MOTT MACDONALD

Expansion of Hong Kong International Airport into a Three-Runway System

Construction Phase Quarterly EM&A Report No.35 (1 July to 30 September 2024)

November 2024

Mott MacDonald
3/F Manulife Place
348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

T +852 2828 5757
mottmac.hk

Expansion of Hong Kong International Airport into a Three-Runway System

Construction Phase Quarterly EM&A Report No.35 (1 July to 30 September 2024)

November 2024

Mott MacDonald Hong Kong Limited
registered in Hong Kong no. 236497

Airport Authority Hong Kong

This Construction Phase Quarterly EM&A Report No. 35 has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Section 15.4 of the Updated EM&A Manual

Certified by: 

Terence Kong
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date 27 November 2024

Contents

Abbreviations 1
Executive summary 3

1 Introduction 6
1.1 Background 6
1.2 Scope of this Report 6
1.3 Project Organisation 6
1.4 Contact information for the Project 10
1.5 Summary of Construction Works 10
1.6 Summary of EM&A Programme Requirements 11

2 Environmental Monitoring and Auditing 15
2.1 Air Quality Monitoring 15
2.1.1 Action and Limit Levels 15
2.1.2 Summary of Monitoring Results 15
2.1.3 Conclusion 16
2.2 Noise Monitoring 16
2.2.1 Action and Limit Levels 16
2.2.2 Summary of Monitoring Results 16
2.2.3 Conclusion 17
2.3 Water Quality Monitoring 17
2.4 Waste Monitoring 17
2.4.1 Action and Limit Levels 17
2.4.2 Summary of Monitoring Results 17
2.4.3 Marine Sediment Management 18
2.5 Chinese White Dolphin Monitoring 18
2.5.1 Summary of Monitoring Results 19
2.6 Environmental Site Inspection 25
2.6.1 Landscape and Visual Mitigation Measures 26
2.6.2 Land Contamination Assessment 31
2.7 Audit of SkyPier High Speed Ferries 31
2.8 Audit of Construction and Associated Vessels 32
2.9 Review of the Key Assumptions Adopted in the EIA Report 33

3 Report on Non-compliance, Complaints, Notifications of Summons and Prosecutions 34
3.1 Compliance with Other Statutory Environmental Requirements 34
3.2 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions 34
3.2.1 Complaints 34
3.2.2 Notifications of Summons or Status of Prosecution 34

3.3 Cumulative Statistics 34

4 Conclusion and Recommendation 36

Tables

Table 1.1: Contact Information of Key Personnel 7
Table 1.2: Contact Information of the Project 10
Table 1.3: Summary of Status for All Environmental Aspects under the Updated EM&A Manual 11
Table 2.1: Impact Air Quality Monitoring Stations 15
Table 2.2: Percentage of Air Quality Monitoring Results within Action and Limit Levels 15
Table 2.3: General Meteorological Condition during Impact Air Quality Monitoring 15
Table 2.4: Impact Noise Monitoring Stations 16
Table 2.5: Percentage of Noise Monitoring Results within Action and Limit Levels 16
Table 2.6: General Meteorological Condition during Impact Noise Monitoring 17
Table 2.7: Action and Limit Levels for Construction Waste 17
Table 2.8: Construction Waste Statistics 18
Table 2.9: Summary of Number of CWD Sightings and Number of Dolphins for the Same Quarter Last Year, Previous Quarter, and Current Reporting Period 19
Table 2.10: Summary of Photo Identification 24
Table 2.11: Landscape and Visual – Construction Phase Audit Summary 27
Table 2.12: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period 28
Table 2.13: Summary of the Transplanted Trees Updated in the Reporting Period 29
Table 2.14: Photos of the Existing Transplanted Trees Inspected in the Reporting Period 30
Table 3.1: Summary of Environmental Complaints 34
Table 3.2: Statistics for Valid Exceedances for the Environmental Monitoring 35
Table 3.3: Statistics for Non-compliance, Complaints, Notifications of Summons and Prosecution 35

Figures

Figure 1.1 Locations of Key Construction Activities
Figure 2.1 Locations of Air and Noise Monitoring Stations and Chek Lap Kok Wind Station
Figure 2.2 Vessel based Dolphin Monitoring Transects in Construction, Post-Construction, and Operation Phases
Figure 2.3 Sightings Distribution of Chinese White Dolphins
Figure 2.4 Sighting Locations of Chinese White Dolphins with Different Group Sizes
Figure 2.5 Sighting Locations of Chinese White Dolphins Engaged in Different Behaviours
Figure 2.6 Sighting Locations of Mother-calf Pairs

Appendices

Appendix A	Project Organisation Chart
Appendix B	Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase
Appendix C	Monitoring Results

Abbreviations

3RS	Three-Runway System
AAHK	Airport Authority Hong Kong
AECOM	AECOM Asia Company Limited
AFCD	Agriculture, Fisheries and Conservation Department
AIS	Automatic Information System
ANI	Encounter Rate of Number of Dolphins
APM	Automated People Mover
AW	Airport West
BHS	Baggage Handling System
C&D	Construction and Demolition
CAP	Contamination Assessment Plan
CAR	Contamination Assessment Report
CTCC	Construction Traffic Control Centre
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
EPSS	Emergency Power Supply Systems
ET	Environmental Team
FCZ	Fish Culture Zone
HDD	Horizontal Directional Drilling
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HSF	High Speed Ferry
IEC	Independent Environmental Checker
I-2RS	Interim Two Runway System
LKC	Lung Kwu Chau
MMHK	Mott MacDonald Hong Kong Limited
MMWP	Marine Mammal Watching Plan
MSS	Maritime Surveillance System
MTRMP-CAV	Updated Marine Travel Routes and Management Plan for Construction and Associated Vessel
NEL	Northeast Lantau
NWL	Northwest Lantau
PAM	Passive Acoustic Monitoring
SC	Sha Chau
SCZ	Speed Control Zone
SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park
SS	Suspended Solids
STG	Encounter Rate of Number of Dolphin Sightings
SWL	Southwest Lantau

T2	Terminal 2
The Manual	The Updated EM&A Manual
The Project	The Expansion of Hong Kong International Airport into a Three-Runway System
The SkyPier Plan	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier
TSP	Total Suspended Particulates
WL	West Lantau
WMP	Waste Management Plan

Executive summary

The “Expansion of Hong Kong International Airport into a Three-Runway System” (the Project) serves to meet the future air traffic demands at Hong Kong International Airport (HKIA). On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the Project was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual).

This is the 35th Construction Phase Quarterly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 July 2024 to 30 September 2024.

During the reporting period, the project is in the Interim Two Runway System (I-2RS) stage, in which the new North Runway and the associated taxiway and facilities were operated together with the South Runway and existing airport facilities, with the Centre Runway closed down for modification works. The flight check for Centre Runway was started on 5 August 2024 and completed on 9 September 2024.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included land improvement works and filling works, pavement works, superstructure works for Terminal 2 Concourse, tunnel works for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 (T2) expansion works, modification and tunnel works for APM and BHS, utilities works, road and drainage works, excavation works and 132kV cable laying works.

EM&A Activities Conducted in the Reporting Period

The EM&A programme was undertaken in accordance with the Manual of the Project. Summary of the monitoring activities during this reporting period is presented as below:

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	96
Noise monitoring	54
Vessel line-transect surveys for post-construction phase Chinese White Dolphin (CWD) monitoring	6

Environmental auditing works, including weekly site inspections of construction works conducted by the ET and bi-weekly site inspections conducted by the Independent Environmental Checker (IEC), audit of SkyPier High Speed Ferries (HSF), and audit of construction and associated vessels, were conducted in the reporting period. Based on the information including ET’s observations, records of Maritime Surveillance System (MSS), and contractors’ site records, it is noted that environmental pollution control and mitigation measures were properly implemented and construction activities of the Project in the reporting period did not introduce adverse impacts to the sensitive receivers.

A post-construction phase CWD monitoring by vessel line transect survey was conducted following the same methodology as adopted in construction phase monitoring.

Snapshots of Good Environmental Practices in the Reporting Period

		
Deployment of silt curtain	Hydroseeding was used to reduce soil erosion and runoff	Impervious liners were installed beneath and over the treated contaminated marine sediment

Key examples of good site practices implemented in the Project are highlighted as below:

1. Silt curtain was deployed to minimise potential water quality impact during construction.
2. Hydroseeding was used at the slope area to minimise soil erosion and surface runoff.
3. Impervious liners were installed beneath and over the treated contaminated marine sediment at the storage area to prevent potential leachate seepage.

Summary Findings of the EM&A Programme

The monitoring works for construction dust, construction noise, construction waste, landscape & visual, and post-construction phase CWD monitoring were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, and construction waste did not trigger the corresponding Action and Limit Levels in the reporting period. No non-conformity was recorded for landscape & visual monitoring in the reporting period.

The key findings of the EM&A programme during the reporting period are summarised as below:

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level^		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level^		√	No breach of Action Level was recorded.	Nil
Complaint received in this reporting period	√		A complaint regarding dust nuisance was received on 3 September 2024.	ET requested the relevant contractors to provide information regarding the complaint and replies indicated dust suppression measures were implemented. During the ET's site inspections, fugitive dust due to vehicle movements and dry haul roads were recorded. The relevant contractors were reminded to continuously review and update their respective dust suppression plan including but not limited to the availability of water trucks, adequacy of water spraying and frequency of environmental training for workers, and also implement dust mitigation measures at their haul roads in works areas. Hence, the case was considered closed.

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Notification of any summons and status of prosecutions		√	No notification of summons nor prosecution was received.	Nil
Changes that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Remarks:
^Only triggering of Action or Limit Level found related to Project works is counted as Breach of Action or Limit Level.

In accordance with Condition 2.6 of EP, AAHK has assisted Agriculture, Fisheries and Conservation Department (AFCD) in taking forward the statutory procedures for the designation of the North Lantau Marine Park (NLMP). A gazette notice regarding the approved map was published by the Government on 29 September 2023 with a Draft Designation Order and a relevant Executive Council paper was prepared. The NLMP will come into effect on 1 November 2024 and shall tie in with the commissioning of the 3RS.

1 Introduction

1.1 Background

On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the "Expansion of Hong Kong International Airport into a Three-Runway System" (the Project) was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1[1]. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

The Project covers the expansion of the existing airport into a three-runway system (3RS) with key project components comprising land formation of about 650 ha and all associated facilities and infrastructure including taxiways, aprons, aircraft stands, a passenger concourse, an expanded Terminal 2, all related airside and landside works and associated ancillary and supporting facilities. The submarine aviation fuel pipelines and submarine power cables also require diversion as part of the works.

Construction of the Project is to proceed in the general order of diversion of the submarine aviation fuel pipelines, diversion of the submarine power cables, land formation, and construction of infrastructure, followed by construction of superstructures.

The summary of construction works programme can be referred to the corresponding Monthly EM&A Reports. Description of relevant contracts in the reporting period was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 94.

1.2 Scope of this Report

This is the 35th Construction Phase Quarterly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 July 2024 to 30 September 2024.

1.3 Project Organisation

The Project's organisation structure is provided in **Appendix A**. Contact details of the key personnel have been updated and provided in **Table 1.1**.

[1] The Manual is available on the Project's dedicated website (accessible at: http://env.threerunwaysystem.com/en/index.html)

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leaders	Heidi Yu	2828 5704
		Ken Wong	2828 5817
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Roy Man	3729 0380
	Deputy Independent Environmental Checker	Jackel Law	3856 5312

Reclamation Works:

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Alan Mong	3763 1352
	Environmental Officer	Zhang Bin Wang	3763 1525

Airfield Works:

Party	Position	Name	Telephone
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Dickey Yau	5699 4503
	Environmental Officer	Dennis Ho	5645 0563
Contract 3305 Airfield Ground Lighting System (ADB Safegate Hong Kong Limited)	Project Manager	Allam Al-Turk	2944 9725
	Environmental Officer	Ivan Ting	9222 9490
Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS (Chinney Alliance Engineering Limited)	Project Director	Dennis Yam	9551 9920
	Environmental Officer	Richard Liu	9216 8990
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Ken Tang	9640 5397
	Environmental Officer	Ferddy Leung	5585 6746
Contract 3308 Foreign Object Debris Detection System (DAS Aviation Services Group)	Project Manager	Jeffrey Yau	9873 7422
Contract 3310 North Runway Modification Works (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Federick Wong	9842 2703

Terminal 2 Concourse and Apron Works:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Project Manager	Wyman Lau	6112 9753
	Health Safety Environmental Manager	Mike Leung	6625 2550
Contract 3403 New Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Project Manager	Alice Leung	9220 3162
	Environmental Officer	Ray Cheung	9785 1566
Contract 3404 Integrated Airport Control System (Shun Hing Systems Integration Co., Ltd.)	Project Manager	Andy Ng	9102 2739
	Environmental Officer	Michael Lo	6228 3926
Contract 3405 Third Runway Concourse Foundation and Substructure Works (China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Project Manager	Francis Choi	9423 3469
	Environmental Officer	Jacky Lai	9028 8975
Contract 3408 Third Runway Concourse and Apron Works (Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture)	Senior HSE Manager	Qian Zhang	5377 7976
	Environmental Officer	Ivan Mak	9422 4805

Terminal 2 Expansion:

Party	Position	Name	Telephone
Contract 3508 Terminal 2 Expansion Works (Gammon Engineering & Construction Company Limited)	Project Director	Richard Ellis	6201 5637
	Environmental Officer	Carrie Kwan	9276 0551

Automated People Mover and Baggage Handling System:

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	H Y Yue	9185 8186
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Xia Bo	6586 4950
	Environmental Officer	Y M Tong	5316 9801

Party	Position	Name	Telephone
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Richard Ng	9802 9577

Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Eunice Kwok	9243 1331
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Engineering & Construction Company Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Yan Ng	5345 8555
Contract 3804 East and Landside Fire Stations (Beijing Urban Construction Group Company Limited - Beijing Urban Construction International Company Limited - Kin Shing (Leung's) General Contractors Ltd Joint Venture)	Project Manager	Zhang Xianda	4661 6818
	Environmental Representative	Karis Lam	6084 9745
Contract 3805 New Airport District Police Operational Base (Chinney Construction Co., Ltd.)	Project Manager	Cheuk Wing Wai	9339 8321
	Environmental Officer	Mike Li	6306 8547

Construction Support:

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction Engineering (Hong Kong) Ltd.)	Senior Project Manager	Thomas Lui	9011 5340
	Environmental Officer	John Mak	6273 8703
Contract 3728 Minor Site Works (Shun Yuen Construction Company Limited)	Contract Manager	C K Liu	9194 8739
	Environmental Officer	Dan Leung	6856 5899
Contract 3733 Emergency Repair Service (Wing Hing Construction Co., Ltd.)	Project Manager	Michael Kan	9206 0550
	Safety Health Environmental Manager	Mike Leung	6625 2550
Contract 3901A Concrete Batching Facility (K. Wah Concrete Company Limited)	Project Manager	Benedict Wong	9553 2806
	Environmental Officer	C P Fung	9874 2872

Party	Position	Name	Telephone
Contract 3901B Concrete Batching Facility (Gammon Construction Limited)	General Manager	Gabriel Chan	2435 3260
	Environmental Officer	Rex Wong	2695 6319
Contract 3908 Quay Management Services (Gitanes – Crown Asia Joint Venture)	Project Manager	Mr. Ian Li	9750 6438
	Environmental Officer	Mr. Tang Kai Fun	9406 3526
Contract 3913 Asphalt Batching Plant (SPR Joint Venture)	Project Manager	Xie Yi Sheng	6580 6005
	Environmental Officer	Kenneth Chan	9300 2182

Utilities:

Party	Position	Name	Telephone
132kV Cable (CLP Power Hong Kong Limited / Kum Shing (K.F.) Construction Company Limited)	Engineer	Ken Fung	6391 9087
	Assistant Engineer	Sunny Lau	6203 5686

1.4 Contact information for the Project

The contact information for the Project is provided in **Table 1.2**. The public can contact us through the following channels if they have any queries and comments on the environmental monitoring data and project related information.

Table 1.2: Contact Information of the Project

Channels	Contact Information
Hotline	3908 0354
Email	env@3rsproject.com
Fax	3747 6050
Postal Address	Airport Authority Hong Kong HKIA Tower 1 Sky Plaza Road Hong Kong International Airport Lantau Hong Kong Attn: Environmental Team Leader Mr Terence Kong c/o Mr Lawrence Tsui (TRD)

1.5 Summary of Construction Works

During the reporting period, the project is in the Interim Two Runway System (I-2RS) stage, in which the new North Runway and the associated taxiway and facilities were operated together with the South Runway and existing airport facilities, with the Centre Runway closed down for modification works. The flight check for Centre Runway was started on 5 August 2024 and completed on 9 September 2024. The restricted area during the flight check is presented in **Figure 1.1**.

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included land improvement works and filling works, pavement works, superstructure works for Terminal 2 Concourse, tunnel work for APM and BHS and associated works. Land-based works on existing

airport island involved T2 expansion works, modification and tunnel work for APM and BHS, utilities works, road and drainage works, excavation works and 132kV cable laying. The locations of the key construction activities are presented in **Figure 1.1**.

1.6 Summary of EM&A Programme Requirements

The status for all environmental aspects is presented in **Table 1.3**. The EM&A requirements remained unchanged during the reporting period.

Table 1.3: Summary of Status for All Environmental Aspects under the Updated EM&A Manual

Parameters	EM&A Requirements	Status
Air Quality		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
Noise		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result was reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides.	General impact water quality monitoring for water jetting works was completed on 23 May 2017. The general impact water quality monitoring was terminated after 31 October 2023.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022.
Post-construction Phase Water Quality Monitoring	Three days per week, at mid-flood and mid-ebb tides for four weeks	The four-week post-construction phase water quality monitoring exercise was commenced on 14 November 2023 and completed on 9 December 2023.
Sewerage and Sewage Treatment		
Methodology for carrying out annual sewage flow monitoring for concerned gravity sewer	Methodology to be prepared and submitted to EPD one year before the scheduled commencement of operation of the proposed third runway.	The proposed methodology of the annual sewage flow monitoring was approved by EPD. The annual flow monitoring was started from June 2021 and completed in 2022.

Parameters	EM&A Requirements	Status
Details of the routine H_2S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS.	The H_2S monitoring proposal was accepted by EPD in June 2023.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted and approved by EPD under EP condition 2.20.
Site Re-appraisal Summary Report for Fire Training Facility	Site Re-appraisal Summary Report for Fire Training Facility	Site Re-appraisal Summary Report for Fire Training Facility was submitted and accepted by EPD.
Contamination Assessment Report (CAR) for Golf Course	CAR to be submitted for golf course	The CAR for Golf Course was submitted and accepted by EPD.
CAR for Terminal 2 Emergency Power Supply System	CAR to be submitted for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply Systems were submitted and accepted by EPD.
Terrestrial Ecology		
Pre-construction Egretry Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of Horizontal Directional Drilling (HDD) drilling works.	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Monthly monitoring during the HDD construction works period from August to March.	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology		
Pre-Construction Phase Coral Dive Survey	Prior to marine construction works	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	-	The coral translocation was completed on 5 January 2017.
Post-translocation Monitoring	As per an enhanced monitoring programme based on the Coral Translocation Plan	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
Chinese White Dolphins (CWD)		
Baseline Monitoring	6 months of baseline surveys before the commencement of land formation related construction works. Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: Two days per month at the Sha Chau station and two days per month at the Lung Kwu Chau station; and Passive Acoustic Monitoring (PAM): For the whole duration of baseline period.	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.

Parameters	EM&A Requirements	Status
Impact Monitoring	Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: One day per month at the Sha Chau station and one day per month at the Lung Kwu Chau station; and PAM: For the whole duration for land formation related construction works.	The construction phase CWD monitoring was completed in December 2023.
Post-construction Phase Monitoring	12 months of post-construction phase CWD monitoring upon the completion of marine construction works; and Vessel line transect surveys: Two full surveys per month.	The post-construction phase monitoring was commenced in January 2024.
Landscape and Visual		
Landscape and Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Establishment Works Monitoring	Bi-monthly	On-going
Long Term Management (10 years) Monitoring	Annually	On-going
Environmental Auditing		
Regular site inspection	Weekly	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	No Marine Mammal Watching Plan (MMWP) implementation measures was conducted during this reporting period.
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	No Dolphin Exclusion Zone (DEZ) monitoring was conducted during this reporting period.
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels implementation measures	Monitor and check	On-going
Silt Curtain Deployment Plan implementation measures	Monitor and check	Silt Curtain Deployment Plan measure was implemented at C7a during this reporting period.
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email Channel	Construction phase	On-going

Parameters	EM&A Requirements	Status
Environmental Log Book	Construction phase	On-going

Taking into account the construction works in the reporting period, impact monitoring of air quality, noise, waste management, landscape & visual, and post-construction phase CWD monitoring were carried out in the reporting period.

The EM&A programme also involved weekly site inspections and related auditing conducted by ET for the checking of implementation of required environmental mitigation measures recommended in the approved EIA Report. To promote the environmental awareness and enhance the environmental performance of the contractors, regular environmental management meetings were conducted during the reporting period which are summarised as below:

- Fifty environmental management meetings for EM&A review with works contracts.

The EM&A programme has been following the recommendations presented in the approved EIA Report and the Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix B**.

In accordance with Condition 2.6 of EP, AAHK has assisted AFCD in taking forward the statutory procedures for the designation of the NLMP. A gazette notice regarding the approved map was published by the Government on 29 September 2023 with a Draft Designation Order and a relevant Executive Council paper was prepared. The NLMP will come into effect on 1 November 2024 and shall tie in with the commissioning of the 3RS.

2 Environmental Monitoring and Auditing

2.1 Air Quality Monitoring

Impact 1-hour Total Suspended Particulates (TSP) monitoring was conducted three times every six days at two representative monitoring stations during the reporting period. The locations of monitoring stations are described in **Table 2.1** and presented in **Figure 2.1**.

2.1.1 Action and Limit Levels

The Action and Limit Levels of the air quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 2.1** for reference.

Table 2.1: Impact Air Quality Monitoring Stations

Monitoring Station	Location	Action Level (μg/m^3)	Limit Level (μg/m^3)
AR1A	Man Tung Road Park	306	500
AR2	Village House at Tin Sum	298	

2.1.2 Summary of Monitoring Results

The air quality monitoring results in the reporting period are summarised in **Table 2.2** and the graphical plot is presented in **Appendix C**.

Table 2.2: Percentage of Air Quality Monitoring Results within Action and Limit Levels

	AR1A	AR2
Jul 2024	100%	100%
Aug 2024	100%	100%
Sep 2024	100%	100%
Overall	100%	100%

Note: The percentages are calculated by dividing the number of monitoring results within their corresponding Action and Limit Levels by the total number of monitoring results.

All monitoring results were within their corresponding Action and Limit Levels at all monitoring stations in the reporting period.

General meteorological conditions in the last month of the previous quarter and this reporting period were recorded and summarised in **Table 2.3**.

