

Summary of environmental impacts associated with the Project

Sensitive Receivers / Assessment Points	Impact Prediction Results (Without Mitigation)	Key Relevant Standards/Criteria	Extents of Exceedance (Without Mitigation)	Impact Avoidance Measures/ Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Air Quality Impact					
Construction Phase					
Existing Air Sensitive Receivers (Residential Area)	No adverse construction dust impact is anticipated as a result of the construction activities and associated transportation by the Project.	<ul style="list-style-type: none"> AQO TM-EIAO Annex 4 	Not applicable	Good control measures are recommended: <ul style="list-style-type: none"> Water spraying on any dusty materials before loading and unloading and stockpile of dusty materials; Cover or shelter any stockpile of dusty materials; and Cover any dusty load by impervious sheeting on the construction barges before they leave the site 	No adverse residual impacts anticipated.
Operational Phase					
Existing Air Sensitive Receivers (Residential Area)	No direct air pollution source is added due to the implementation of the project. The air quality at the ASRs may result in a slight improvement due to the increase in separation distance between the new berthing area and the ASRs	<ul style="list-style-type: none"> AQO TM-EIAO Annex 4 	Not applicable	As the Project would not generate or induce any additional air quality impact, migration measures are considered not necessary.	No adverse residual impacts anticipated
Noise					
Construction Phase					
Existing Noise Sensitive Receivers (Residential Area and Country Park)	Predicted construction airborne noise levels would be 66 dB(A)	<ul style="list-style-type: none"> TM-EIAO Annex 5 	No exceedances are predicted at all NSRs.	Good control measures are recommended to minimize the construction noise impact as far as practical: <ul style="list-style-type: none"> Good site practices to limit noise emissions at the source; Use of quality powered mechanical equipment (QPME); Use of Movable Noise Barrier for Relatively Fixed Plant Source; Alternative use of plant items within 	No adverse residual impacts anticipated

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				one worksite, wherever practicable.	
Operational Phase					
Existing Noise Sensitive Receivers (Residential Area and Country Park)	As the Project will not have any planned noise source during the operational phase, no operational noise impact is anticipated.	<ul style="list-style-type: none"> TM-EIAO Annex 5 	Not applicable	As the Project would not generate additional noise impact, mitigation measures are considered not necessary.	No adverse residual impacts anticipated
Water Quality					
Construction Phase					
Water Sensitive Receivers (Marine Park)	Water quality in WSRs would be deteriorated by the following construction activities: <ul style="list-style-type: none"> marine-based site investigation works; marine-based foundation works; above-water construction works; demolition works; site run-off from general site operation; accidental spillage of chemicals; and sewage from workforce. 	<ul style="list-style-type: none"> TM-EIAO Annex 6 and Annex 14 Water Pollution Control Ordinance (WPCO) (Cap. 358) Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) Practice Note for Professional Persons (ProPECC) PN 1/94 	Not applicable	<ul style="list-style-type: none"> Good practices when conducting marine-based site investigation works and marine-based foundation works; Prefabrication method should first be considered when designing superstructures; Good site practices in accordance to (ProPECC PN1/94) when handling the site sun-off from general site operation; Proper storage of the chemicals used during construction; and Providing temporary sanitary facilities and posting notices about treating discharge at conspicuous locations for the workforce 	No adverse residual impacts anticipated
Operational Phase					
Water Sensitive Receivers (including beach, fish culture zone and marine park)	No adverse water impact is anticipated from the Project during operation phase since the Project does not plan to increase the number of kaito or alter the existing kaito routing; and the improved pier head is located farther away from the WSRs.	<ul style="list-style-type: none"> TM-EIAO Annex 6 and Annex 14 Water Pollution Control Ordinance (WPCO) (Cap. 358) Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) 	Not applicable	As the Project would not generate or induce any additional water quality impact, mitigation measures are considered not necessary.	No adverse residual impacts anticipated

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		<ul style="list-style-type: none"> Practice Note for Professional Persons (ProPECC) PN 1/94 – Construction Site Drainage 			
Waste Implication					
Construction Phase					
Water quality, air and noise sensitive receivers at or near the Project site, the waste transportation routes and the waste disposal site, as well as the waste disposal outlet	It is estimated that 273m ³ of inert soft C&D material, 300m ³ of inert hard C&D materials and 5.37 tonnes of general refuse, paper, metals, plastics, floating refuse etc. and tens of litres/kilograms of chemical waste will be generated per month.	<ul style="list-style-type: none"> TM-EIAO 	Not applicable	<ul style="list-style-type: none"> Waste reduction should be achieved at the planning and design phase, as well as by ensuring the implementation of good site practices; Standard formwork or pre-fabrication should be used as much as possible in order to minimise the arising of C&D materials; Carry out on-site sorting to retrieve recyclable materials as much as possible; Inert construction waste shall not be in liquid form such that it can be contained and delivered by water-tight containers. Inert C&D materials in liquid form shall be solidified before delivering to the public fill reception facilities; General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A waste collector should be employed to remove general 	No adverse residual impact anticipated

