



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

Construction Phase Monthly EM&A
Report No. 85
(For January 2023)

February 2023

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This Monthly EM&A Report No. 85 has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Condition 3.5 of Environmental Permit No. EP-489/2014.

Certified by:

A handwritten signature in black ink, appearing to read 'Terence Kong', written in a cursive style.

Terence Kong
Environmental Team Leader (ETL)
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Date

14 February 2023



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By Email

Airport Authority Hong Kong
HKIA Tower, 1 Sky Plaza Road
Hong Kong International Airport
Lantau, Hong Kong

Attn: Mr. Lawrence Tsui, Principal Manager, Environmental Compliance

14 February 2023

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 85 (January 2023)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 85 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 February 2023.

We would like to inform you that we have no adverse comment and verify the captioned submission in accordance with the requirement stipulated in Condition 3.5 of EP-489/2014.

Should you have any query, please feel free to contact the undersigned at 3922 9141.

Yours faithfully,
AECOM Asia Co. Ltd.

Roy Man
Independent Environmental Checker

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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
EP	Environmental Permit
EPD	Environmental Protection Department
EPSS	Emergency Power Supply Systems
ET	Environmental Team
FCZ	Fish Culture Zone
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HOKLAS	Hong Kong Laboratory Accreditation Scheme
HSF	High Speed Ferry
HVS	High Volume Sampler
IEC	Independent Environmental Checker
LKC	Lung Kwu Chau
MMHK	Mott MacDonald Hong Kong Limited
MMWP	Marine Mammal Watching Plan
MSS	Maritime Surveillance System
MTRMP-CAV	Marine Travel Routes and Management Plan for Construction and Associated Vessel
NEL	Northeast Lantau
NWL	Northwest Lantau
PAM	Passive Acoustic Monitoring
PM	Project Manager
SC	Sha Chau
SCZ	Speed Control Zone
SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park
SS	Suspended Solids
SSSI	Site of Special Scientific Interest
STG	Encounter Rate of Number of Dolphin Sightings

SWL	Southwest Lantau
T2	Terminal 2
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
The Manual	The Updated EM&A Manual
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 85th Construction Phase Monthly 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 to 31 January 2023.

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 seawall construction, filling and land-based ground improvement work, together with taxiways, concourse and associated works. Land-based works on existing airport island involved mainly airfield works, Terminal 2 expansion works, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include road and drainage works, cable ducting, demolition, piling, and excavation works.




EM&A Activities Conducted in the Reporting Period

The monthly 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	30
Noise monitoring	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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), audit of construction and associated vessels, and audit of implementation of Marine Mammal Watching Plan (MMWP) and Dolphin Exclusion Zone (DEZ) Plan, 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.

Snapshots of EM&A Activities in the Reporting Period

		
<p>Vessel Line-transect Survey of CWD conducted by ET</p>	<p>Dump Truck with Mechanical Truck Cover checked by ET</p>	<p>Dust Suppression Measure conducted by Contractor</p>

Results of Impact Monitoring

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

Monitoring results of construction dust, construction noise, water quality, construction waste and CWD did not trigger the corresponding Action and Limit Levels in the reporting period.

Summary of Upcoming Key Issues

Reclamation Works:

Contract 3206 Main Reclamation Works

- Backfilling works.

Airfield Works

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Construction of tunnel structure;
- Pipe and drainage diversion works;
- Utilities and backfilling works; and
- Stockpiling.

Contract 3305 Airfield Ground Lighting System

- Enhanced vehicular warning light hardware installation; and
- Rectification work for airfield ground lighting system.

Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS

- Equipment installation.

Contract 3307 Fire Training Facility

- Architectural, builder's and finishing works;
- Drainage and utilities works;
- Finishing work; and
- Pavement work.

Contract 3308 Foreign Object Debris Detection System

- Rectification work for handover sensor system.

Contract 3310 North Runway Modification Works

- Architectural, builder's work and finishing works;
- Excavation works;
- Seawall construction;

- Construction of stormwater drainage;
- Construction of walls and slabs;
- Installation of pipe piles; and
- Backfilling works.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Roofing installation of covered walkway; and
- Demolition works.

Contract 3404 Integrated Airport Control System

- System maintenance.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Bored piling;
- Structure works;
- Excavation; and
- Road formation.

Contract 3408 Third Runway Concourse and Apron Works

- Reinforced concrete works; and
- Excavation.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Viaduct pier and temporary road construction;
- Pump station and electrical station works; and
- Architectural, builder's work and finishing works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Guidebeam installation.

Contract 3602 Existing APM System Modification Works

- Erection and fixing of power rail; and
- Concrete plinth construction.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Watermain connection works;
- Road light installation; and
- Laying of road work.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Backfilling works;
- Rebar fixing works; and
- Wall construction.

Contract 3802 APM and BHS Tunnels and Related Works

- Excavation and lateral supports;
- Box Culvert Construction; and
- Tunnel construction.

Contract 3804 East and Landside Fire Stations

- Site setup and formation works;
- Preparation works of bored pile.

Construction Support (Services / Licences):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3908 Quay Management Services

- Provision of services of site management and logistic control of 3RS quays; and
- Provision of flat top barge and vehicle delivery services between the launching point in Hong Kong and 3RS quays.

Contract 3913 Asphalt Batching Plant

- Operation of asphalt batching plant.

Summary Table

The following table summarises the key findings of the EM&A programme during the reporting period:

	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		√	A complaint regarding dust nuisance was received on 19 December 2022.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
Notification of any summons and status of prosecutions		√	No notification of summons nor prosecution was received.	Nil
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

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 3.1¹. 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 **Section 1.4**.

1.2 Scope of this Report

This is the 85th Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 January 2023.

1.3 Project Organisation

The Project’s organisation structure presented in Appendix B of the Construction Phase Monthly EM&A Report No.1 remained unchanged during the reporting period. Contact details of the key personnel are presented in **Table 1.1**.

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

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

Party	Position	Name	Telephone
	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	3922 9141
		Deputy Independent Environmental Checker	Jackel Law

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

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
Contract 3305 Airfield Ground Lighting System (ADB Safegate Hong Kong Limited)	Project Manager	Allam Al-Turk	2944 9725
		Environmental Officer	Ivan Ting
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
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Ken Tang	9640 5397
		Environmental Officer	Ferddy Leung
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

Third Runway Concourse:

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
	Safety Officer	Keith Chau	9620 7515
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)	Assistant Project Manager	Qian Zhang	5377 7976
	Environmental Officer	Malcolm Leung	7073 7559

Terminal 2 (T2) Expansion:

Party	Position	Name	Telephone
Contract 3508 Terminal 2 Expansion Works (Gammon Engineering & Construction Company Limited)	Project Director	Richard Ellis	6201 5637
	Environmental Officer	Fanny Law	6184 4650

Automated People Mover (APM) and Baggage Handling System (BHS):

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRP Puzhen Bombardier Transportation Systems Limited and CRRP Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	H Y Yue	9185 8186

Party	Position	Name	Telephone
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Y M Tong	5316 9801
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Richard Ng	9802 9577

Construction Support (Facilities):

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction Engineering (Hong Kong) Ltd.)	Site Agent	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
	SHE Manager	Mike Leung	6625 2550

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 Construction Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Phoebe Ng	9869 1105
Contract 3804 East and Landside Fire Stations (Beijing Urban Construction Group Construction Limited - Beijing Urban Construction International Construction Limited - Kin Shing)	Project Manager	Mr. Zhang Xianda	4661 6818
	Environmental Officer	Ms. Kimberly Wong	5542 1669

Party	Position	Name	Telephone
(Leung's General Contractors Ltd Joint Venture)			

Construction Support (Services / Licences):

Party	Position	Name	Telephone
Contract 3901A Concrete Batching Facility (K. Wah Concrete Company Limited)	Project Manager	Benedict Wong	9553 2806
	Environmental Officer	C P Fung	9874 2872
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)	Operation Manager	Mr. Yuen Tit	6384 9256
	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

1.4 Summary of 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 seawall construction, filling and land-based ground improvement work, together with taxiways, concourse and associated works. Land-based works on existing airport island involved mainly airfield works, Terminal 2 expansion works, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include road and drainage works, cable ducting, demolition, piling, and excavation works.

The locations of key construction activities are presented in **Figure 1.1**.

1.5 Summary of EM&A Programme Requirements

The status for all environmental aspects are presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period.

Table 1.2: Summary of Status of 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

Parameters	EM&A Requirements	Status
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.	On-going for reclamation works. General impact water quality monitoring for water jetting works was completed on 23 May 2017.
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 and would be resumed if there are marine-based DCM works in the coming future.
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 discontinued after 2022 according to Section 2.6.4 of the approved sewage flow monitoring methodology paper.
Details of the routine H ₂ S 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 details of the routine H ₂ S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
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.
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.
Contamination Assessment Reports (CAR) for Terminal 2 Emergency Power Supply Systems	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 Egret Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egret 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.

Parameters	EM&A Requirements	Status
Post-Translocation Coral 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.
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.	On-going
Landscape & Visual		
Landscape & 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
Environmental Auditing		
Regular site inspection	Weekly	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
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	On-going
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

The EM&A programme also involved weekly site inspections and related auditing conducted by the ET for checking the implementation of the 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:

- Nineteen environmental management meetings for EM&A review with works contracts: 10, 11, 12, 13, 16, 17, 18, 19, 27 and 30 January 2023.

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 A**.

2 Air Quality Monitoring

Air quality monitoring of 1-hour Total Suspended Particulates (TSP) was conducted three times every six days at two representative monitoring stations in the vicinity of air sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 2.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

Table 2.1: Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location
AR1A	Man Tung Road Park
AR2	Village House at Tin Sum

2.1 Action and Limit Levels

In accordance with the Manual, baseline air quality monitoring of 1-hour TSP levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report. 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 2.2**.

Table 2.2: Action and Limit Levels of Air Quality Monitoring

Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AR1A	306	500
AR2	298	

2.2 Monitoring Equipment

Portable direct reading dust meter was used to carry out the air quality monitoring. Details of equipment used in the reporting period are given in **Table 2.3**.

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-1 (Serial No. 597337)	11 May 2022	Monthly EM&A Report No. 77, Appendix D
	SIBATA LD-3B-2 (Serial No. 296098)	16 Sep 2022	Monthly EM&A Report No. 83, Appendix D

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

The measurement procedures involved in the impact air quality monitoring can be summarised as follows:

- a. The portable direct reading dust meter was mounted on a tripod at a height of 1.2m above the ground.
- b. Prior to the measurement, the equipment was set up for 1 minute span check and 6 second background check.

- c. The one hour dust measurement was started. Site conditions and dust sources at the nearby area were recorded on a record sheet.
- d. When the measurement completed, the “Count” reading per hour was recorded for result calculation.

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix D of the Monthly EM&A Report No. 77 and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are valid in the reporting period.

2.4 Summary of Monitoring Results

The air quality monitoring schedule involved in the reporting period is provided in **Appendix B**.

The air quality monitoring results in the reporting period are summarised in **Table 2.4**. Detailed impact monitoring results are presented in **Appendix C**.

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AR1A	8 - 82	306	500
AR2	8 - 96	298	

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

General meteorological conditions throughout the impact monitoring period were recorded. Wind data including wind speed and wind direction for each monitoring day were collected from the Chek Lap Kok Wind Station.

2.5 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.

3 Noise Monitoring

Noise monitoring in the form of 30-minute measurements of L_{eq} , L_{10} , and L_{90} levels was conducted once per week between 0700 and 1900 on normal weekdays at four representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 3.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

Table 3.1: Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Type of measurement
NM1A	Man Tung Road Park	Free field
NM2 ⁽¹⁾	Tung Chung West Development	To be determined
NM3A ⁽²⁾	Site Office	Facade
NM4	Ching Chung Hau Po Woon Primary School	Free field
NM5	Village House in Tin Sum	Free field
NM6	House No. 1, Sha Lo Wan	Free field

Notes:

- (1) As described in Section 4.3.3 of the Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.
- (2) According to Section 4.3.3 of the Manual, the noise monitoring at NM3A was temporarily suspended starting from 1 September 2018 and would be resumed with the completion of the Tung Chung East Development.

3.1 Action and Limit Levels

In accordance with the Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report. 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 3.2**.

Table 3.2: Action and Limit Levels for Noise Monitoring

Monitoring Stations	Time Period	Action Level	Limit Level, $L_{eq(30mins)}$ dB(A)
NM1A, NM2, NM3A, NM4, NM5 and NM6	0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75dB(A) ⁽¹⁾

Note:

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

3.2 Monitoring Equipment

Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was used to check the sound level meters by a known sound pressure level for field measurement. Details of equipment used in the reporting period are given in **Table 3.3**.

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 00998505)	22 Mar 2022	Monthly EM&A Report No. 75, Appendix D
Integrated Sound Level Meter	Rion NL-52 (Serial No. 01287679)	10 Oct 2022	Monthly EM&A Report No. 82, Appendix D
Acoustic Calibrator	Castle GA607 (Serial No. 040162)	22 Mar 2022	Monthly EM&A Report No. 75, Appendix D
Acoustic Calibrator	Casella CEL-120 (Serial No. 2383737)	18 Jun 2022	Monthly EM&A Report No. 79, Appendix D

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

The monitoring procedures involved in the noise monitoring can be summarised as follows:

- a. The sound level meter was set on a tripod at least a height of 1.2m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3dB(A) was applied to the free field measurements.
- b. Façade measurements were made at the monitoring station NM3A.
- c. Parameters such as frequency weighting, time weighting and measurement time were set.
- d. Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator. If the difference in the calibration level before and after measurement was more than 1dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- e. During the monitoring period, L_{eq} , L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a record sheet.
- f. Noise measurement results, when higher than the baseline monitoring levels, were corrected with reference to the baseline monitoring levels.
- g. Observations were recorded when high intrusive noise (e.g. dog barking, helicopter noise) was observed during the monitoring.

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

- h. The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- i. The meter and calibrator were sent to the supplier or laboratory accredited under Hong Kong Laboratory Accreditation Scheme (HOKLAS) to check and calibrate at yearly intervals.

Calibration certificates of the sound level meters and acoustic calibrators used in the noise monitoring listed in **Table 3.3** are valid in the reporting period.

3.4 Summary of Monitoring Results

The noise monitoring schedule involved in the reporting period is provided in **Appendix B**.

The noise monitoring results in the reporting period are summarised in **Table 3.4**. Detailed impact monitoring results are presented in **Appendix C**.

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)
	<i>L_{eq}</i> (30mins)	<i>L_{eq}</i> (30mins)
NM1A ⁽¹⁾	57 - 64	75
NM4 ^{(1) (3)}	62 - 64	70 ⁽²⁾
NM5 ^{(1) (3)}	57 - 64	75
NM6 ^{(1) (3)}	65 - 73	75

Notes:

- (1) +3dB(A) Façade correction included;
- (2) The limit level will be reduced to 65dB(A) during school examination periods at NM4. School examination took place from 9 to 13 January 2023 during this reporting period.
- (3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring results.

No complaints were received from any sensitive receiver that triggered the Action Level. All monitoring results were also within the corresponding Limit Levels at all monitoring stations in the reporting period.

3.5 Conclusion

As the construction activities were far away from the monitoring stations, 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 during this reporting period. It is considered that the monitoring work during the reporting period was effective and there was no adverse impact attributable to the Project activities.