Table 2.3: General Meteorological Condition during Impact Air Quality Monitoring

	Weather	Dominant Wind Direction
Jun 2024	Cloudy	Southwest to East
Jul 2024	Sunny to Cloudy	Southeast to North
Aug 2024	Sunny to Cloudy	Southwest to North
Sep 2024	Sunny to Cloudy	Southwest to North

2.1.3 Conclusion

No dust emission source was observed at the monitoring stations during the monitoring sessions. As the sensitive receivers were far away from the construction activities, with the implementation of dust control measures, there was no adverse impact at the sensitive receivers attributable to the works of the Project.

2.2 Noise Monitoring

Impact noise monitoring was conducted at four representative monitoring stations once per week during 0700 and 1900 in the reporting period. The locations of monitoring stations are described in **Table 2.4** and presented in **Figure 2.1**.

2.2.1 Action and Limit Levels

The Action and Limit Levels of the noise monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 2.4** for reference.

Table 2.4: Impact Noise Monitoring Stations

Monitoring Station	Location	Action Level	Limit Level
NM1A	Man Tung Road Park	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
NM4	Ching Chung Hau Po Woon Primary School		65dB(A) / 70 dB(A) [(i)]
NM5	Village House in Tin Sum		75 dB(A)
NM6	House No. 1, Sha Lo Wan		75 dB(A)

Note:

[(i)] The Limit Level for NM4 is reduced to 70 dB(A) for being an educational institution. During school examination period, the Limit Level is further reduced to 65 dB(A).

2.2.2 Summary of Monitoring Results

The noise monitoring results in the reporting period are summarised in **Table 2.5** and the graphical plot is presented in **Appendix C**.

Table 2.5: Percentage of Noise Monitoring Results within Action and Limit Levels

	NM1A	NM4	NM5	NM6
Jul 2024	100%	100%	100%	100%
Aug 2024	100%	100%	100%	100%
Sep 2024	100%	100%	100%	100%
Overall	100%	100%	100%	100%

Note: The percentages are calculated by dividing the number of monitoring results within their corresponding Action and Limit Levels by the total number of monitoring results.

No complaints were received from any sensitive receiver that triggered the Action Level.

General meteorological conditions in the last month of the previous quarter and this reporting period were recorded and summarised in **Table 2.6**.

Table 2.6: General Meteorological Condition during Impact Noise Monitoring

	Weather
Jun 2024	Sunny to Overcast
Jul 2024	Sunny to Overcast
Aug 2024	Sunny to Cloudy
Sep 2024	Sunny to Cloudy

2.2.3 Conclusion

Major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were traffic noise near NM1A, school activities near NM4, and aircraft noise near NM6. As the sensitive receivers were far away from the construction activities, with the implementation of noise control measures, there was no adverse impact at the sensitive receivers attributable to the works of the Project.

2.3 Water Quality Monitoring

All water impact monitoring work has been completed, with results presented in the Annual EM&A Report for 2023 and to be included in the Final EM&A Report. Based on the analysis presented in Annual EM&A report for 2023, the post-construction phase water quality monitoring did not reveal significant changes of the water quality when comparing with baseline water quality monitoring, and it can be concluded that the marine works of the Project during construction phase did not cause deterioration in or adverse impacts on the marine water quality surrounding the Project site.

2.4 Waste Monitoring

In accordance with the Manual, waste generated from construction activities was audited once per week to determine if wastes were being managed in accordance with the Waste Management Plan (WMP) prepared for the Project, contract-specific WMP, and any statutory and contractual requirements. All aspects of waste management including waste generation, storage, transportation, and disposal were assessed during the audits.

2.4.1 Action and Limit Levels

The Action and Limit Levels of the construction waste are provided in **Table 2.7**.

Table 2.7: Action and Limit Levels for Construction Waste

Monitoring Stations	Action Level	Limit Level
Construction Area	When one valid documented complaint is received	Non-compliance of the WMP, contract-specific WMPs, any statutory and contractual requirements

2.4.2 Summary of Monitoring Results

Weekly monitoring of the Project construction works was carried out by the ET in the reporting period to check and monitor the implementation of proper waste management practices.

Recommendations made by the ET included provision and maintenance of proper chemical waste storage area, as well as handling, segregation, and regular disposal of general refuse. The contractors took actions to implement the recommended measures. Waste management audits were carried out by ET according to the requirements of the Waste Management Plan, updated EM&A Manual and the implementation schedule of the waste management mitigation measures in **Appendix B**.

Based on updated contractors' information, summary of construction waste generated in the reporting period is presented in **Table 2.8**. ET and IEC carried out site audits regularly and reviewed the trip ticket system.

The contractors established the recycling strategy for C&D materials with proper planning and design to maximize recycling and reuse. Dedicated recyclers were employed for different kinds of recyclable materials by the contractors. Dedicated areas for sorting of materials are established on site. Recyclable materials such as steel bar, metal strip, aluminium, paper and plastic are sorted on-site and transported off-site for recycling during this reporting period.

Table 2.8: Construction Waste Statistics

	C&D[1] Material Stockpiled for Reuse or Recycle (m^3)	C&D Material Reused in the Project (m^3)	C&D Material Reused in other Projects (m^3)	C&D Material Transferred to Public Fill[2] (m^3)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
Pervious reporting period							
Apr 2024	0	131	3,058	4,959	0	0	4,875
May 2024[3]	0	525	0	5,152	1,350	0	5,150
Jun 2024[3]	0	16,018	0	4,390	60	1,300	6,789
Total	0	16,674	3,058	14,501	1,410	1,300	16,814
This reporting period							
Jul 2024	0	13,793	0	6,025	1,300	0	5,995
Aug 2024[3]	0	4,719	0	8,945	0	2,400	7,121
Sep 2024[3]	165	691	0	7,632	10	0	5,591
Total	165	19,203	0	22,602	1,310	2,400	18,707

Notes:

1. C&D refers to Construction and Demolition.
2. C&D materials not suitable for reuse on-site, including asphalt waste and sediment slurry, were transferred to public fill during the reporting period.
3. Updated figures were provided by contractors.

There were no complaint, non-compliance of the WMP, contract-specific WMPs, statutory and contractual requirements that triggered Action and Limit Levels in this reporting period.

2.4.3 Marine Sediment Management

Marine sediment is managed according to the EIA Report, Updated EM&A Manual and Waste Management Plan and the proposal of Further Development on Treatment Level / Details and the Reuse Mode for Marine Sediment (hereinafter referred to as "Further Development Proposal") of the Project. The storage conditions of the excavated marine sediment, treatment process, final backfilling location as well as associated records were inspected and checked by ET and verified by IEC to ensure they were in compliance with the requirements as stipulated in the Waste Management Plan and Further Development Proposal.

Sampling and backfilling works for treated marine sediment generated from the reclaimed land area were conducted during the reporting period. The details of the marine sediment sampling, treatment and backfilling can be referred to Annual EM&A Report No.8.

2.5 Chinese White Dolphin Monitoring

The post-construction phase CWD monitoring was conducted by vessel line transect survey at a frequency of two full surveys per month. The vessel survey transects followed the transect lines proposed in the Manual and are consistent with those used in the Agriculture, Fisheries and

Conservation Department (AFCD) long-term CWD monitoring programme. The transect locations of CWD monitoring by vessel line transect survey are shown in **Figure 2.2**.

The post-construction phase CWD monitoring which is conducted by vessel line transect survey at a frequency of two full surveys per month has been commenced since January 2024.

2.5.1 Summary of Monitoring Results

2.5.1.1 Vessel Line Transect Survey

Survey Effort

During the reporting period from July to September 2024, a total of six sets of vessel line transect survey covering all transects in Northeast Lantau (NEL), Northwest Lantau (NWL), Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL) survey areas were conducted at a frequency of twice per month, in each survey area.

A total of around 1,325 km of survey effort was collected from these surveys, with around 96.8% of the total survey effort being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort data are presented in **Appendix C**.

CWD Sighting

From July to September 2024, there were a total of 72 sightings of CWD, with 258 dolphins sighted (**Table 2.9**). All these sightings were recorded during on-effort searches under favourable weather condition.

When breaking down the sightings by survey areas, 48 sightings with a total of 174 dolphins and 23 sightings with a total of 73 dolphins were recorded in WL and SWL respectively during the current reporting period. One sighting of 11 dolphins were recorded in NWL. No CWD was sighted in NEL survey area.

Compared with the previous quarter (i.e. April to June 2024), the total number of CWD sightings and the total number of the dolphins have increased by 106% and 155% respectively. There was a notable increase in both dolphin sightings and the number of dolphins in both WL and SWL survey area in the current reporting quarter.

Compared with the same quarter of last year (i.e., July to September 2023), there was also a notable increase in both the total number of sightings and the total number of dolphins by 64% and 94% respectively. In WL, there was a increase in both the number of sightings and number of dolphins by 60% and 100% respectively. In SWL, there was also an increase in both number of sightings and number of dolphins by 64% and 59% respectively. Moreover, there were slight increases in both total number of sightings and total number of dolphins in NWL as there was no sighting in the same reporting period in 2023.

Table 2.9 below shows the comparison of the numbers of sightings and dolphins amongst the current reporting period, last quarter, and the same quarter of last year.

Table 2.9: Summary of Number of CWD Sightings and Number of Dolphins for the Same Quarter Last Year, Previous Quarter, and Current Reporting Period

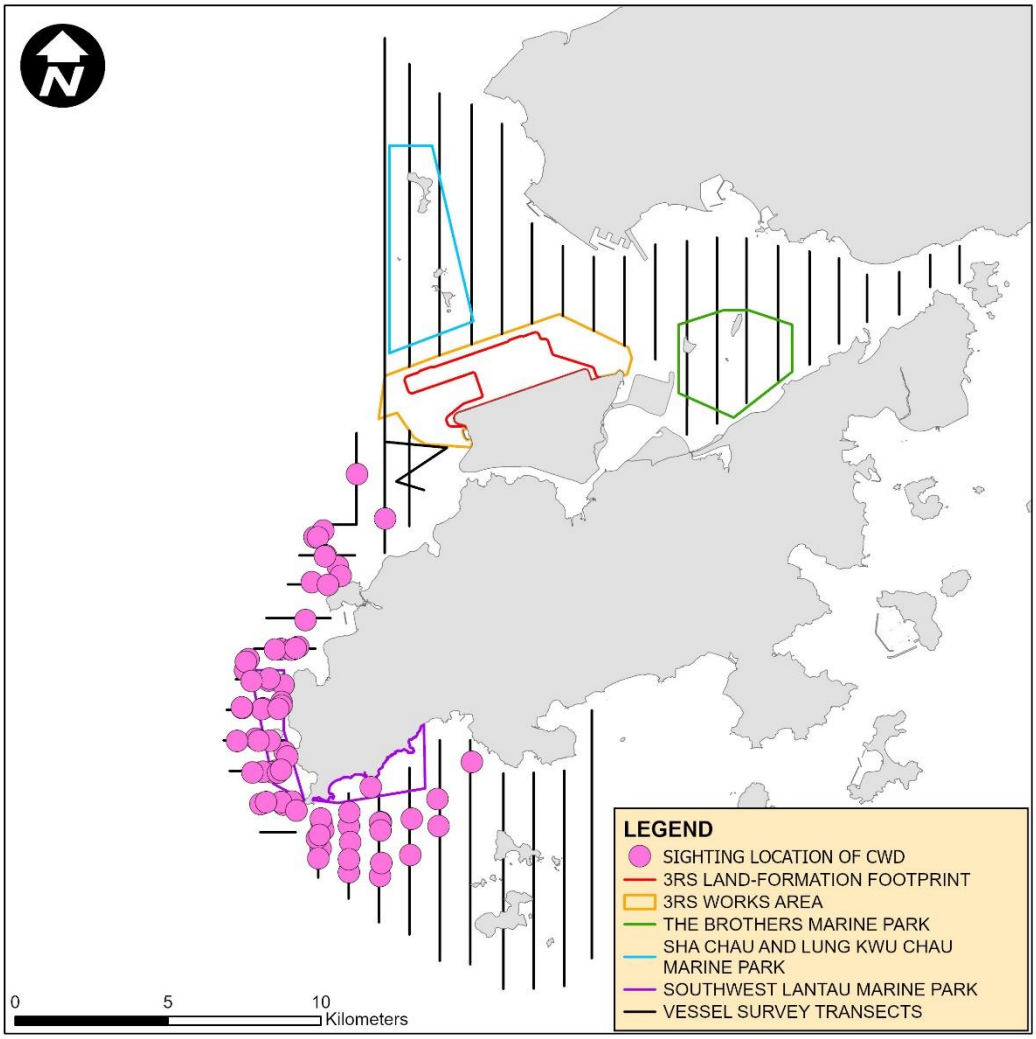
	Same Quarter of Last Year July to September 2023	Previous Reporting Period April to June 2024	Current Reporting Period July to September 2024
NEL	0 (0)	0 (0)	0 (0)
NWL	0 (0)	2 (2)	1 (11)
AW	0 (0)	0 (0)	0 (0)

	Same Quarter of Last Year July to September 2023	Previous Reporting Period April to June 2024	Current Reporting Period July to September 2024
WL	30 (87)	23 (69)	48 (174)
SWL	14 (46)	10 (30)	23 (73)
Total	44 (133)	35 (101)	72 (258)

Note: Values in ( ) represent number of dolphins

The distribution of CWD sightings recorded from July to September 2024 is illustrated in **Figure 2.3**. In WL, CWD sightings were scattered amongst the entire survey area, with the majority scattered at the waters between Tai O and Fan Lau. In SWL, the CWD sightings scattered at the western half of the survey area with the majority scattered at the waters between Fan Lau and Tung Wan. In NWL, the only CWD sightings were recorded in southwestern corner of the survey area. No CWD sightings were recorded in NEL survey area during the reporting period. Details of the sighting data are presented in **Appendix C**.

Figure 2.3: Sightings Distribution of Chinese White Dolphins from July to September 2024



Remarks: (1) Please note that there are 72 pink circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this sighting distribution map. (2) Marine Park excludes land area and the landward boundary generally follows the high water mark along the coastline.

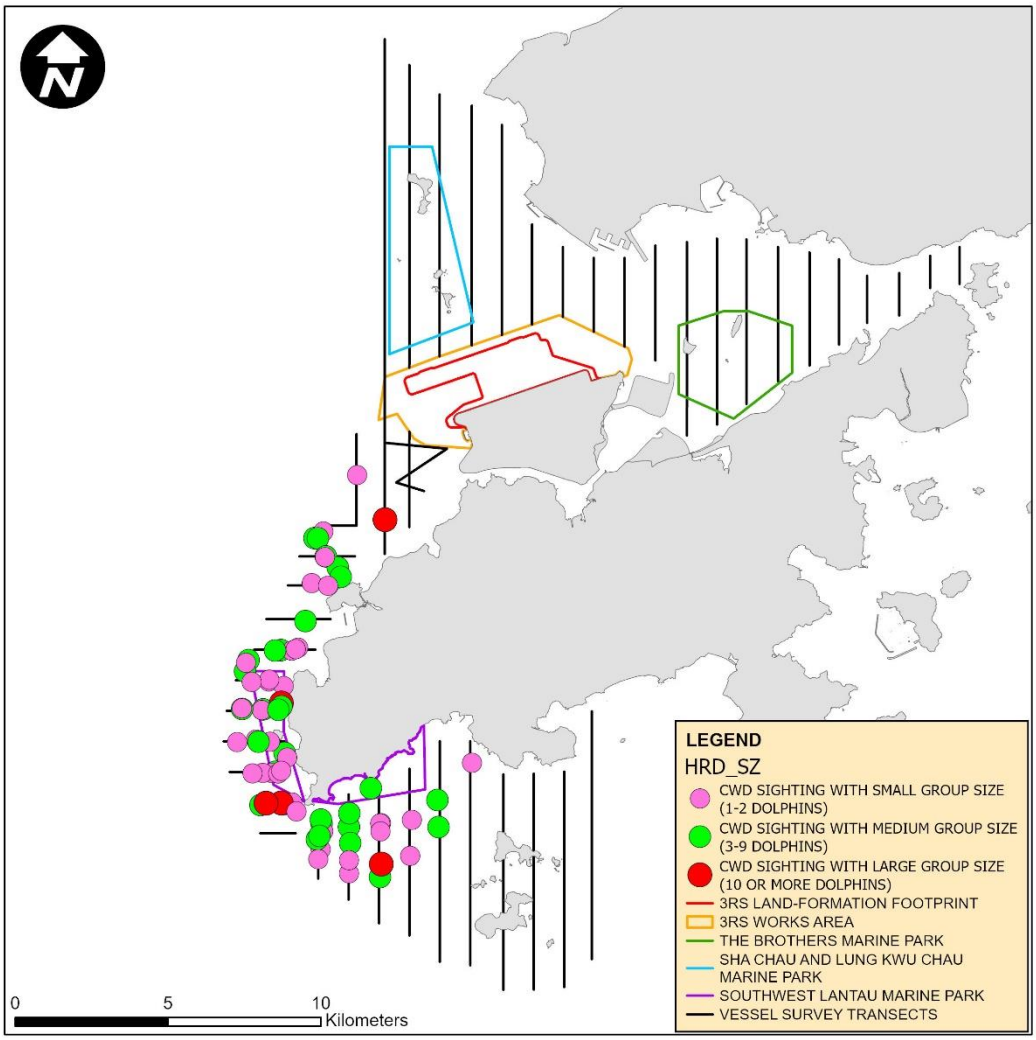
Group Size

From July to September 2024, the group size of CWD sightings ranged from one to 11 dolphins. The average group size of CWD was 3.58 dolphins per group, which is larger than that of the last quarter (2.89 dolphins per group). The average group size of CWD in this reporting quarter is larger than that of the same quarter of last year (3.02 dolphins per group).

In this reporting quarter, over half of the CWD sightings were in small group size (i.e., 1-2 dolphins). There were five CWD sightings with large group size (i.e., 10 or more dolphins) recorded in this reporting period.

There was no apparent pattern in the distribution of small-sized dolphin groups, medium-sized dolphin groups and large-sized dolphin groups in all survey areas. Sighting locations of CWD groups with different group sizes are depicted in **Figure 2.4**.

Figure 2.4: Sighting Locations of Chinese White Dolphins with Different Group Sizes



Remarks: (1) Please note that there are 72 circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this sighting distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

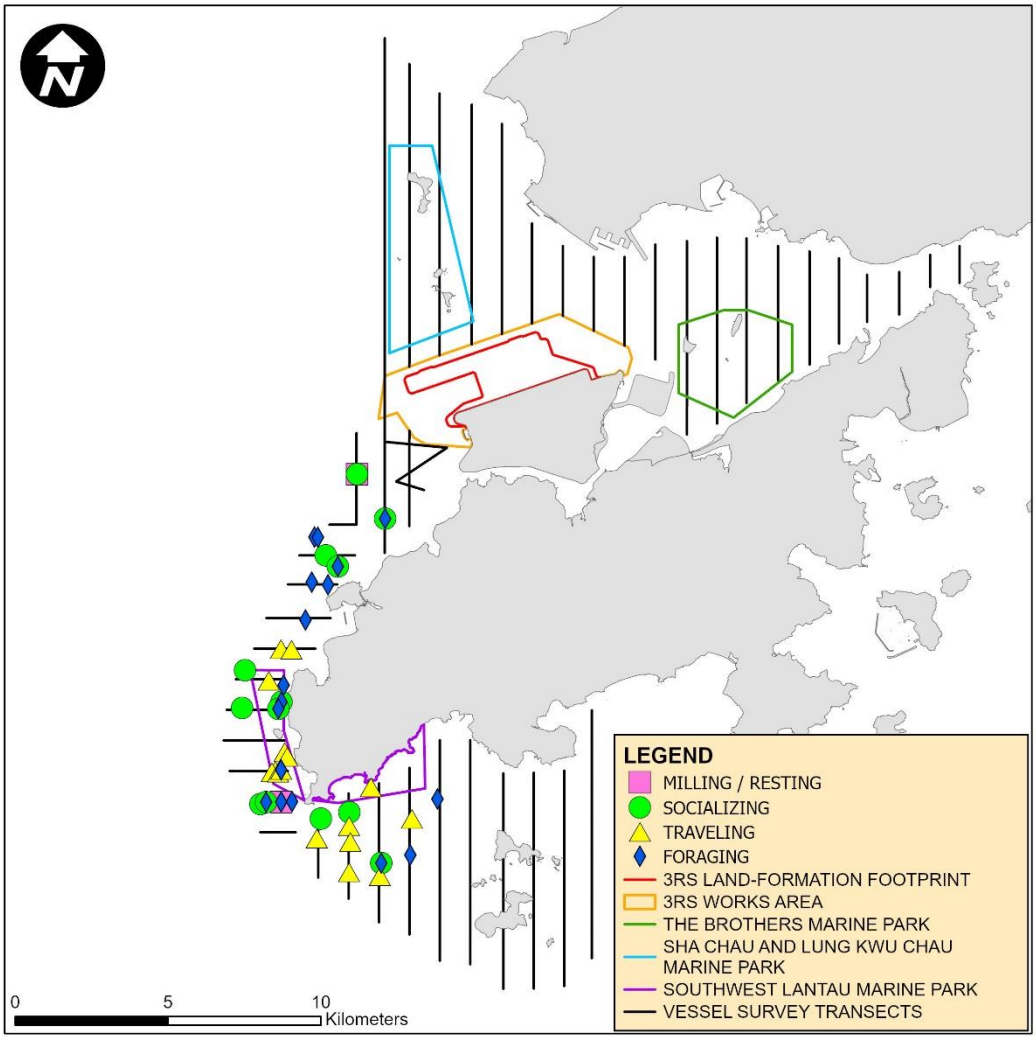
Activities and Association with Fishing Boats

From July to September 2024, 17 sightings of CWD were recorded with foraging activities. Amongst them, four sightings were observed associated with operating purse seiner in WL and SWL while one sighting was observed associated with operating gillnetter in WL.

Sightings with foraging activities recorded in the current reporting period was higher than that in the previous reporting period (i.e., eight sightings involved foraging activities between April and June 2024). The number of CWD sightings with foraging activities in this reporting period was also higher than that in the same quarter of last year (i.e., nine sightings between July to September 2023).

The sighting locations of CWDs engaged in different behaviours during the current reporting period are illustrated in **Figure 2.5**.

