

10 IMPLEMENTATION SCHEDULE OF RECOMMENDED MITIGATION MEASURES

10.1 Introduction

10.1.1 The implementation schedules of the recommended mitigation measures for each environmental aspect assessed in this EIA are given in the following *Tables 10.1 - 10.6*, as appropriate.

Table 10.1 Air Quality – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures / Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.3.5.1	S.4.2.3	All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	Typical dust control measures include: The working area for site clearance adjacent to Sea Crest Villa shall be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	For reclamation works, if a stockpile of dusty materials is more than 1.2 m high and within 50m of Peng Lei Road or the Pak Wan footpath, the stockpile shall be properly treated and sealed with latex, vinyl, bitumen or other suitable surface stabilizer.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	Erection of hoarding of not less than 2.4 m high from ground level along the site boundary.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures / Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.3.5.1	S.4.2.2	Any stockpile of dusty materials shall be either: (a) covered entirely by impervious sheeting; (b) placed in an area sheltered on the top and the 3 sides; or (c) sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation
S.3.5.1	S.4.2.2	All dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	Air Quality During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	EIA-TM, Air Pollution Control (Construction Dust) Regulation

Table 10.2 Noise – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures / Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.4.5.7	-	Use of silenced plant, or plant equipped with mufflers or dampers in substitute of ordinary plant.	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period.	Annex 5 of EIA-TM
S.4.5.8	-	Movable noise barriers positioned as close as possible to PMEs such that none of the PMEs will be visible when viewed from any noise sensitive facades.	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period.	Annex 5 of EIA-TM
S.4.5.10	S.5.9.3	Adopt good working practices in order to minimise construction noise as far as possible: Noisy equipment and noisy activities should be located as far away from the NSRs as is practical;	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Annex 5 of EIA-TM
S.4.5.10	S.5.9.3	Unused equipment should be turned off;	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Annex 5 of EIA-TM
S.4.5.10	S.5.9.3	Number of powered mechanical equipment (PME) should be kept to minimum and the parallel use of noisy equipment / machinery should be avoided;	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Annex 5 of EIA-TM

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures / Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.4.5.10	S.5.9.3	Regular maintenance of all plant and equipment; and;	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Annex 5 of EIA-TM
S.4.5.10	S.5.9.4	Observe and comply with the statutory requirements and guidelines.	Noise During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Annex 5 of EIA-TM

Table 10.3 Waste Management – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.5.8.1	S.6.1.2	Ensure that proper handling, storage, transportation and disposal of materials is implemented at the outset and throughout the construction phase of the helipad.	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period.	Annex 7 of EIA-TM
S. 5.8.1	-	In line with Government's position on waste minimization, the practice of avoiding and minimizing waste generation and waste recycling should be adopted as far as practicable.	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period.	Annex 7 of EIA-TM
S.5.8.2	-	Recommended mitigation measures to be implemented include: An on-site environmental co-ordinator should be identified at the outset of the works. The co-ordinator shall prepare a Waste Management Plan in accordance with the requirements as set out in the Environmental, Transport and Works Bureau Technical Circular (ETWBTC) No. 15/2003;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Environmental, Transport and Works Bureau Technical Circular (ETWBTC) No. 15/2003
S.5.8.2	S.6.2.2	The reuse/recycling of all materials on site shall be investigated prior to treatment/disposal off site;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Environment, Transport and Works Bureau Technical Circular (Works) (ETWBTCW) No. 33/2002, ETWBTC No. 15/2003
S.5.8.2	S.6.2.2	Good site practices shall be adopted from the commencement of works to avoid the generation of	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWBTCW No. 33/2002