4 Water Quality Monitoring

Water quality monitoring of DO, pH, temperature, salinity, turbidity, and suspended solids (SS) was conducted three days per week, at mid-ebb and mid-flood tides, at a total of 14 water quality monitoring stations, comprising 6 impact (IM) stations, 5 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. The purpose of water quality monitoring at the IM stations is to promptly capture any potential water quality impact from the Project before it could become apparent at sensitive receivers (represented by the SR stations). **Table 4.1** describes the details of the monitoring stations. **Figure 4.1** shows the locations of the monitoring stations.

Table 4.1: Monitoring Locations of Impact Water Quality Monitoring

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	<u>General Parameters</u>
C2	Control Station	806945	825682	DO, pH,
C3 ⁽²⁾	Control Station	817803	822109	Temperature, Salinity, Turbidity, SS
IM1 ⁽⁴⁾	Impact Station	806458	818351	
IM2 ⁽⁴⁾	Impact Station	806236	819183	
IM7 ⁽⁴⁾	Impact Station	806835	821349	
IM10 ⁽⁴⁾	Impact Station	809838	822240	
IM11 ⁽⁴⁾	Impact Station	810545	821501	
IM12 ⁽⁴⁾	Impact Station	811519	821162	
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR2	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	
SR8 ⁽³⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390	

Notes:

- (1) With the operation of HKBCF, water quality monitoring at SR1A station was commenced on 25 October 2018. To better reflect the water quality in the immediate vicinity of the intake, the monitoring location of SR1A has been shifted closer to the intake starting from 5 January 2019.
- (2) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.
- (3) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.
- (4) With the seawall completion and removal of enhanced open sea silt curtains, these monitoring stations were relocated back to their original locations. For IM2, there was minor adjustment of the monitoring location.

4.1 Action and Limit Levels

In accordance with the Manual, baseline water quality levels at the representative water quality monitoring stations were established as presented in the Baseline Water Quality Monitoring Report. The Action and Limit Levels of general water quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 4.2**. The control and impact stations during ebb tide and flood tide for general water quality monitoring are presented in **Table 4.3**.

Table 4.2: Action and Limit Levels for General Water Quality Monitoring

Parameters		Action Level (AL)		Limit Level (LL)	
Action and Limit Levels for general water quality monitoring (excluding SR1A & SR8)					
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle		Surface and Middle	
		4.5mg/l		4.1mg/l	
		Bottom		Bottom	
		3.4mg/l		2.7mg/l	
	Suspended Solids (SS) in mg/l	23	or 120% of upstream control station at the same tide of the same day, whichever is higher	37	or 130% of upstream control station at the same tide of the same day, whichever is higher
	Turbidity in NTU	22.6		36.1	
Action and Limit Levels SR1A					
	SS (mg/l)	33		42	
Action and Limit Levels SR8					
	SS (mg/l)	52		60	

Notes:

- (1) For DO measurement, non-compliance occurs when monitoring result is lower than the limits.
- (2) For parameters other than DO, non-compliance of water quality results when monitoring results is higher than the limits.
- (3) Depth-averaged results are used unless specified otherwise.

Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring

Control Station	Impact Stations
Flood Tide	
C1	IM1, IM2, IM7, SR3
SR2 ⁽¹⁾	IM7, IM10, IM11, IM12, SR1A, SR3, SR4A, SR8
Ebb Tide	
C1	SR4A
C2	IM1, IM2, IM7, IM10, IM11, IM12, SR1A, SR2, SR3, SR8

Note:

- (1) As per findings of Baseline Water Quality Monitoring Report, the control reference has been changed from C3 to SR2 from 1 September 2016 onwards.

4.2 Monitoring Equipment

Table 4.4 summarises the equipment used in the reporting period for monitoring of specific water quality parameters under the water quality monitoring programme.

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI ProDSS (Serial No. 16H104234)	20 Dec 2022	Monthly EM&A Report No. 84, Appendix E
	YSI ProDSS (Serial No. 17E100747)	20 Dec 2022	Monthly EM&A Report No. 84, Appendix E

Other equipment used as part of the impact water quality monitoring programme are listed in **Table 4.5**.

Table 4.5: Other Monitoring Equipment

Equipment	Brand and Model
Water Sampler	Van Dorn Water Sampler
Positioning Device (measurement of GPS)	Garmin eTrex Vista HCx
Current Meter (measurement of current speed and direction, and water depth)	Sontek HydroSurveyor

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

Water quality monitoring samples were taken at three depths (at 1m below surface, at mid-depth, and at 1m above bottom) for locations with water depth >6m. For locations with water depth between 3m and 6m, water samples were taken at two depths (surface and bottom). For locations with water depth <3m, only the mid-depth was taken. Duplicate water samples were taken and analysed.

The water samples for all monitoring parameters were collected, stored, preserved and analysed according to the Standard Methods, APHA 22nd ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including temperature, pH, DO, turbidity, salinity, and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen), delivered to the laboratory within 24 hours of collection.

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

All in-situ monitoring instrument was checked, calibrated and certified by a laboratory accredited under HOKLAS before use. Responses of sensors and electrodes were checked with certified standard solutions before each use.

Wet bulb calibration for a DO meter was carried out before commencement of monitoring and after completion of all measurements each day. Calibration was not conducted at each monitoring location as daily calibration is adequate for the type of DO meter employed. A zero check in distilled water was performed with the turbidity probe at least once per monitoring day. The probe was then calibrated with a solution of known NTU. In addition, the turbidity probe was calibrated at least twice per month to establish the relationship between turbidity readings (in NTU) and levels of SS (in mg/l).

Calibration certificates of the monitoring equipment used in the reporting period are listed in **Table 4.4**.

4.3.3 Laboratory Measurement / Analysis

Analysis of SS have been carried out by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066). Sufficient water samples were collected at all the monitoring stations for carrying out the laboratory SS determination. The SS determination works were started within 24 hours after collection of the water samples. The analysis of SS have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

Table 4.6: Laboratory Measurement/ Analysis of SS

Parameters	Instrumentation	Analytical Method	Reporting Limit
SS	Analytical Balance	APHA 2540D	2mg/l

4.4 Summary of Monitoring Results

The water quality monitoring schedule for the reporting period is updated and provided in **Appendix B**.

The water quality monitoring results for all parameters (i.e. DO, turbidity and SS) obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix C**.

4.5 Conclusion

During the reporting period, all monitoring results were within their corresponding Action and Limit Levels. Nevertheless, as part of the EM&A programme, the construction methods and mitigation measures for water quality will continue to be monitored and opportunities for further enhancement will continue to be explored and implemented where possible, to strive for better protection of water quality and the marine environment.

In the meantime, the contractors were reminded to implement and maintain all mitigation measures as recommended in the Manual during weekly site inspection and regular environmental management meetings.

5 Waste Management

In accordance with the Manual, the waste generated from construction activities was audited once per week to determine if wastes are 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.

5.1 Action and Limit Levels

The Action and Limit Levels of the construction waste are provided in **Table 5.1**.

Table 5.1: 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

5.2 Waste Management Status

Weekly monitoring on all works contracts were carried out by the ET to check and monitor the implementation of proper waste management practices during the construction phase.

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

Based on updated contractors' information, construction waste generated in the reporting period is summarised in **Table 5.2**. ET and IEC have carried out site audits regularly and reviewed the trip ticket system. 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 5.2: Construction Waste Statistics

	C&D Material Stockpiled for Reuse or Recycle ⁽¹⁾ (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 (m ³)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
January 2023 ⁽²⁾	1,051	281	3,737	5,066	1,500	2,600	2,187

Notes:

- (1) C&D refers to Construction and Demolition.
- (2) The data was based on the information provided by contractors up to the submission date of this Monthly EM&A Report, and might be updated in the forthcoming Monthly EM&A Report.

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

5.3 Marine Sediment Management

Marine sediment is managed according to the EIA Report, Updated EM&A Manual, 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 sampling process, 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.

Only sampling work for treated marine sediment was conducted during the reporting period. The details of the marine sediment sampling, treatment and backfilling can be referred to Annual EM&A Report No.6.

6 Chinese White Dolphin Monitoring

In accordance with the Manual, CWD monitoring by small vessel line-transect survey supplemented by land-based theodolite tracking survey and passive acoustic monitoring should be conducted during construction phase.

The small vessel line-transect survey should be conducted at a frequency of two full surveys per month, while land-based theodolite tracking survey should be conducted at a frequency of one day per month per station at Sha Chau (SC) and Lung Kwu Chau (LKC) during the construction phase as stipulated in the Manual.

6.1 Action and Limit Levels

The Action and Limit Levels for CWD monitoring were formulated by the action response approach using the running quarterly dolphin encounter rates STG and ANI derived from the baseline monitoring data, as presented in the CWD Baseline Monitoring Report. The derived values of Action and Limit Levels for CWD monitoring were summarised in **Table 6.1**.

Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring

NEL, NWL, AW, WL and SWL as a Whole	
Action Level ⁽³⁾	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35
Limit Level ⁽³⁾	Two consecutive running quarterly ⁽²⁾ (3-month) STG < 1.86 & ANI < 9.35

Notes: (referring to the baseline monitoring report)

- (1) Action Level – running quarterly encounter rates STG & ANI of this month will be calculated from the reporting period and the two preceding survey months.
- (2) Limit Level – two consecutive running quarters mean both the running quarterly encounter rates of the preceding month and the running quarterly encounter rates of this month.
- (3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys were conducted along the transects covering Northeast Lantau (NEL), Northwest Lantau (NWL), Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL) areas as proposed in the Manual, which are consistent with the Agriculture, Fisheries and Conservation Department (AFCD) long-term monitoring programme (except the addition of AW). The AW transect has not been previously surveyed in the AFCD programme due to the restrictions of HKIA Approach Area, nevertheless, this transect was established during the EIA of the 3RS Project and refined in the Manual with the aim to collect project specific baseline information within the HKIA Approach Area to fill the data gap that was not covered by the AFCD programme. This also provided a larger sample size for estimating the density, abundance and patterns of movements in the broader study area of the project.

The planned vessel survey transect lines following the waypoints set for construction phase monitoring as proposed in the Manual are depicted in **Figure 6.1** with the waypoint coordinates of all transect lines given in **Table 6.2**, which are subject to on-site refinement based on the actual survey conditions and constraints.

Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas

Waypoint	Easting	Northing	Waypoint	Easting	Northing
NEL					
1S	813525	820900	6N	818568	824433
1N	813525	824657	7S	819532	821420
2S	814556	818449	7N	819532	824209
2N	814559	824768	8S	820451	822125
3S	815542	818807	8N	820451	823671
3N	815542	824882	9S	821504	822371
4S	816506	819480	9N	821504	823761
4N	816506	824859	10S	822513	823268
5S	817537	820220	10N	822513	824321
5N	817537	824613	11S	823477	823402
6S	818568	820735	11N	823477	824613
NWL					
1S	804671	814577	5S	808504	821735
1N	804671	831404	5N	808504	828602
2Sb	805475	815457	6S	809490	822075
2Nb	805476	818571	6N	809490	825352
2Sa	805476	820770	7S	810499	822323
2Na	805476	830562	7N	810499	824613
3S	806464	821033	8S	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	9S	812516	821356
4N	807518	829230	9N	812516	824254
AW					
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
WL					
1W	800600	805450	7W	800400	811450
1E	801760	805450	7E	802400	811450
2W	800300	806450	8W	800800	812450
2E	801750	806450	8E	802900	812450
3W	799600	807450	9W	801500	813550
3E	801500	807450	9E	803120	813550
4W	799400	808450	10W	801880	814500
4E	801430	808450	10E	803700	814500
5W	799500	809450	11W	802860	815500
5E	801300	809450	12S/11E	803750	815500
6W	799800	810450	12N	803750	818500
6E	801400	810450			
SWL					
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	7S	808553	800329
2N	803489	806720	7N	808553	807377
3S	804484	802509	8S	809547	800338
3N	804484	807048	8N	809547	807396
4S	805478	802105	9S	810542	800423
4N	805478	807556	9N	810542	807462
5S	806473	801250	10S	811446	801335
5N	806473	808458	10N	811446	809436

6.2.2 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey stations were set up at two locations, one facing east/south/west on the southern slopes of Sha Chau (SC), and the other facing north/northeast/northwest at Lung Kwu Chau (LKC). The stations (D and E) are depicted in **Figure 6.2** and shown in **Table 6.3** with position coordinates, height of station and approximate distance of consistent theodolite tracking capabilities for CWD.

Table 6.3: Land-based Theodolite Survey Station Details

Stations	Location	Geographical Coordinates	Station Height (m)	Approximate Tracking Distance (km)
D	Sha Chau (SC)	22° 20' 43.5" N 113° 53' 24.66" E	45.66	2
E	Lung Kwu Chau (LKC)	22° 22' 44.83" N 113° 53' 0.2" E	70.40	3

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys provided data for density and abundance estimation and other assessments using distance-sampling methodologies, specifically, line-transect methods.

The surveys involved small vessel line-transect data collection and have been designed to be similar to, and consistent with, previous surveys for the AFCD for their long-term monitoring of small cetaceans in Hong Kong. The survey was designed to provide systematic, quantitative measurements of density, abundance and habitat use.

As mentioned in **Section 6.2.1**, the transects covered NEL, NWL, AW, WL and SWL areas as proposed in the Manual, which are consistent with the AFCD long-term monitoring programme (except AW). There are two types of transect lines:

- Primary transect lines: the parallel and zigzag transect lines as shown in **Figure 6.1**; and
- Secondary transect lines: transect lines connecting between the primary transect lines and going around islands.

All data collected on both primary and secondary transect lines were used for analysis of sighting distribution, group size, activities including association with fishing boat, and mother-calf pairs. Only on-effort data collected under favourable conditions of Beaufort 0-3 and visibility of approximately 1200 m or beyond were used for analysis of the CWD encounter rates.

A 15-20m vessel with a flying bridge observation platform about 4 to 5m above water level and unobstructed forward view, and a team of three to four observers were deployed to undertake the surveys. Two observers were on search effort at all times when following the transect lines with a constant speed of 7 to 8 knots (i.e. 13 to 15 km per hour), one using 7X handheld binoculars and the other using unaided eyes and recording data.

During on-effort survey periods, the survey team recorded effort data including time, position (waypoints), weather conditions (Beaufort sea state and visibility) and distance travelled in each series with assistance of a handheld GPS device. The GPS device also continuously and automatically logged data including time, position (latitude and longitude) and vessel speed throughout the entire survey.

When CWDs were seen, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+

telephoto lens), then followed until they were lost from view. At that point, the boat returned (off effort) to the survey line at the closest point after obtaining photo records of the dolphin group and began to survey on effort again.

Focal follows of dolphins would be used for providing supplementary information only where practicable (i.e. when individual dolphins or small stable groups of dolphins with at least one member that could be readily identifiable with unaided eyes during observations and weather conditions are favourable). These would involve the boat following (at an appropriate distance to minimise disturbance) an identifiable individual dolphin for an extended period of time, and collecting detailed data on its location, behaviour, response to vessels, and associates.

6.3.2 Photo Identification

CWDs can be identified by their unique features like presence of scratches, nick marks, cuts, wounds, deformities of their dorsal fin and distinguished colouration and spotting patterns.

