



ERM

APPENDIX J

SUMMARY OF IMPLEMENTATION
SCHEDULE AND STATUS OF
ENVIRONMENTAL MITIGATION
MEASURES FOR THE INSTALLATION OF
SUBMARINE CABLE

APPENDIX J.1 - IMPLEMENTATION SCHEDULE AND STATUS FOR ENVIRONMENTAL MITIGATION MEASURES FOR THE INSTALLATION OF SUBMARINE CABLE (WATER QUALITY)

Note:

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

✓ Compliance of Mitigation Measures

<> Compliance of Mitigation but need improvement

x Non-compliance of Mitigation Measures

▲ Non-compliance of Mitigation Measures but rectified by the Contractor

△ Deficiency of Mitigation Measures but rectified by the Contractor

N/A Not Applicable in Reporting Period

EIA / ERR Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages				Implementation Status
				Des	C	O	Dec	
EIA S5b.8.1.1	<p><u>Drainage and Construction Site Runoff</u></p> <p>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:</p> <ul style="list-style-type: none"> • 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 contractor prior to the commencement of construction. • 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 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. • 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. • 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 	Work site / During the construction period	Contractor		✓			N/A

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	<p>be implemented before, during and after rainstorms are summarized in ProPECC PN 1/94.</p> <ul style="list-style-type: none"> 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. Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. 							
EIA S5b.8.1.2	<p><u>General Construction Activities</u></p> <p>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. It is recommended to clean the construction sites on a regular basis.</p>	Work site / During the construction period	Contractor		✓			N/A
EIA S5b.8.1.4	<p><u>Accidental Spillage</u></p> <p>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.</p>	Work site / During the construction period	Contractor		✓			✓
EIA S5b.8.1.5	<p>Maintenance of vehicles and equipments involving activities with potential for leakage and spillage should only be undertaken within the areas which appropriately equipped to control these discharges.</p>	Work site / During the construction period	Contractor		✓			N/A
EIA S5b.8.1.6	<p>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.</p>	Work site / During the construction period	Contractor		✓			✓

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EIA S5b.8.1.7	<p>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:</p> <ul style="list-style-type: none"> Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. 	Work site / During the construction period	Contractor		✓			N/A
ERR S3.1.1.1	<p><u>Works within the Gazetted Boundary of Upper Cheung Sha Beach (UCSB)</u></p> <ul style="list-style-type: none"> No construction work would be conducted in the bathing season of April to October. 	Work site / During the construction period	Contractor		✓			N/A
	<ul style="list-style-type: none"> Section of cable from low water mark to 80 m outside of the gazetted boundary would be installed by diver using hand held water jet. 							N/A
	<ul style="list-style-type: none"> The machinery employed will be inspected prior to work commencing on the beach then at least daily thereafter to ensure the waters and beach will not be polluted with oil/ grease/ fuel. No machinery maintenance will be carried out onsite. 							✓
	<ul style="list-style-type: none"> Oil absorbent materials will be readily placed on site and will be applied immediately should any oil leakage incidents occur, to ensure the swimming zone would not be affected. 							✓
	<ul style="list-style-type: none"> The section of cable between low water mark and 80m outside the boundary of the UCSB shall be installed by divers using hand held water jet. 							N/A
	<ul style="list-style-type: none"> Silt curtains shall be deployed to fully enclose the hand held jetting works within the boundary of the UCSB and be deployed at the water line surrounding the works area to prevent runoff from land-based works on the UCSB. 							✓
	<ul style="list-style-type: none"> The forward speed of the cable installation barge will be limited to a maximum of 1 km hr⁻¹. 							N/A

APPENDIX J.2 - IMPLEMENTATION SCHEDULE AND STATUS FOR ENVIRONMENTAL MITIGATION FOR THE INSTALLATION OF SUBMARINE CABLE (WASTE IMPLICATION MANAGEMENT)

NOTE:

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EIA 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:	Work Site/ During Construction Period	Contractor		✓			
	<ul style="list-style-type: none"> 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); 						✓	
	<ul style="list-style-type: none"> Provide staff training for proper waste management and chemical handling procedures; 						✓	
	<ul style="list-style-type: none"> Provide sufficient waste disposal points and regular waste collection; 						✓	
	<ul style="list-style-type: none"> Provide appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and 						N/A	
	<ul style="list-style-type: none"> Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 						N/A	
	<ul style="list-style-type: none"> Separate chemical wastes for special handling and disposed of to licensed facility for treatment; and 						N/A	
<ul style="list-style-type: none"> Employ licensed waste collector to collect waste. 				N/A				

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EIA 6b.5.1.13	<p><u>Chemical Wastes</u></p> <p>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 wastes, to either the Chemical Waste Treatment Centre at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Work Site/ During Design & Construction Period	Contractor		✓			N/A
EIA 6b.5.1.14	<p><u>General Refuse</u></p> <p>General refuse should be stored in enclosed bins or compaction units separate from Construction & Demolition (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.</p>	Work Site/ During Construction Period	Contractor		✓			✓

APPENDIX J.3 - IMPLEMENTATION SCHEDULE AND STATUS FOR ENVIRONMENTAL MITIGATION MEASURES FOR THE INSTALLATION OF SUBMARINE CABLE (ECOLOGICAL)

Note:

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EIA 7b.8.3.16 - 7b.8.3.30	<p>Measures to minimise disturbance on Finless Porpoise</p> <p><i>Monitored exclusion zones</i></p> <ul style="list-style-type: none"> • During submarine cable installation/ repair operation works, a monitored marine mammal exclusion zone of 250 m radius from the cable installation/ repair vessel should be implemented. The exclusion zone should be closely monitored by an experienced marine mammal observer at least 30 minutes before the start of cable installation/ repair works. 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. 	Work site, marine traffic route	Contractor		✓			N/A
	<p><i>Vessel speed limit</i></p> <ul style="list-style-type: none"> • 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. 	Work site, marine traffic route	Contractor		✓			✓