

## **IMPLEMENTATION SCHEDULE**

This *Annex* provides a consolidation of the mitigation measures recommended for the Project. The Implementation Schedule has the following column headings:

### ***EIA Ref***

This denotes the section number or reference from the EIA Report Main text.

### ***EM&A Log Ref***

This denotes the sequential number of each of the recommended mitigation measures specified in the Implementation Schedule.

### ***Environmental Protection Measures***

This denotes the recommended mitigation measures, courses of action or subsequent deliverables that are to be adopted, undertaken or delivered to avoid, minimise or ameliorate predicted environmental impacts.

### ***Objectives***

This denotes the objectives of the recommended mitigation measures and main concerns to address.

### ***Location/Duration of Measures/Timing of Completion of Measures***

This indicates the spatial area in which the recommended mitigation measures are to be implemented together with details of the programming or timing of their implementation.

### ***Implementation Agent***

This denotes where the responsibility lies for the implementation of the recommended mitigation measures.

### ***Implementation Stage***

This denotes the stage at which the recommended mitigation measures are to be implemented either during the Design, Construction, Operation or Decommissioning.

### ***Relevant Legislation***

This section defines the controlling legislation that is required to be complied with.

## IMPLEMENTATION SCHEDULE

EIA* Ref.	EM&A Log Ref	Environmental Protection Measures	Objectives	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent	Implementation Stage**				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		<i>WATER QUALITY</i>								
<i>Section 2.4 of Part 3</i>	1	Although there is no requirement for constraints on timing or sequencing apparent from the assessment, as all scenarios have been demonstrated to be acceptable with the required mitigation measures in place. The following operational constraints shall be implemented to ensure no unacceptable water quality impacts.								
<i>Section 2.4 of Part 3</i>		<ul style="list-style-type: none"> <li>Dredging operations within the East of Sha Chau Facility do not exceed 100,000 m<sup>3</sup> week<sup>-1</sup>.</li> </ul>	To avoid unacceptable water quality impacts during dredging	At the East of Sha Chau work site, throughout the whole duration of the construction period	Contractor		✓			<i>Water Pollution Control Ordinance</i>
<i>Section 2.4 of Part 3</i>		<ul style="list-style-type: none"> <li>Backfilling operations within the East of Sha Chau Facility do not exceed a disposal rate of 26,700 m<sup>3</sup> day<sup>-1</sup>.</li> </ul>	To avoid unacceptable water quality impacts during backfilling	At the East of Sha Chau work site, throughout the whole duration of backfilling	Contractor			✓		<i>Water Pollution Control Ordinance</i>
<i>Section 2.4 of Part 3</i>		<ul style="list-style-type: none"> <li>Capping operations within the East of Sha Chau Facility do not exceed a disposal rate of 26,700 m<sup>3</sup> day<sup>-1</sup>.</li> </ul>	To avoid unacceptable water quality impacts during capping	At the East of Sha Chau Facility work site, throughout the whole duration of capping	Contractor			✓		<i>Water Pollution Control Ordinance</i>
<i>Section 2.4 of Part 3</i>		<ul style="list-style-type: none"> <li>No overflow is permitted from the trailer suction hopper dredger but the Lean Mixture Overboard (LMOB) system will be in operation at the beginning and end of the dredging cycle when the drag head is being lowered and raised.</li> </ul>	To avoid unacceptable water quality impacts during dredging	At the East of Sha Chau work site, throughout the whole duration of the construction period	Contractor		✓			<i>Water Pollution Control Ordinance</i>

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Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>Dredged marine mud shall be disposed of in a gazetted marine disposal area in accordance with the <i>Dumping at Sea Ordinance (DASO)</i> permit conditions.</li> </ul>	To avoid unacceptable water quality impacts during dredging	At the East of Sha Chau work site, throughout the whole duration of the construction period	Contractor	✓			<i>Water Pollution Control Ordinance</i>
Section 2.4 of Part 3	2	<p>The following good practice measures shall apply at all times:</p> <ul style="list-style-type: none"> <li>All disposal vessels should be fitted with tight bottom seals in order to prevent leakage of material during transport.</li> </ul>	To prevent leakage of material during transport	At the East of Sha Chau work site, throughout the whole duration of the disposal period	Contractor		✓		<i>Water Pollution Control Ordinance</i>
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>All barges should be filled to a level, which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.</li> </ul>	To ensure that material does not spill over during transport and the decks are not washed by wave action	At the East of Sha Chau work site, throughout the whole duration of the construction and operation period	Contractor	✓	✓		<i>Water Pollution Control Ordinance</i>
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>After dredging, any excess materials should be cleaned from decks and exposed fittings before the vessel is moved from the dredging area.</li> </ul>	To avoid potential adverse water quality impacts associated with dredging	At the East of Sha Chau dredging sites, throughout the dredging period	Contractor	✓			<i>Water Pollution Control Ordinance</i>
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>The contractor(s) should ensure that the works cause no visible foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the dredging site.</li> </ul>	To avoid potential adverse water quality impacts associated with dredging	At the East of Sha Chau dredging sites, throughout the dredging period	Contractor	✓			<i>Water Pollution Control Ordinance</i>
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>If installed, degassing systems should be used to avoid irregular cavitation within the pump.</li> </ul>	To avoid adverse water quality impacts due to irregular cavitation within the pump	At the East of Sha Chau work site, throughout the whole duration of the construction and operation period	Contractor	✓			<i>Water Pollution Control Ordinance</i>