When CWDs were observed, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+ telephoto lens). The survey team attempted to photograph both sides of every single dolphin in the group as the colouration and spotting pattern on both sides may not be identical. The photos were taken at the highest available resolution and stored on Compact Flash memory cards for transferring into a computer.

All photos taken were initially examined to sort out those containing potentially identifiable individuals. These sorted-out images would then be examined in detail and compared to the CWD photo-identification catalogue established for 3RS Project during the baseline monitoring stage.

6.3.3 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey obtains fine-scale information on the time of day and movement patterns of the CWDs. A digital theodolite (Sokkia/Sokkisha Model DT5 or similar equipment) with 30-power magnification and 5-s precision was used to obtain the vertical and horizontal angle of each dolphin and vessel position. Angles were converted to geographic coordinates (latitude and longitude) and data were recorded using *Pythagoras* software, Version 1.2. This method delivers precise positions of multiple spatially distant targets in a short period of time. The technique is fully non-invasive, and allows for time and cost-effective descriptions of dolphin habitat use patterns at all times of daylight.

Three surveyors (one theodolite operator, one computer operator, and one observer) were involved in each survey. Observers searched for dolphins using unaided eyes and handheld binoculars (7X50). Theodolite tracking sessions were initiated whenever an individual CWD or group of CWDs was located. Where possible, a distinguishable individual was selected, based on colouration, within the group. The focal individual was then continuously tracked via the theodolite, with a position recorded each time the dolphin surfaced. In case an individual could not be positively distinguished from other members, the group was tracked by recording positions based on a central point within the group whenever the CWD surfaced. Tracking continued until animals were lost from view; moved beyond the range of reliable visibility (>1-3km, depending on station height); or environmental conditions obstructed visibility (e.g., intense haze, Beaufort sea state >4, or sunset), at which time the research effort was terminated. In addition to the tracking of CWD, all vessels that moved within 2-3km of the station were tracked, with effort made to obtain at least two positions for each vessel.

Theodolite tracking included focal follows of CWD groups and vessels. Priority was given to tracking individual or groups of CWD. The survey team also attempted to track all vessels moving within 1 km of the focal CWD.

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 6, 9, 10, 12, 13, 16, 17 and 18 January 2023 covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

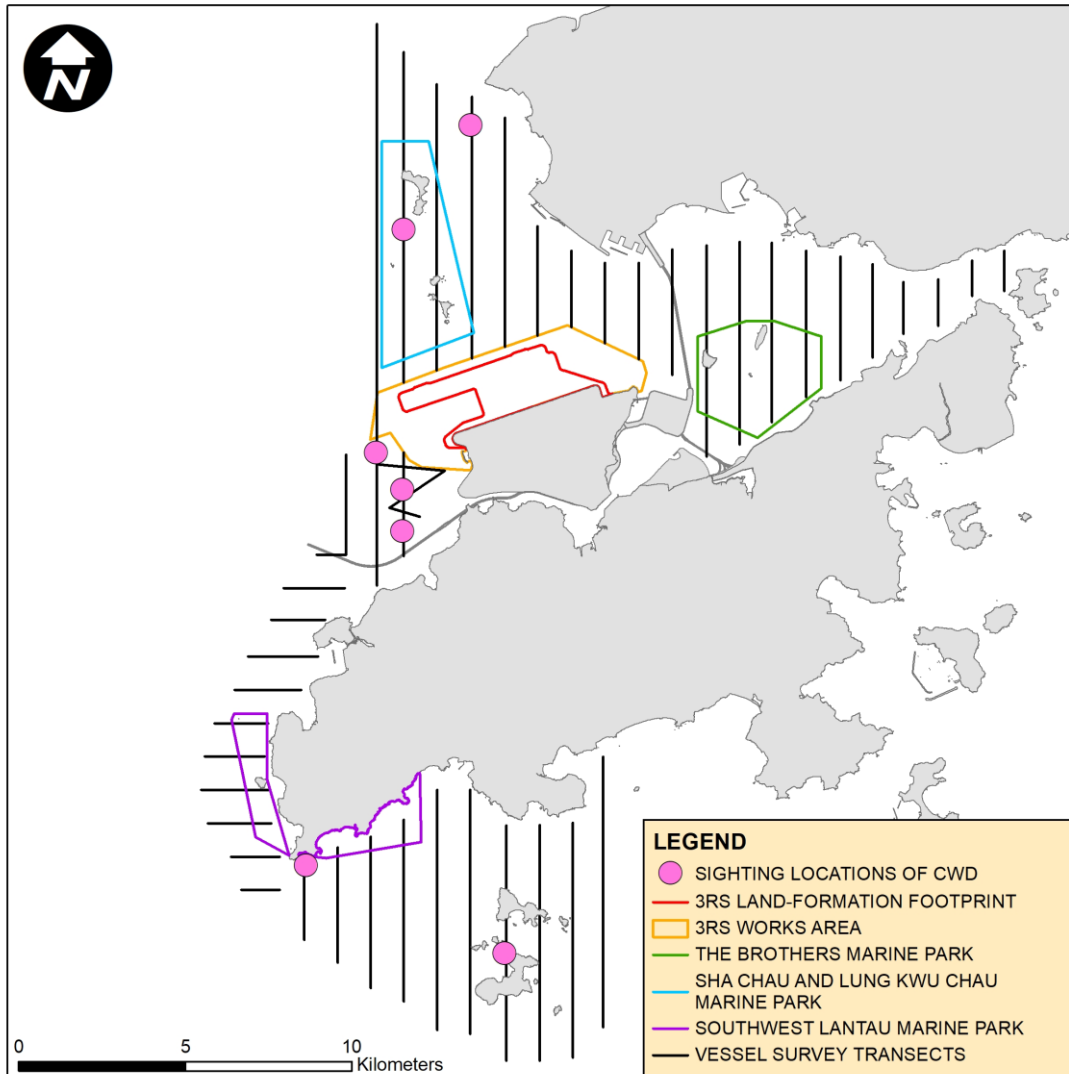
A total of around 456.29 km of survey effort was collected from these surveys and around 447.89 km of these survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In the current reporting period, seven sightings with 19 dolphins were sighted. All these sightings were on-effort records under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in the current reporting period is illustrated in **Figure 6.3**. In NWL, three CWD groups were recorded to the west of airport area while two CWD groups were recorded around LKC. In SWL, CWD sightings were recorded at the Soko Islands and waters off Fan Lau. There was no CWD sighting recorded in WL and NEL survey areas during the reporting period.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



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

Encounter Rate

Two types of dolphin encounter rates were calculated based on the vessel survey data. They included the number of dolphin sightings per 100 km survey effort (STG) and total number of dolphins per 100 km survey effort (ANI) in the whole survey area (i.e. NEL, NWL, AW, WL and SWL). In the calculation of dolphin encounter rates, only survey data collected under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility) were used. The formulae used for calculation of the encounter rates are shown below:

Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{\text{Total No. of On – effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{\text{Total No. of Dolphins from On – effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

(Notes: Only data collected under Beaufort 3 or below condition were used)

In this reporting period, a total of around 447.89 km of survey effort was conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 7 on-effort sightings with 19 dolphins were sighted under such condition. Calculation of the encounter rates for the month are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from November 2022 to January 2023), a total of around 1303.69 km of survey effort was conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 25 on-effort sightings and a total number of 63 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the reporting period and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. Although the running quarterly encounter rate ANI falls below the Action Level, the Action Level is not triggered as the running quarterly STG remains above the Action Level.

Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels

	Encounter Rate (STG)	Encounter Rate (ANI)
January 2023	1.56	4.24
Running Quarter from November 2022 to January 2023 ⁽¹⁾	1.92	4.83
Action Level	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35	

Note: (1) Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, containing six sets of transect surveys for all monitoring areas. Action Level will be triggered if both STG and ANI fall below the criteria.

Group Size

In the current reporting period, seven groups of 19 dolphins in total were sighted, and the average group size of CWDs was 2.7 dolphins per group. The number of CWD sightings with small group size (i.e. 1-2 dolphins) and CWD sightings with medium group size (i.e. 3-9 dolphins) were similar. No CWD sighting with large group size (i.e. 10 or more dolphins) was recorded in the current reporting period.

Activities and Association with Fishing Boats

There were five CWD sightings recorded engaging in foraging activities in the current reporting period in NWL and SWL survey areas. One of these CWD sightings was observed associated with operating pair trawler in NWL.

Mother-calf Pair

In this reporting period, there were two sightings with the presences of mother-and-unspotted juvenile pair. These two sightings were both recorded in NWL

6.4.2 Photo Identification

In the current reporting period, a total number of 15 different CWD individuals were identified for totally 18 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM021	06-Jan-23	2	NWL	SLMM014	13-Jan-23	3	SWL
NLMM028	06-Jan-23	2	NWL	SLMM031	13-Jan-23	5	SWL
NLMM040	09-Jan-23	1	NWL	SLMM035	13-Jan-23	5	SWL
		2	NWL	WLMM019	09-Jan-23	3	NWL
NLMM041	09-Jan-23	1	NWL	WLMM043	06-Jan-23	1	NWL
		2	NWL		09-Jan-23	3	NWL
NLMM085	06-Jan-23	2	NWL	WLMM067	09-Jan-23	3	NWL
NLMM086	06-Jan-23	1	NWL	WLMM071	06-Jan-23	1	NWL
NLMM087	06-Jan-23	1	NWL	WLMM122	09-Jan-23	3	NWL

6.4.3 Land-based Theodolite Tracking Survey

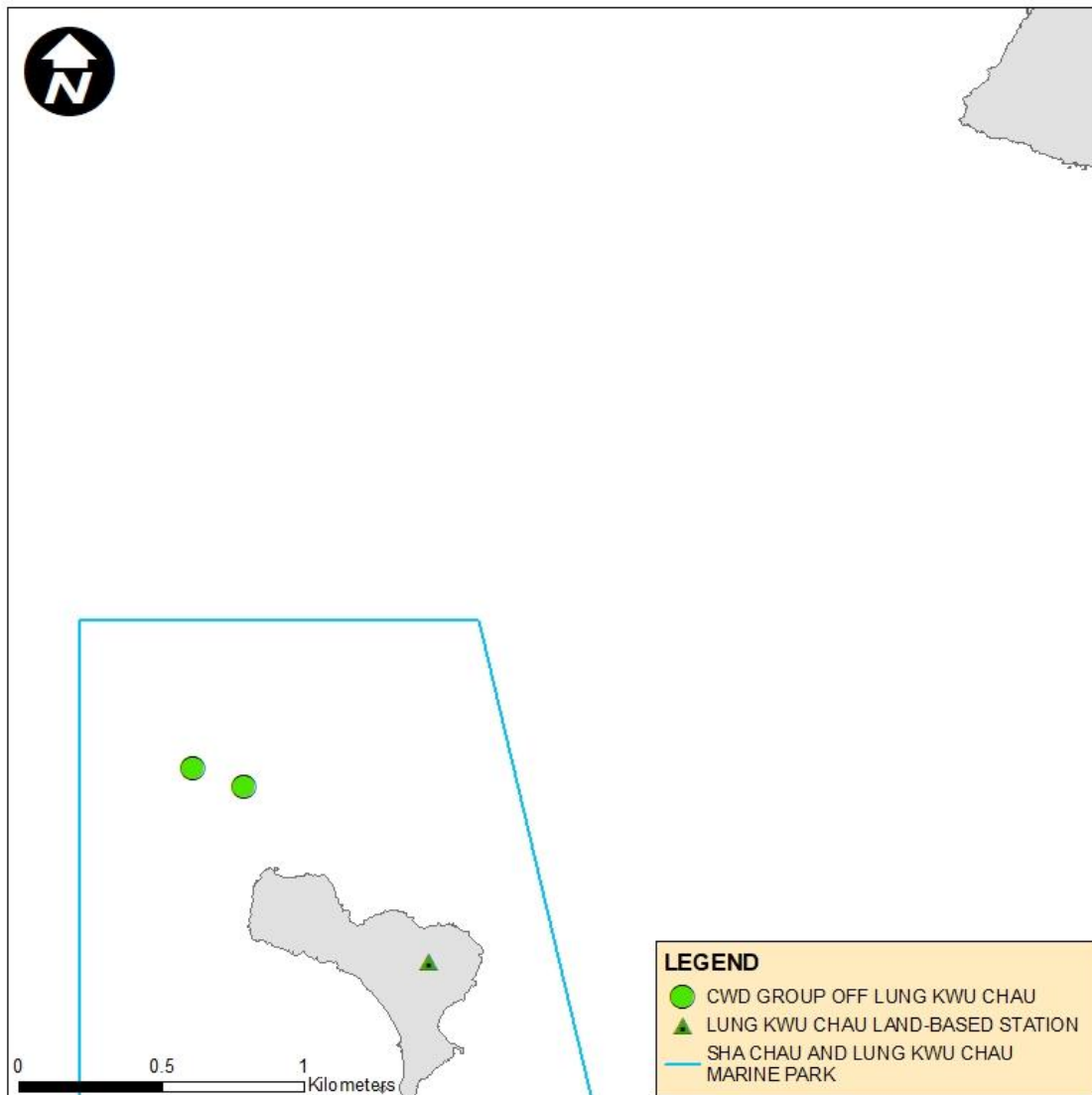
Survey Effort

Land-based theodolite tracking surveys were conducted at SC on 17 January 2023 and at LKC on 19 January 2023, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. Two groups of CWD were tracked off LKC while no CWD was tracked off SC station during the reporting period. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix C**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking survey in January 2023 were depicted in **Figure 6.4**.

Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau (LKC)	1	6:00	2	0.33
Sha Chau (SC)	1	6:00	0	0
TOTAL	2	12:00	2	0.16

Figure 6.4: Plots of First Sightings of All CWD Groups obtained from Land-based Stations



6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. Both C-POD and F-POD are considered as effective PAM devices in detecting CWD occurrence, and F-POD was the main PAM device deployed where feasible. During this reporting period, the F-POD was remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.4**). The PAM device was last retrieved on 30 December 2022 and the next re-deployment is scheduled in early-March 2023. Acoustic data would be reviewed to give an indication of CWD occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, one dolphin observation station and teams of at least two dolphin observers were deployed by the contractor for continuous monitoring of the DEZ for seawall construction works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of DEZ monitoring were provided by the ET, with a cumulative total of 704 individuals being trained and the training records kept by the ET. From the contractors' records, no dolphin or other marine mammals were observed within or around the silt curtain during this reporting month. These contractors' records were also audited by the ET during site inspection.

Audits of acoustic decoupling measures for construction vessels were carried out during weekly site inspection and the observations are summarised in **Section 7.1**. Audits of SkyPier high speed ferries route diversion and speed control and construction vessel management are presented in **Section 7.4** and **Section 7.5** respectively.

6.7 Timing of reporting CWD Monitoring Results

Detailed analysis of CWD monitoring results collected by small vessel line-transect survey will be provided in future quarterly reports. Detailed analysis of CWD monitoring results collected by land-based theodolite tracking survey and PAM will be provided in future annual reports after a larger sample size of data has been collected.

6.8 Summary of CWD Monitoring

Monitoring of CWD was conducted with two complete sets of small vessel line-transect surveys and two days of land-based theodolite tracking survey effort. The running quarterly encounter rates STG and ANI in the reporting period did not trigger the Action Level for CWD monitoring.