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
		waste and to promote waste minimization practices;				
S.5.8.2	S.6.2.2	All waste materials shall be sorted on site into inert and non-inert C&D materials, and where the materials will be recycled or reused, these shall be further segregated. The Contractor shall be responsible for identifying which materials can be recycled/reused, whether on site or off site. In the event of the latter, the Contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert waste shall be collected and disposed of to the refuse transfer station (at Tai Lei) whilst any non-inert C&D material shall be re-used on site as far as possible. Alternatively, if no use of the material can be found on site, the inert C&D material can be delivered to a public filling area, public barging point or public stockpile area after obtaining the appropriate licence;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWBTCW No. 33/2002, ETWBTCW No. 34/2002
S.5.8.2	S.6.2.2	A trip ticket system shall be established	Monitor the disposal of C&D and solid wastes from the site	Contractors	At the outset of the construction of the helipad	(WBTC No. 21/2002
S.5.8.2	S.6.2.2	Dredged sediments shall be handled in accordance with the Environment, Transport and Works Bureau Technical Circular (ETWBTC) No. 34/2002 on Management of Dredged/Excavated Sediment and where the sediments cannot be reused onsite, arrangements shall be made with the MFC for allocation of dumping space;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWBTC No. 34/2002
S.5.8.2	S.6.2.2	Stockpiling is not envisaged, however if it becomes unavoidable, stockpiling in any vegetated areas shall be avoided (as far as possible) and shall be covered with tarpaulin and/or watered to prevent windblown dust and/or surface runoff;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWBTCW No. 33/2002, ETWBTC No. 15/2003

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.5.8.2	S.6.2.2	The Contractor shall register with EPD as a Chemical Waste Producer if there is any use of chemicals on site including lubricants, paints, diesel fuel, etc. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD;	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	Waste Disposal (Chemical Waste) (General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, Guide to the Chemical Waste Control Scheme
S.5.8.2	S.6.2.2	A sufficient number of covered bins shall be provided on site for the containment of general refuse to prevent visual impacts and nuisance to sensitive receivers. These bins shall be cleared daily and the collected waste disposed of to the refuse transfer station on Tai Lei. Further to the issue of ETWBTC (Works) No. 6/2002A, Enhanced Specification for Site Cleanliness and Tidiness, the Contractor is required to maintain a clean and hygienic site throughout the Project works; and	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWB TCW No. 6/2002A, ETWBTC No. 15/2003
S.5.8.2	S.6.2.2	All chemical toilets shall be regularly cleaned and the nightsoil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal.	Waste Management During Construction	Contractors	At all construction work sites, throughout the whole duration of the construction period	ETWBTCW No. 6/2002A
S.5.8.2	S.6.2.2	Tool box talks shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	Waste Management During Construction	Contractors	Throughout construction period	ETWBTCW No. 15/2003
S.5.8.2	S.6.2.2	A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed	Waste Management During Construction	Contractors	Throughout construction period	EIAO - TM
S.5.8.3	S.6.2.3	Contractor shall comply with all relevant statutory requirements and guidelines and their updated versions.	Waste Management During Construction	Contractors	Throughout construction period	EIAO - TM

Table 10.4 Water Quality – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.6.5.4	-	A single backhoe dredger with a grab capacity of 6 – 8 m ³ per grab will be engaged for the dredging.	Water Quality During Construction	Contractors	At all dredging areas, prior to the commencement of dredging.	Water Pollution Control Ordinance (Cap. 358), WQOs for Southern WCZ
S.6.5.5	-	Dredging rate not to exceed the daily maximum rate of 465 m ³ .	Water Quality During Construction	Contractors	At all dredging areas, prior to the commencement of dredging.	Water Pollution Control Ordinance (Cap. 358), WQOs for Southern WCZ
S.6.7.2	S.7.2.3	Silt curtains to be installed at all dredging areas prior to the commencement of dredging. The silt curtains should be extended to the seabed level as far as possible.	Water Quality During Construction	Contractors	At all dredging areas, prior to the commencement of dredging.	Water Pollution Control Ordinance (Cap. 358), WQOs for Southern WCZ
S.6.7.3	S.7.2.4	The following good site practices are also recommended to further minimize the potential water quality impact: The daily dredging volume should be spread as evenly as possible over the working hours whenever practical to avoid sudden surge of pollution elevation during short spells;	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	Special care should be taken during lowering and lifting grabs to minimize unnecessary disturbance to the seabed;	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	To ensure vessels used have adequate clearance of the seabed in order to reduce undue turbidity generated by turbulence from vessel movement or propeller wash;	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	Barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material;	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	The contractor should ensure that grabs are tightly closed and the hoist speed is suitably low;	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.6.7.3	S.7.2.4	Barges should not be filled to a level which will cause overflow of materials during loading and transportation;	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	Large objects should be removed from the grab to avoid losses from partially closed grabs.	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)

