	and professionals would be sought after, in								
	order to identify a desirable location for the								
	relocation of coral communities. Post- translocation monitoring on the translocated								
	corals should also be considered.								
	Coral monitoring programme								
	• A coral monitoring programme is								
	recommended to assess any adverse and								
	unacceptable impacts to the coral								
	communities at the coasts of Shek Kwu								
	Chau during construction of the Project.								
	Phasing of Works								
	• To minimize environmental impacts, the								
	proposed phasing of construction works has								
	been carefully designed to reduce the								
	amount of concurrent works, hence								
	minimize SS elevation and the associated								
1	impacts on corals.								

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				Impl	ement	ation	Stages*	Relevant	Implementation	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implemer Age		Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
7b.8.3.35 - 7b.8.3.41	 <u>Specific measures to minimize disturbance</u> on breeding White-bellied Sea Eagle Avoidance of noisy works during the breeding season of White-bellied Sea Eagle To minimize potential noise disturbance from construction activities on WBSE, noisy construction works should be scheduled outside their breeding season (December to May) to minimise potential degradation in breeding ground quality and breeding activities including: sheet piling works for construction of cofferdam surrounding the reclamation area (Phase 1); sheet piling works for construction of the shorter section of breakwater (Phase 1); sheet piling works for construction of the remaining section of breakwater (Phase 3); and bored piling works for berth area (Phase 3). Opt for quieter construction methods and plants To minimise potential construction noise disturbance on WBSE, quieter construction methods and plants should be adopted. The		Design Contractor, operator	Team, IWMF					EIAO-TM	Implemented

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mplementation
Status and Remarks

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				Imp	lemen	tation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementatio Agent	on Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 Surveys should be conducted twice per month during their breeding season (from December to May); and once per month outside breeding season (June to November). More details on monitoring for WBSE are presented in the EM&A Manual. 								
	Education of staff								
	 Staff, including captains of all vessels during construction and operation phases, should be aware of the ecological importance of WBSE. Awareness should be raised among staff to minimise any intentional or unintentional disturbance to the nest. 								
	Minimisation of Glare Disturbance								
	 To minimise glare disturbance on WBSE, which may cause disorientation of birds by interfering with their magnetic compass, and disruption in behavioural patterns such as reproduction, fat storage and foraging pattern, any un-necessary outdoor lighting should be avoided, and in-ward and down- ward pointing of lights should be adopted. 								
-	 <u>Construction of Seawall/Breakwaters</u> To widen the open channel between the Artificial Island and Shek Kwu Chau. 	IWMF site	Design tear contractor, IW operator	n, ✓ ′MF	~			Supporting Document for Application for Variation of Environmental	N/A

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					Imple	ement	ation §	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent		Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	• To design the precast concrete seawall with environmental friendly features.								Permit (EP- 429/2012)	
7b.8.3.42	 Opt for Quieter Construction Methods and Plants Quieter construction methods and plants should be used to minimise disturbance to the nearby terrestrial habitat and the associated wildlife. 	Work site	Design contractor, operator	team, IWMF	~	~	~	~	EIAO-TM	Implemented
7b.8.3.43	 Measures to minimize impacts from artificial lighting Unnecessary lighting should be avoided, and shielding of lights should be provided to minimize disturbance from light pollution on fauna groups. 	IWMF site	Design contractor, operator	team, IWMF	~	~	~		EIAO-TM	Implemented
7b.8.3.44 - 7b.8.3.45	 Measures to minimize accidental spillage Regular maintenance of vessels, vehicles and equipment that may cause leakage and spillage should only be undertaken within pre-designated areas, which are appropriately equipped to control the associated discharges. Oils, fuels and chemicals should be contained in suitable containers, and only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas should be sited on sealed areas in order to prevent spillage of fuels and solvents to the nearby 	Work site	Contractor, I operator	IWMF		V	V	✓	EIAO-TM	Deficiency of Mitigation Measures but rectified by the Contractor.