Figure 2.5: Sighting Locations of Chinese White Dolphins Engaged in Different Behaviours



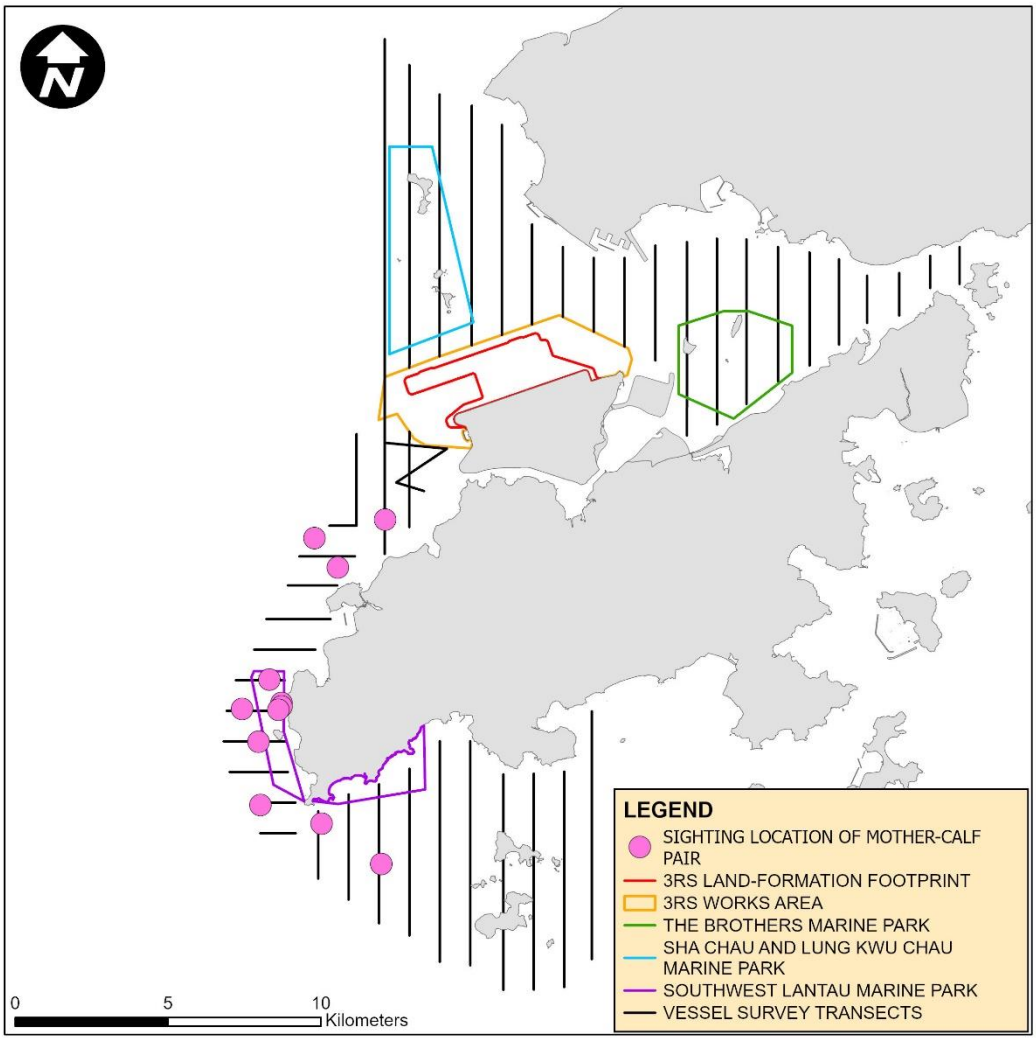
Remarks: (1) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Mother-calf Pairs

From July to September 2024, 12 sightings of CWD were recorded with the presence of mother-and-unspotted juvenile pairs and/or mother-and-calf pair, which was more than that recorded in the previous reporting quarter (i.e., four sightings between April and June 2024). The number of CWD sightings with the presence of mother-calf pairs was also more than that recorded in the same quarter of last year (i.e., seven sightings between July to September 2023).

These 12 sightings with the presence of mother-calf pairs recording during the reporting period were recorded in WL, SWL and NWL survey area. The locations of CWD sightings with the presence of mother-calf pairs are shown in **Figure 2.6**.

Figure 2.6: Sighting Locations of Mother-calf Pairs



Remarks: (1) Please note that there are 12 circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this sighting distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Photo Identification

Between July and September 2024, a total number of 75 different CWD individuals were identified altogether for a total of 125 times. Re-sighting information of CWD individuals provides an initial idea of their range use and apparent connection between different areas of Lantau waters.

Amongst these 75 different CWD individuals, 29 animals (i.e., NLMM012, NLMM013, NLMM023, NLMM028, NLMM039, NLMM065, SLMM002, SLMM023, SLMM049, SLMM050, SLMM052, WLMM001, WLMM003, WLMM005, WLMM043, WLMM052, WLMM065, WLMM071, WLMM077, WLMM079, WLMM109, WLMM111, WLMM114, WLMM118, WLMM141, WLMM154, WLMM200, WLMM201 and WLMM202) were sighted for more than once.

Fifteen individuals including NLMM012, NLMM039, SLMM023, SLMM049, SLMM050, WLMM001, WLMM043, WLMM065, WLMM077, WLMM109, WLMM111, WLMM114, WLMM118, WLMM141 and WLMM200 were re-sighted in different survey areas during this reporting period. The most frequently re-sighted individuals in this reporting quarter were SLMM0049, WLMM001 and WLMM003 that were all successfully identified for five times. The numbers of CWD individuals re-sighted more than once was higher than that of the last report reporting period from April to June 2024 and the number of identified individuals showed cross-area movement is showing the same trend (i.e. 15 CWD individuals in current reporting period versus 7 in last reporting period).

A summary of photo identification works is presented in **Table 2.10**. Representative photos of the 75 identified individuals and figures depicting the sighting locations of the aforementioned 15 individuals re-sighted in different survey areas in this reporting period are presented in **Appendix C**.

Table 2.10: Summary of Photo Identification

Individual ID	Date of sighting	Sighting Group No.	Area
NLMM012	13-Aug-24	2	WL
	4-Sep-24	1	NWL
	10-Sep-24	6	WL
NLMM013	10-Jul-24	4	WL
	12-Jul-24	3	WL
	13-Aug-24	3	WL
NLMM023	9-Sep-24	1	WL
	10-Sep-24	8	WL
NLMM027	9-Sep-24	1	WL
NLMM028	23-Aug-24	5	WL
	9-Sep-24	2	WL
	10-Sep-24	6	WL
NLMM039	13-Aug-24	2	WL
	4-Sep-24	1	NWL
NLMM052	13-Aug-24	3	WL
NLMM055	10-Sep-24	9	WL
NLMM060	10-Jul-24	3	WL
NLMM061	9-Jul-24	2	SWL
NLMM063	9-Jul-24	6	SWL
NLMM065	10-Jul-24	1	WL
	13-Aug-24	3	WL
	10-Sep-24	9	WL
NLMM070	13-Aug-24	3	WL
NLMM090	4-Sep-24	1	NWL
NLMM091	4-Sep-24	1	NWL
NLMM092	4-Sep-24	1	NWL
NLMM093	4-Sep-24	1	NWL
SLMM002	9-Jul-24	3	SWL
	7-Aug-24	2	SWL
SLMM003	23-Aug-24	4	WL
SLMM007	9-Sep-24	4	WL

Individual ID	Date of sighting	Sighting Group No.	Area
WLMM005	10-Jul-24	4	WL
	12-Jul-24	3	WL
WLMM007	10-Sep-24	9	WL
WLMM008	13-Aug-24	8	WL
WLMM009	12-Jul-24	3	WL
WLMM038	12-Jul-24	1	WL
WLMM042	13-Aug-24	8	WL
WLMM043	7-Aug-24	3	SWL
	13-Aug-24	7	WL
WLMM049	9-Sep-24	2	WL
WLMM052	10-Jul-24	3	WL
	10-Sep-24	6	WL
WLMM055	10-Jul-24	4	WL
WLMM056	7-Aug-24	2	SWL
WLMM058	8-Aug-24	3	SWL
WLMM063	12-Jul-24	1	WL
WLMM065	7-Aug-24	2	SWL
	23-Aug-24	1	WL
WLMM067	13-Aug-24	5	WL
WLMM071	10-Jul-24	1	WL
	10-Sep-24	5	WL
WLMM077	9-Jul-24	2	SWL
		3	SWL
	12-Jul-24	2	WL
WLMM079	23-Aug-24	4	WL
	10-Sep-24	9	WL
WLMM082	13-Aug-24	8	WL
WLMM083	10-Sep-24	5	WL
WLMM091	9-Jul-24	12	SWL
WLMM092	9-Jul-24	12	SWL
WLMM102	4-Sep-24	1	NWL

Individual ID	Date of sighting	Sighting Group No.	Area
SLMM010	13-Aug-24	8	WL
SLMM014	11-Jul-24	2	SWL
SLMM023	3-Sep-24	7	SWL
		9	SWL
	10-Sep-24	8	WL
SLMM027	9-Jul-24	2	SWL
SLMM030	12-Jul-24	6	WL
SLMM034	7-Aug-24	2	SWL
SLMM035	3-Sep-24	6	SWL
SLMM049	9-Jul-24	3	SWL
	10-Jul-24	4	WL
	12-Jul-24	6	WL
	23-Aug-24	4	WL
	10-Sep-24	9	WL
SLMM050	9-Jul-24	5	SWL
		6	SWL
	10-Jul-24	4	WL
	7-Aug-24	2	SWL
SLMM052	13-Aug-24	8	WL
	9-Sep-24	4	WL
SLMM055	8-Aug-24	3	SWL
SLMM058	23-Aug-24	1	WL
WLMM001	9-Jul-24	3	SWL
	10-Jul-24	4	WL
	12-Jul-24	6	WL
	13-Aug-24	13	WL
	9-Sep-24	5	WL
WLMM003	13-Aug-24	13	WL
	23-Aug-24	3	WL
		4	WL
		6	WL
	9-Sep-24	5	WL

Individual ID	Date of sighting	Sighting Group No.	Area
WLMM109	10-Jul-24	4	WL
	12-Jul-24	3	WL
	10-Sep-24	9	WL
	11-Sep-24	8	SWL
WLMM111	12-Jul-24	5	WL
	7-Aug-24	2	SWL
WLMM113	9-Jul-24	2	SWL
WLMM114	9-Jul-24	5	SWL
	12-Jul-24	6	WL
	7-Aug-24	2	SWL
WLMM118	9-Jul-24	2	SWL
	13-Aug-24	5	WL
	3-Sep-24	7	SWL
WLMM141	13-Aug-24	5	WL
	11-Sep-24	8	SWL
WLMM147	23-Aug-24	4	WL
WLMM154	13-Aug-24	4	WL
	10-Sep-24	9	WL
WLMM161	10-Jul-24	3	WL
WLMM168	23-Aug-24	1	WL
WLMM192	13-Aug-24	8	WL
WLMM195	9-Sep-24	5	WL
WLMM196	23-Aug-24	1	WL
WLMM197	23-Aug-24	1	WL
WLMM200	10-Jul-24	8	WL
	7-Aug-24	3	SWL
WLMM201	12-Jul-24	6	WL
	13-Aug-24	3	WL
WLMM202	23-Aug-24	3	WL
		4	WL
WLMM203	10-Sep-24	6	WL

2.5.1.2 Site Audit for CWD-related Mitigation Measures

During the reporting period, no dolphin observation station was deployed by the contractor for continuous monitoring of the DEZ in accordance with the DEZ Plan. During this reporting period, no training session were provided by the ET for the proposed dolphin observers.

Summary of audits of SkyPier HSFs route diversion and speed control and construction vessel management are presented in **Section 2.7** and **Section 2.8** respectively.

2.6 Environmental Site Inspection

Site inspections of the construction works to audit the implementation of proper environmental pollution control and mitigation measures for the Project were conducted by ET and IEC on a weekly and bi-weekly basis, respectively. Besides, ad-hoc site inspections were also conducted by ET and IEC if environmental problems were identified, or subsequent to receipt of an environmental complaint, or as part of the investigation work. These site inspections provided a direct means to reinforce the specified environmental protection requirements and pollution control measures in construction sites.

During site inspections, environmental situation, status of implementation of pollution control and mitigation measures were observed. Environmental documents and site records, including waste

disposal record, maintenance record of environmental equipment, and relevant environmental permit and licences, were also checked on-site. Observations were recorded in the site inspection checklist and passed to the contractor together with the appropriate recommended mitigation measures where necessary in order to advise contractors on environmental improvement, awareness and on-site enhancement measures. The observations were made with reference to the following information during the site inspections:

- The EIA and EM&A requirements;
- Relevant environmental protection laws, guidelines, and practice notes;
- The EP conditions and other submissions under the EP;
- Monitoring results of EM&A programme;
- Works progress and programme;
- Proposal of individual works;
- Contract specifications on environmental protection; and
- Previous site inspection results.

Good site practices were implemented in the project to enhance environmental performance. Key examples implemented in the Project are highlighted as below:

1. Silt curtain was deployed to minimise potential water quality impact during construction.
2. Hydroseeding was used at the slope area to minimise soil erosion and surface runoff.
3. Impervious liners were installed beneath and over the treated contaminated marine sediment at the storage area to prevent potential leachate seepage.

		
Deployment of silt curtain	Hydroseeding was used to reduce soil erosion and runoff	Impervious liners were installed beneath and over the treated contaminated marine sediment

Besides, advice was given when necessary to ensure the construction workforce were familiar with relevant procedures, and to maintain good environmental performance on site. Regular toolbox talks on environmental issues were organised for the construction workforce by the contractors to ensure understanding and proper implementation of environmental protection and pollution control mitigation measures.

A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix B**.

2.6.1 Landscape and Visual Mitigation Measures

Implementation of applicable landscape and visual mitigation measures (reference to the environmental protection measures CM1 – CM10 and OM7 in **Appendix B**) was monitored regularly in accordance with the Manual. The implementation status of the environmental protection measures is summarised in **Table 2.11**. For trees which were managed under the Project during the reporting period, relevant measures (i.e., CM1 – CM9) were implemented by Contract 3508. For CM10, the advanced hydroseeding works around taxiways and runways were

carried out during the reporting period. The total number of retained trees, transplanted trees and to-be-transplanted trees under the management of Project are summarized in **Table 2.12**.

The total number of retained trees of the Project as of September 2024 remained unchanged (i.e. 33) comparing to the previous reporting period.

The cumulative total number of transplanted trees of the Project remained unchanged (i.e. 26 nos.) comparing with previous reporting quarter. Details of the summary of transplanted trees are shown in **Table 2.13**. Photos of the transplanted trees are presented in **Table 2.14**.

For OM7, the bi-monthly site inspections for 12-month establishment period were undertaken in July and September 2024 during the reporting period.

Table 2.11: Landscape and Visual – Construction Phase Audit Summary

Landscape and Visual Mitigation Measures during Construction Implementation Status	Implementation Status	Relevant Contract(s) in the Reporting Period
CM1 – The construction area and contractor's temporary works areas shall be minimised to avoid impacts on adjacent landscape.	The implementation of mitigation measures were checked by ET during weekly site inspection and clarified by the Contractors during the monthly Environmental Management Meetings. Implementation of the measures CM5, CM6 and CM7 by Contractors was observed.	All works contracts
CM2 – Reduction of construction period to practical minimum.		
CM3 – Phasing of the construction stage to reduce visual impacts during the construction phase.		
CM4 – Construction traffic (land and sea) including construction plants, construction vessels and barges shall be kept to a practical minimum.		
CM5 – Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.		
CM6 – Avoidance of excessive height and bulk of site buildings and structures		
CM7 – Control of night-time lighting by hooding all lights and through minimisation of night working periods		
CM8 – All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas	Tree Protection Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project. The Contractors' performance on the implementation of the trees maintenance and protection measures were observed and checked by the ET weekly during construction period.	3508
CM9 – Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme	Tree Transplanting Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees will unavoidably be affected by the construction works.	3508

Landscape and Visual Mitigation Measures during Construction Implementation Status	Implementation Status	Relevant Contract(s) in the Reporting Period
	The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site. The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works. Long term management of the transplanted trees were currently monitored by ET annually.	
CM 10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical	The Contractor's performance on the implementation of advanced hydroseeding works was observed and checked by the ET during the weekly site inspection.	3310
OM7 – Compensatory tree planting for all felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under the relevant technical circulars.(1)	Compensatory trees have been planted in batches at different time periods. The compensatory trees were checked by ET bi-monthly during the 12-month establishment period after the completion of each batch of compensatory tree planting works. Subsequently, the trees were monitored annually throughout the 10-year long-term management period, succeeding the establishment period for each batch of compensatory planting.	AAHK

Note:
(1) AAHK is the management and maintenance agency of the compensatory trees. Tree Felling Application is not required for 3RS project.

Table 2.12: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period

Contract No.	Retained (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3503(1)	0	0	9	0
3508	33	0	12	0
3801(2)	0	0	5	0
Grand Total	**33**	**0**	**26**	**0**

Notes:
(1) Contract 3503 was completed and the 9 transplanted trees, including T835, T836, T838, T812, T814, T815, T829, T830 and T831, have been handed over to AAHK in February 2022.

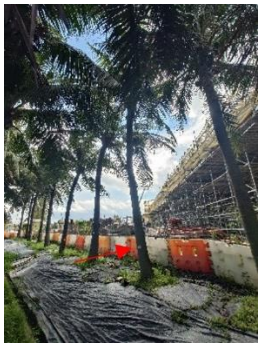
(2) The 5 transplanted trees, including CT276, CT1253, CT1194, CT1794 and CT1795, have been handed over to other management agencies. Details of the management agency are presented in **Table 2.13**.

Table 2.13: Summary of the Transplanted Trees Updated in the Reporting Period

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Next inspection will be conducted in February 2025. Photos of the last inspection in February 2024 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 98.
CT1253	4 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. The trees within the land parcel was acquired for construction of infrastructure. The trees were felled in 2023.
T836	13 Dec 2019	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T838	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T812	21 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	Next inspection will be conducted in December 2024. Photos of the last inspection in December 2023 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 96.
T814	20 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T815	15 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T829	18 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T830	14 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T831	19 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T1493	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	Next inspection will be conducted in July 2025. Photos of the last inspection in July 2024 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.103.
T1494	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1495	10 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1496	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1497	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1498	29 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1499	29 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1500	30 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1501	30 Jun 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1502	5 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1503	6 Jul 2021	Long Term Management period Aug 2022 – Jul 2031	Contract 3508	
T1504	24 Jun 2021	Long Term Management period	Contract 3508	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
		Aug 2022 – Jul 2031		
CT1194	4 May 2018	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filing Station.
CT1794	3 May 2018	Long Term Management period Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	Long Term Management period Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 2.14: Photos of the Existing Transplanted Trees Inspected in the Reporting Period

Under 10-year Long-term Management:		
		
T1493	T1494	T1495
		
T1496	T1497	T1498

		
T1499	T1500	T1501
		
T1502	T1503	T1504

2.6.2 Land Contamination Assessment

The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20. The CARs for Golf Course and T2 Emergency Power Supply Systems (EPSS) were submitted to EPD in accordance with EP Condition 1.9 and the Supplementary CAP, in which no land contamination issues were identified. EPD has issued no further comment for aforesaid CARs. No leakage was found after the removal of underground fuel pipelines and all required additional photos were submitted to EPD.

According to the approved supplementary CAP, there are 3 remaining locations where site re-appraisal / additional site investigation is proposed. The site re-appraisal summary report for Fire Training Facility was submitted and accepted by EPD on 20 December 2023. The status of site re-appraisal/ additional site investigation of the 2 remaining locations (Fuel Tank Room to the west of CAD Antenna Farm and Airside Petrol Filling Station) shall be further updated upon latest development programme is available.

2.7 Audit of SkyPier High Speed Ferries

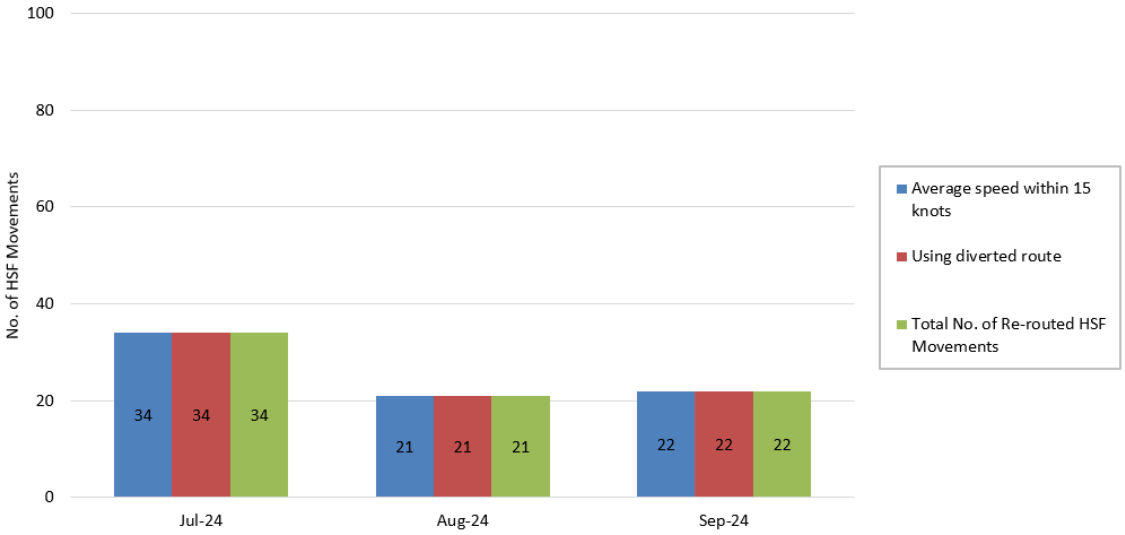
The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) was submitted to the Advisory Council on the Environment for comment and subsequently submitted to and approved by EPD in November 2015 under EP Condition 2.10. The approved SkyPier Plan is available on the dedicated website of the Project. In the SkyPier Plan, AAHK has committed to implement the mitigation measure of requiring HSFs of SkyPier travelling between HKIA and Zhuhai / Macau to start diverting the route with associated speed control across the area, i.e. Speed Control Zone (SCZ), with high CWD abundance. The route diversion and speed restriction at the SCZ have been implemented since 28 December 2015.

In total, 77 ferry movements between HKIA SkyPier and Macau were audited in the reporting period. The daily movements of all SkyPier HSFs in the reporting period, including those not using

the diverted route, ranged between 11 and 62, which fell within the maximum daily cap number of 125.

The average speed of the HSF travelling through the Speed Control Zone (SCZ) ranged from 10.7 to 14.0 knots. All HSFs travelled through the SCZ with average speed within 15 knots, used diverted route and entered / left SCZ through gate access points in compliance with the SkyPier Plan. The summary of the SkyPier Plan monitoring result is presented in **Graph 1**.

Graph 1: Summary of SkyPier High Speed Ferries Monitoring Results



2.8 Audit of Construction and Associated Vessels

On the implementation of the updated Marine Travel Routes and Management Plan for Construction and Associated Vessels (MTRMP-CAV), the Maritime Surveillance System (MSS) automatically recorded deviation cases such as speeding, and entering no entry zone. ET conducted bi-weekly audit of relevant information including AIS data, vessel tracks and other relevant records to ensure sufficient information were provided by the system and the contractors complied with the requirements of the MTRMP-CAV. The contactors submitted 3-month rolling vessel plans for construction vessel activities to AAHK in order to help maintain the number of construction vessels to a practicable minimum. The IEC also performed audit on the compliance of the requirements as part of the EM&A programme.

During the reporting period, deviations including speeding within the works area, and entering no-entry zones were identified. After investigation by the contractors' Construction Traffic Control Centre (CTCC) representatives, all the concerned captains were reminded to comply with the requirements of the MTRMP-CAV.