Table 10.5 Ecology – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.7.6.1	-	Sub-tidal Ecology <ul style="list-style-type: none"> The marine area of sloping seawall to be constructed will cover approximately 0.08 ha, based on an estimated average width (seawall foot and lower slope) of 4 metres and a total seawall length of approximately 200 metres. 	Ecology During Construction	Contractors	At the marine area of sloping seawall, during the construction period.	Annex 16, EIA-TM
S.7.6.2	-	<ul style="list-style-type: none"> The substrate of the artificial habitat will be granite boulder, similar to the substrate along the existing rocky and boulder shoreline and as occasionally present in the shallow coastal waters. 	Ecology During Construction	Contractors	At the marine area of sloping seawall, during the construction period.	Annex 16, EIA-TM
S.7.6.7	-	Intertidal Ecology <ul style="list-style-type: none"> Inter-tidal area of sloping seawall to be constructed will cover approximately 0.12 ha, based on an estimated average width of 5 metres and a total seawall length of approximately 200 metres – an overall net increase of 0.02 ha of inter-tidal habitat area. This is a balance of the net loss of 0.01 ha of low ecological value sandy beach habitat and the net gain of 0.03 ha of higher ecological value rocky / 	Ecology During Construction	Contractors	At the inter-tidal area of sloping seawall, during the construction period.	Annex 16, EIA-TM

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
		boulder shore habitat.				
S.7.6.2	-	<ul style="list-style-type: none"> The substrate of the artificial habitat will be granite boulder, similar to the substrate along the existing rocky and boulder shoreline and as occasionally present in the shallow coastal waters. 	Ecology During Construction	Contractors	At the inter-tidal area of sloping seawall along the existing rocky and boulder shoreline, during the construction period.	Annex 16, EIA-TM
S.7.6.5	S.8.2.3	Water Quality induced Ecology Impacts <ul style="list-style-type: none"> Silt curtains to be installed at all dredging areas prior to the commencement of dredging 	Ecology During Construction	Contractors	At all dredging areas, prior to the commencement of dredging.	Animals & Plants Ordinance (Protection of Endangered Species) (Cap. 187)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> The daily dredging volume should be spread as evenly as possible over the working hours whenever practical to avoid sudden surge of pollution elevation during short spells; 	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Special care should be taken during lowering and lifting grabs to minimize unnecessary disturbance to the seabed; 	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> To ensure vessels used have adequate clearance of the seabed in order to reduce undue turbidity generated by turbulence from vessel movement or propeller wash; 	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; 	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> The contractor should ensure that grabs are tightly closed and the hoist speed is suitably low; 	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Barges should not be filled to a level which will cause overflow of materials during loading and transportation; 	Water Quality During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Large objects should be removed from the grab to avoid losses from partially closed grabs. 	Water Quality During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)

Table 10.6 Fisheries – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended mitigation measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location / Timing of implementation of Measures	What requirements or standards for the measures to achieve?
S.6.7.2	S.8.2.3	Water Quality induced Fisheries Impacts <ul style="list-style-type: none"> Silt curtains to be installed at all dredging areas prior to the commencement of dredging 	Fisheries During Construction	Contractors	At all dredging areas, prior to the commencement of dredging.	Animals & Plants Ordinance (Protection of Endangered Species) (Cap. 187)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> The daily dredging volume should be spread as evenly as possible over the working hours whenever practical to avoid sudden surge of pollution elevation during short spells; 	Fisheries During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Special care should be taken during lowering and lifting grabs to minimize unnecessary disturbance to the seabed; 	Fisheries During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> To ensure vessels used have adequate clearance of the seabed in order to reduce undue turbidity generated by turbulence from vessel movement or propeller wash; 	Fisheries During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; 	Fisheries During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> The contractor should ensure that grabs are tightly closed and the hoist speed is suitably low; 	Fisheries During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Barges should not be filled to a level which will cause overflow of materials during loading and transportation; 	Fisheries During Construction	Contractors	At all marine construction areas, throughout the whole duration of the construction period	Not applicable (good practice only)
S.6.7.3	S.7.2.4	<ul style="list-style-type: none"> Large objects should be removed from the grab to avoid losses from partially closed grabs. 	Fisheries During Construction	Contractors	At all dredging areas, throughout the whole duration of the dredging period.	Not applicable (good practice only)