7 Environmental Site Inspection and Audit

7.1 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. The weekly site inspection schedule of the construction works is provided in **Appendix B**. Besides, physically 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 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 observed in site inspections during the reporting period. 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 A**.

7.2 Landscape and Visual Mitigation Measures

Implementation of applicable landscape and visual mitigation measures (reference to the environmental protection measures CM1 – CM10 in **Appendix A**) was monitored in accordance with the Manual. All measures undertaken by both the contractor and the landscape contractor during the construction phase and first year of the operation phase shall be audited by a landscape architect, as a member of the ET, on a regular basis to ensure compliance with the intended aims of the measures. Site inspections shall be undertaken at least once every two months during the operation phase.

The implementation status of the environmental protection measures is summarized below in **Table 7.1**. Examples of landscape and visual mitigation measures are shown in **Table 7.2**. The





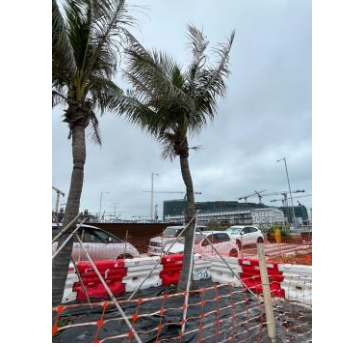
monitoring programme for detailed design, construction, establishment works and long term management (10 years) stages is presented in **Table 7.3**. Event and Action Plan for Landscape and Visual impacts is stated in **Table 7.4**.

Table 7.1: Landscape and Visual – Construction Phase Audit Summary

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
<p>CM1- The construction area and contractor’s temporary works areas shall be minimised to avoid impacts on adjacent landscape.</p>	<p>The implementation of mitigation measures was checked by ET during weekly site inspection and reported by the Contractors during the monthly Environmental Management Meetings. Implementation of the measures CM5, CM6 and CM7 by Contractors was observed.</p>	<p>All works contracts</p>
<p>CM2 – Reduction of construction period to practical minimum</p>		
<p>CM3 – Phasing of the construction stage to reduce visual impacts during the construction phase.</p>		
<p>CM4 – Construction traffic (land and sea) including construction plants, construction vessels and barges shall be kept to a practical minimum.</p>		
<p>CM5 – Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.</p>		
<p>CM6 – Avoidance of excessive height and bulk of site buildings and structures</p>		
<p>CM7 – Control of night-time lighting by hooding all lights and through minimisation of night working periods</p>		
<p>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</p>	<p>Tree Protection Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project.</p> <p>The Contractors’ performance on the implementation of the tree maintenance and protection measures were observed and checked by the ET weekly during construction period.</p>	<p>3302, 3508, 3801</p>

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
<p>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</p>	<p>Tree Transplanting Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees would unavoidably be affected by the construction works.</p> <p>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.</p> <p>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.</p> <p>Long term management of the transplanted trees was currently monitored by ET annually.</p>	<p>3508, 3801</p>
<p>CM10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical</p>	<p>The advanced hydroseeding works around taxiways and runways were partially completed at this stage and would resume in next phase.</p>	<p>To be implemented</p>

Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting Periods

		
<p>Erection of site hoardings around works area in unobtrusive colours (CM5)</p>	<p>Avoidance of excessive height and bulk of site buildings (CM6)</p>	<p>Control of night-time lighting using light hooding and minimisation of night working period (CM7)</p>
		
<p>General view of tree protection zone for retained tree (CM8)</p>	<p>General view of a transplanted tree (CM9)</p>	

In accordance with the Updated EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained trees and transplanted trees under the Project remained unchanged (i.e. 49 and 26 respectively) comparing to the previous reporting period. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**. Details of the retained trees are to be discussed in the Quarterly EM&A reports.

Table 7.3: Monitoring Programme for Landscape and Visual

Stage	Monitoring Task	Monitoring Report	Form of Approval	Frequency
Detailed Design	Checking of design works against the recommendations of the landscape and visual impact assessments within the EIA shall be undertaken during detailed design and tender stage, to ensure that they fulfil the intention of the mitigation measures. Any changes to the design, including design changes on site shall also be checked.	Report by AAHK / PM confirming that the design conforms to requirements of EP.	Approved by Client	At the end of the Detailed Design Phase
Construction	Checking of the contractor's operations during the construction period.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Weekly
Establishment Works	Checking of the planting works during the twelve-month Establishment Period after completion of each batch of transplanting works.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Every two months
Long Term Management (10 year)	Monitoring of the long-term management of the planting works in the period up to 10 years after completion of each batch of transplanting works.	Report on Compliance by ET or Maintenance Agency as appropriate	Counter signature of report by Management Agency	Annually

Table 7.4: Event and Action Plan for Landscape and Visual

Event Action Level	Action			
	ET	IEC	AAHK / PM	Contractor
Design Check	Check final design conforms to the requirements of EP and prepare report.	Check report. Recommend remedial design if necessary.	Undertake remedial design if necessary.	
Non-conformity on one occasion	Identify source. Inform IEC and AAHK / PM.	Check report. Check Contractor's working method.	Notify Contractor.	Amend working methods to prevent

Event Action Level	Action			
	Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed.	Discuss with ET and Contractor on possible remedial measures. Advise AAHK / PM on effectiveness of proposed remedial measures. Check implementation of remedial measures.	Ensure remedial measures are properly implemented.	recurrence of non-conformity. Rectify damage and undertake additional action necessary.
Repeated Non-conformity	Identify source. Inform IEC and AAHK / PM. Increase monitoring frequency. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Check monitoring report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise AAHK / PM on effectiveness of proposed remedial measures. Supervise implementation of remedial measures.	Notify Contractor. Ensure remedial measures area properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.

Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	0	0	9	0
3508 ⁽¹⁾	37	0	12	0
3602	0	0	0	0
3801	3	0	5 ⁽²⁾	0
Grand Total	49	0	26	0

Notes:

- (1) As some of the site areas have been handed over to Contract 3508, Contractor of Contract 3508 is currently managing the trees that are located within their site area. Existing trees to be managed by Contract 3508 is subject to change after initial tree surveys for each batch of site areas have been conducted by the Contractor.
- (2) Three transplanted trees (CT1194, CT1794 and CT1795) were subsequently felled after transplantation. Please refer to **Table 7.6** for details.

Summary of the updated transplanted trees and photos are presented in **Table 7.6**.

Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Establishment Period was completed. Next inspection will be conducted in February 2023. Photos of the last inspection in February 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.74.
CT1253	4 May 2018	<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. Next inspection will be conducted in February 2023. Photos of the last inspection in February 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.74.
T836	13 Dec 2019	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK	
T838	22 Jan 2020	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. Next inspection will be conducted in December 2023. Photos of the last inspection in December 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.84.
T812	21 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T814	20 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T815	15 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T829	18 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T830	14 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T831	19 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	
T1493	6 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1494	6 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1495	10 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1496	5 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1497	5 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1498	29 Jun 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1499	29 Jun 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1500	30 Jun 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1501	30 Jun 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
T1502	5 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1503	6 Jul 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
T1504	24 Jun 2021	<u>Long Term Management period</u> Aug 2022 – Jul 2031	Contract 3508	
CT1194	4 May 2018	<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Establishment Period was completed. 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	<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	Establishment Period was completed. 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	<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	Establishment Period was completed. 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.

7.3 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 of T2 EPSS and all required additional photos have been submitted to EPD.

According to the approved supplementary CAP, there are 3 remaining locations where site re-appraisal / additional site investigation are proposed. Based on the latest construction information, there is no development programme for these locations at this stage. As such, the status of site re-appraisal/ additional site investigation shall be further updated upon latest development programme is available.

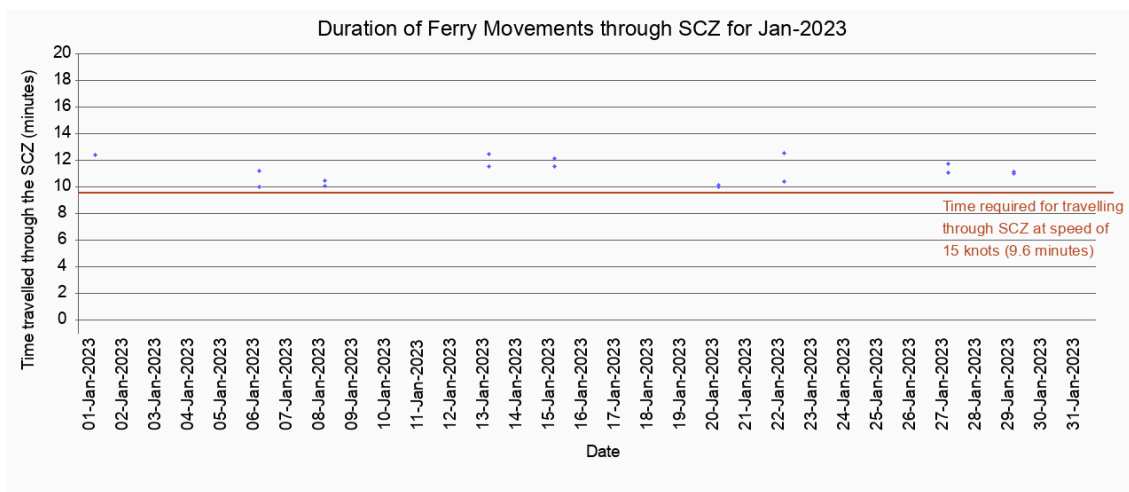
7.4 Audit of SkyPier High Speed Ferries

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.

Key audit findings for the SkyPier HSF travelling to/from Macau against the requirements of the SkyPier Plan during the reporting period are summarised in **Table 7.7**. The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 5 to 24 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

In total, 17 ferry movement between HKIA SkyPier and Macau was recorded in January 2023 and the data are presented in **Appendix F**. The time spent by the SkyPier HSF travelling through the SCZ in January 2023 was presented in **Figure 7.1**. It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowable speed of 15 knots within the SCZ. **Figure 7.1** shows that the SkyPier HSF spent more than 9.6 minutes to travel through the SCZ.

Figure 7.1: Duration of the SkyPier HSFs travelling through the SCZ for January 2023



Note: Data above the red line indicated that the time spent by the SkyPier HSFs travelling through the SCZ is more than 9.6 minutes, which is in compliance with the SkyPier Plan.

Table 7.7: Summary of Key Audit Findings against the SkyPier Plan

Requirements in the SkyPier Plan	1 to 31 January 2023
Total number of ferry movements recorded and audited for HSF to/from Macau	17
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Speed control in speed control zone	The average speed of all HSFs travelling through the SCZ ranged from 10.9 to 13.6 knots. All HSFs had travelled through the SCZ with average speed under 15 knots in compliance with the SkyPier Plan. The time used by HSFs to travel through SCZ is presented in Figure 7.1 .
A maximum daily cap of 125 movements for all SkyPier HSFs including those not using diverted route	5 to 24 daily movement

7.5 Audit of Construction and Associated Vessels

The updated MTRMP-CAV was approved by EPD on 31 May 2022 under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET carried out the following actions during the reporting period:

- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly Construction Traffic Control Centre (CTCC) audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.6 Implementation of Dolphin Exclusion Zone

The DEZ Plan was submitted in accordance with EP Condition 3.1 (v) requirement and Section 10.3 of the Manual, and approved in April 2016 by EPD. The ET checked the contractors' dolphin sighting record and relevant records to audit the implementation of DEZ and there was no finding.

During the reporting period, there was no dolphin sightings within the DEZ.

7.7 Status of Submissions under Environmental Permits

The current status of submissions under the EP up to the reporting period is presented in **Table 7.8**.

Table 7.8: Status of Submissions under Environmental Permit

EP Condition	Submission	Status
2.1	Complaint Management Plan	
2.4	Management Organizations	
2.5	Construction Works Schedule and Location Plans	
2.7	Marine Park Proposal	
2.8	Marine Ecology Conservation Plan	
2.9	Marine Travel Routes and Management Plan for Construction and Associated Vessels	
2.10	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier	
2.11	Marine Mammal Watching Plan	
2.12	Coral Translocation Plan	Accepted / approved by EPD
2.13	Fisheries Management Plan	
2.14	Egretty Survey Plan	
2.15	Silt Curtain Deployment Plan	
2.16	Spill Response Plan	
2.17	Detailed Plan on Deep Cement Mixing	
2.18	Landscape & Visual Plan	
2.19	Waste Management Plan	
2.20	Supplementary Contamination Assessment Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

7.8 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. The latest statuses of the environmental licenses and permits in the reporting period are presented in **Appendix D**.

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

7.9.1 Complaints

For the complaint received on 19 December 2022 regarding dust nuisance, the case is under investigation and findings will be reported in the next Monthly EM&A Report.

7.9.2 Notifications of Summons or Status of Prosecution

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

7.9.3 Cumulative Statistics

Cumulative statistics on complaints, notifications of summons and status of prosecutions are summarised in **Appendix E**.

8 Future Key Issues and Other EIA & EM&A Issues

8.1 Construction Programme for the Coming Reporting Period

Key activities anticipated in the next reporting period for the Project will include the following:

Reclamation Works:

Contract 3206 Main Reclamation Works

- Backfilling works.

Airfield Works:

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Construction of tunnel structure;
- Pipe and drainage diversion works;
- Utilities and backfilling works; and
- Stockpiling.

Contract 3305 Airfield Ground Lighting System

- Enhanced vehicular warning light hardware installation; and
- Rectification work for airfield ground lighting system.

Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS

- Equipment installation.

Contract 3307 Fire Training Facility

- Architectural, builder's and finishing works;
- Drainage and utilities works;
- Finishing work; and
- Pavement work.

Contract 3308 Foreign Object Debris Detection System

- Rectification work for handover sensor system.

Contract 3310 North Runway Modification Works

- Architectural, builder's work and finishing works;
- Excavation works;
- Seawall construction;
- Construction of stormwater drainage;
- Construction of walls and slabs;
- Installation of pipe piles; and
- Backfilling works.

Third Runway Concourse

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Roofing installation of covered walkway; and
- Demolition works.

Contract 3404 Integrated Airport Control System

- System maintenance.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Bored piling;
- Structure works;
- Excavation; and
- Road formation.

Contract 3408 Third Runway Concourse and Apron Works

- Reinforced concrete works; and
- Excavation.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Viaduct Pier and temporary road construction;
- Pump station and electrical station works; and
- Architectural, builder's work and finishing works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Guidebeam installation.

Contract 3602 Existing APM System Modification Works

- Erection and fixing of power rail; and
- Concrete plinth construction.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Watermain connection works;
- Road light installation; and
- Laying of road work.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Backfilling works;
- Rebar fixing works; and
- Wall construction.

Contract 3802 APM and BHS Tunnels and Related Works

- Excavation and lateral supports;
- Box Culvert Construction; and
- Tunnel construction.

Contract 3804 East and Landside Fire Stations

- Site setup and formation works;
- Preparation works of bored pile.

Construction Support (Services / Licenses):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant and material conveyor belt.

Contract 3908 Quay Management Services

- Provision of services of site management and logistic control of 3RS quays; and
- Provision of flat top barge and vehicle delivery services between the launching point in Hong Kong and 3RS quays.

Contract 3913 Asphalt Batching Plant

- Operation of asphalt batching plant.