Two skipper training workshops were held with three skippers by ET. Six skipper training workshops were held with 18 skippers by contractors' Environmental Officers and competency tests were conducted subsequently with the trained skippers by ET.

Two skipper refresh training sessions were held for the contractors' Environmental Officers and skippers to familiarize them with the predefined routes and the required environmental practices / measures for the designation of North Lantau Marine Park on 1 November 2024.

2.9 Review of the Key Assumptions Adopted in the EIA Report

With reference to Appendix E of the Manual, it is noted that the key assumptions adopted in approved EIA report for the construction phase are still valid and no major changes are involved. The environmental mitigation measures recommended in the approved EIA Report remain applicable and shall be implemented in undertaking construction works for the Project.

3 Report on Non-compliance, Complaints, Notifications of Summons and Prosecutions

3.1 Compliance with Other Statutory Environmental Requirements

During the reporting period, environmental related licenses and permits required for the construction activities were checked. No non-compliance with environmental statutory requirements was recorded.

3.2 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions

3.2.1 Complaints

During the reporting period, one environmental complaint was received and the details are summarized in **Table 3.1** below.

Table 3.1: Summary of Environmental Complaints

Date of Complaint Received	Details	Analysis/ Remedial Actions	Status
3 September 2024	A complaint regarding dust nuisance was received.	A complaint regarding dust nuisance at 3RS construction site was received on 3 September 2024. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. ET requested the relevant contractors to provide information regarding the complaint and replies indicated dust suppression measures were implemented. During the ET's site inspections, fugitive dust due to vehicle movements and dry haul roads were recorded. As such, the relevant contractors were reminded to continuously review and update their respective dust suppression plan including but not limited to the availability of water trucks, adequacy of water spraying and frequency of environmental training for workers, and also implement dust mitigation measures at their haul roads in works areas. Hence, the case was considered closed.	Closed

3.2.2 Notifications of Summons or Status of Prosecution

Neither notification of summons nor prosecution was received during the reporting period.

3.3 Cumulative Statistics

Cumulative statistics on valid exceedance, non-compliance, complaints, notifications of summons and status of prosecutions are summarised in **Table 3.2** and **Table 3.3**.

Table 3.2: Statistics for Valid Exceedances for the Environmental Monitoring

		Total No. Recorded in the Reporting Period	Total No. Recorded since the Project Commenced
1-hr TSP	Action Level	0	0
	Limit Level	0	0
Noise	Action Level	0	0
	Limit Level	0	0
Waste	Action Level	0	1
	Limit Level	0	0
Water	Action Level	Nil(2)	0
	Limit Level	Nil(2)	0
CWD	Action Level	Nil(3)	0
	Limit Level	Nil(3)	0

Remarks: 1) Non-project related triggers of Action or Limit Level are not shown in this table.
2) With the completion of land formation works including seawall construction and all marine filling works in the first quarter of 2023, the construction phase water quality impact monitoring was terminated after 31 October 2023. No water quality impact monitoring was undertaken during the reporting period.
3) Construction phase CWD monitoring by small vessel line-transect survey supplemented by land-based theodolite tracking survey and passive acoustic monitoring was completed in December 2023. No CWD impact monitoring was undertaken during the reporting period.

Table 3.3: Statistics for Non-compliance, Complaints, Notifications of Summons and Prosecution

Reporting Period	Cumulative Statistics			
	Non-compliance	Complaints	Notifications of Summons	Prosecutions
This reporting period	0	1	0	0
From 28 December 2015 to end of the reporting period	0	77	2	2

4 Conclusion and Recommendation

In the third quarter of 2024, the EM&A programme has been implemented as planned, including 96 sets of air quality measurements, 54 sets of construction noise measurements, 6 complete sets of vessel line transect surveys for post-construction phase CWD monitoring, as well as environmental site inspections and waste monitoring for the Project's construction works.

The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included land improvement works, filling works, pavement works, superstructure works for Terminal 2 Concourse, tunnel works for APM and BHS and associated works. Land-based works on existing airport island involved T2 expansion works, modification and tunnel works for APM and BHS, utilities works, road and drainage works, excavation works, and 132kV cable laying works.

Monitoring results of construction dust, construction noise, and construction waste did not trigger the corresponding Action and Limit Levels during the reporting period. No non-conformity was recorded for landscape & visual monitoring in the reporting period.

All water impact monitoring work has been completed, with results presented in the Annual EM&A Report for 2023 and to be included in the Final EM&A Report. Based on the analysis presented in Annual EM&A report for 2023, the post-construction phase water quality monitoring did not reveal significant changes of the water quality when comparing with baseline water quality monitoring, and it can be concluded that the marine works of the Project during construction phase did not cause deterioration in or adverse impacts on the marine water quality surrounding the Project site.

Post-construction phase CWD monitoring by vessel line transect survey were conducted following the same methodology as adopted in construction phase monitoring. A total of around 1,325 km of survey effort was collected from these surveys during the reporting period, with around 96.8% of the total survey effort being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility) and a total of 72 sightings and with 258 dolphins were recorded during on-effort searches under such favourable weather condition.

Site inspections of the construction works to audit the implementation of proper environmental pollution control and mitigation measures for the Project were conducted by ET and IEC on a weekly and bi-weekly basis, respectively. Site inspection findings were recorded in the site inspection checklists and provided to the contractors to follow up.

In total of 77 HSF movements under the SkyPier Plan were audited in the reporting period. All HSFs were travelled through the SCZ with average speed under 15 knots, used diverted route and entered / left SCZ through gate access points in compliance with the SkyPier Plan. In summary, the ET and IEC audited the HSF movements against the SkyPier Plan and conducted follow up investigations or actions accordingly.

During the reporting period, ET conducted bi-weekly audit of the MSS to ensure the system recorded all deviation cases accurately and the contractors fully complied with the requirements of the MTRMP-CAV.

On the implementation of DEZ Plan, no dolphin observation station was deployed by the contractor for continuous monitoring of the DEZ.

In accordance with Condition 2.6 of EP, AAHK has assisted AFCD in taking forward the statutory procedures for the designation of the NLMP. A gazette notice regarding the approved map was published by the Government on 29 September 2023 with a Draft Designation Order and a

relevant Executive Council paper was prepared. The NLMP will come into effect on 1 November 2024 and shall tie in with the commissioning of the 3RS.

The recommended environmental mitigation measures, as included in the EM&A programme, were effectively implemented during the reporting period. Also, the EM&A programme implemented by the ET has effectively monitored the construction activities and ensured the proper implementation of mitigation measures.

Figures

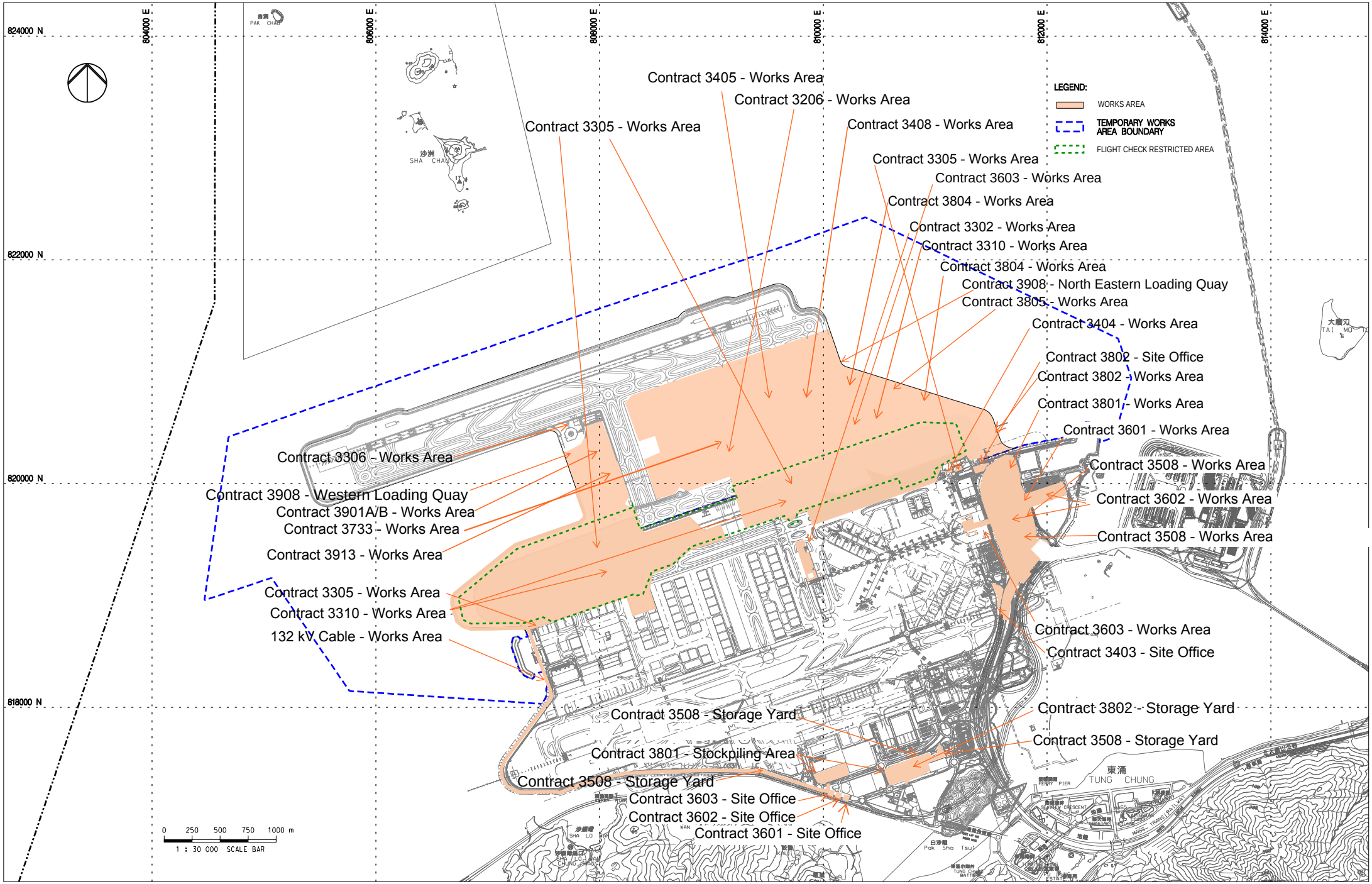
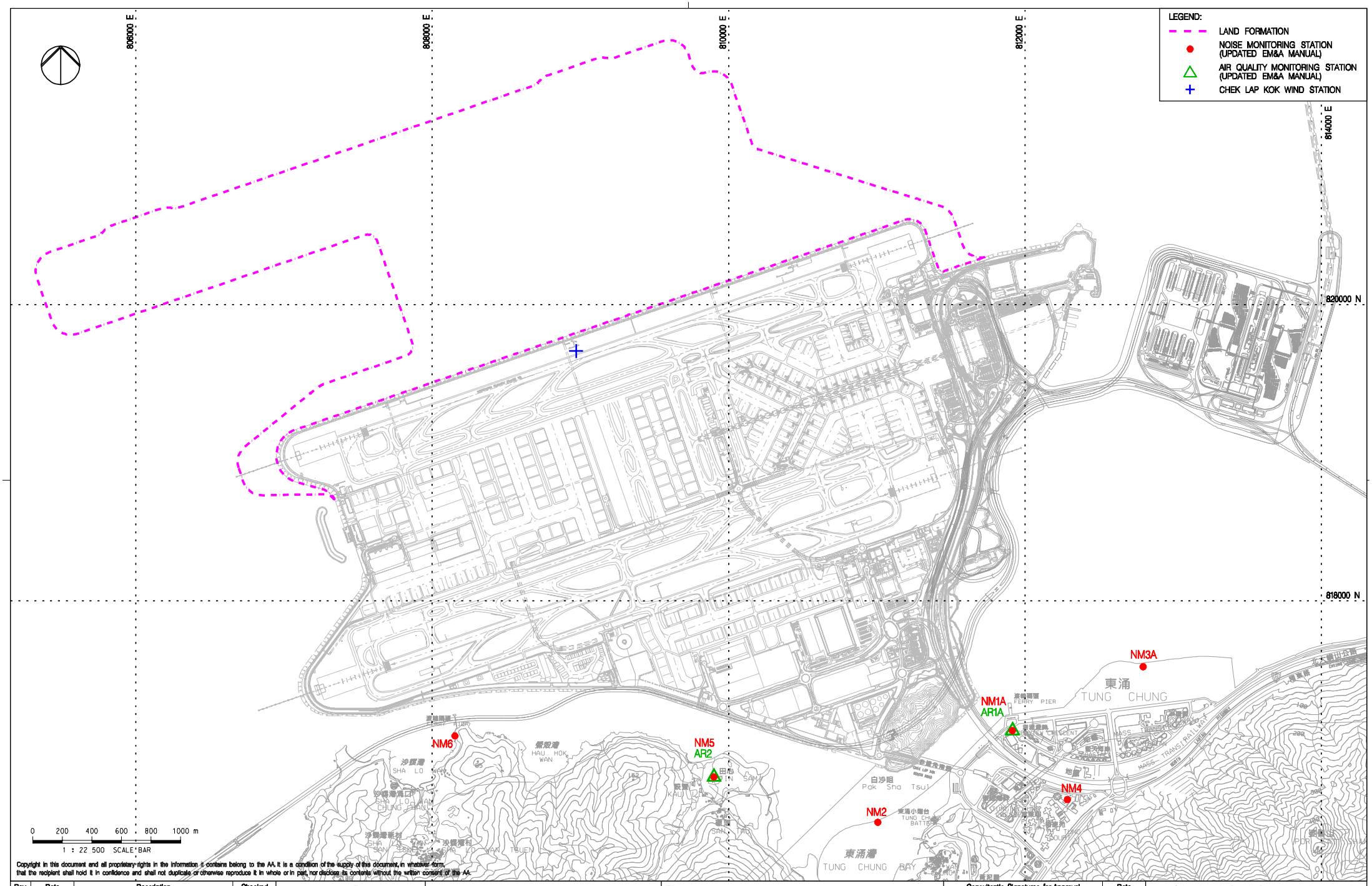


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

Note: The locations are for indicative purpose. The actual construction work locations are in accordnace with the construction work programme.



Rev.	Date	Description	Checked
A	06JAN16	FIRST ISSUE	RO
B	29JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	29OCT18	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LOCATIONS OF AIR AND NOISE MONITORING STATIONS AND CHEK LAP KOK WIND STATION

Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

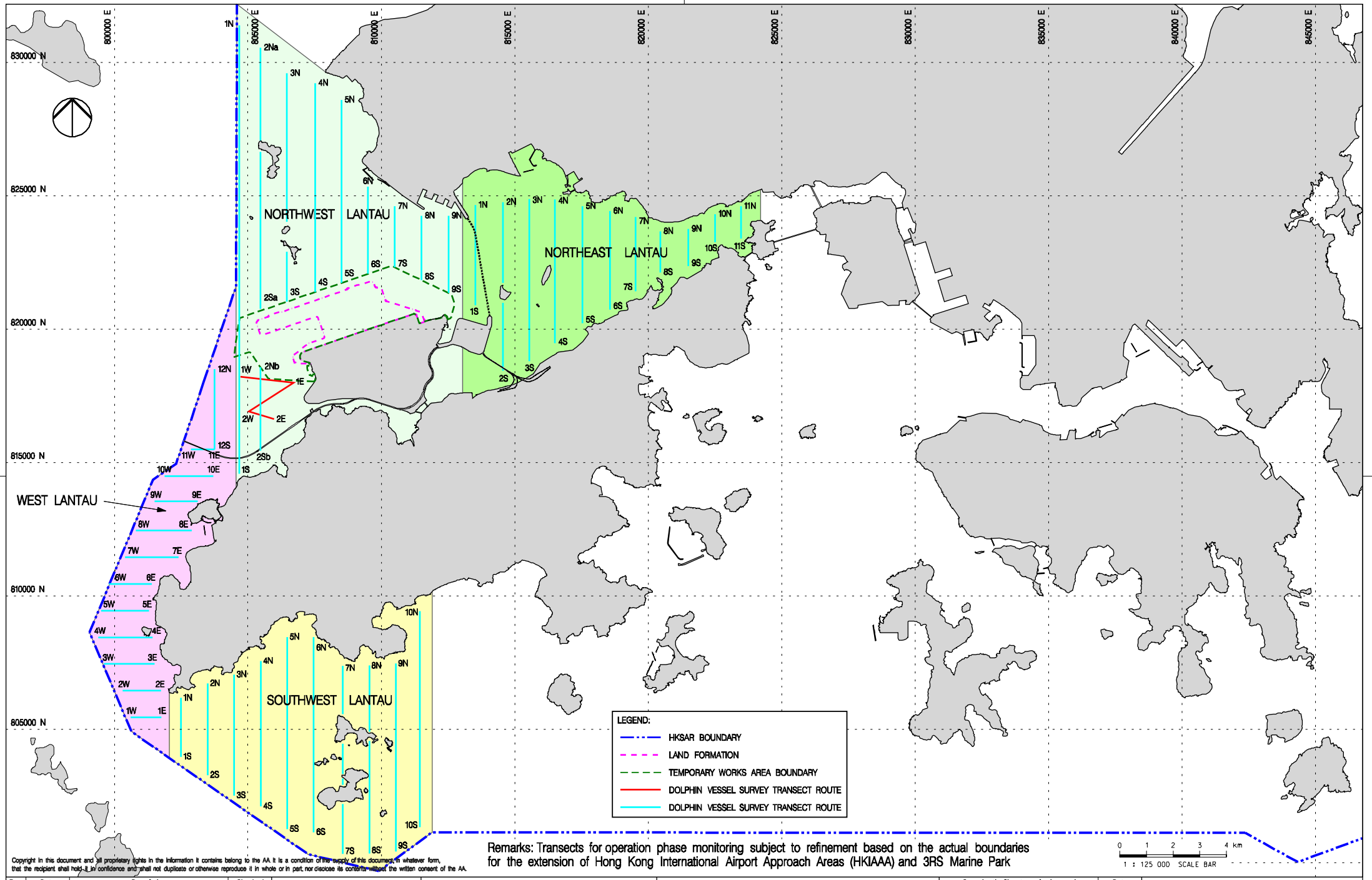
Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. D

Filename: J:\355482\REPORT\ENV\EMA\181029\FIG 2.1.dgn



Remarks: Transects for operation phase monitoring subject to refinement based on the actual boundaries for the extension of Hong Kong International Airport Approach Areas (HKIAAA) and 3RS Marine Park

Rev.	Date	Description	Checked
B	27JUL16	GENERAL REVISION	JT
C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

VESSEL BASED DOLPHIN MONITORING TRANSECTS IN CONSTRUCTION, POST-CONSTRUCTION AND OPERATION PHASES

Consultant's Signatures for Approval		Date
Design	JC	04APR19
Checkers	JC / TK	04APR19
Approver	EC	04APR19

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

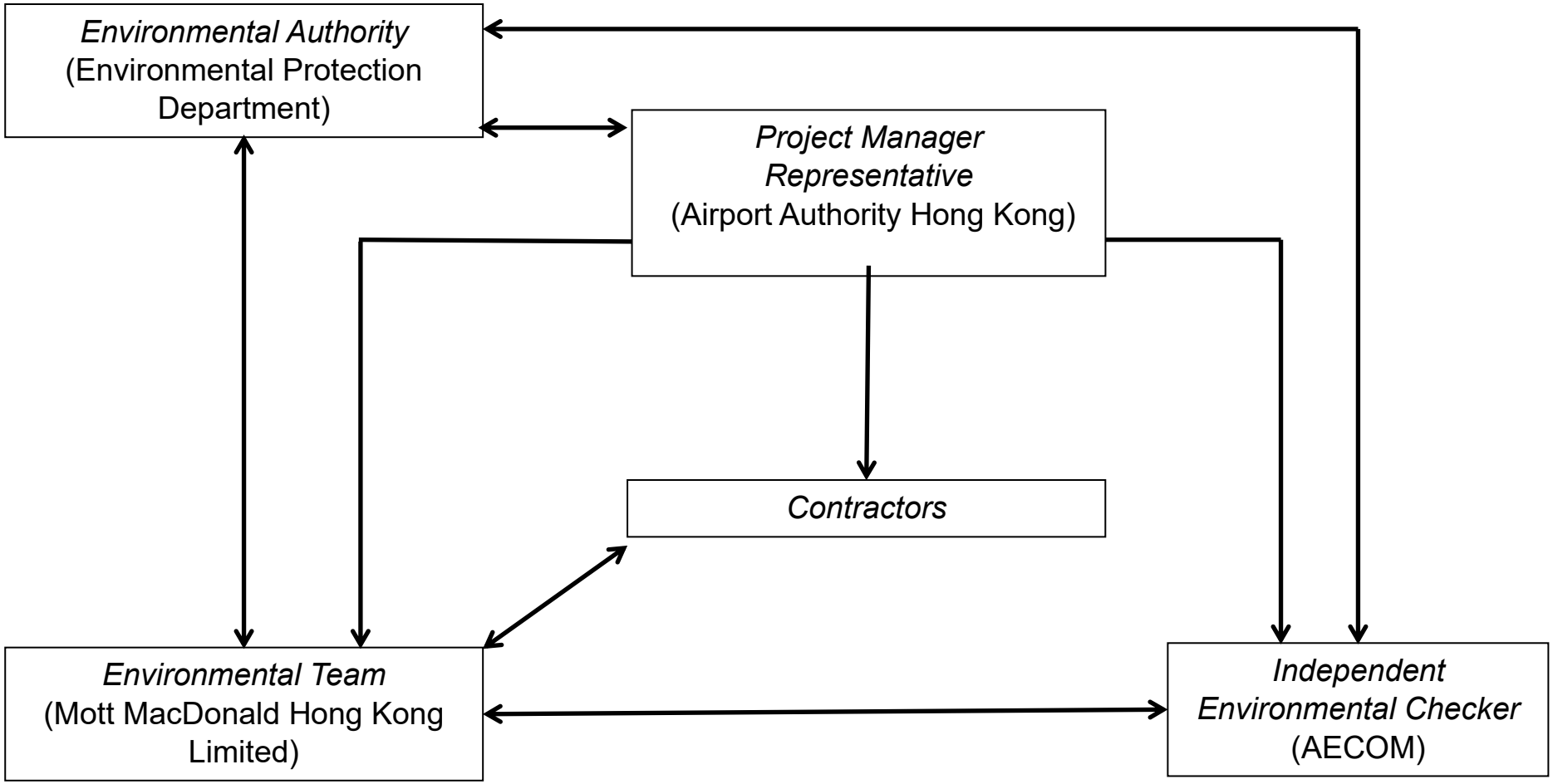
Drawing No. FIGURE 2.2

Scale at A3 1 : 125000

Rev. F

Filename: J:\355482\REPORT\ENV\EMA\190404\FIG 6.1.dgn

Appendix A. Project Organization Chart


Environmental Authority
(Environmental Protection Department)
Project Manager Representative
(Airport Authority Hong Kong)
Contractors
Environmental Team
(Mott MacDonald Hong Kong Limited)
Independent Environmental Checker
(AECOM)