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Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>Monitoring and automation systems should be used to improve the crew's information regarding the various dredging parameters to improve dredging accuracy and efficiency.</li> </ul>	To improve dredging accuracy and efficiency	At the East of Sha Chau dredging site, throughout the dredging period	Contractor		✓		Water Pollution Control Ordinance
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>Control and monitoring systems should be used to alert the crew to leaks or any other potential risks.</li> </ul>	To alert the crew to leaks or any other potential risks	At the East of Sha Chau work site, throughout the whole duration of the construction and operation period	Contractor		✓	✓	Water Pollution Control Ordinance
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>When the dredged material has been unloaded at the disposal areas, any material that has accumulated on the deck or other exposed parts of the vessel should be removed and placed in the hold or a hopper. Under no circumstances should decks be washed clean in a way that permits material to be released overboard.</li> </ul>	To prevent release of dredged materials overboard	At the East of Sha Chau dredging sites, throughout the dredging period	Contractor		✓		Water Pollution Control Ordinance
Section 2.4 of Part 3		<ul style="list-style-type: none"> <li>All dredgers should maintain adequate clearance between vessels and the seabed at all states of the tide and reduce operations speed to ensure that excessive turbidity is not generated by turbulence from vessel movement or propeller wash.</li> </ul>	To ensure that under-vessel turbidity is not generated by turbulence from vessel movement or propeller wash	At the East of Sha Chau dredging sites, throughout the dredging period	Contractor		✓		Water Pollution Control Ordinance
Section 3 of Part 4	3	<p>Water quality monitoring will be required for the following activities at the East of Sha Chau Facility:</p> <ul style="list-style-type: none"> <li>Dredging of each pit;</li> <li>Backfilling of each pit with contaminated mud; and</li> <li>Capping of each pit with uncontaminated Mud.</li> </ul>	To avoid impacts to water quality during dredging, backfilling and capping	At the East of Sha Chau work sites, throughout the dredging, backfilling and capping period	Contractor		✓		Water Pollution Control Ordinance

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Section 3 of Part 4	4	Sediment quality monitoring will be required for the backfilling activities at the East of Sha Chau Facility.	To avoid impacts to water quality during backfilling	At the East of Sha Chau work sites, throughout the backfilling period	Contractor		✓			Water Pollution Control Ordinance
		MARINE ECOLOGY								
Section 3 of Part 3	5	In accordance with the guidelines in the EIAO-TM, the general policy for mitigating impacts to marine ecological resources shall be applied in order of the following priority: <ul style="list-style-type: none"> <li>• <b>Avoidance:</b> Potential impacts should be avoided to the maximum extent practicable by adopting suitable alternatives;</li> <li>• <b>Minimisation:</b> Unavoidable impacts should be minimised by taking appropriate and practicable measures such as constraints on the intensity of works operations (eg dredging rates) or timing of works operations; and</li> <li>• <b>Compensation:</b> The loss of important species and habitats may be provided for elsewhere as compensation. Enhancement and other conservation measures should always be considered whenever possible.</li> </ul>	To avoid potential impacts to marine ecology	During project planning and design	Design Team	✓				EIAO-TM
Section 3 of Part 4	6	Sediment toxicity monitoring will be conducted to assess the potential toxicity impacts to marine life due to disposal activities.	To avoid impacts to marine life due to disposal activities	At the East of Sha Chau Facility, throughout the backfilling period	Contractor			✓		

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	7	Benthic recolonisation monitoring will be required to assess the recolonisation status of benthic fauna on capped pits.	To assess the recolonisation status of benthic fauna on capped pits	At the East of Sha Chau Facility, after capping of mud pits	Contractor			✓	
		<i>HAZARD TO HEALTH</i>							
<i>Section 3 of Part 4</i>	8	A risk assessment to verify that no unacceptable risk are occurring to either human health or marine mammals as a result of consuming prey species from the waters in the vicinity of the pits will be required.	To assess hazard to health of humans and marine mammals	In the vicinity of the East of Sha Chau Facility, throughout the disposal period	Contractor			✓	