8.2 Key Environmental Issues for the Coming Reporting Period

The key environmental issues for the Project in the coming reporting period expected to be associated with the construction activities include:

- Generation of dust from construction works and stockpiles;
- Noise from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- DEZ monitoring for seawall construction;
- Implementation of MMWP for silt curtain deployment;
- Sorting, recycling, storage and disposal of general refuse and construction waste;
- Reuse of treated marine sediments from piling and excavation works;
- Management of chemicals and avoidance of oil spillage on-site; and
- Acoustic decoupling measures for equipment on marine vessels.

The implementation of required mitigation measures by the contractors will be monitored by the ET.

8.3 Monitoring Schedule for the Coming Reporting Period

A tentative schedule of the planned environmental monitoring work in the next reporting period is provided in **Appendix B**.

8.4 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.

9 Conclusion and Recommendation

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 seawall construction, filling and land-based ground improvement work, together with taxiways, concourse and associated works. Land-based works on existing airport island involved mainly airfield works, Terminal 2 expansion works, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include road and drainage works, cable ducting, demolition, piling, and excavation works.

All the monitoring works for construction dust, construction noise, water quality, construction waste, landscape & visual, and CWD were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, water quality, construction waste and CWD did not trigger the corresponding Action and Limit Levels during the reporting period.

Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection checklists and provided to the contractors to follow up.

On the implementation of the SkyPier Plan, the daily movements of all SkyPier HSFs in the reporting period, including those not using the diverted route, were in the range of 5 to 24 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 17 HSFs movements under the SkyPier Plan were recorded in the reporting period. The average speed of all HSFs travelling through the SCZ ranged from 10.9 to 13.6 knots. All HSFs had travelled through the SCZ with average speed under 15 knots in compliance with the SkyPier Plan. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigations or actions accordingly.

On the implementation of MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone and not travelling through the designated gates. ET conducted checking to ensure the MSS records all deviation cases accurately. Deviations including speeding in the works area, entered no entry zone, and entry from non-designated gates were reviewed by ET. All the concerned captains were reminded by the contractor's CTCC representative to comply with the requirements of the MTRMP-CAV. The ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park and the Sha Chau & Lung Kwu Chau Marine Park. Three-month rolling programmes for construction vessel activities, which ensures the proposed vessels are necessary and minimal through good planning, were also received from contractors.

Figures

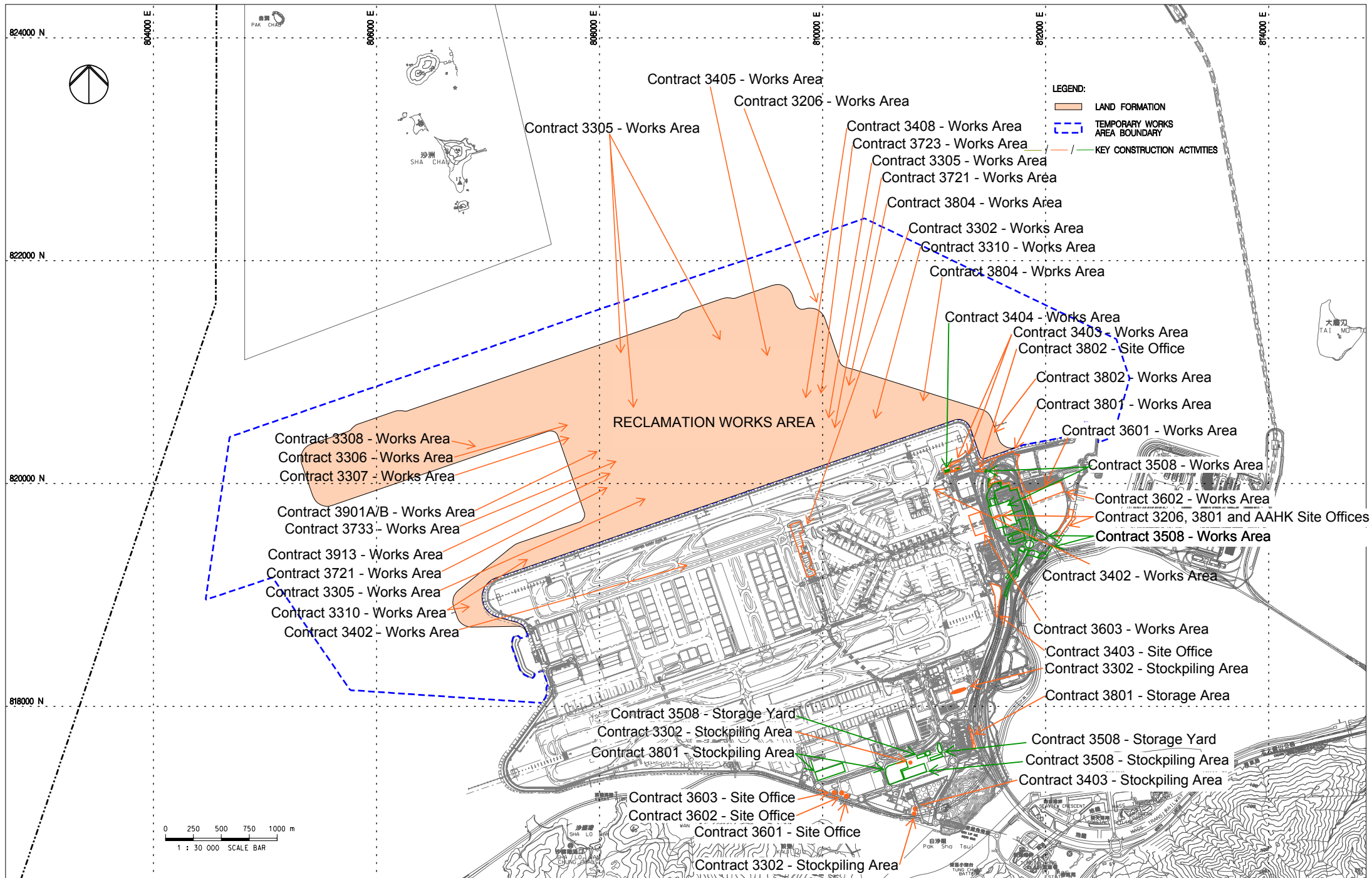


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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



80000 E

80000 E

81000 E

82000 E

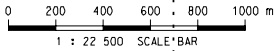
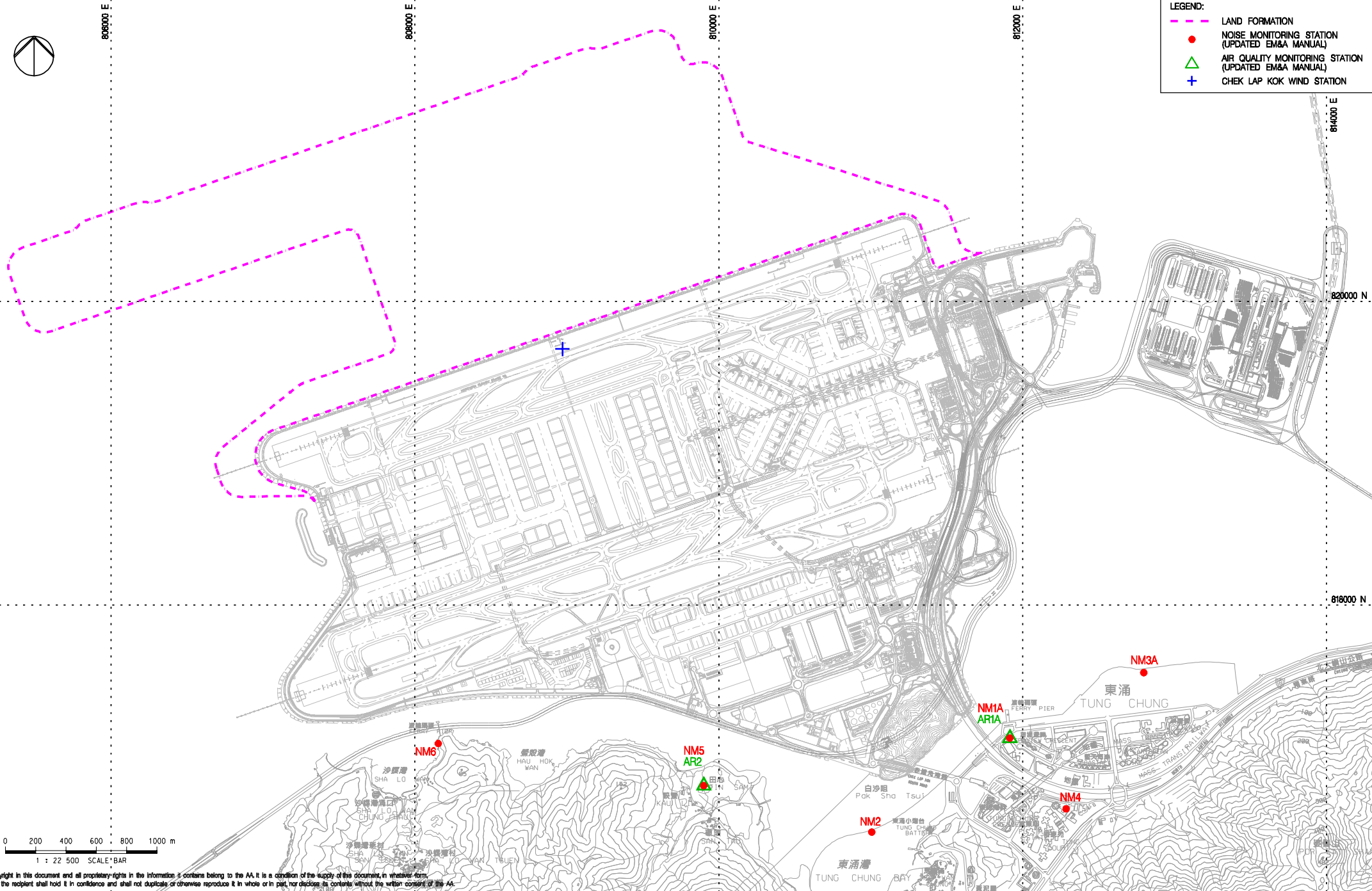
814000 N

820000 N

818000 N

LEGEND:

	LAND FORMATION
	NOISE MONITORING STATION (UPDATED EM&A MANUAL)
	AIR QUALITY MONITORING STATION (UPDATED EM&A MANUAL)
	CHEK LAP KOK WIND STATION



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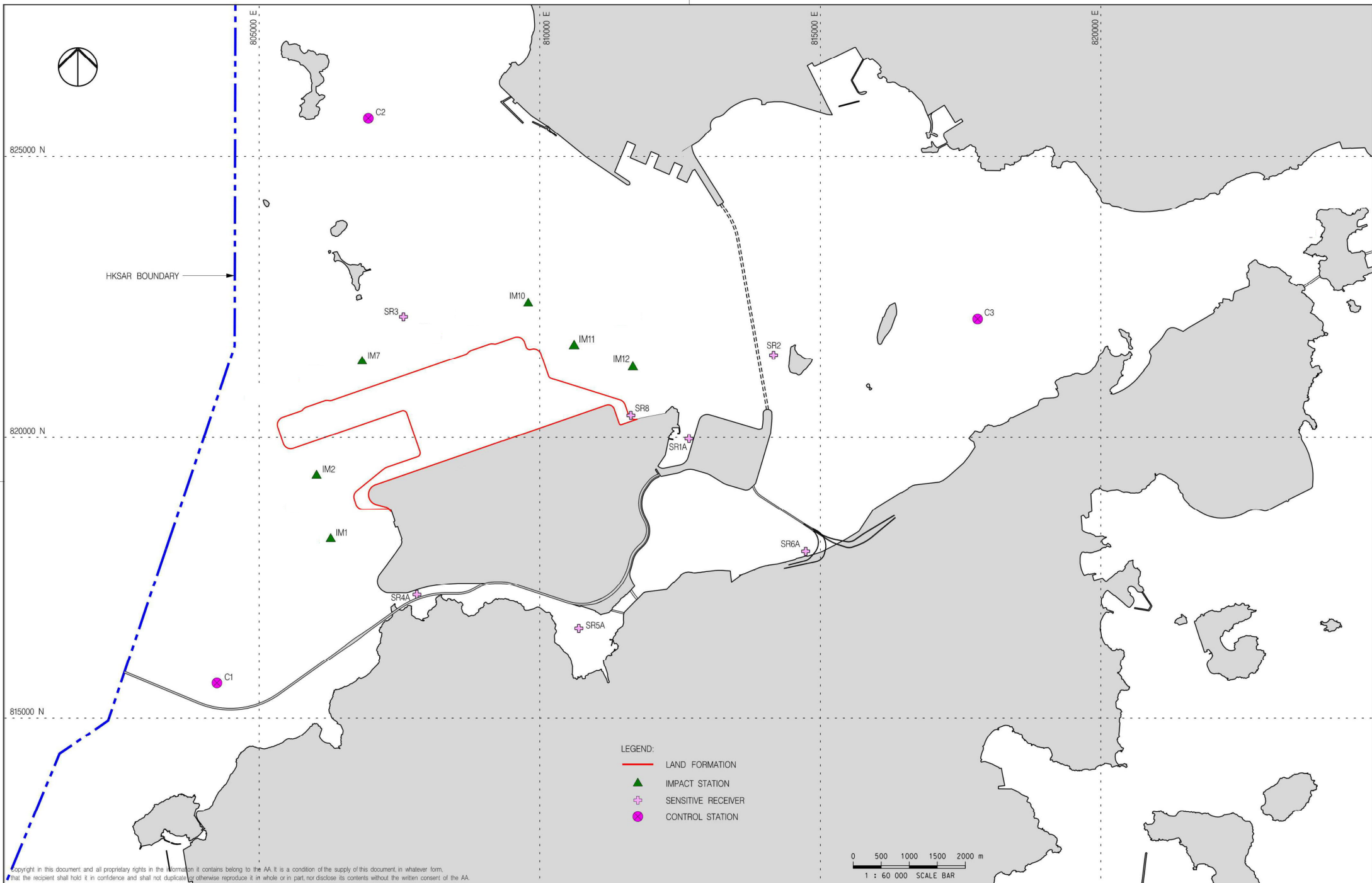
Rev.	Date	Description	Checked
A	06JAN16	FIRST ISSUE	RO
B	29JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	29OCT18	GENERAL REVISION	SH



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

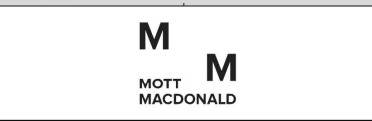
Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1 : 22500
FIGURE 2.1	Rev. D