Appendix B. Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Air Quality Impact – Construction Phase		
5.2.6.2	2.1	-	**Dust Control Measures** ▪ Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	▪ Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling.	Within construction site / Duration of the construction phase	I
5.2.6.4	2.1	-	Dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted. These practices include: Good Site Management ▪ Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads ▪ Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or ▪ Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	Within construction site / Duration of the construction phase	I
			Exposed Earth ▪ Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	Within construction site / Duration of the construction phase	I
			Loading, Unloading or Transfer of Dusty Materials ▪ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Debris Handling ▪ Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides; and ▪ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	Within construction site / Duration of the construction phase	I
			Transport of Dusty Materials ▪ Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	Within construction site / Duration of the construction phase	I
			Wheel washing ▪ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	Within construction site / Duration of the construction phase	I
			Use of vehicles ▪ The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site; ▪ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and ▪ Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	Within construction site / Duration of the construction phase	I
			Site hoarding ▪ Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	**Best Practices for Concrete Batching Plant** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include: Cement and other dusty materials ▪ The loading, unloading, handling, transfer or storage of cement, pulverised fuel ash (PFA) and/or other equally dusty materials shall be carried in a totally enclosed system acceptable to EPD. All dust-laden air or waste gas generated by the process operations shall be properly extracted and vented to fabric filtering system to meet the required emission limit; ▪ Cement, PFA and/or other equally dusty materials shall be stored in storage silo fitted with audible high-level alarms to warn of over-filling. The high-level alarm indicators shall be interlocked with the material	Within Concrete Batching Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			filling line such that in the event of the silo approaching an overfilling condition, an audible alarm will operate, and after 1 minute or less the material filling line will be closed; ▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit; ▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and ▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery.		
			Other raw materials ▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions; ▪ The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stockpiles and material discharge points; ▪ All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices; ▪ The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; ▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; ▪ Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; ▪ Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used; ▪ The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side; ▪ Aggregates with a nominal size greater than 5 mm should preferably be stored in a totally enclosed structure. If open stockpiling is used, the stockpile shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; and ▪ The opening between the storage bin and weighing scale of the materials shall be fully enclosed.	Within Concrete Batching Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Loading of materials for batching ▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: (a) Pre-mixing the materials in a totally enclosed concrete mixer before loading the materials into the concrete truck is recommended. All dust-laden air generated by the pre-mixing process as well as the loading process shall be totally vented to fabric filtering system to meet the required emission limit; and (b) If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit. ▪ The loading bay shall be totally enclosed during the loading process.	Within Concrete Batching Plant / Duration of the construction phase	I
			Vehicles ▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and ▪ All access and route roads within the premises shall be paved and adequately wetted.	Within Concrete Batching Plant / Duration of the construction phase	I
			Housekeeping ▪ A high standard of housekeeping shall be maintained. All spillages or deposits of materials on ground, support structures or roofs shall be cleaned up promptly by a cleaning method acceptable to EPD. Any dumping of materials at open area shall be prohibited.	Within Concrete Batching Plant / Duration of the construction phase	I
5.2.6.6	2.1	-	**Best Practices for Asphaltic Concrete Plant** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Tar and Bitumen Works (Asphaltic Concrete Plant) BPM 15 (94) as well as in the future Specified Process licence should be adopted. These include: Design of Chimney ▪ The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater; ▪ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition; ▪ The flue gas exit temperature shall not be less than the acid dew point; and ▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			Cold feed side ▪ The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area;	Within Asphaltic Concrete Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Where there is sufficient buffer area surrounding the plant, ground stockpiling may be used. The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side. If these aggregates are stored above the feeding hopper, they shall be enclosed at least on top and three sides and be wetted on the surface to prevent wind-whipping; ▪ The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; ▪ Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance; ▪ Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and ▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures.		
			Hot feed side ▪ The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values; ▪ The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value; ▪ All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings; ▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages; ▪ All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and ▪ Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units).	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			Material transportation ▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions;	Within Asphaltic Concrete Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Roadways from the entrance of the plant to the product loading points and/or any other working areas where there are regular movements of vehicles shall be paved or hard surfaced; and ▪ Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers.		
			Control of emissions from bitumen decanting ▪ The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note; ▪ Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached; ▪ Proper chimney for the discharge of bitumen fumes shall be provided at high level; ▪ The emission of bitumen fumes shall not exceed the required emission limit; and ▪ The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			Liquid fuel ▪ The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
			Housekeeping ▪ A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis.	Within Asphaltic Concrete Plant / Duration of the construction phase	I
5.2.6.7	2.1	-	**Best Practices for Rock Crushing Plants** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include: Crushers ▪ The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter; ▪ The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping; ▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and ▪ Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Vibratory screens and grizzlies ▪ All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and ▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			Belt conveyors ▪ Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides; ▪ Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			Storage piles and bins ▪ Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required. ▪ The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; ▪ All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or ▪ The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls; and ▪ Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Rock drilling equipment ▪ Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.	Within Rock Crushing Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			Hazard to Human Life – Construction Phase		
Table 6.40	3.2	-	▪ Precautionary measures should be established to request barges to move away during typhoons.	Construction Site / Construction Period	I
Table 6.40	3.2	-	▪ An appropriate marine traffic management system should be established to minimize risk of ship collision.	Construction Site / Construction Period	I
Table 6.40	3.2	-	▪ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	I
			Noise Impact – Construction Phase		
7.5.6	4.3	-	**Good Site Practice** Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: ▪ only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; ▪ machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; ▪ plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; ▪ mobile plant should be sited as far away from NSRs as possible; and ▪ material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Adoption of QPME** ▪ QPME should be adopted as far as applicable.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Use of Movable Noise Barriers** ▪ Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.	Within the Project site / During construction phase / Prior to commencement of operation	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
7.5.6	4.3	-	**Use of Noise Enclosure/ Acoustic Shed** ▪ Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.	Within the Project site / During construction phase / Prior to commencement of operation	I
			Water Quality Impact – Construction Phase		
8.8.1.2 and 8.8.1.3	5.1	2.26	**Marine Construction Activities** <u>General Measures to be Applied to All Works Areas</u> ▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; ▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited; ▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; ▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; ▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; ▪ All vessels shall be sized such that adequate clearance is maintained between vessels and the seabed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; ▪ The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and ▪ For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the wastewater meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.	Within construction site / Duration of the construction phase	C – Completed in Apr 2022
			<u>Specific Measures to be Applied to All Works Areas</u> ▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; ▪ A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023
			▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities;		C – Completed in May 2018

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Closed grab dredger shall be used to excavate marine sediment; ▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and		C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The Silt Curtain Deployment Plan shall be implemented.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)
			<u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u> ▪ Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and		I – For C7a C – Completed in Dec 2021 for C8 *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u> ▪ Double layer 'Type II' or 'Type III' silt curtains to be applied around the eastern openings between partially completed seawalls prior to commencement of marine filling activities. The silt curtains shall be configured to minimise SS release during ebb tides;	Within construction site / Duration of the construction phase	C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;		C – Marine filling works completed in March 2023 (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and		I – For C7a C – Completed in Dec 2021 for C8 (The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I – For C7a and localised silt curtains (All enhanced silt curtain removed since March 2023)
			<u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u> ▪ Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and ▪ Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.	Within construction site / Duration of the construction phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
					conducted anymore
8.8.1.4	5.1	-	**Modification of the Existing Seawall** ▪ Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works.	At the existing northern seawall / Duration of the construction phase	N/A – no marine-based seawall modification works undertaken after land formation.
8.8.1.5	5.1	-	**Construction of New Stormwater Outfalls and Modifications to Existing Outfalls** ▪ During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations.	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	**Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons** Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment.	Within construction site / Duration of the construction phase	C – For approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			<u>For construction of the eastern approach lights at the CMPs</u> ▪ Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; ▪ Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; ▪ The excavated materials shall be removed using a closed grab within the steel casings; ▪ No discharge of the cement mixed materials into the marine environment will be allowed; and ▪ Excavated materials shall be treated and reused on-site.		C – Completed in Oct 2021
8.8.1.8	5.1	-	**Construction of Site Runoff and Drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:	Within construction site / Duration of the construction phase	
			▪ Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sandbag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractors prior to the commencement of construction (for works		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform);		
			▪ 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 standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction;		I
			▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly;		I
			▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities;		I
			▪ In the event that contaminated groundwater is identified at excavation areas, this should be treated on-site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and		I
			▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge.		I
			▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the construction materials, soil, silt or debris from washing away into the drainage system;		I
			▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and to prevent stormwater runoff being directed into foul sewers; and		I
			▪ Precautionary measures should be taken at any time of the year when rainstorms are likely. Actions to be taken when a rainstorm is imminent or forecasted are summarized in Appendix A2 of ProPECC Note PN 1/94. This includes actions to be taken during and/or after rainstorms. Particular attention should be paid to the control of silty surface runoff during storm events.		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.9	5.1	-	**Sewage Effluent from Construction Workforce** ▪ Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Within construction site / During construction phase	I
8.8.1.10 8.8.1.11	5.1		**General Construction Activities** ▪ Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used; and ▪ Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.	Within construction site / During construction phase	I
8.8.1.12 8.8.1.13	5.1	2.28	**Drilling Activities for the Submarine Aviation Fuel Pipelines** To prevent potential water quality impacts at Sha Chau, the following measures shall be applied: ▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; ▪ No bulk storage of chemicals shall be permitted; and ▪ A containment pit shall be constructed around the drill holes. This containment pit shall be lined with impermeable lining and bunded on the outside to prevent inflow from off-site areas.	Within construction site / During construction phase	C – Completed in Jan 2019
			At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater: ▪ During pipe cleaning, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meet the WPCO/TM requirements before discharge; and ▪ Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	Within construction site / During construction phase	C – Completed in Jan 2019
			Waste Management Implication – Construction Phase		
10.5.1.1	7.1	-	Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended: ▪ The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&D materials;	Project Site Area / During design and construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Priority should be given to collect and reuse suitable inert C&D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works;		C – Completed in the first Quarter of 2023 for the land formation works
			▪ Only non-dredged ground improvement methods should be adopted in order to completely avoid the need for dredging and disposal of marine sediment for the proposed land formation work;		C – Completed in the first Quarter of 2023 for the land formation works
			▪ Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and		C – Completed in the second Quarter of 2024
			▪ For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development.		I
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include: ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; ▪ Training of site personnel in proper waste management and chemical waste handling procedures; ▪ Provision of sufficient waste disposal points and regular collection for disposal; ▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/ similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards; ▪ Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; ▪ All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas; ▪ C&D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust; ▪ The speed of the trucks including dump trucks carrying C&D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and	Project Site Area / Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ To avoid or minimise dust emission during transport of C&D or waste materials within the site, each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials. Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.		
10.5.1.3	7.1	-	The following practices should be performed to achieve waste reduction include: ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; ▪ Adoption of repetitive design to allow reuse of formworks as far as practicable; ▪ 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 aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force; ▪ Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable; ▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and ▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	Project Site Area / Construction Phase	I
10.5.1.5	7.1		Inert and non-inert C&D materials should be handled and stored separately to avoid mixing the two types of materials.	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	Any recyclable materials should be segregated from the non-inert C&D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	-	A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.	Construction Phase	I
10.5.1.16	7.1	-	The following mitigation measures are recommended during excavation and treatment of the sediments: ▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;	Project Site Area / Construction Phase	I
			▪ The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions;		I
			▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;		I
			▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Treated and untreated sediment should be clearly separated and stored separately; and		I
			▪ Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge.		I
10.5.1.18	7.1	-	The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal: ▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; ▪ 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 EPD; and ▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	Project Site Area / Construction Phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
10.5.1.19	7.1	-	Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented: ▪ Good quality containers compatible with the chemical wastes should be used; ▪ Incompatible chemicals should be stored separately; ▪ Appropriate labels must 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, corrosive, etc.; and ▪ The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.	Project Site Area / Construction Phase	I
			Land Contamination – Construction Phase		
11.10.1.2 to 11.10.1.3	8.1	2.32	For areas inaccessible during site reconnaissance survey ▪ Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.	Project Site Area inaccessible during site reconnaissance /	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				Prior to Construction Phase	
			▪ Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas.		C – Completed in Jan 2018 (The site re-appraisal summary report for fire training facility was submitted to EPD.)
			▪ After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room.		I *(CAR for golf course and Terminal 2 emergency power supply system nos.1, 2, 3, 4 and 5 were submitted to EPD)
			▪ Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively.		N/A as no remediation was required.
11.8.1.2	8.1	-	If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any): ▪ To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; ▪ Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; ▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible; ▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; ▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; ▪ Truck bodies and tailgates should be sealed to prevent any discharge; ▪ Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;	Project Site Area / Construction Phase	N/A as no contaminated soil was found.

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit; ▪ Strictly observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and ▪ Maintain records of waste generation and disposal quantities and disposal arrangements.		
			Terrestrial Ecological – Construction Phase		
12.10.1.1	9.2	2.14	**Pre-construction Egretry Survey** ▪ Conduct ecological survey for Sha Chau egretry to update the latest boundary of the egretry.	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	C – Completed in Jan 2019
12.7.2.3 and 12.7.2.6	9.1	2.30	**Avoidance and Minimisation of Direct Impact to Egretry** ▪ The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretry. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretry; ▪ In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and ▪ The containment pit at the daylighting location shall be covered or camouflaged.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.5	9.1	2.30	**Preservation of Nesting Vegetation** ▪ The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.4 and 12.7.2.6	9.1	2.30	**Timing the Pipe Connection Works outside Ardeid's Breeding Season** ▪ All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.10.1.1	9.3	-	**Ecological Monitoring** ▪ During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found.	at Sheung Sha Chau Island	C – Completed in Jan 2019
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	▪ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	C – Completed in Jan 2016
			Marine Ecological Impact – Construction Phase		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.3 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.	Land formation footprint / during detailed design phase to completion of construction	C – Completed in the first Quarter of 2023 for the land formation works
13.11.1.7 to 13.11.1.10	-	2.31	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline
			▪ Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment;		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; ▪ Avoid bored piling during CWD peak calving season (Mar to Jun);		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			▪ Prohibition of underwater percussive piling; and		N/A as no underwater piling works
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		C – Completed in Jan 2019 for HDD works
13.11.2.1 to 13.11.2.7	-	-	**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			▪ Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		C – Completed in Jan 2019 for HDD works
13.11.1.12	-	-	**Strict Enforcement of No-Dumping Policy** ▪ A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; ▪ Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; ▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.	All works area during the construction phase	I
13.11.1.13	-	-	**Good Construction Site Practices** ▪ Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; ▪ Keep the number of working or stationary vessels present on-site to the minimum anytime; and ▪ Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I
13.11.5.4 to 13.11.5.13	10.3.1	-	**SkyPier High Speed Ferries' Speed Restrictions and Route Diversions** ▪ SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in **Drawing No. MCL/P132/EIA/13-023** of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier HSF numbers; and ▪ A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.	Area between the footprint and SCLKC Marine Park during construction phase	I
			Other mitigation measures ▪ The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and ▪ The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.	Area between the footprint and SCLKC Marine Park during construction phase	I C – Completed in Sep 2016
13.11.5.14 to 13.11.5.18	10.3.1	2.31	**Dolphin Exclusion Zone** ▪ Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;	Marine waters around land formation works area during construction phase	C – Completed in the first Quarter of 2023 for the land formation works

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and		C – Completed in Apr 2022
			▪ A DEZ would also be implemented during bored piling work but as a precautionary measure only.		C – Completed in Oct 2021 for the bored piling work of New approach lights
13.11.5.19	10.4	2.31	**Acoustic Decoupling of Construction Equipment** ▪ Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and ▪ Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	**Spill Response Plan** ▪ An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage.	Construction phase	I
13.11.5.21 to 13.11.5.23	10.6.1	-	**Construction Vessel Speed Limits and Skipper Training** ▪ A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities (as currently indicated by the 1x1km grid squares in Figure 6 of Appendix 13.2 of EIA report). ▪ Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing.	All areas north and west of Lantau Island during construction phase	I
			Fisheries Impact – Construction Phase		
14.9.1.2 to 14.9.1.5	-		**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.	Land formation footprint / during detailed design phase to completion of construction	C – Completed in the first Quarter of 2023 for the land formation works
14.9.1.6	-	-	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on fisheries and the marine environment;		C – Completed in Apr 2022
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.		C – Completed in Jan 2019 for HDD works
14.9.1.11	-		**Strict Enforcement of No-Dumping Policy** ▪ A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; ▪ Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; ▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.	All works area during the construction phase	I
14.9.1.12	-		**Good Construction Site Practices** ▪ Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; ▪ Keep the number of working or stationary vessels present on-site to the minimum anytime; and ▪ Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I
14.9.1.13 to 14.9.1.18	-		**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			▪ Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);		C – Completed in Apr 2022

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.		C – Completed on Jan 2019 for HDD work
			Landscape and Visual Impact – Construction Phase		
Table 15.6	12.3	-	**CM1 -** The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM2 -** Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM3 -** Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM4 -** Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM5 -** Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases.	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Table 15.6	12.3	-	**CM6 -** Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM7 -** Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases.	I
Table 15.6	12.3	-	**CM8 -** All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	All existing trees to be retained; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM9 -** Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM10 -** Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works; Upon handover and completion of works.	I
			Cultural Heritage Impact – Construction Phase		
			Not applicable to the construction stage of this project.		
			Health Impact – Aircraft Emissions		
			Not applicable to the construction stage of this project.		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Health Impact – Aircraft Noise		
			Not applicable to the construction stage of this project.		

Notes:

" - " For items denoted as " - " provided under the columns of EM&A Ref. or EP Condition, environmental protection measures should be referred to the relevant paragraph(s) / table(s) in the approved EIA Report.

" I " Implemented and on-going where applicable.

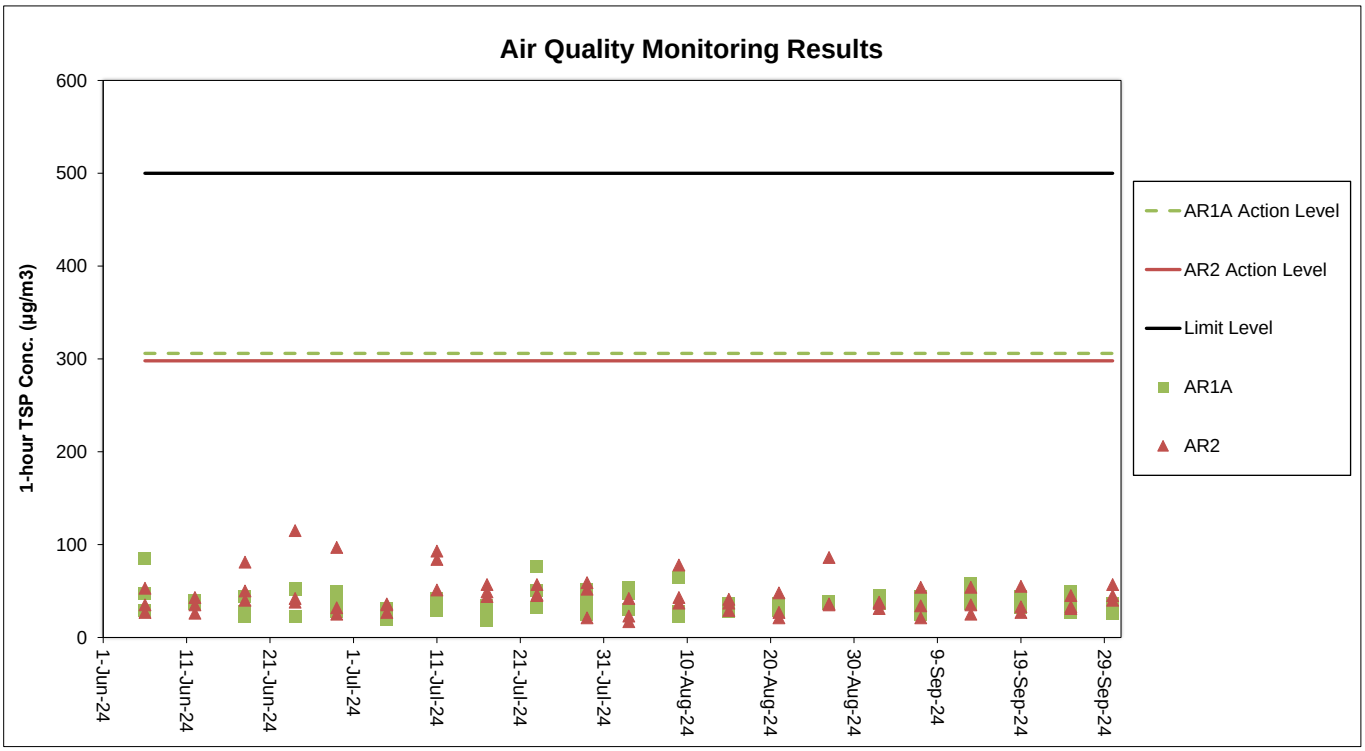
" N/A " Not applicable to the construction works implemented during the reporting month.

" ^ " Checked by ET through site inspection and record provided by the Contractor.

"C" Construction works completed.

Appendix C. Monitoring Results

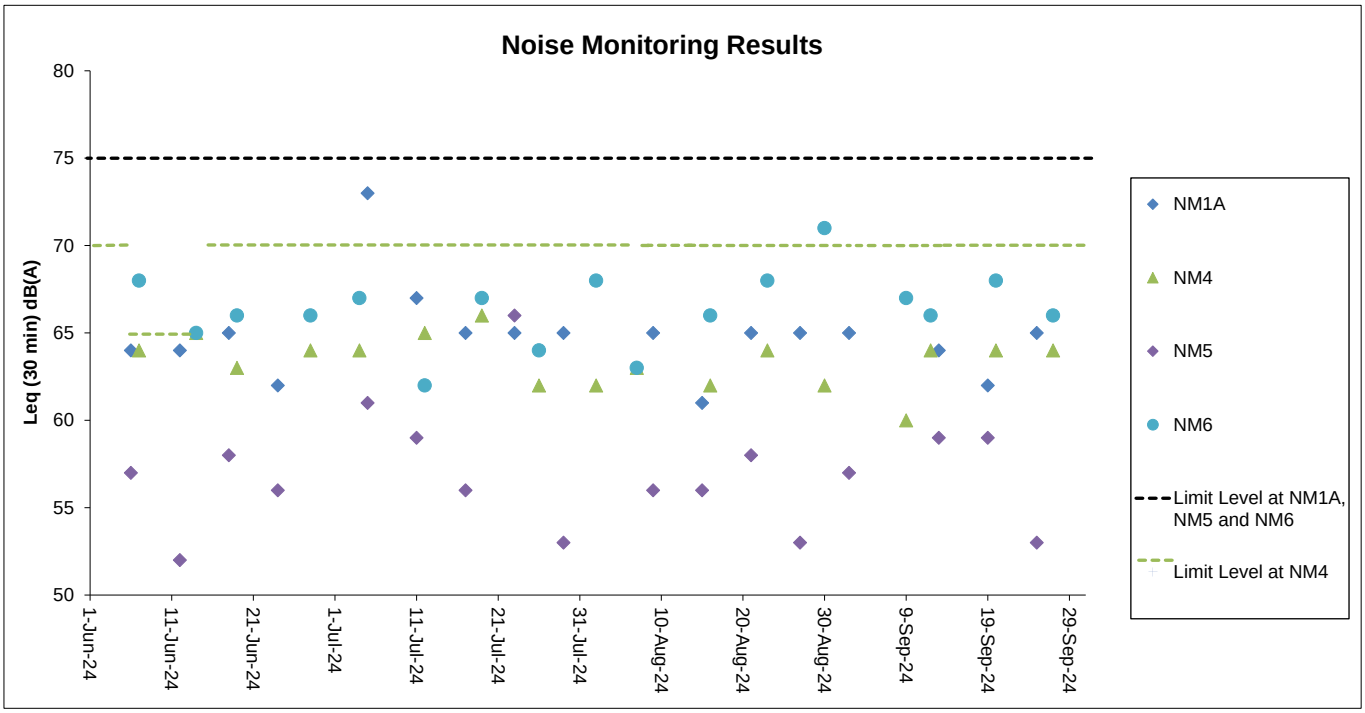
Air Quality Monitoring Results



Notes:

1. The key activities of the Project carried out in the reporting period included reclamation areas and existing airport island respectively. Works in the reclamation areas included land improvement works and filling works, pavement works, superstructure works for Terminal 2 Concourse, tunnel works for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 (T2) expansion works, modification and tunnel works for APM and BHS, utilities works, road and drainage works, excavation works and 132kV cable laying works.
2. General weather condition during monitoring ranged from sunny to cloudy. Detailed meteorological conditions can be referred to Table 2.3 of this Report and corresponding Monthly EM&A Reports.
3. QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Noise Monitoring Results



Notes:

1. The Limit Level is reduced to 70dB(A) for school and 65dB(A) during school examination period at NM4. No school examination took place during this reporting period.