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			Imple	ement	ation \$	Stages*	* Relevant	Implementation	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal.								
7b.8.3.46	 Measures to minimise sewage effluent Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. 	Work site	Contractor		~			EIAO-TM	N/A
7b.8.3.47	 Measures to minimise drainage and construction runoff Potential ecological impacts resulted from potential degradation of water quality due to unmitigated surface runoff could be minimised via the detailed mitigation measures in Section 5b.8 of the EIA Report. The following presents some of the mitigation measures: On-site drainage system with implemented sedimentation control facilities. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. Provision of embankment at boundaries of earthworks for flood protection. Water pumped out from foundation piles must be discharged into silt removal facilities. 	Work site	Contractor		✓			EIAO-TM	N/A

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				Imple	ement	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 During rainstorms, exposed slope/soil surfaces should be covered by tarpaulin or other means, as far as practicable. Exposed soil surface should be minimized to reduce siltation and runoff. Earthwork final surfaces should be well compacted. Subsequent permanent surface protection should be immediately performed. Open stockpiles of construction materials, and construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. 								
7b.8.3.48	 Measures to minimise impacts from general construction activities To avoid the entering of construction solid waste into the nearby habitats, construction solid waste should be collected, handled and disposed of properly to avoid entering to the nearby habitats. It is recommended to clean the construction sites on a regular basis. 	Work site	Contractor		√			EIAO-TM	Implemented
o.8.3.49	 <u>Pest Control</u> Good waste management practices should be adopted at the IWMF in order to minimise the risk of introduction of pest to the island: Transportation of wastes in enclosed containers 	IWMF site	IWMF operator			~			N/A

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			1	Imple	ement	tation \$	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 Waste storage area should be well maintained and cleaned Waste should only be disposed of at designated areas Timely removal of the newly arrived waste Removal of items that are capable of retaining water Rapid clean up of any waste spillages Maintenance of a tidy and clean site environment Regular application of pest control Education of staff the importance of site 								
7b.8.3.50	cleanliness Control of Marine Habitat Quality during	IWMF site	IWMF operator			✓		EIAO-TM; WPCO	N/A
	 Operation Phase Depending on the seabed condition of the approach channel for marine vessels during operation phase of the IWMF, maintenance dredging may be required to ensure safe access. In order to avoid degradation in water quality due to elevation in SS and dispersion of sediment plume due to dredging works, it is recommended that any future maintenance dredging works should not be carried out within 100 m from the shore, similar to that of the dredging for anti-scouring protection layer during construction phase. All maintenance dredging works should be carried out with the implementation of silt curtain to control the dispersion of SS. The 								

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				Imple	ement	tation	Stages*	* Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	production rate should comply with the permit dredging rate and number of grab per hour.								
7b.8.4.1	Compensation of loss of important habitat of	Waters between Shek	Project Proponent	~		~		EIAO-TM	N/A
_ 7b.8.4.8	Finless Porpoise Designation of Marine Park	Kwu Chau and Soko Islands							
	 The Project Proponent has made a firm commitment to seek to designate a marine park of approximately 700 ha in the waters between Soko Islands and Shek Kwu Chau, in accordance with the statutory process stipulated in the Marine Parks Ordinance, as a compensation measure for the habitat loss arising from the construction of the IWMF at the artificial island near SKC. The Project Proponent shall seek to complete the designation by 2018 to tie in with the operation of the IWMF at the artificial island near SKC. A further study should be carried out to review relevant previous studies and collate available information on the ecological characters of the proposed area for marine park designation; and review available survey data for Finless Porpoise, water quality, fisheries, marine traffic and planned development projects in the vicinity. Based on the findings, ecological profiles of 								

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				Imple	ementa	tion	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	the proposed area for marine park designation should be established, and the extent and location of the proposed marine park be determined. The adequacy of enhancement measures should also be reviewed.								
	 In addition, a management plan for the proposed marine park should be proposed, covering information on the responsible departments for operation and management (O&M) of the marine park, as well as the O&M duties of each of the departments involved. Consultation with relevant government departments and stakeholders should be conducted under the study. The study should be submitted to Director of Environmental Protection (DEP) for approval before the commencement of construction works. 								
	The Project Proponent should provide								
	assistance to AFCD during the process of the marine park designation.								
7b.8.5.1	Additional Enhancement or	Within the	Project Proponent	~		✓		EIAO-TM	N/A
– 7b.8.5.4	Precautionary Measures Deployment of Artificial Reefs	proposed marine park under this							
	 Deployment of artificial reefs (ARs) is an enhancement measure for the marine habitats. ARs are proposed to be deployed within the proposed marine park under 	study							

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Keppel Seghers – Zhen Hua Joint Venture

				Imple	ement	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	 this Project. The exact location, dimension and type of ARs to be deployed are to be further investigated along with the further study of the proposed marine park under this Project. The proposed ARs would be deployed at the same time as the complete designation of marine park. Release of Fish Fry at Artificial Reefs and Marine Park 								
	 Release of fish fry at the proposed ARs, as well as the proposed marine park under this study, should enhance the fish resources in the nearby waters, and subsequently food sources for Finless Porpoise. The proposed ARs with various micro-habitats would have the potential to provide shelter and nursery ground for the released fish fry. The frequency and quantity of fry to be released should be agreed by AFCD. 								