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				<p>refuse on a daily basis;</p> <ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste collector. 	
Operational Phase					
Water quality, air and noise sensitive receivers at or near the Project site, the waste transportation routes and the waste disposal site, as well as the waste disposal outlet	Sufficient number of trash bins and recycling bins have already been provided for the collection of general refuse generated by visitors and pier users along the existing hiking trail of Tung Ping Chau. No bin will be required to be provided in the Tung Ping Chau Public Pier as no general refuse is anticipated by the Project during the operational phase.	<ul style="list-style-type: none"> Waste Disposal Ordinance (Cap. 354) 	Not applicable	<ul style="list-style-type: none"> Recycling containers are recommended to be provided at suitable locations to encourage recycling of waste such as aluminium cans and plastics during operation phase 	No adverse residual impact anticipated
Land Contamination					
Construction workers within the Project site	No potentially contaminated areas identified in the Project Site	<ul style="list-style-type: none"> TM-EIAO Section 3 (Potential Contaminated Land Issues) of Annex 19 “Guidelines for Assessment of Impact on Sites of Cultural Heritage and Other Impacts” Guidance Note for Contaminated Land Assessment and Remediation Guidance Manual for Use 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated

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		of Risk-based Remediation Goals for Contaminated Land Management <ul style="list-style-type: none"> Practice Guide for Investigation and Remediation of Contaminated Land 			
Ecology					
Construction Phase					
500m of the boundary of the Project and any other areas likely to be impacted by the Project	<ul style="list-style-type: none"> Temporary habitat loss- 0.056 ha of the sea Direct impact on coral colonies at the existing pier head are considered minor to moderate Indirect impacts on terrestrial fauna due to noise and dust are considered insignificant Indirect impacts due to disturbance by working barges are considered minor Indirect impacts on the coral colonise under the footprint of proposed TPC public pier and that of the temporary pier due to blockage of sunlight are considered moderate and minor to moderate respectively Potential impacts from blocking of sunlight by construction vessels during construction phase are considered 	<ul style="list-style-type: none"> TM-EIAO Annex 8 and Annex 16 	Not applicable	<ul style="list-style-type: none"> Adoption of piled foundation to minimize seabed loss and reduce water quality impact Treatment of wastewater from the grouting of piles before discharging offsite to protect the water quality Adoption of pre-fabrication approach to prevent water quality impacts associated with on-site casting activities Prepare oil and hazardous chemical spill response plan to prevent or reduce risks to sensitive receivers No dumping policy to protect marine habitats Set up of marker buoys to restrict construction vessels in the marked areas Coral translocation programme prior to commencement of the construction works is recommended and the potential recipient site for coral translocation would be Wong Ye Kwok. Jack-up barge will be lifted up to a certain level above seawater to allow light penetration for corals. Avoid overlapping of works area for 	<ul style="list-style-type: none"> Permanent loss of 0.002 ha of seabed and 0.004 ha of marine waters and the impact is considered minor. Potential loss of hard corals that may not be translocated but the residual impacts are acceptable.

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	<ul style="list-style-type: none"> minor Indirect impacts on the seabed due to disturbance by jack-up barge and concrete mooring sinkers of derrick barge are considered minor to moderate Indirect impacts on marine fauna due to water quality deterioration are considered minor Indirect impacts of marine traffic are considered insignificant 			<ul style="list-style-type: none"> construction vessels between each work cycle to avoid the reduction of sunlight on corals Mitigation measures for water quality impacts includes outer casing to confine the suspended solid, water quality monitoring, regular inspection of silt curtains, etc. If Green Turtle is observed around the proposed works area, marine works will be delayed until they have left the area. 	
Operational Phase					
500m of the boundary of the Project and any other areas likely to be impacted by the Project	<ul style="list-style-type: none"> Permanent Habitat loss due to the presence of piles and downstand wall, and the impact is considered insignificant Indirect impacts due to the increase of lighting level are considered insignificant 	<ul style="list-style-type: none"> TM-EIAO Annex 8 and Annex 16 	Not applicable	Not applicable	<ul style="list-style-type: none"> No adverse residual impact anticipated
Landscape and visual impact					
Construction Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<ul style="list-style-type: none"> Moderately adverse impacts on LR Open Sea of Mirs Bay around Tung Ping Chau and LCA Strait Landscape of Mirs Bay Slightly adverse impacts 	<ul style="list-style-type: none"> TM-EIAO Annexes 3, 10, 11, 18, 20 and 21. EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment. HKPSG Chapters 4 and 10. 	Not applicable	<ul style="list-style-type: none"> Minimisation of Construction Area Site Hoarding Construction Programme Water Quality Control Appearance of Construction Plants / Machinery Lighting Control 	<ul style="list-style-type: none"> Slightly adverse impacts on LR Open Sea of Mirs Bay around Tung Ping Chau and LCA Strait Landscape of Mirs Bay Insubstantial impacts