2. The key activities of the Project carried out in the reporting period included reclamation areas and existing airport island respectively. Works in the reclamation areas included land improvement works and filling works, pavement works, superstructure works for Terminal 2 Concourse, tunnel works for Automated People Mover (APM) and Baggage Handling System (BHS) and associated works. Land-based works on existing airport island involved Terminal 2 (T2) expansion works, modification and tunnel works for APM and BHS, utilities works, road and drainage works, excavation works and 132kV cable laying works.
3. General weather condition during monitoring ranged from sunny to overcast. Detailed meteorological conditions can be referred to Table 2.6 of this Report and corresponding Monthly EM&A Reports.
4. QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey **Survey Effort Data**

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
09-Jul-24	SWL	2	42.763	SUMMER	32166	3RS ET – POST	P
09-Jul-24	SWL	3	6.35	SUMMER	32166	3RS ET – POST	P
09-Jul-24	SWL	2	13.392	SUMMER	32166	3RS ET – POST	S
09-Jul-24	SWL	3	1.21	SUMMER	32166	3RS ET – POST	S
10-Jul-24	AW	2	4.66	SUMMER	32166	3RS ET – POST	P
10-Jul-24	WL	2	7.824	SUMMER	32166	3RS ET – POST	P
10-Jul-24	WL	3	10.296	SUMMER	32166	3RS ET – POST	P
10-Jul-24	WL	2	3.226	SUMMER	32166	3RS ET – POST	S
10-Jul-24	WL	3	6.112	SUMMER	32166	3RS ET – POST	S
11-Jul-24	SWL	2	37.688	SUMMER	32166	3RS ET – POST	P
11-Jul-24	SWL	3	14.317	SUMMER	32166	3RS ET – POST	P
11-Jul-24	SWL	2	9.23	SUMMER	32166	3RS ET – POST	S
11-Jul-24	SWL	3	4.815	SUMMER	32166	3RS ET – POST	S
11-Jul-24	SWL	4	1.3	SUMMER	32166	3RS ET – POST	S
12-Jul-24	AW	2	4.77	SUMMER	32166	3RS ET – POST	P
12-Jul-24	WL	2	7.46	SUMMER	32166	3RS ET – POST	P
12-Jul-24	WL	3	10.856	SUMMER	32166	3RS ET – POST	P
12-Jul-24	WL	2	2.38	SUMMER	32166	3RS ET – POST	S
12-Jul-24	WL	3	6.849	SUMMER	32166	3RS ET – POST	S
15-Jul-24	NEL	2	36.94	SUMMER	32166	3RS ET – POST	P
15-Jul-24	NEL	2	9.76	SUMMER	32166	3RS ET – POST	S
16-Jul-24	NEL	2	28.37	SUMMER	32166	3RS ET – POST	P
16-Jul-24	NEL	3	5.2	SUMMER	32166	3RS ET – POST	P
16-Jul-24	NEL	4	3.29	SUMMER	32166	3RS ET – POST	P
16-Jul-24	NEL	2	9.06	SUMMER	32166	3RS ET – POST	S
16-Jul-24	NEL	3	0.9	SUMMER	32166	3RS ET – POST	S
18-Jul-24	NWL	2	4.9	SUMMER	32166	3RS ET – POST	P
18-Jul-24	NWL	3	55.8	SUMMER	32166	3RS ET – POST	P
18-Jul-24	NWL	4	3	SUMMER	32166	3RS ET – POST	P
18-Jul-24	NWL	2	0.9	SUMMER	32166	3RS ET – POST	S
18-Jul-24	NWL	3	10.4	SUMMER	32166	3RS ET – POST	S
31-Jul-24	NWL	2	3	SUMMER	32166	3RS ET – POST	P
31-Jul-24	NWL	3	37.1	SUMMER	32166	3RS ET – POST	P
31-Jul-24	NWL	4	23	SUMMER	32166	3RS ET – POST	P
31-Jul-24	NWL	3	8.2	SUMMER	32166	3RS ET – POST	S
31-Jul-24	NWL	4	3.1	SUMMER	32166	3RS ET – POST	S
07-Aug-24	SWL	2	52.07	SUMMER	32166	3RS ET – POST	P
07-Aug-24	SWL	2	15.46	SUMMER	32166	3RS ET – POST	S
08-Aug-24	SWL	2	11.51	SUMMER	32166	3RS ET – POST	P
08-Aug-24	SWL	3	42.32	SUMMER	32166	3RS ET – POST	P
08-Aug-24	SWL	2	2.4	SUMMER	32166	3RS ET – POST	S
08-Aug-24	SWL	3	12.57	SUMMER	32166	3RS ET – POST	S
12-Aug-24	NWL	2	11.6	SUMMER	32166	3RS ET – POST	P
12-Aug-24	NWL	3	52.5	SUMMER	32166	3RS ET – POST	P
12-Aug-24	NWL	2	6.7	SUMMER	32166	3RS ET – POST	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
12-Aug-24	NWL	3	5.1	SUMMER	32166	3RS ET – POST	S
13-Aug-24	AW	2	4.61	SUMMER	32166	3RS ET – POST	P
13-Aug-24	WL	2	16.055	SUMMER	32166	3RS ET – POST	P
13-Aug-24	WL	2	7.193	SUMMER	32166	3RS ET – POST	S
14-Aug-24	NWL	2	37.1	SUMMER	32166	3RS ET – POST	P
14-Aug-24	NWL	3	19.82	SUMMER	32166	3RS ET – POST	P
14-Aug-24	NWL	4	6.88	SUMMER	32166	3RS ET – POST	P
14-Aug-24	NWL	2	7.4	SUMMER	32166	3RS ET – POST	S
14-Aug-24	NWL	3	4.2	SUMMER	32166	3RS ET – POST	S
15-Aug-24	NEL	2	20.02	SUMMER	32166	3RS ET – POST	P
15-Aug-24	NEL	3	16.3	SUMMER	32166	3RS ET – POST	P
15-Aug-24	NEL	4	1.4	SUMMER	32166	3RS ET – POST	P
15-Aug-24	NEL	2	6.88	SUMMER	32166	3RS ET – POST	S
15-Aug-24	NEL	3	2	SUMMER	32166	3RS ET – POST	S
15-Aug-24	NEL	4	0.9	SUMMER	32166	3RS ET – POST	S
20-Aug-24	NEL	1	0.2	SUMMER	32166	3RS ET – POST	P
20-Aug-24	NEL	2	31.25	SUMMER	32166	3RS ET – POST	P
20-Aug-24	NEL	3	5.9	SUMMER	32166	3RS ET – POST	P
20-Aug-24	NEL	1	1.2	SUMMER	32166	3RS ET – POST	S
20-Aug-24	NEL	2	8.65	SUMMER	32166	3RS ET – POST	S
23-Aug-24	AW	2	5.13	SUMMER	32166	3RS ET – POST	P
23-Aug-24	WL	2	18.156	SUMMER	32166	3RS ET – POST	P
23-Aug-24	WL	2	9.121	SUMMER	32166	3RS ET – POST	S
03-Sep-24	SWL	1	4.098	SUMMER	32166	3RS ET – POST	P
03-Sep-24	SWL	2	36.22	SUMMER	32166	3RS ET – POST	P
03-Sep-24	SWL	3	9.82	SUMMER	32166	3RS ET – POST	P
03-Sep-24	SWL	1	1.123	SUMMER	32166	3RS ET – POST	S
03-Sep-24	SWL	2	8.545	SUMMER	32166	3RS ET – POST	S
03-Sep-24	SWL	3	6.75	SUMMER	32166	3RS ET – POST	S
04-Sep-24	NWL	2	63.65	SUMMER	32166	3RS ET – POST	P
04-Sep-24	NWL	2	12.05	SUMMER	32166	3RS ET – POST	S
09-Sep-24	AW	2	4.94	SUMMER	32166	3RS ET – POST	P
09-Sep-24	WL	2	8.778	SUMMER	32166	3RS ET – POST	P
09-Sep-24	WL	3	9.38	SUMMER	32166	3RS ET – POST	P
09-Sep-24	WL	2	4.16	SUMMER	32166	3RS ET – POST	S
09-Sep-24	WL	3	6.092	SUMMER	32166	3RS ET – POST	S
10-Sep-24	AW	2	2.29	SUMMER	32166	3RS ET – POST	P
10-Sep-24	AW	3	1.54	SUMMER	32166	3RS ET – POST	P
10-Sep-24	WL	2	16.153	SUMMER	32166	3RS ET – POST	P
10-Sep-24	WL	2	9.788	SUMMER	32166	3RS ET – POST	S
11-Sep-24	SWL	2	51.813	SUMMER	32166	3RS ET – POST	P
11-Sep-24	SWL	2	16.845	SUMMER	32166	3RS ET – POST	S
19-Sep-24	NEL	2	16.71	SUMMER	32166	3RS ET – POST	P
19-Sep-24	NEL	3	20.6	SUMMER	32166	3RS ET – POST	P
19-Sep-24	NEL	2	8.71	SUMMER	32166	3RS ET – POST	S
19-Sep-24	NEL	3	0.98	SUMMER	32166	3RS ET – POST	S
24-Sep-24	NEL	1	1.1	SUMMER	32166	3RS ET – POST	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
24-Sep-24	NEL	2	36.12	SUMMER	32166	3RS ET – POST	P
24-Sep-24	NEL	1	0.5	SUMMER	32166	3RS ET – POST	S
24-Sep-24	NEL	2	9.78	SUMMER	32166	3RS ET – POST	S
25-Sep-24	NWL	2	56.4	SUMMER	32166	3RS ET – POST	P
25-Sep-24	NWL	3	7.6	SUMMER	32166	3RS ET – POST	P
25-Sep-24	NWL	2	11.6	SUMMER	32166	3RS ET – POST	S

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
09-Jul-24	1	1117	FP	7	SWL	2	71	ON	3RS ET – POST	22.165501	113.926321	SUMMER	NONE	P
09-Jul-24	2	1345	CWD	7	SWL	2	17	ON	3RS ET – POST	22.189164	113.887583	SUMMER	NONE	P
09-Jul-24	3	1404	CWD	4	SWL	2	24	ON	3RS ET – POST	22.197137	113.887181	SUMMER	PURSE SEINER	P
09-Jul-24	4	1435	CWD	1	SWL	2	482	ON	3RS ET – POST	22.191283	113.879085	SUMMER	NONE	P
09-Jul-24	5	1448	CWD	2	SWL	3	186	ON	3RS ET – POST	22.180607	113.878580	SUMMER	PURSE SEINER	P
09-Jul-24	6	1516	CWD	6	SWL	3	433	ON	3RS ET – POST	22.174373	113.868995	SUMMER	NONE	P
09-Jul-24	7	1537	CWD	2	SWL	2	220	ON	3RS ET – POST	22.190265	113.869258	SUMMER	NONE	P
09-Jul-24	8	1558	CWD	3	SWL	2	199	ON	3RS ET – POST	22.189163	113.859117	SUMMER	NONE	P
09-Jul-24	9	1605	CWD	4	SWL	2	105	ON	3RS ET – POST	22.184422	113.859532	SUMMER	NONE	P
09-Jul-24	10	1614	CWD	1	SWL	3	189	ON	3RS ET – POST	22.175476	113.859154	SUMMER	NONE	P
09-Jul-24	11	1618	CWD	2	SWL	3	27	ON	3RS ET – POST	22.182510	113.850143	SUMMER	NONE	P
09-Jul-24	12	1635	CWD	4	SWL	3	99	ON	3RS ET – POST	22.190094	113.850449	SUMMER	NONE	P
10-Jul-24	1	1021	CWD	4	WL	2	417	ON	3RS ET – POST	22.274378	113.847994	SUMMER	PURSE SEINER	S
10-Jul-24	2	1115	CWD	4	WL	2	270	ON	3RS ET – POST	22.238347	113.827155	SUMMER	NONE	S
10-Jul-24	3	1119	CWD	5	WL	3	57	ON	3RS ET – POST	22.235064	113.826031	SUMMER	NONE	S
10-Jul-24	4	1140	CWD	7	WL	3	272	ON	3RS ET – POST	22.223808	113.831824	SUMMER	NONE	P
10-Jul-24	5	1201	CWD	1	WL	3	96	ON	3RS ET – POST	22.214815	113.829508	SUMMER	NONE	P
10-Jul-24	6	1219	CWD	6	WL	3	600	ON	3RS ET – POST	22.205413	113.835764	SUMMER	NONE	P
10-Jul-24	7	1235	CWD	1	WL	3	176	ON	3RS ET – POST	22.195427	113.838294	SUMMER	NONE	P
10-Jul-24	8	1248	CWD	2	WL	3	96	ON	3RS ET – POST	22.196335	113.841044	SUMMER	NONE	P
11-Jul-24	1	1103	FP	3	SWL	3	38	ON	3RS ET – POST	22.156041	113.935873	SUMMER	NONE	P
11-Jul-24	2	1442	CWD	3	SWL	2	105	ON	3RS ET – POST	22.200599	113.866037	SUMMER	NONE	S
11-Jul-24	3	1520	CWD	3	SWL	3	150	ON	3RS ET – POST	22.185459	113.848936	SUMMER	NONE	P
12-Jul-24	1	1102	CWD	7	WL	3	120	ON	3RS ET – POST	22.241310	113.837431	SUMMER	NONE	P
12-Jul-24	2	1129	CWD	2	WL	3	22	ON	3RS ET – POST	22.232020	113.833559	SUMMER	NONE	P
12-Jul-24	3	1206	CWD	9	WL	3	20	ON	3RS ET – POST	22.210995	113.838672	SUMMER	NONE	P
12-Jul-24	4	1225	CWD	1	WL	3	11	ON	3RS ET – POST	22.204993	113.834609	SUMMER	NONE	P
12-Jul-24	5	1229	CWD	1	WL	3	255	ON	3RS ET – POST	22.205064	113.831774	SUMMER	NONE	P
12-Jul-24	6	1251	CWD	11	WL	3	56	ON	3RS ET – POST	22.196207	113.837629	SUMMER	NONE	P
07-Aug-24	1	1125	FP	4	SWL	2	114	ON	3RS ET – POST	22.181604	113.927613	SUMMER	NONE	P
07-Aug-24	2	1436	CWD	10	SWL	2	730	ON	3RS ET – POST	22.178239	113.869397	SUMMER	PURSE SEINER	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
07-Aug-24	3	1500	CWD	2	SWL	2	93	ON	3RS ET – POST	22.190175	113.868994	SUMMER	NONE	P
08-Aug-24	1	1255	CWD	1	SWL	3	115	ON	3RS ET – POST	22.208114	113.898101	SUMMER	NONE	P
08-Aug-24	2	1528	CWD	1	SWL	3	209	ON	3RS ET – POST	22.187852	113.850961	SUMMER	NONE	P
08-Aug-24	3	1539	CWD	5	SWL	3	340	ON	3RS ET – POST	22.191299	113.850219	SUMMER	NONE	P
13-Aug-24	1	1026	CWD	2	WL	2	279	ON	3RS ET – POST	22.276314	113.850779	SUMMER	NONE	S
13-Aug-24	2	1029	CWD	4	WL	2	73	ON	3RS ET – POST	22.274353	113.849073	SUMMER	NONE	S
13-Aug-24	3	1049	CWD	6	WL	2	780	ON	3RS ET – POST	22.268972	113.851556	SUMMER	NONE	P
13-Aug-24	4	1106	CWD	2	WL	2	56	ON	3RS ET – POST	22.261087	113.847140	SUMMER	NONE	P
13-Aug-24	5	1130	CWD	4	WL	2	460	ON	3RS ET – POST	22.249906	113.845212	SUMMER	NONE	P
13-Aug-24	6	1155	CWD	1	WL	2	61	ON	3RS ET – POST	22.241160	113.840797	SUMMER	NONE	P
13-Aug-24	7	1219	CWD	1	WL	2	25	ON	3RS ET – POST	22.230694	113.838275	SUMMER	NONE	S
13-Aug-24	8	1223	CWD	11	WL	2	119	ON	3RS ET – POST	22.225699	113.837617	SUMMER	NONE	S
13-Aug-24	9	1259	CWD	2	WL	2	39	ON	3RS ET – POST	22.214130	113.823569	SUMMER	NONE	P
13-Aug-24	10	1309	CWD	2	WL	2	46	ON	3RS ET – POST	22.214249	113.834008	SUMMER	NONE	P
13-Aug-24	11	1317	CWD	2	WL	2	40	ON	3RS ET – POST	22.209576	113.839496	SUMMER	NONE	S
13-Aug-24	12	1325	CWD	1	WL	2	63	ON	3RS ET – POST	22.204847	113.836614	SUMMER	NONE	P
13-Aug-24	13	1339	CWD	4	WL	2	96	ON	3RS ET – POST	22.195582	113.831013	SUMMER	NONE	P
23-Aug-24	1	1011	CWD	6	WL	2	6	ON	3RS ET – POST	22.265732	113.855409	SUMMER	NONE	S
23-Aug-24	2	1102	CWD	1	WL	2	1964	ON	3RS ET – POST	22.241990	113.842909	SUMMER	NONE	P
23-Aug-24	3	1124	CWD	2	WL	2	149	ON	3RS ET – POST	22.232578	113.833757	SUMMER	NONE	P
23-Aug-24	4	1144	CWD	7	WL	2	102	ON	3RS ET – POST	22.224634	113.837657	SUMMER	NONE	S
23-Aug-24	5	1201	CWD	2	WL	2	183	ON	3RS ET – POST	22.223598	113.831367	SUMMER	NONE	P
23-Aug-24	6	1227	CWD	2	WL	2	50	ON	3RS ET – POST	22.205672	113.837604	SUMMER	NONE	S
23-Aug-24	7	1302	CWD	1	WL	2	367	ON	3RS ET – POST	22.193667	113.842429	SUMMER	NONE	S
03-Sep-24	1	1048	FP	1	SWL	2	120	ON	3RS ET – POST	22.165969	113.935472	SUMMER	NONE	P
03-Sep-24	2	1208	FP	2	SWL	3	79	ON	3RS ET – POST	22.154981	113.906476	SUMMER	NONE	S
03-Sep-24	3	1255	FP	5	SWL	2	62	ON	3RS ET – POST	22.180732	113.897821	SUMMER	NONE	P
03-Sep-24	4	1336	FP	2	SWL	2	87	ON	3RS ET – POST	22.198741	113.887154	SUMMER	NONE	P
03-Sep-24	5	1340	FP	5	SWL	2	50	ON	3RS ET – POST	22.201740	113.887273	SUMMER	NONE	P
03-Sep-24	6	1429	CWD	1	SWL	2	483	ON	3RS ET – POST	22.187837	113.869114	SUMMER	NONE	P
03-Sep-24	7	1459	CWD	3	SWL	2	749	ON	3RS ET – POST	22.193207	113.859253	SUMMER	NONE	P
03-Sep-24	8	1514	CWD	1	SWL	1	81	ON	3RS ET – POST	22.179321	113.859169	SUMMER	NONE	P
03-Sep-24	9	1531	CWD	1	SWL	1	69	ON	3RS ET – POST	22.179610	113.849422	SUMMER	NONE	P

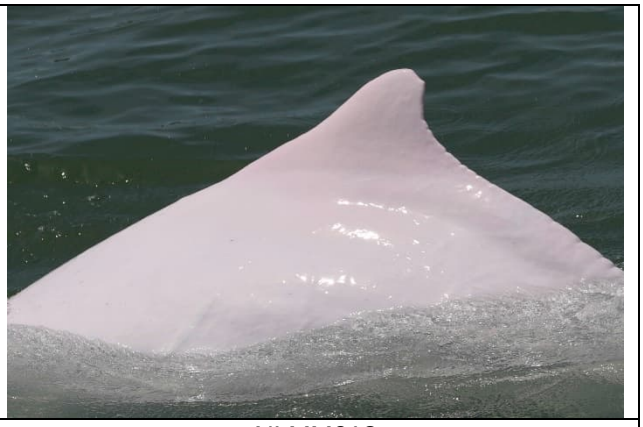
DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
04-Sep-24	1	1028	CWD	11	NWL	2	1305	ON	3RS ET – POST	22.279858	113.870376	SUMMER	NONE	P
09-Sep-24	1	0959	CWD	2	WL	2	45	ON	3RS ET – POST	22.293002	113.861438	SUMMER	NONE	P
09-Sep-24	2	1032	CWD	4	WL	2	147	ON	3RS ET – POST	22.262982	113.856322	SUMMER	NONE	S
09-Sep-24	3	1108	CWD	3	WL	2	58	ON	3RS ET – POST	22.241153	113.835529	SUMMER	NONE	P
09-Sep-24	4	1133	CWD	4	WL	3	47	ON	3RS ET – POST	22.223890	113.825113	SUMMER	NONE	P
09-Sep-24	5	1152	CWD	5	WL	3	374	ON	3RS ET – POST	22.214263	113.830389	SUMMER	NONE	P
10-Sep-24	1	1012	CWD	2	WL	2	682	ON	3RS ET – POST	22.268757	113.851293	SUMMER	NONE	P
10-Sep-24	2	1027	CWD	2	WL	2	50	ON	3RS ET – POST	22.260285	113.852297	SUMMER	GILLNETTER	S
10-Sep-24	3	1109	CWD	2	WL	2	515	ON	3RS ET – POST	22.241557	113.842116	SUMMER	NONE	P
10-Sep-24	4	1125	CWD	2	WL	2	650	ON	3RS ET – POST	22.237514	113.826301	SUMMER	NONE	S
10-Sep-24	5	1130	CWD	2	WL	2	189	ON	3RS ET – POST	22.231850	113.828151	SUMMER	NONE	P
10-Sep-24	6	1145	CWD	8	WL	2	178	ON	3RS ET – POST	22.223681	113.836624	SUMMER	NONE	P
10-Sep-24	7	1205	CWD	2	WL	2	325	ON	3RS ET – POST	22.224087	113.825049	SUMMER	NONE	P
10-Sep-24	8	1231	CWD	2	WL	2	641	ON	3RS ET – POST	22.204897	113.828446	SUMMER	NONE	P
10-Sep-24	9	1249	CWD	10	WL	2	553	ON	3RS ET – POST	22.196120	113.832790	SUMMER	NONE	P
11-Sep-24	1	1040	FP	7	SWL	2	160	ON	3RS ET – POST	22.180715	113.935919	SUMMER	NONE	P
11-Sep-24	2	1049	FP	1	SWL	2	147	ON	3RS ET – POST	22.161447	113.936922	SUMMER	NONE	P
11-Sep-24	3	1110	FP	4	SWL	2	196	ON	3RS ET – POST	22.164758	113.927141	SUMMER	NONE	P
11-Sep-24	4	1156	FP	3	SWL	2	39	ON	3RS ET – POST	22.156532	113.917126	SUMMER	NONE	P
11-Sep-24	5	1208	FP	3	SWL	2	28	ON	3RS ET – POST	22.144751	113.907689	SUMMER	NONE	P
11-Sep-24	6	1211	FP	8	SWL	2	208	ON	3RS ET – POST	22.148874	113.907779	SUMMER	NONE	P
11-Sep-24	7	1244	FP	2	SWL	2	18	ON	3RS ET – POST	22.209166	113.903346	SUMMER	NONE	S
11-Sep-24	8	1501	CWD	6	SWL	2	398	ON	3RS ET – POST	22.186514	113.849794	SUMMER	NONE	P

Abbreviations: STG# = Sighting Number; GP SZ = Group Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance (in metres); N/A = Not Applicable; DEC LAT = Latitude (WGS84 in Decimal), DEC LON = Longitude (WGS84 in Decimal); BOAT ASSOC. = Fishing Boat Association; P/S = Primary Transect / Secondary Transect.