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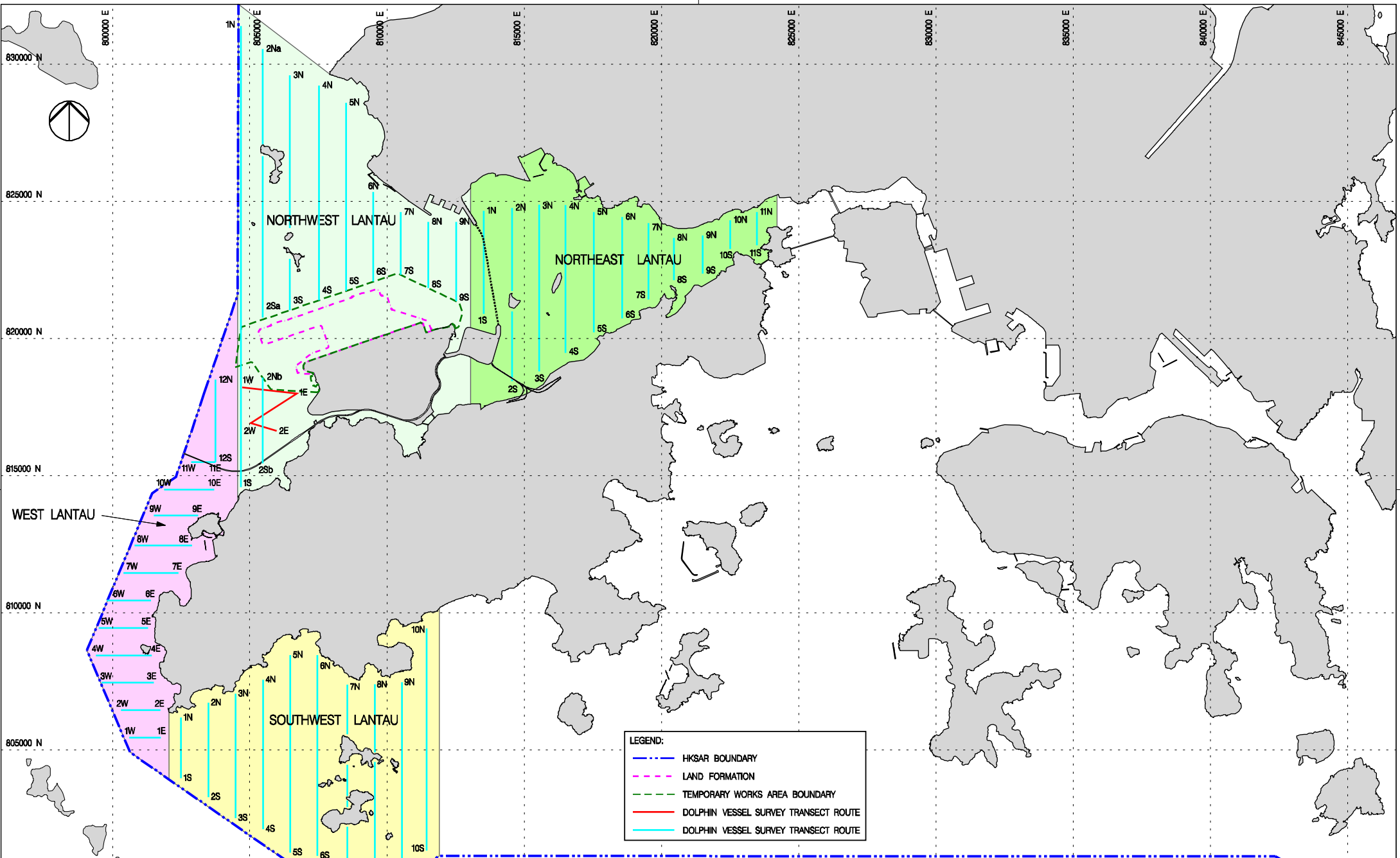
Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL



Title
WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
Design	DC	21AUG19
Checkers	DC / TK	21AUG19
Approver	EC	21AUG19

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1 : 60000
FIGURE 4.1	Rev. A



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

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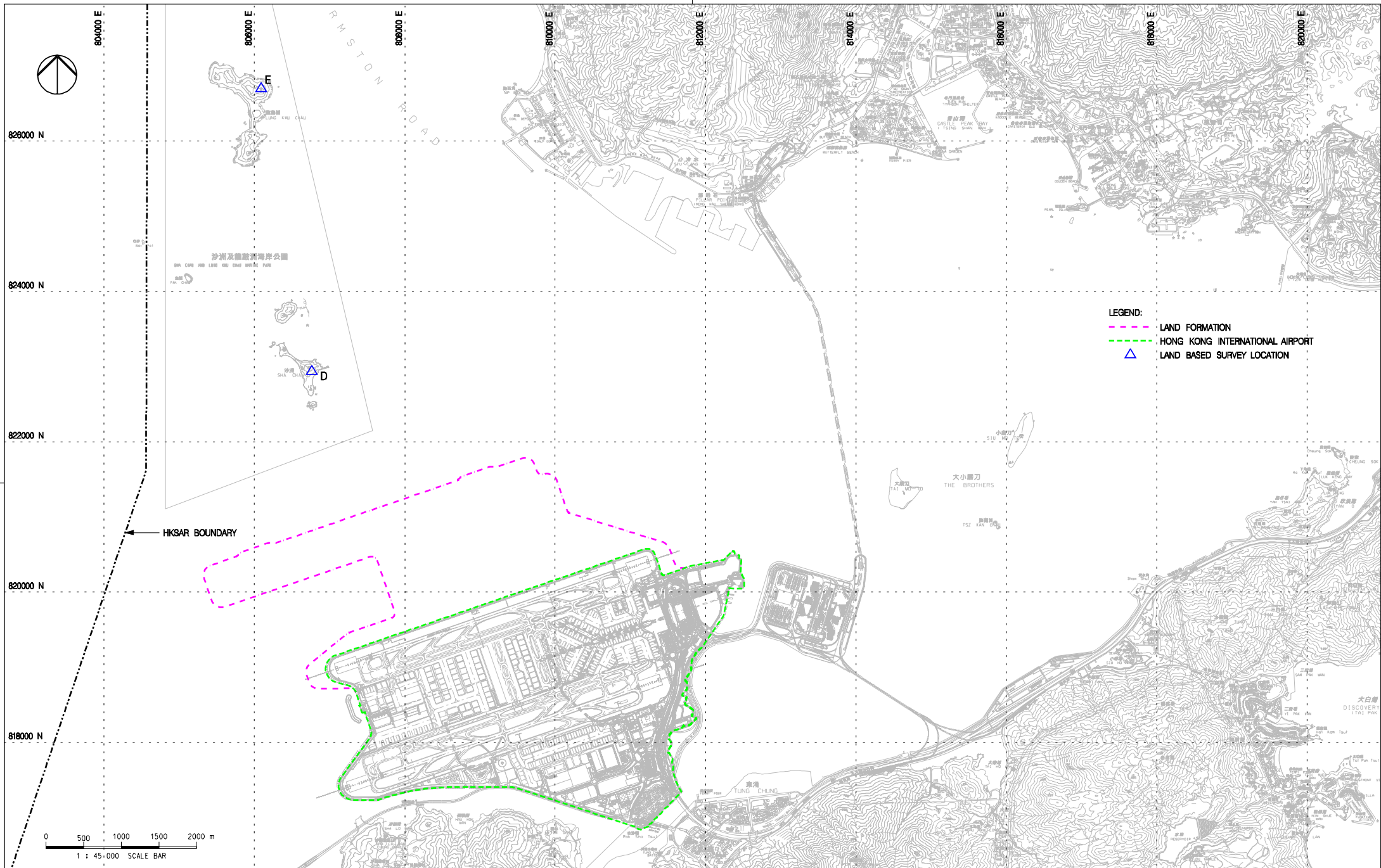
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C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	28OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH



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

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

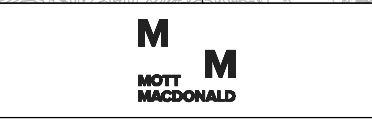
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1 : 125000
FIGURE 6.1	Rev. F



- LEGEND:**
- LAND FORMATION
 - HONG KONG INTERNATIONAL AIRPORT
 - ▲ LAND BASED SURVEY LOCATION

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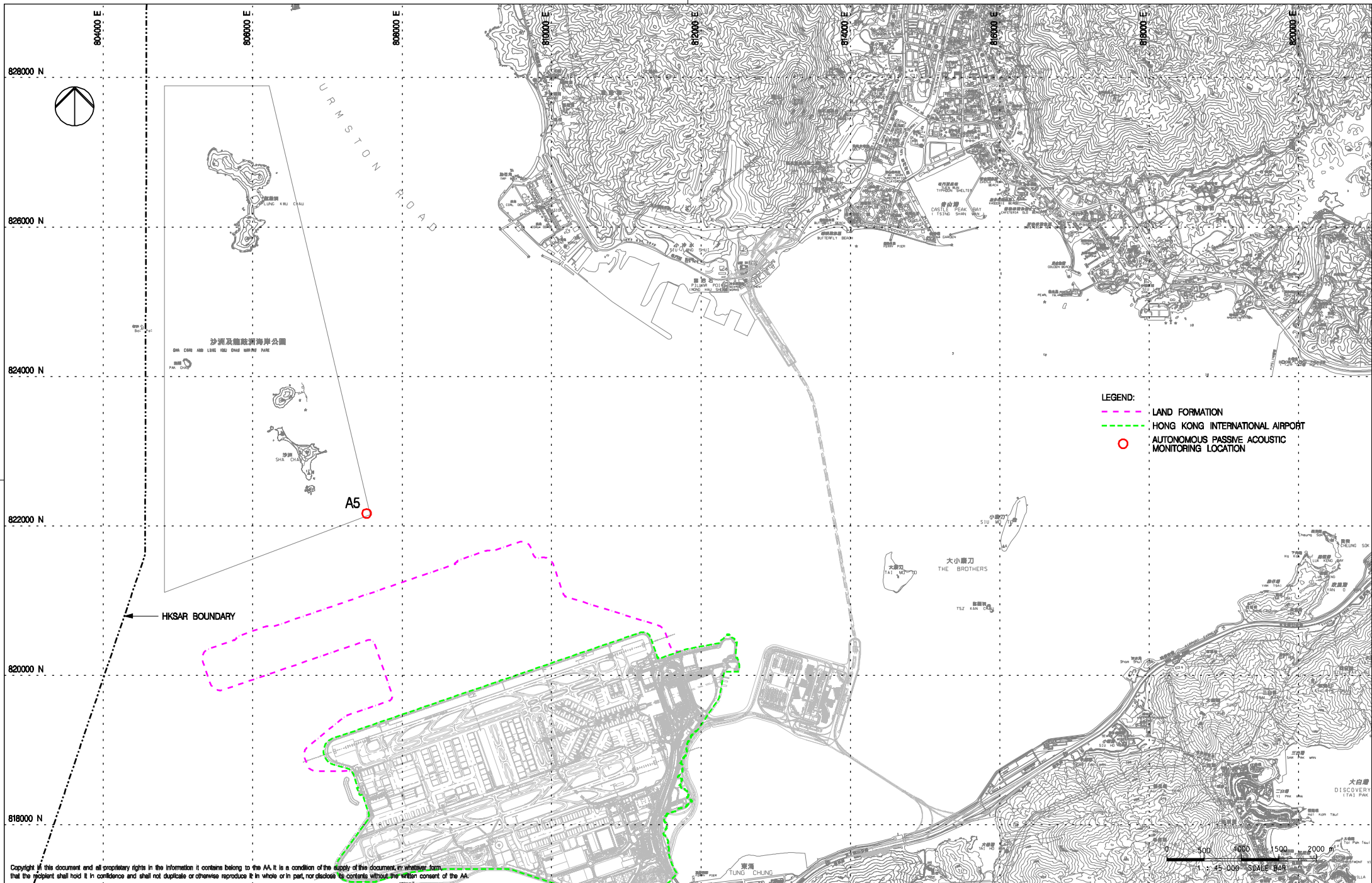
Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	08FEB17	GENERAL REVISION	JC
C	29OCT18	GENERAL REVISION	SH



Title
**LAND BASED DOLPHIN MONITORING
 IN BASELINE AND CONSTRUCTION PHASES**

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.		1 : 45000
FIGURE 6.2		Rev. C



- LEGEND:**
- LAND FORMATION
 - HONG KONG INTERNATIONAL AIRPORT
 - AUTONOMOUS PASSIVE ACOUSTIC MONITORING LOCATION

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Rev.	Date	Description	Checked
A	29AUG17	FIRST ISSUE	JT
B	10OCT17	GENERAL REVISION	PL
C	29OCT18	GENERAL REVISION	SH



Title
LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1:45000
FIGURE 6.4	Rev. C

Appendix A. 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 <ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>Loading, Unloading or Transfer of Dusty Materials</p> <ul style="list-style-type: none"> 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	
			<p>Debris Handling</p> <ul style="list-style-type: none"> 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	
			<p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> 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	
			<p>Wheel washing</p> <ul style="list-style-type: none"> 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	
			<p>Use of vehicles</p> <ul style="list-style-type: none"> 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	
			<p>Site hoarding</p> <ul style="list-style-type: none"> 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	
5.2.6.5	2.1	-	<p>Best Practices for Concrete Batching Plant</p> <p>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:</p> <p>Cement and other dusty materials</p>	Within Concrete Batching Plant / Duration of the construction phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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 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. 		
			<p>Other raw materials</p> <ul style="list-style-type: none"> ▪ 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; 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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. 		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: <ol style="list-style-type: none"> 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 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	
			<p>Vehicles</p> <ul style="list-style-type: none"> 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	
			<p>Housekeeping</p> <ul style="list-style-type: none"> 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	
5.2.6.6	2.1	-	<p>Best Practices for Asphaltic Concrete Plant</p> <p>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:</p> <p>Design of Chimney</p> <ul style="list-style-type: none"> 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; 	Within Concrete Batching Plant / Duration of the construction phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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. 		
			<p>Cold feed side</p> <ul style="list-style-type: none"> ▪ 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; ▪ 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. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	
			<p>Hot feed side</p> <ul style="list-style-type: none"> ▪ 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 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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). 		
			<p>Material transportation</p> <ul style="list-style-type: none"> 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; 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. 	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Control of emissions from bitumen decanting</p> <ul style="list-style-type: none"> 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 Concrete Batching Plant / Duration of the construction phase	
			<p>Liquid fuel</p> <ul style="list-style-type: none"> 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 Concrete Batching Plant / Duration of the construction phase	
			<p>Housekeeping</p> <ul style="list-style-type: none"> 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 Concrete Batching Plant / Duration of the construction phase	
5.2.6.7	2.1	-	<p>Best Practices for Rock Crushing Plants</p> <p>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:</p> <p>Crushers</p>	Within Concrete Batching 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?^
			<ul style="list-style-type: none"> ▪ 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. 		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> ▪ 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. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>
			<p>Belt conveyors</p> <ul style="list-style-type: none"> ▪ 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 <p>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.</p>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>
			<p>Storage piles and bins</p> <ul style="list-style-type: none"> ▪ 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. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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. 		
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities. 	Within Concrete Batching 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	-	<ul style="list-style-type: none"> Precautionary measures should be established to request barges to move away during typhoons. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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	-	<p>Good Site Practice</p> <p>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:</p> <ul style="list-style-type: none"> 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