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	<ul style="list-style-type: none"> on LR Tung Ping Chau Pier Moderately adverse impact on VSR marine travellers at Ping Chau Hoi Slightly adverse impacts on other 3 VSRs, including users at at the Pavilion at Wong Ye Kok, residents at Tai Tong Village and residents at Sha Tau Village Insubstantial impacts on all other LRs and LCAs 	<ul style="list-style-type: none"> Protection of Endangered Species of Animals and Plants Ordinance (Cap.586). ETWB TC(W) No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation. Land Administration Office, Lands Department Practice Note Nos. 7/2007 and 7/2007A Tree Preservation and Tree Removal Application for Building Development in Private Projects. 			<ul style="list-style-type: none"> on all other LRs and LCAs Slightly adverse impact on VSR marine travellers at Ping Chau Hoi Insubstantial impacts on all other VSRs
Operational Phase					
Existing Trees, Landscape Resources (LRs) and Landscape Character Areas (LCAs) and Visually Sensitive Receivers (VSRs) within the assessment area	<ul style="list-style-type: none"> Slightly beneficial impact on LR Tung Ping Chau Pier Moderately adverse impact on LR Open Sea of Mirs Bay around Tung Ping Chau and LCA Strait Landscape of Mirs Bay Moderately beneficial impact on VSR marine travellers at Ping Chau Hoi Slightly beneficial impacts on other 3 VSRs including users at at the Pavilion at Wong Ye Kok, residents at Tai Tong Village and 	<ul style="list-style-type: none"> TM-EIAO Annexes 3, 10, 11, 18, 20 and 21. EIAO Guidance Note 8/2010 Preparation of Landscape and Visual Impact Assessment. HKPSG Chapters 4 and 10. Protection of Endangered Species of Animals and Plants Ordinance (Cap.586). ETWB TC(W) No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation. Land Administration Office, Lands Department Practice Note Nos. 7/2007 	Not applicable	<ul style="list-style-type: none"> Sensitive Design and Disposition of the Pier Structures 	<ul style="list-style-type: none"> Moderately beneficial impacts on on LR Tung Ping Chau Pier Slightly adverse impact on LR Open Sea of Mirs Bay around Tung Ping Chau and LCA Strait Landscape of Mirs Bay Moderately beneficial impacts on all 4 VSRs

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	<ul style="list-style-type: none"> residents at Sha Tau Village Insubstantial impacts on all other LRs and LCAs 	and 7/2007A Tree Preservation and Tree Removal Application for Building Development in Private Projects.			
Fisheries					
Construction Phase					
Fisheries resources within 500m assessment area	<ul style="list-style-type: none"> Loss of about 1.026 ha of fishing ground Disturbance of fishing activities by the footprints and temporary works area of pier Indirect disturbance of fisheries habitats due to deterioration of water quality from the construction works 	<ul style="list-style-type: none"> TM-EIAO Annex 9 and Annex 17 	Not applicable	<ul style="list-style-type: none"> Follow water quality mitigation measures 	No adverse residual impact anticipated
Operational Phase					
Fisheries resources within 500m assessment area	<ul style="list-style-type: none"> Direct loss of about 0.056 ha fishing ground at the footprint of the pier Disturbance of fishing activities by the footprint of the pier 	<ul style="list-style-type: none"> TM-EIAO Annex 9 and Annex 17 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated
Cultural Heritage					
Construction Phase					
Marine Archaeology	<ul style="list-style-type: none"> No marine archaeological impact from the construction works is anticipated. 	<ul style="list-style-type: none"> Antiquities and Monuments Ordinance (Cap. 53); Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), including the Technical Memorandum on Environmental Impact Assessment Process 	Not applicable	No mitigation measure is required. As a precautionary measure, AMO should be informed in case of discovery of antiquities or supposed antiquities in the course of marine works.	No adverse residual impact anticipated.

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		(EIAO-TM); <ul style="list-style-type: none"> • Guidelines on Cultural Heritage Impact Assessment prepared by Antiquities and Monuments Office (AMO); • Hong Kong Planning Standards and Guidelines (HKPSG); and • Guidelines for Marine Archaeological Investigation (MAI). 			
Operational Phase					
Marine Archaeology	<ul style="list-style-type: none"> • No adverse impact on marine archaeology is anticipated from the Project during the operational phase. 	<ul style="list-style-type: none"> • Antiquities and Monuments Ordinance (Cap. 53); • Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), including the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM); • Guidelines on Cultural Heritage Impact Assessment prepared by Antiquities and Monuments Office (AMO); • Hong Kong Planning Standards and Guidelines (HKPSG); and • Guidelines for Marine Archaeological Investigation (MAI). 	Not applicable	No mitigation measure is required	No adverse residual impact anticipated