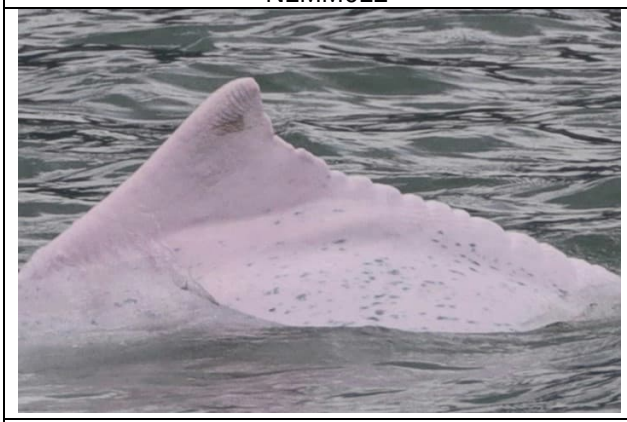
Sighting data of finless porpoise (FP) are presented for reference only. No relevant figure or text will be mentioned in the quarterly EM&A report. All FP sightings are excluded in calculation

CWD Small Vessel Line-transect Survey **Photo Identification**

NLMM012

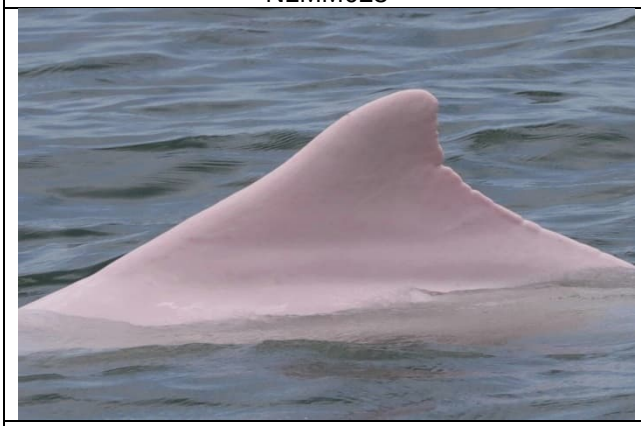


NLMM013



NLMM023

NLMM027

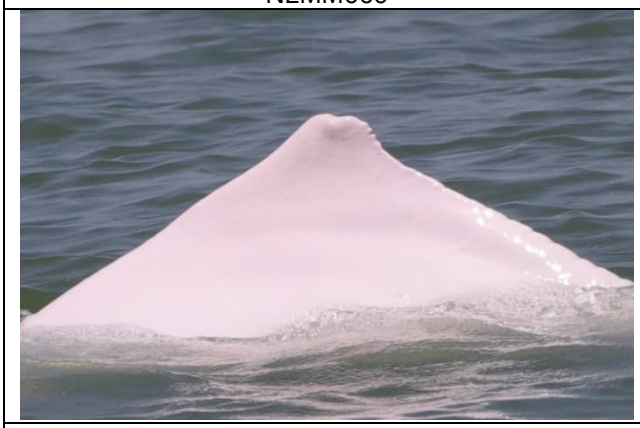
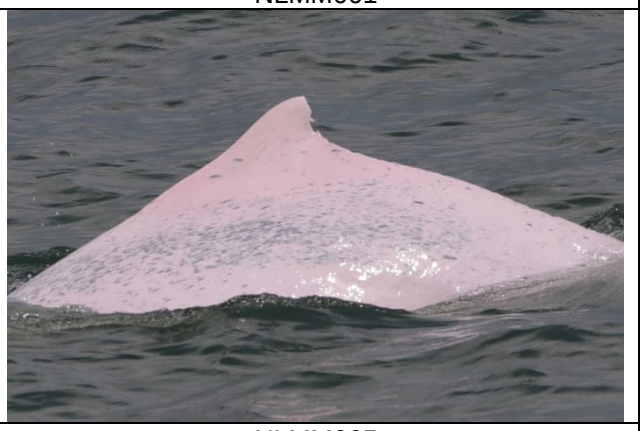
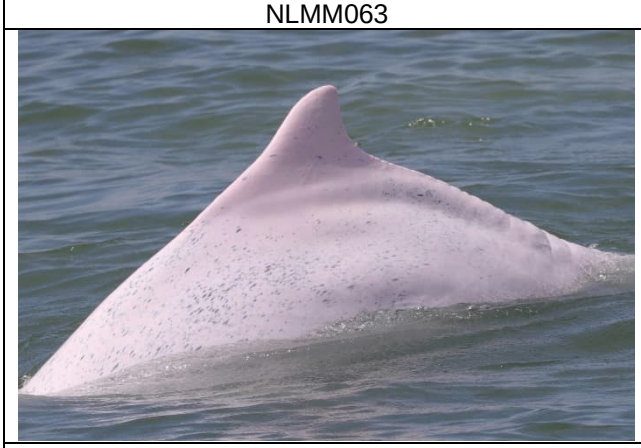
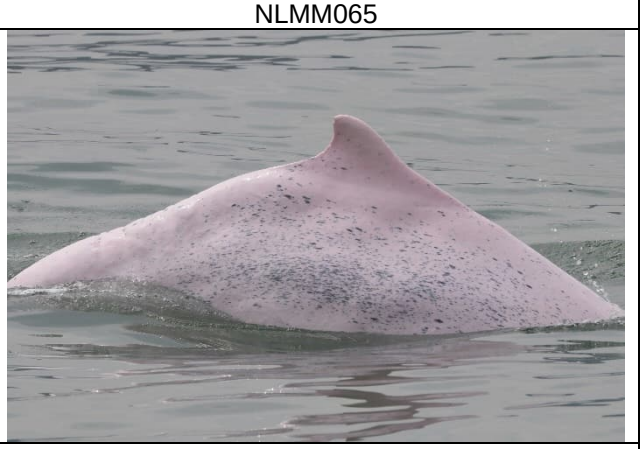


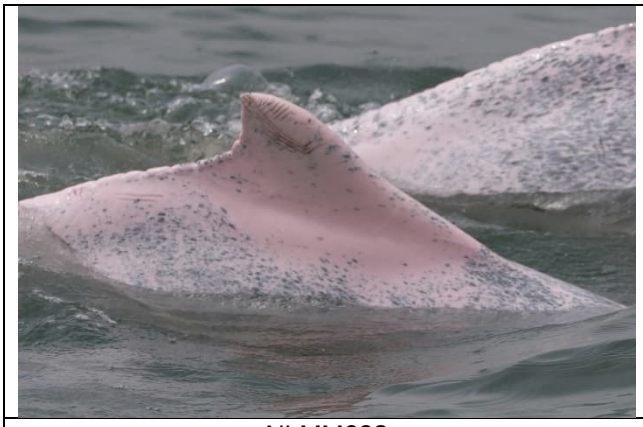
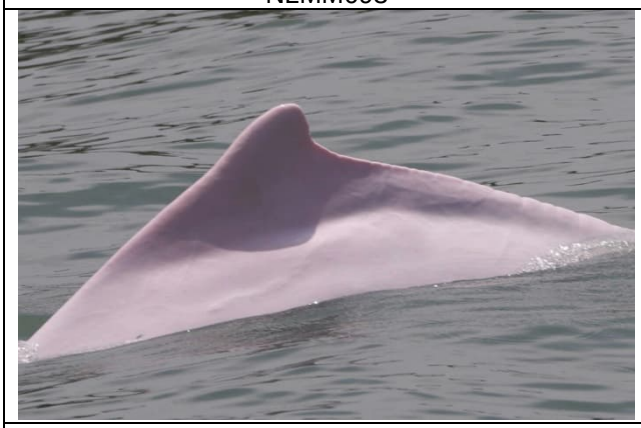
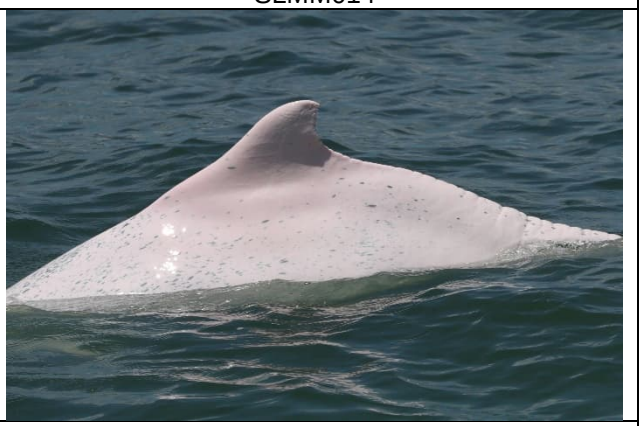
NLMM028

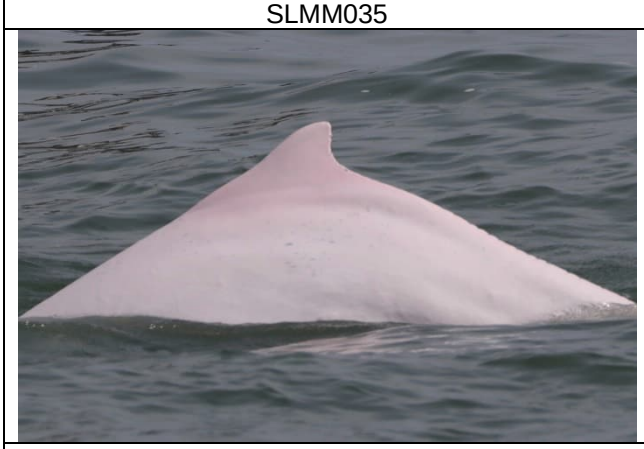
NLMM039

SLMM052

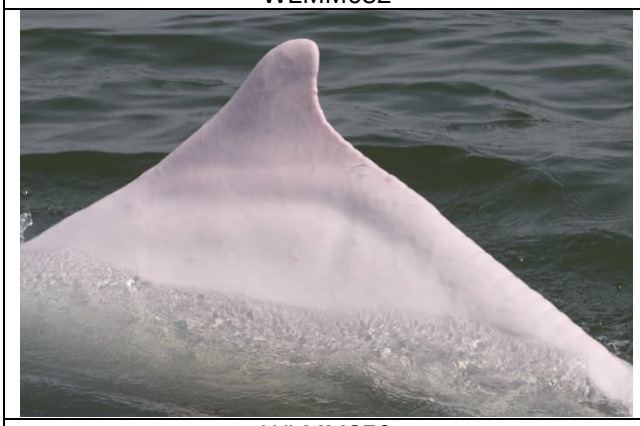
NLMM055

	
NLMM060	NLMM061
	
NLMM063	NLMM065
	
NLMM070	NLMM090
	
NLMM091	NLMM092

	
NLMM093	SLMM002
	
SLMM003	SLMM007
	
SLMM010	SLMM014
	
SLMM023	SLMM027

	
SLMM030	SLMM034
	
SLMM035	SLMM049
	
SLMM050	SLMM052
	
SLMM055	SLMM058

	
WLMM001	WLMM003
	
WLMM005	WLMM007
	
WLMM008	WLMM009
	
WLMM038	WLMM042

	
WLMM043	WLMM049
	
WLMM052	WLMM055
	
WLMM056	SLMM058
	
WLMM063	WLMM065

	
WLMM067	WLMM071
	
WLMM077	WLMM079
	
WLMM082	WLMM083
	
WLMM091	WLMM092

	
WLMM102	WLMM109
	
WLMM111	WLMM113
	
WLMM114	WLMM118
	
WLMM141	WLMM147

	
WLMM154	WLMM161
	
WLMM168	WLMM192
	
WLMM195	WLMM196
	
WLMM197	WLMM200

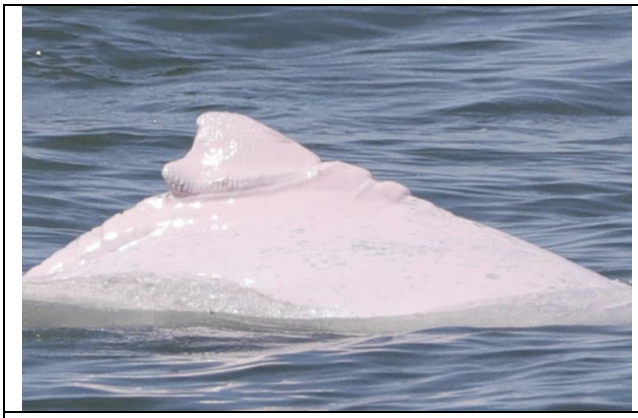
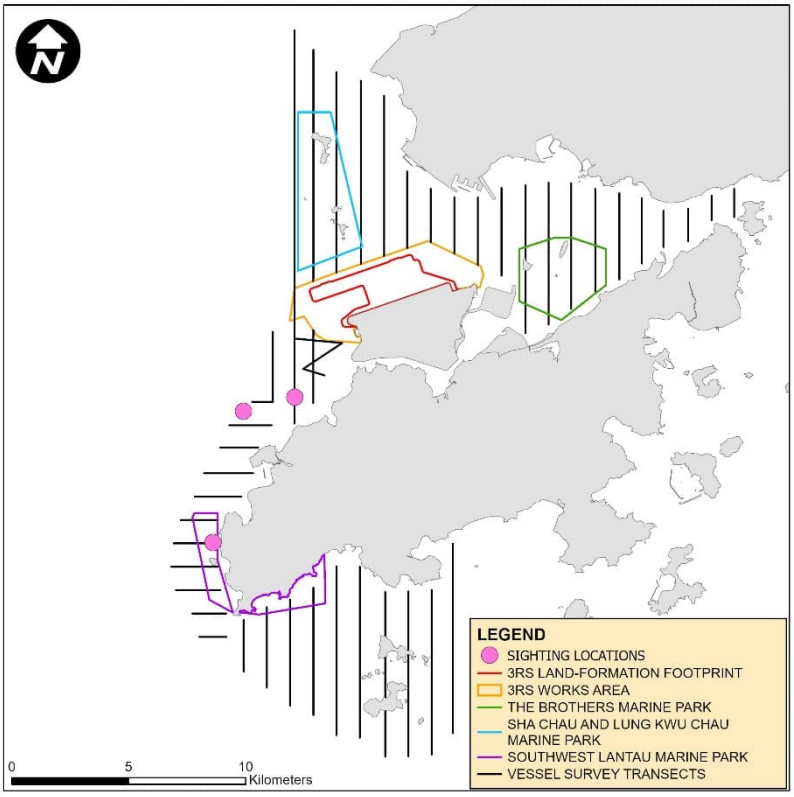
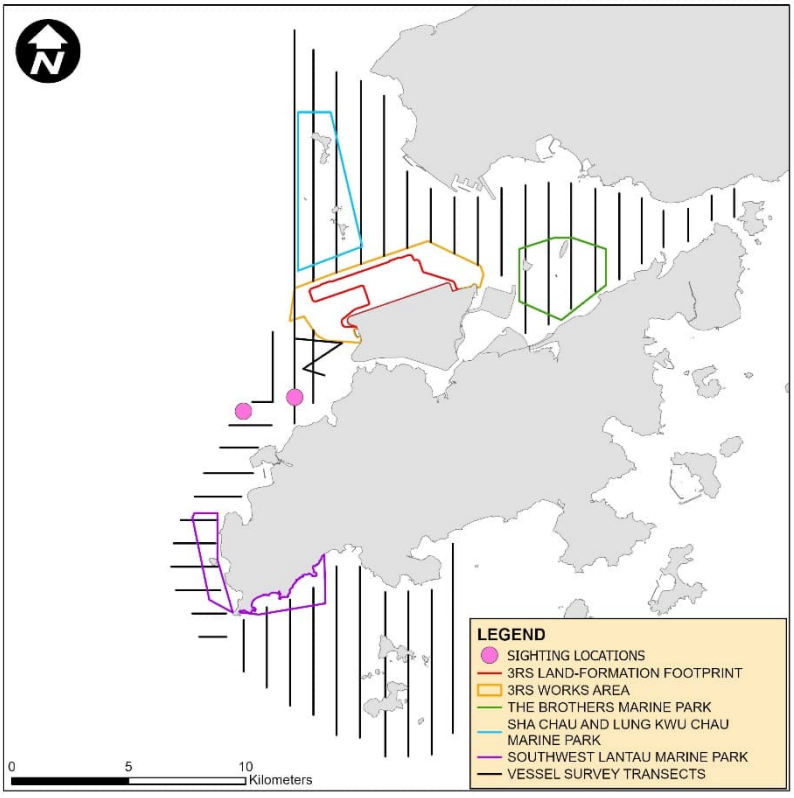
	
WLMM201	WLMM202
	
WLMM203 (Lower)	