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	-	Adoption of QPME <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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
7.5.6	4.3	-	Use of Noise Enclosure/ Acoustic Shed <ul style="list-style-type: none"> 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> <ul style="list-style-type: none"> 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	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p><u>Specific Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> ▪ 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; ▪ 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; 	<p>Within construction site / Duration of the construction phase</p>	<p>I – For marine filling</p> <p>C – Completed in Nov 2020 for sand blanket</p> <p>C – Completed in May 2018</p>
			<ul style="list-style-type: none"> ▪ 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 		<p>I</p> <p>(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> ▪ The Silt Curtain Deployment Plan shall be implemented. 		<p>I</p>
			<p><u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u></p> <ul style="list-style-type: none"> ▪ 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; ▪ 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 	<p>Within construction site / Duration of the construction phase</p>	<p>N/A</p> <p>(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p> <p>I – For C7a</p> <p>C – Completed in Dec 2021 for C8</p> <p>*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> ▪ The silt curtains and silt screens should be regularly checked and maintained. 		<p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p><u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u></p> <ul style="list-style-type: none"> 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	I *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities; 		N/A (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> 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)
			<ul style="list-style-type: none"> The silt curtains and silt screens should be regularly checked and maintained. 		I
			<p><u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u></p> <ul style="list-style-type: none"> 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 conducted anymore
8.8.1.4	5.1	-	<p>Modification of the Existing Seawall</p> <ul style="list-style-type: none"> 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	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.5	5.1	-	<p>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</p> <ul style="list-style-type: none"> 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	<p>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</p> <p>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.</p>	Within construction site / Duration of the construction phase	<p>C – For approach lights</p> <p>N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys</p> <p>C – Completed in Oct 2021</p>
			<p><u>For construction of the eastern approach lights at the CMPs</u></p> <ul style="list-style-type: none"> 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. 		
8.8.1.8	5.1	-	<p>Construction of Site Runoff and Drainage</p> <p>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:</p>	Within construction site / Duration of the construction phase	
			<ul style="list-style-type: none"> 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 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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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; 		
			<ul style="list-style-type: none"> ▪ 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; 		
			<ul style="list-style-type: none"> ▪ 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 		
			<ul style="list-style-type: none"> ▪ 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. 		
			<ul style="list-style-type: none"> ▪ 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; 		
			<ul style="list-style-type: none"> ▪ 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 		
			<ul style="list-style-type: none"> ▪ 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. 		
8.8.1.9	5.1	-	<p>Sewage Effluent from Construction Workforce</p> <ul style="list-style-type: none"> ▪ 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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.10 8.8.1.11	5.1		<p>General Construction Activities</p> <ul style="list-style-type: none"> 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	<p>Drilling Activities for the Submarine Aviation Fuel Pipelines</p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> 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
			<p>At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater:</p> <ul style="list-style-type: none"> 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	-	<p>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:</p> <ul style="list-style-type: none"> 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; 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; 	Project Site Area / During design and construction phase	I
					I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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; 		
			<ul style="list-style-type: none"> ▪ 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 		
			<ul style="list-style-type: none"> ▪ 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 HKIAAAA 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. 		
10.5.1.1	7.1	-	<p>The following good site practices should be performed during the construction activities include:</p> <ul style="list-style-type: none"> ▪ 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 ▪ 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. 	Project Site Area / Construction Phase	
10.5.1.3	7.1	-	<p>The following practices should be performed to achieve waste reduction include:</p> <ul style="list-style-type: none"> ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; 	Project Site Area / Construction Phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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. 		
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	-	<p>The following mitigation measures are recommended during excavation and treatment of the sediments:</p> <ul style="list-style-type: none"> ▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions; ▪ 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; ▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; ▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; ▪ Treated and untreated sediment should be clearly separated and stored separately; and ▪ 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. 	Project Site Area / Construction Phase	I I I I I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
10.5.1.18	7.1	-	<p>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:</p> <ul style="list-style-type: none"> 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	-	<p>Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented:</p> <ul style="list-style-type: none"> 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	-	<p>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.</p>	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	<p>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.</p>	Project Site Area / Construction Phase	I
Land Contamination – Construction Phase					
11.10.1.2 to 11.10.1.3	8.1	2.32	<p>For areas inaccessible during site reconnaissance survey</p> <ul style="list-style-type: none"> 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 / Prior to 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?^
			<ul style="list-style-type: none"> ▪ 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. ▪ 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. ▪ 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. 		<p>C – Completed in Jan 2018</p> <hr/> <p>I</p> <p>*(CAR for golf course and Terminal 2 emergency power supply system nos. 1, 2, 3, 4 and 5 were submitted to EPD)</p> <hr/> <p>N/A as no remediation was required.</p>
11.8.1.2	8.1	-	<p>If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any):</p> <ul style="list-style-type: none"> ▪ 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; ▪ 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. 	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?^
Terrestrial Ecological – Construction Phase					
12.10.1.1	9.2	2.14	Pre-construction Egretty Survey <ul style="list-style-type: none"> Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty. 	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 Egretty <ul style="list-style-type: none"> The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretty. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretty; 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> Pre-construction phase Coral Dive Survey. 	HKIAAA artificial seawall	C – Completed in Jan 2016
Marine Ecological Impact – Construction Phase					
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area <ul style="list-style-type: none"> 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	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.7 to 13.11.1.10	-	2.31	<p>Use of Construction Methods with Minimal Risk/Disturbance</p> <ul style="list-style-type: none"> Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; <hr/> <ul style="list-style-type: none"> 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; <hr/> <ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; <hr/> <ul style="list-style-type: none"> Avoid bored piling during CWD peak calving season (Mar to Jun); <hr/> <ul style="list-style-type: none"> Prohibition of underwater percussive piling; and <hr/> <ul style="list-style-type: none"> 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. 	During construction phase at marine works area	<p>C – Completed in Jan 2019 for diversion of aviation fuel pipeline</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAAA Marker Beacons would be replaced by buoys</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
13.11.2.1 to 13.11.2.7	-	-	<p>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</p> <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; <hr/> <ul style="list-style-type: none"> 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); <hr/> <ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and <hr/> <ul style="list-style-type: none"> 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. 	All works area during the construction phase	<p>I</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
13.11.1.12	-	-	<p>Strict Enforcement of No-Dumping Policy</p>	All works area during 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?^
			<ul style="list-style-type: none"> ▪ 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-dumping 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. 		
13.11.1.13	-	-	<p>Good Construction Site Practices</p> <ul style="list-style-type: none"> ▪ 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
13.11.1.3 to 13.11.1.6	-	-	<p>Minimisation of Land Formation Area</p> <ul style="list-style-type: none"> ▪ 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	I
13.11.5.4 to 13.11.5.13	10.3.1	-	<p>SkyPier High Speed Ferries' Speed Restrictions and Route Diversions</p> <ul style="list-style-type: none"> ▪ 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. <p>Other mitigation measures</p> <ul style="list-style-type: none"> ▪ 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
13.11.5.14 to 13.11.5.18	10.3.1	2.31	<p>Dolphin Exclusion Zone</p> <ul style="list-style-type: none"> ▪ 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	I C – Completed in Sep 2016

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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 A DEZ would also be implemented during bored piling work but as a precautionary measure only. 		I 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	I
14.9.1.6	-	-	Use of Construction Methods with Minimal Risk/Disturbance <ul style="list-style-type: none"> 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?^
			<ul style="list-style-type: none"> 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; Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		<p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAAA Marker Beacons would be replaced by buoys</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
14.9.1.11	-		<p>Strict Enforcement of No-Dumping Policy</p> <ul style="list-style-type: none"> 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-dumping 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	-		<p>Good Construction Site Practices</p> <ul style="list-style-type: none"> 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	-		<p>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</p> <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 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); 	All works area during the construction phase	<p>I</p> <hr/> <p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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 HKIAAAA Marker Beacons would be replaced by buoys
			<ul style="list-style-type: none"> 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.	To be implemented *(The advanced hydroseeding works around taxiways and runways were partially completed at this stage and would resume in next phase)
Cultural Heritage Impact – Construction Phase					
Not applicable to the construction stage of this project.					
Health Impact – Aircraft Emissions					

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

Appendix B. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Jan-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 Site Inspection WQ General mid-ebb: 10:55 mid-flood: 16:09	4 Site Inspection AR1A, AR2 NM1A, NM5	5 Site Inspection WQ General mid-ebb: 12:17 mid-flood: 07:24	6 Site Inspection CWD Survey (Vessel) NM4, NM6 ^[1]	7 WQ General mid-ebb: 13:23 mid-flood: 08:33
8	9 Site Inspection CWD Survey (Vessel)	10 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 15:03 mid-flood: 10:05	11 Site Inspection CWD Survey (Land-based)	12 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General mid-ebb: 16:20 mid-flood: 11:06	13 Site Inspection CWD Survey (Vessel)	14 WQ General mid-ebb: 18:09 mid-flood: 12:16
15	16 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	17 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 08:33 mid-flood: 14:20	18 Site Inspection CWD Survey (Vessel)	19 Site Inspection CWD Survey (Land-based) NM4, NM6 WQ General mid-ebb: 11:14 mid-flood: 16:02	20 Site Inspection	21 AR1A, AR2 WQ General mid-ebb: 12:58 mid-flood: 07:49
22	23	24 WQ General mid-ebb: 15:15 mid-flood: 09:53	25	26 Site Inspection NM4, NM6 WQ General mid-ebb: 16:51 mid-flood: 11:09	27 Site Inspection AR1A, AR2 NM1A, NM5	28 WQ General mid-ebb: 18:51 mid-flood: 12:22
29	30 Site Inspection	31 Site Inspection WQ General mid-ebb: 22:23 mid-flood: 09:45				
<p>Notes:</p> <p>CWD - Chinese White Dolphin</p> <p>Air quality and Noise Monitoring Station</p> <p>WQ - Water Quality</p> <p>NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan</p> <p>[1] Due to internal resources mobilization, the monitoring session (NM4 and NM6) was rescheduled from 5 January 2023 to 6 January 2023.</p>						

Tentative Monitoring Schedule of Next Reporting Period

Feb-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Site Inspection	2 Site Inspection AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 23:48 mid-flood: 11:29	3 Site Inspection NM4, NM6	4 WQ General mid-ebb: 12:42 mid-flood: 07:46
5	6 Site Inspection	7 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 14:12 mid-flood: 08:58	8 CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	9 Site Inspection NM4, NM6 WQ General mid-ebb: 15:12 mid-flood: 09:40	10 Site Inspection	11 WQ General mid-ebb: 16:25 mid-flood: 10:28
12	13 Site Inspection CWD Survey (Vessel)	14 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 06:07 mid-flood: 12:06	15 CWD Survey (Land-based)	16 Site Inspection CWD Survey (Land-based) NM4, NM6 WQ General mid-ebb: 22:09 mid-flood: 09:32	17 Site Inspection	18 WQ General mid-ebb: 00:04 mid-flood: 06:54
19	20 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	21 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 14:13 mid-flood: 08:41	22	23 Site Inspection NM4, NM6 WQ General mid-ebb: 15:31 mid-flood: 09:41	24 Site Inspection CWD Survey (Vessel)	25 AR1A, AR2 WQ General mid-ebb: 16:49 mid-flood: 10:23
26	27 Site Inspection	28 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 20:06 mid-flood: 07:08				
Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan						

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

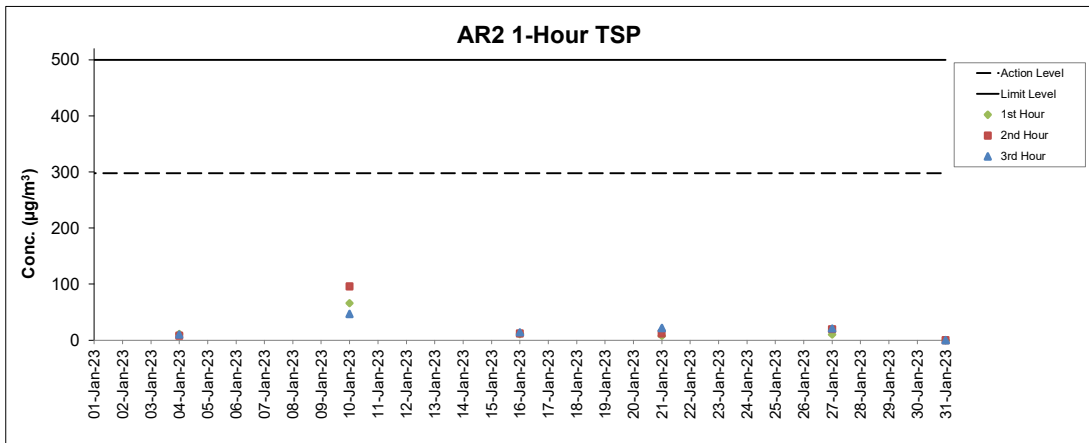
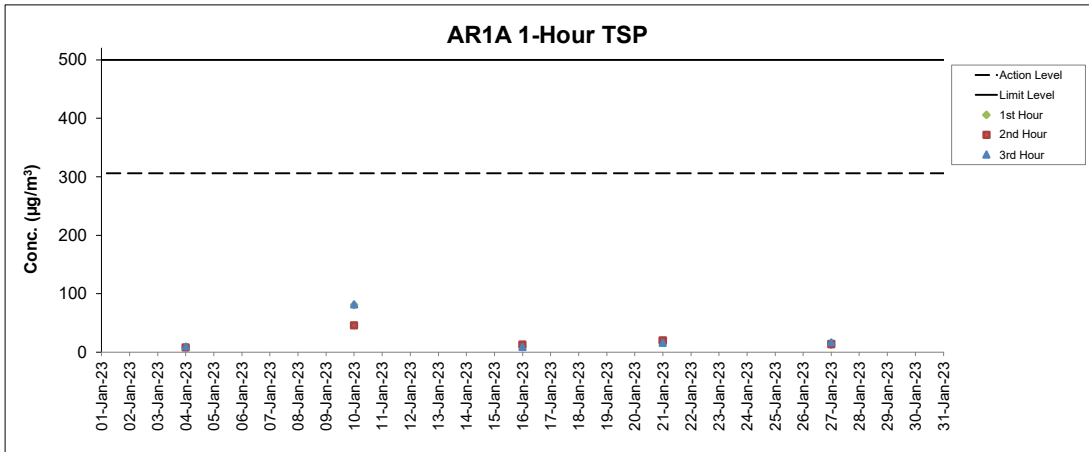
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
4-Jan-23	8:35	Cloudy	2.8	49	9	306	500
4-Jan-23	9:35	Cloudy	2.2	44	8	306	500
4-Jan-23	10:35	Cloudy	3.3	54	10	306	500
10-Jan-23	13:49	Cloudy	1.7	45	81	306	500
10-Jan-23	14:49	Cloudy	1.7	39	46	306	500
10-Jan-23	15:49	Cloudy	3.3	variable	82	306	500
16-Jan-23	8:33	Cloudy	3.3	20	9	306	500
16-Jan-23	9:33	Cloudy	3.9	19	13	306	500
16-Jan-23	10:33	Cloudy	3.6	26	9	306	500
21-Jan-23	13:33	Cloudy	6.4	92	18	306	500
21-Jan-23	14:33	Cloudy	6.1	98	20	306	500
21-Jan-23	15:33	Cloudy	5.8	100	16	306	500
27-Jan-23	14:14	Cloudy	6.7	3	13	306	500
27-Jan-23	15:14	Cloudy	6.7	17	14	306	500
27-Jan-23	16:14	Cloudy	8.3	340	17	306	500