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

			Implementation Agent		Imple	ement	ation	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing			Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
8b.8.1.2	 <u>Measure to minimize loss of and disturbance</u> on fisheries resources Alteration to the phasing of works, 	IWMF site	Design contractor	team,	~	~		~	EIAO-TM	N/A
	construction method, and layout plan of the IWMF at the artificial island near SKC has been made. The total fishing ground to be permanently lost due to the project has been significantly reduced from ~50 ha to ~31 ha. By adopting the current circular cells instead of the conventional seawall construction method, SS elevation would be greatly reduced, minimizing adverse impact on the health of fisheries resources.									
8b.8.1.3	Measure to minimize impingement and entrainment	IWMF site	Design contractor, operator	team, IWMF	~	~	~		EIAO-TM	N/A
	 Provision of a screen at the water intake point for desalination plant would be essential to minimize the risk of impingement and entrainment of fisheries resources (including fish, larvae and egg) through the intake point. 									

Table B.6 Implementation Schedule for Fisheries Measures for the IWMF at the artificial island near SKC

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Implementation Timing Agent			Imple	ement	ation	Stages*	Relevant Legislation and Guidelines	Implementation Status and Remarks	
					Des	С	0	Dec			
8b.8.1.4- 8b.8.1.6	 Measures to control water quality No wastewater effluent, anti-fouling agent, heavy metals and other contaminants would be released during operation phase of the Project. 	Work site	site, IWMF	Design contractor, operator	team, IWMF	•	•	~	✓	EIAO-TM	Implemented
	 Mitigation measures recommended in the water quality impact assessment during construction and operation would serve to protect fisheries resources from indirect impacts resulted from the Project 										
8b.8.1.7 - 8b.8.1.8	 <u>Additional Enhancement / Precautionary</u> <u>Measures</u> Artificial Reefs (ARs) are proposed to be deployed within the proposed marine park under this Project as an enhancement measure for the marine habitats. This enhancement feature would bring positive impacts to the previously identified important spawning and nursery ground for fisheries resources. Release of Fish Fry at Artificial Reefs Release of fish fry has been proposed under this Project. The proposed deployment of ARs within the proposed marine park would provide shelter and nursery ground for the released fish fry. The frequency and quantity of fry to be released should be agreed by AFCD. 	betwee Islands Shek Chau	ed park waters en Soko	Project Pro	ponent					EIAO-TM	N/A

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

	Environmental Protection Measures / Mitigation Measures		Implementation	Implementation Stages*				Relevant	Implementation
EIA Ref		Location / Timing	Agent	Des	С	ο	Dec	Legislation and Guidelines	Status and Remarks
S10b.10 MLVC- 01	Grass-hydroseeded bare soil surface and stock pile area	Work site / During construction phase	Contractor		•				N/A
S10b.10 MLVC-02	 Landscape Design Early planting using fast grow trees and tall shrubs at strategic locations within site as buffer to block view corridors to the site from the VSRs, and to locally screen haul roads, excavation works and site preparation works. Use of tree species of dense tree crown to serve as visual barrier. Hard and soft landscape treatment (e.g. trees and shrubs) of open areas within development to provide a background for the outdoor containers from open view, shade and shelter, and a green appearance from surrounding viewpoints. Planting strip along the periphery of the project site. 	construction phase	Contractor		V				N/A
	5) Selected tree species suitable for the coastal condition.								