Photo Identification – Re-sighting Locations

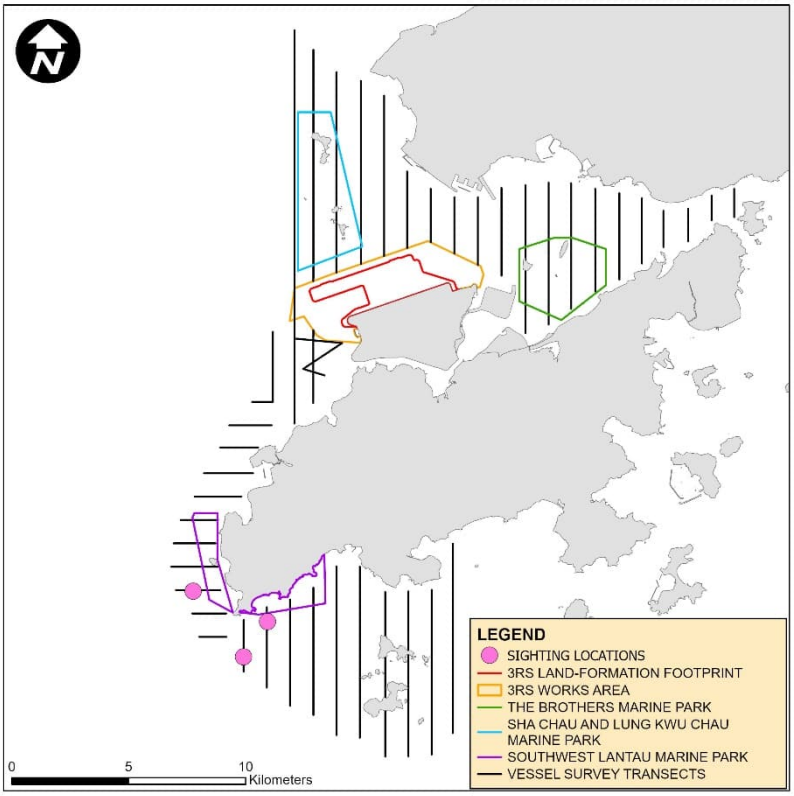
NLMM012



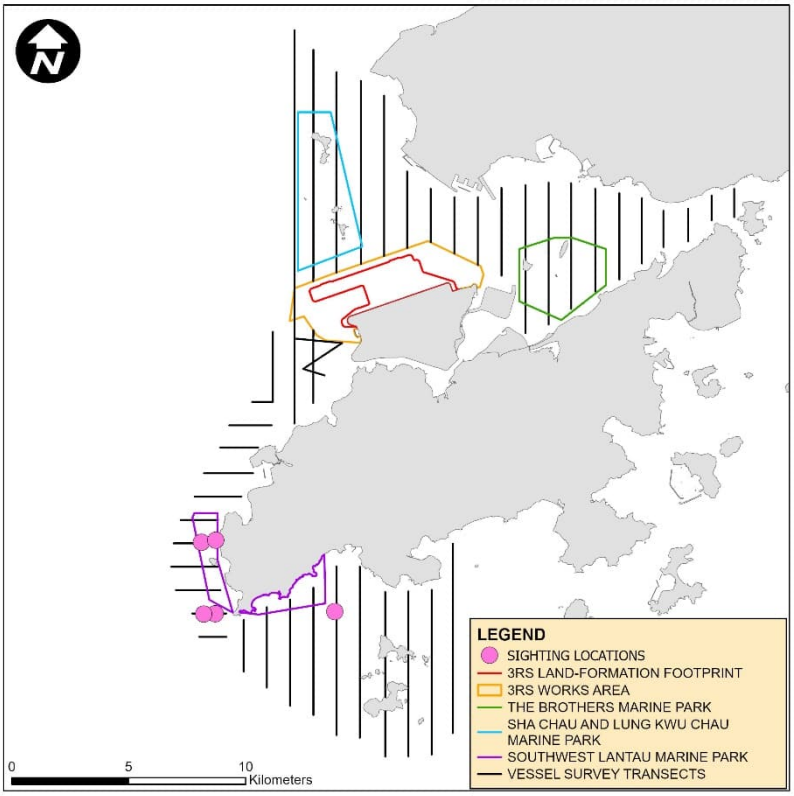
NLMM039



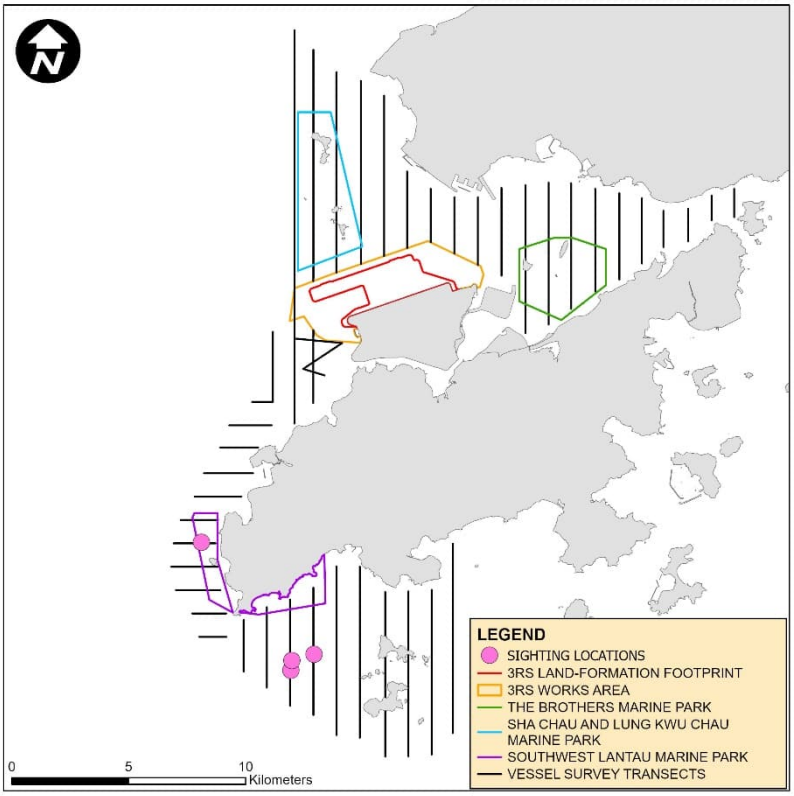
SLMM023



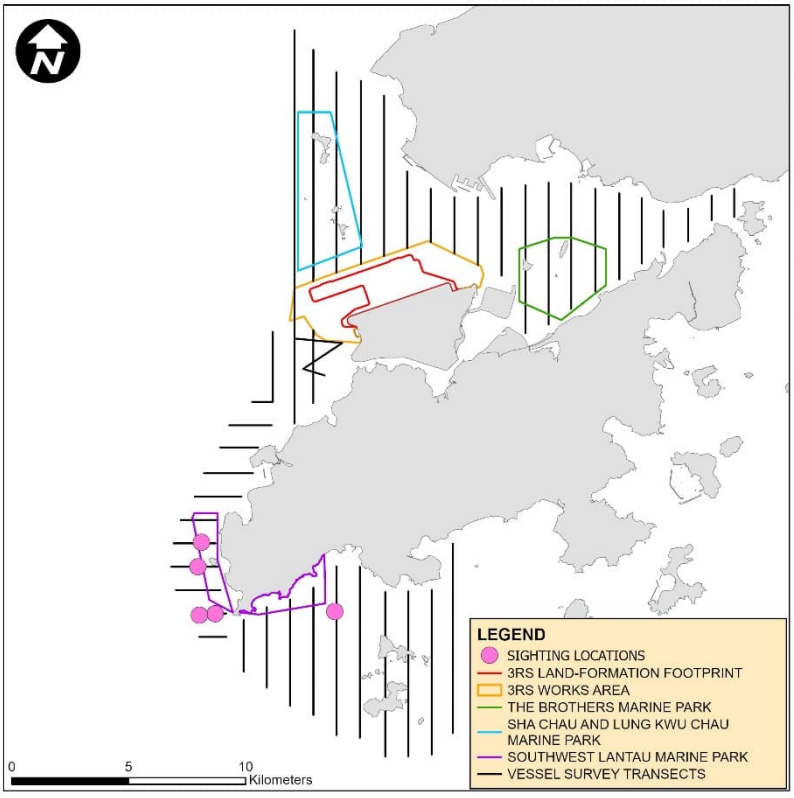
SLMM049



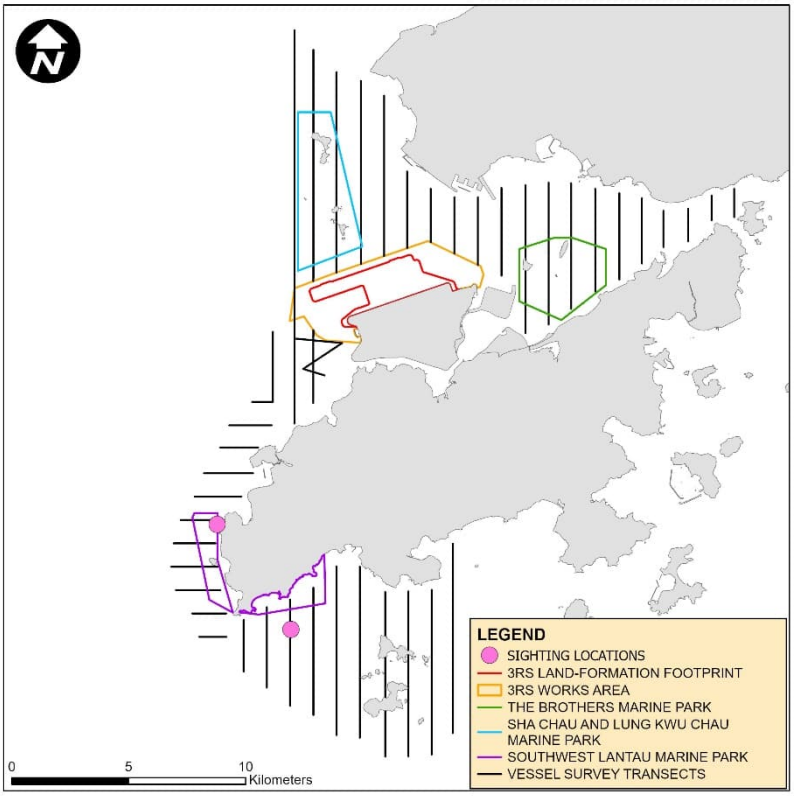
SLMM050



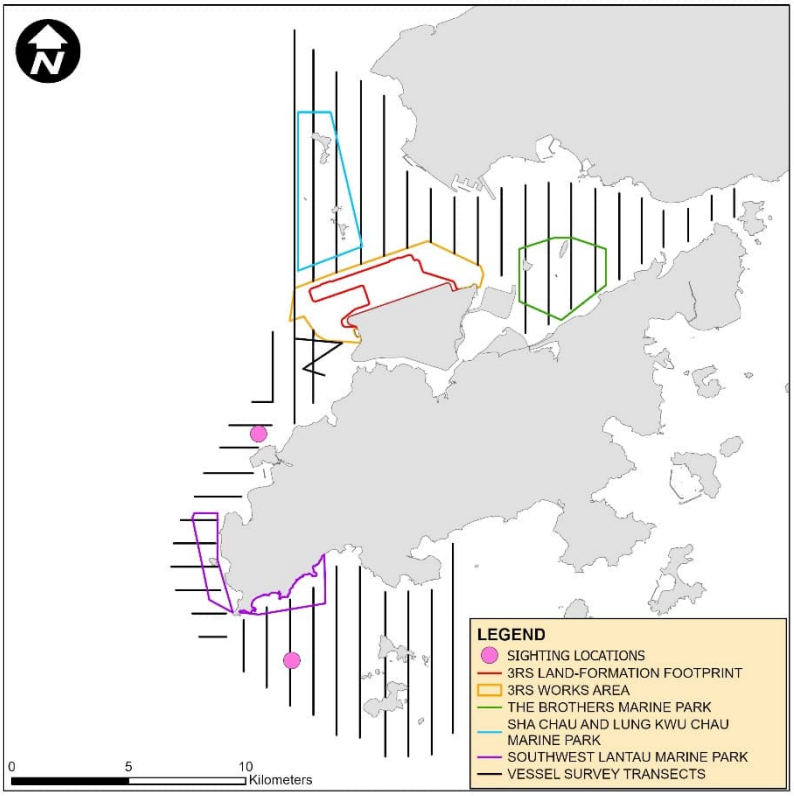
WLMM001



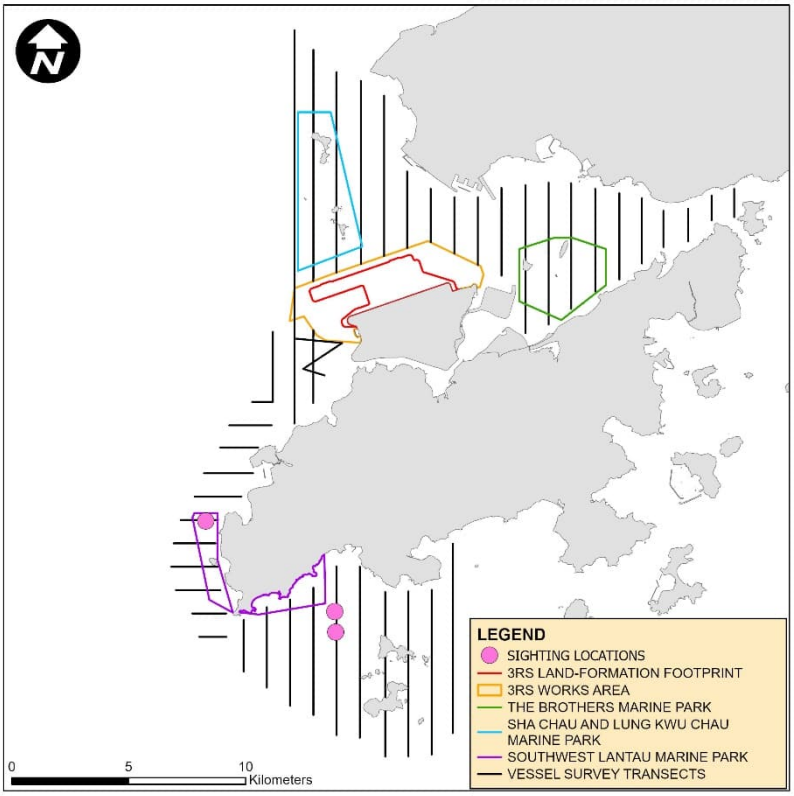
WLMM043



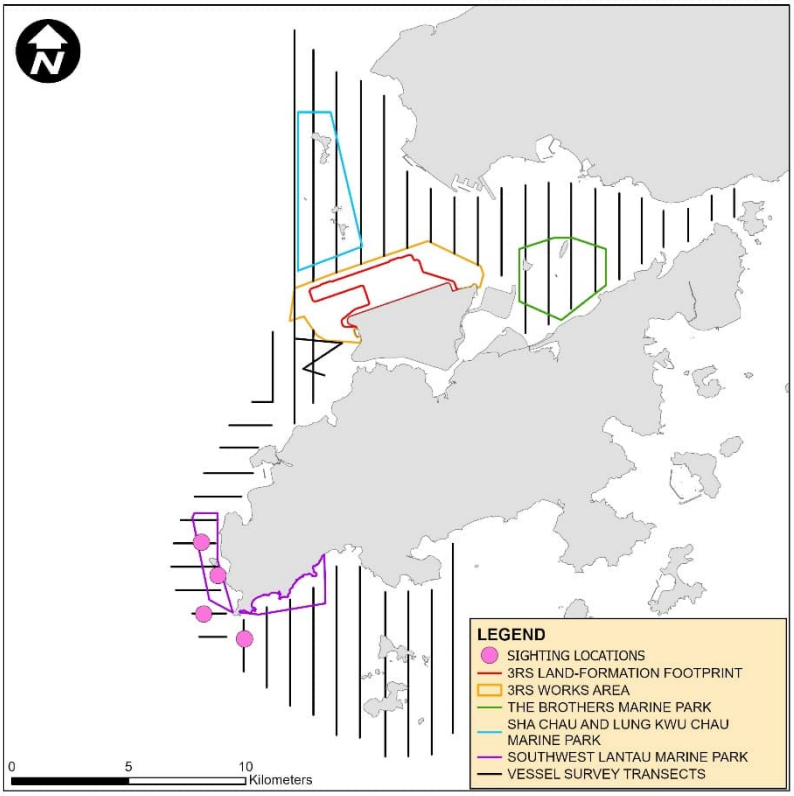
WLMM065



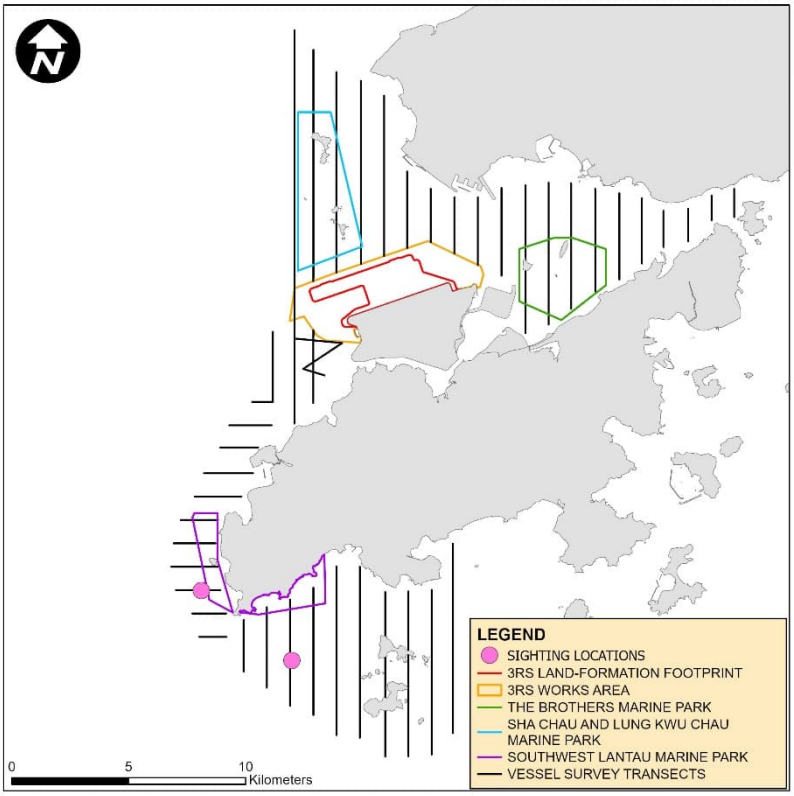
WLMM077



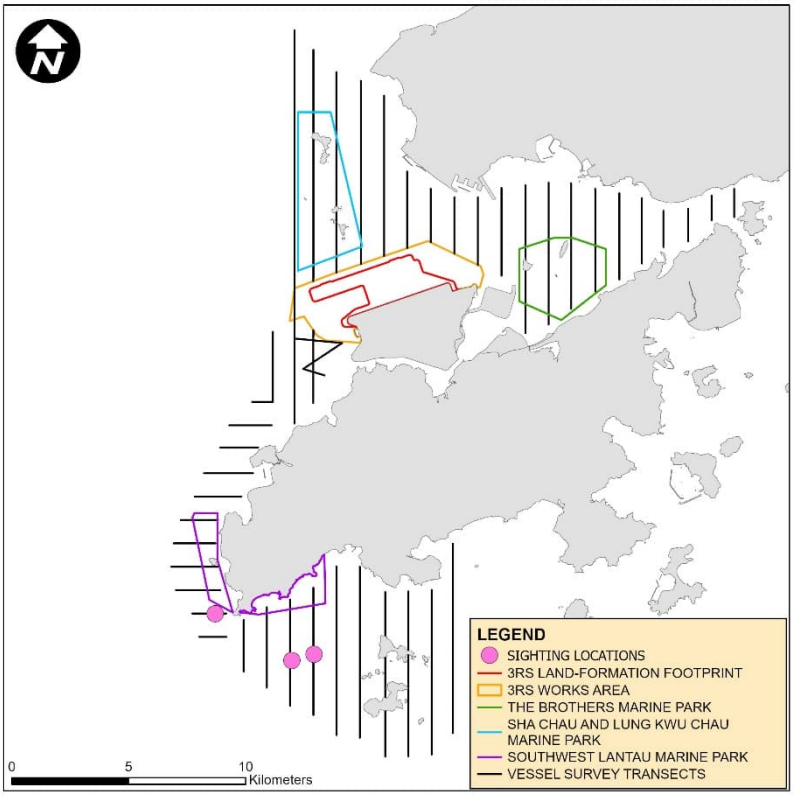
WLMM109



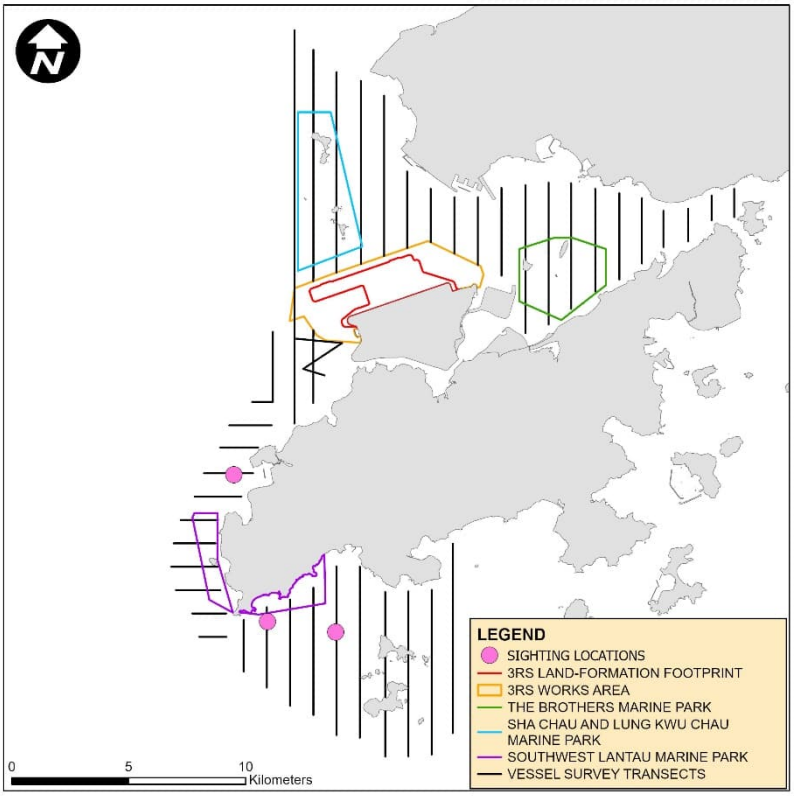
WLMM111



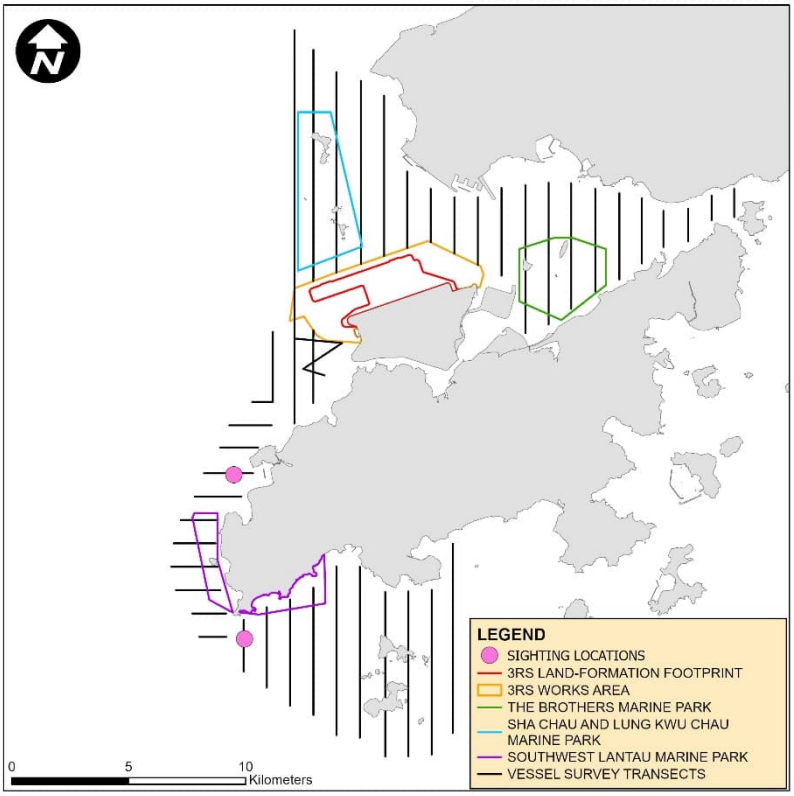
WLMM114



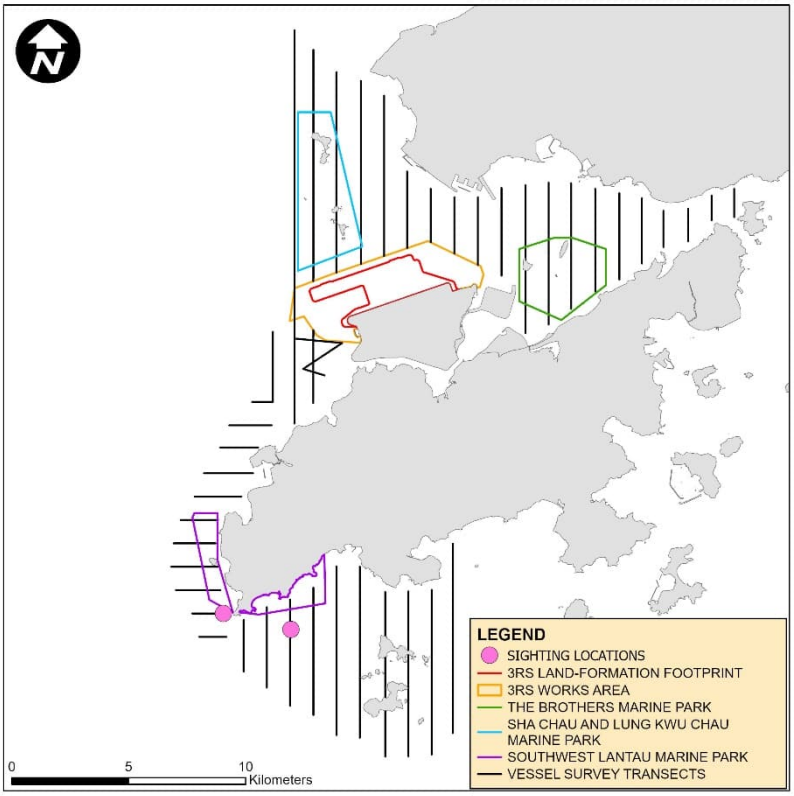
WLMM118



WLMM141



WLMM200


LEGEND
SIGHTING LOCATIONS
3RS LAND-FORMATION FOOTPRINT
3RS WORKS AREA
THE BROTHERS MARINE PARK
SHA CHAU AND LUNG KWU CHAU MARINE PARK
SOUTHWEST LANTAU MARINE PARK
VESSEL SURVEY TRANSECTS
0
5
10
Kilometers