Table B.7 Implementation Schedule for Landscape and Visual Measures for the IWMF at the artificial island near SKC

EIA Ref	Environmental Protection Measures / Mitigation Measures		Implementation	Imple	ementa	ation	Stages*	Relevant	Implementation Status and Remarks										
		Location / Timing	Agent	Des	С	0	Dec	Legislation and Guidelines											
S10b.10 MLVC-03	 <u>Adoption of Natural Features of the Existing</u> <u>Shoreline</u> 1) Use of boulders in different sizes and with the similar textures of the existing rocky shores for the construction of breakwater and artificial shoreline in order to blend into the existing natural shoreline. 	Work site / During construction phase	During construction	Contractor	g n	ng on		~				N/A							
	2) Use of cellular cofferdam together with the natural boulders to form a curvature shoreline for the reclamation area to echo with the natural shoreline of SKC.																		
S10b.10 MLVC-04	 <u>Greening Design (Rooftop & Vertical Greening)</u> 1) Implementation of rooftop and vertical greening (vertical building envelope) along the periphery of each building block to increase the amenity value of the work, moderate temperature extremes and enhance building energy performance. The greening appearance of the building shall enhance its visual harmony with the natural surroundings as well as reduce the apparent visual mass of the structure. 	During design & construction phases	During design & construction	Contractor	×	✓				N/A									
	 Sufficient space between concrete enclosure and stack to minimize heat transfer. 																		
	3) Introduction of landscape decks at the stack to further enhance the overall natural and green concept unique for this site.																		

EIA Ref	Environmental Protection Measures / Mitigation Measures		Implementation	Implei	ment	ation	Stages*	Relevant Legislation and Guidelines	Implementation Status and Remarks								
		Location / Timing	Agent	Des	С	0	Dec										
S10b.10 MVC-01	 <u>Visual Mitigation and Aesthetic Design</u> 1) Use of natural materials with recessive color to minimize the bulkiness of the building. 2) Adoption of innovative aesthetic design to the chimney to minimize or visually mitigate the massing of the chimney so as to reduce its visual impact to the surroundings. 3) Color of the chimney in a gradual changing manner to match with the color of the sky. 4) Provision of observation deck for public enjoyment at the top of the chimney to diminish the feeling of chimney. 	Structures in IWMF / During design & constructio n phases	Contractor					Guidelines	N/A								
	 5) Provision of sky gardens between the two stacks to allow additional greening for enhancing the aesthetic quality. Maintenance access (elevator and staircase) from the ground floor to the sky gardens will be provided to allow maintenance of the sky gardens. 6) Integration of the visitor's walkway with different material façade design of incinerator plant to enhance the aesthetic quality. 																
S10b.10 MVC-02	Control of the security floodlight for construction areas at night to avoid excessive glare to the surrounding receiver.	Work site / During construction phase	Contractor		~				Implemented								

EIA Ref	Environmental Protection Measures / Mitigation Measures		Implementation	Imple	ement	ation	Stages*	Relevant Legislation and Guidelines	Implementation
		Location / Timing	Agent	Des	С	0	Dec		Status and Remarks
S10b.10 MVC-03	Optimization of the construction sequence and construction programme to minimize the duration of impact.	Work site / During design & construction phases	Contractor	~	~				Implemented
S10b.10 MVC-04	Storage of the backfilling materials for site formation & construction materials / wastes on site at a maximum height of 2m, covered with an impermeable material of visually un- obtrusive material (in earth tone).	Work site / During construction phase	Contractor		~				N/A
S10b.10 MVC-05	Reduction of the number of construction traffic at the site to practical minimum.	Work site / During construction phase	Contractor		~				Implemented
S10b.10 MLVO-01	Planting Maintenance Provision of proper planting maintenance and replacement of defective plant species on the new planting areas to enhance aesthetic and landscape quality.	Project site / During Operation phase	Contractor			~			N/A
S10b.10 MVO-01	Environmental Education Centre Development of an Environmental Education Center, in which regular exhibitions and lectures to promote environmental awareness and waste reduction concept would be provided, as a part of the IWMF for the general public to alleviate negative public perceptions of the development.	Project site / During Operation phase	Contractor			√			N/A
S10b.10 MVO-02	Control of Light Control the numbers of lights and their intensity to a level that is good enough to meet the safety requirements at night but not excessive.	Project site / During Operation phase	Contractor			✓			N/A

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Imple Des	ement C	ation : O	Stages* Dec	Relevant Legislation and Guidelines	Implementation Status and Remarks
S10b.10 MVO-03	Control of Operation Time Minimization of the frequency of waste transportation to practical minimum (e.g. limit the reception of MSW from 8 am to 8 pm)	Project site / During Operation phase	Contractor			~			N/A

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