1-hour TSP Results

Station: AR2- Village House, Tin Sum

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
4-Jan-23	12:30	Cloudy	5.3	336	11	298	500
4-Jan-23	13:30	Cloudy	2.8	360	8	298	500
4-Jan-23	14:30	Cloudy	4.4	330	10	298	500
10-Jan-23	9:03	Cloudy	2.8	55	66	298	500
10-Jan-23	10:03	Cloudy	2.5	349	96	298	500
10-Jan-23	11:03	Cloudy	2.2	35	47	298	500
16-Jan-23	12:28	Cloudy	3.3	31	11	298	500
16-Jan-23	13:28	Cloudy	4.2	358	12	298	500
16-Jan-23	14:28	Cloudy	4.7	338	14	298	500
21-Jan-23	8:43	Cloudy	5.0	99	8	298	500
21-Jan-23	9:43	Cloudy	4.7	91	12	298	500
21-Jan-23	10:43	Cloudy	6.4	94	22	298	500
27-Jan-23	10:27	Cloudy	3.9	356	10	298	500
27-Jan-23	11:27	Cloudy	6.4	354	20	298	500
27-Jan-23	12:27	Cloudy	5.8	9	21	298	500



Notes

1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
2. Weather conditions during monitoring are presented in the data tables above.
3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Noise Monitoring Results

Noise Measurement Results

Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured		L _{eq(30mins)} dB(A) ^
			L ₁₀ dB(A)	L ₉₀ dB(A)	
4-Jan-23	Cloudy	9:39	63.8	58.9	64
4-Jan-23	Cloudy	9:44	62.2	57.8	
4-Jan-23	Cloudy	9:49	62.0	58.1	
4-Jan-23	Cloudy	9:54	61.6	57.4	
4-Jan-23	Cloudy	9:59	62.4	58.4	
4-Jan-23	Cloudy	10:04	63.1	58.6	
10-Jan-23	Cloudy	13:42	59.5	51.5	61
10-Jan-23	Cloudy	13:47	56.4	52.1	
10-Jan-23	Cloudy	13:52	59.2	52.6	
10-Jan-23	Cloudy	13:57	61.0	50.5	
10-Jan-23	Cloudy	14:02	59.6	52.1	
10-Jan-23	Cloudy	14:07	60.5	57.2	
16-Jan-23	Cloudy	9:38	63.4	59.2	64
16-Jan-23	Cloudy	9:43	63.2	59.2	
16-Jan-23	Cloudy	9:48	62.3	58.8	
16-Jan-23	Cloudy	9:53	63.5	59.6	
16-Jan-23	Cloudy	9:58	62.7	59.1	
16-Jan-23	Cloudy	10:03	63.0	59.1	
27-Jan-23	Cloudy	13:37	55.6	51.4	57
27-Jan-23	Cloudy	13:42	56.4	51.8	
27-Jan-23	Cloudy	13:47	57.7	51.8	
27-Jan-23	Cloudy	13:52	54.8	49.8	
27-Jan-23	Cloudy	13:57	55.7	50.4	
27-Jan-23	Cloudy	14:02	57.1	51.8	

Remarks:

(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured		L _{eq(30mins)} dB(A) ^
			L ₁₀ dB(A)	L ₉₀ dB(A)	
6-Jan-23	Sunny	13:41	61.1	55.3	62
6-Jan-23	Sunny	13:46	59.5	55.2	
6-Jan-23	Sunny	13:51	61.4	56.3	
6-Jan-23	Sunny	13:56	60.2	55.8	
6-Jan-23	Sunny	14:01	63.0	55.8	
6-Jan-23	Sunny	14:06	60.4	56.9	
12-Jan-23	Cloudy	10:53	63.2	57.5	63
12-Jan-23	Cloudy	10:58	62.5	56.5	
12-Jan-23	Cloudy	11:03	60.7	56.4	
12-Jan-23	Cloudy	11:08	59.9	56.3	
12-Jan-23	Cloudy	11:13	60.1	55.7	
12-Jan-23	Cloudy	11:18	63.2	56.6	
19-Jan-23	Sunny	14:05	63.2	58.7	64
19-Jan-23	Sunny	14:10	64.5	60.1	
19-Jan-23	Sunny	14:15	61.9	57.1	
19-Jan-23	Sunny	14:20	59.3	55.2	
19-Jan-23	Sunny	14:25	64.8	56.7	
19-Jan-23	Sunny	14:30	64.2	57.3	
26-Jan-23	Cloudy	13:17	61.4	56.2	62
26-Jan-23	Cloudy	13:22	61.5	57.0	
26-Jan-23	Cloudy	13:27	62.0	56.8	
26-Jan-23	Cloudy	13:32	60.4	56.9	
26-Jan-23	Cloudy	13:37	61.3	54.9	
26-Jan-23	Cloudy	13:42	60.1	56.1	

Remarks:

(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

(*) The measurement result was corrected with reference to the baseline monitoring levels.

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured		L _{eq(30mins)} dB(A) ^
			L ₁₀ dB(A)	L ₉₀ dB(A)	
4-Jan-23	Cloudy	12:12	56.5	52.4	58
4-Jan-23	Cloudy	12:17	55.4	51.0	
4-Jan-23	Cloudy	12:22	56.9	50.8	
4-Jan-23	Cloudy	12:27	56.0	51.0	
4-Jan-23	Cloudy	12:32	56.2	51.5	
4-Jan-23	Cloudy	12:37	56.9	51.9	
10-Jan-23	Cloudy	9:49	56.5	50.0	57*
10-Jan-23	Cloudy	9:54	52.5	50.5	
10-Jan-23	Cloudy	9:59	57.2	50.2	
10-Jan-23	Cloudy	10:04	63.1	49.3	
10-Jan-23	Cloudy	10:09	63.6	49.8	
10-Jan-23	Cloudy	10:14	64.3	52.5	
16-Jan-23	Cloudy	13:24	63.1	59.3	64*
16-Jan-23	Cloudy	13:29	63.7	58.8	
16-Jan-23	Cloudy	13:34	64.1	59.4	
16-Jan-23	Cloudy	13:39	63.0	59.7	
16-Jan-23	Cloudy	13:44	63.8	59.4	
16-Jan-23	Cloudy	13:49	62.9	58.9	
27-Jan-23	Cloudy	9:28	57.6	50.8	58
27-Jan-23	Cloudy	9:33	57.1	49.4	
27-Jan-23	Cloudy	9:38	61.9	51.2	
27-Jan-23	Cloudy	9:43	54.4	48.5	
27-Jan-23	Cloudy	9:48	58.3	49.6	
27-Jan-23	Cloudy	9:53	57.5	48.8	

Remarks:

(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

(*) The measurement result was corrected with reference to the baseline monitoring levels.

Noise Measurement Results

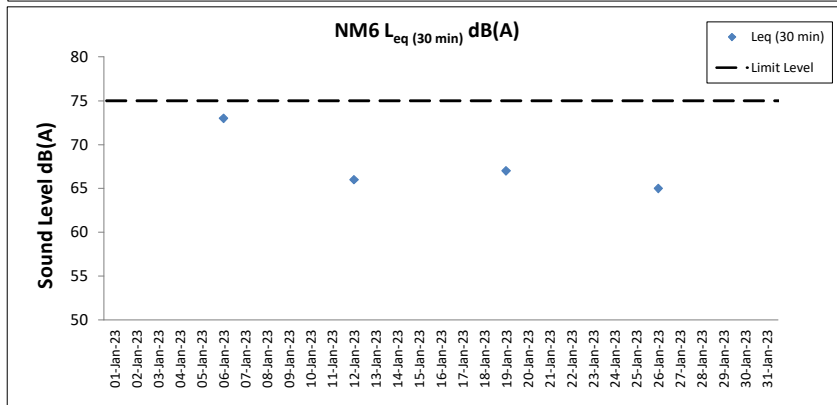
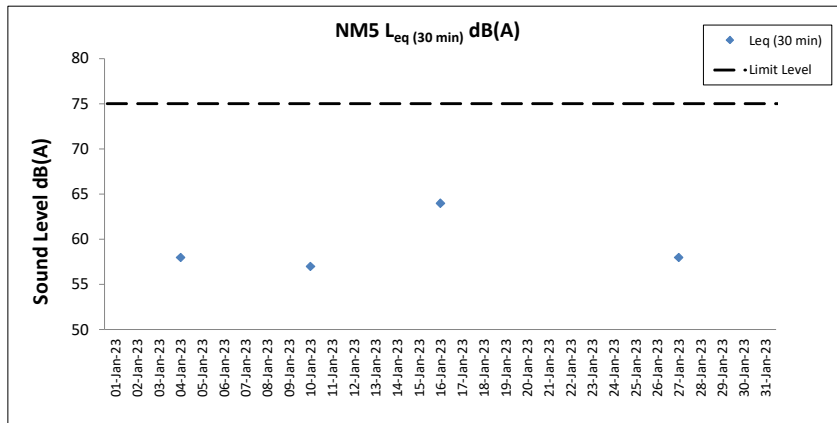
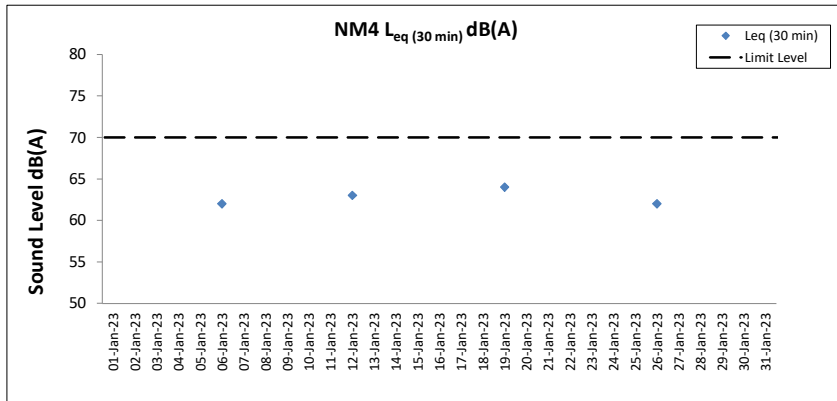
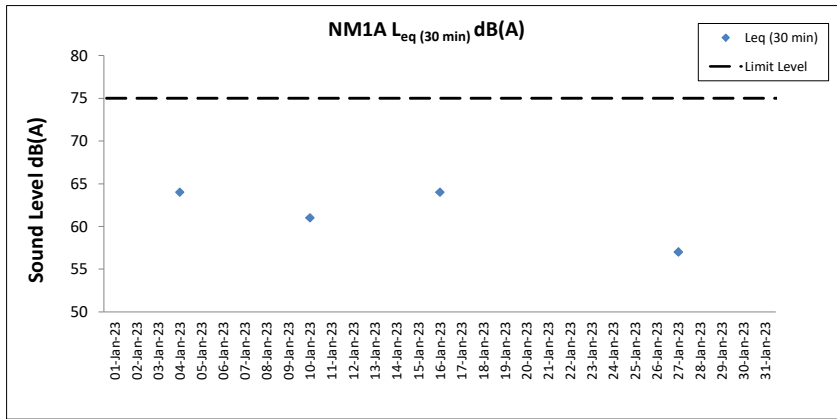
Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured		L _{eq(30mins)} dB(A) ^
			L ₁₀ dB(A)	L ₉₀ dB(A)	
6-Jan-23	Sunny	15:44	74.6	56.4	73*
6-Jan-23	Sunny	15:49	67.3	52.1	
6-Jan-23	Sunny	15:54	71.0	51.1	
6-Jan-23	Sunny	15:59	66.6	51.3	
6-Jan-23	Sunny	16:04	64.0	53.2	
6-Jan-23	Sunny	16:09	59.4	52.1	
12-Jan-23	Cloudy	9:35	67.7	51.6	66
12-Jan-23	Cloudy	9:40	71.2	56.3	
12-Jan-23	Cloudy	9:45	70.2	56.1	
12-Jan-23	Cloudy	9:50	65.3	48.0	
12-Jan-23	Cloudy	9:55	54.5	45.5	
12-Jan-23	Cloudy	10:00	56.7	45.5	
19-Jan-23	Sunny	15:41	64.8	49.3	67
19-Jan-23	Sunny	15:46	59.5	46.9	
19-Jan-23	Sunny	15:51	67.2	49.4	
19-Jan-23	Sunny	15:56	68.2	50.6	
19-Jan-23	Sunny	16:01	58.7	48.1	
19-Jan-23	Sunny	16:06	54.9	48.4	
26-Jan-23	Cloudy	15:39	73.2	49.2	65
26-Jan-23	Cloudy	15:44	68.9	51.2	
26-Jan-23	Cloudy	15:49	54.1	46.2	
26-Jan-23	Cloudy	15:54	54.7	44.7	
26-Jan-23	Cloudy	15:59	50.8	44.3	
26-Jan-23	Cloudy	16:04	54.5	46.0	

Remarks:

(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

(*) The measurement result was corrected with reference to the baseline monitoring levels.



Notes

1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
2. Weather conditions during monitoring are presented in the data tables above.
3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Water Quality Monitoring Results

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

Water Quality Monitoring Results on 03 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Cloudy	Rough	10:50	8.3	Surface	1.0	0.2	216	17.0	17.0	8.0	8.0	32.7	32.7	96.5	96.5	7.7	7.7	8.9	9.3	11	12	815610	804229
						1.0	0.1	216	17.0		8.0	8.0	32.7	32.7	96.5	96.5	7.7		8.9					
					Middle	4.2	0.2	195	17.0	17.0	8.0	8.0	32.7	32.7	96.8	96.8	7.7	7.7	9.7	12				
						4.2	0.2	190	17.0		8.0	8.0	32.7	32.7	96.8	96.8	7.7		9.7					
					Bottom	7.3	0.2	212	17.0	17.0	8.0	8.0	32.7	32.7	96.9	97.0	7.7	7.7	9.6	12				
						7.3	0.2	209	17.0		8.0	8.0	32.7	32.7	97.0	97.0	7.7		9.2					
C2	Cloudy	Rough	12:20	10.4	Surface	1.0	0.2	174	17.1	17.1	8.1	8.1	32.4	32.4	98.4	98.4	7.8	7.8	2.9	4.6	4	5	825659	806952
						1.0	0.2	177	17.1		8.1	8.1	32.4	32.4	98.3	98.4	7.8		2.9					
					Middle	5.2	0.2	186	16.8	16.8	8.1	8.1	32.6	32.6	97.3	97.3	7.8	7.8	5.2	5				
						5.2	0.3	187	16.8		8.1	8.1	32.6	32.6	97.3	97.3	7.8		5.3					
					Bottom	9.4	0.2	161	16.7	16.7	8.1	8.1	32.6	32.6	98.3	98.3	7.9	7.9	5.6	7				
						9.4	0.2	158	16.7		8.1	8.1	32.6	32.6	98.3	98.3	7.9		5.9					
C3	Misty	Calm	10:32	11.0	Surface	1.0	0.1	74	17.8	17.8	7.6	7.6	34.9	34.9	95.5	95.6	7.4	7.4	2.0	3.3	5	5	822109	817793
						1.0	0.1	75	17.8		7.6	7.6	34.9	34.9	95.7	95.7	7.4		2.1					
					Middle	5.5	0.1	69	17.8	17.8	7.6	7.6	34.9	34.9	96.2	96.3	7.4	7.4	3.9	6				
						5.5	0.1	68	17.8		7.6	7.6	34.9	34.9	96.4	96.4	7.4		3.8					
					Bottom	10.0	0.2	97	17.7	17.7	7.5	7.5	34.9	35.0	100.6	100.8	7.8	7.8	4.1	5				
						10.0	0.2	102	17.6		7.5	7.5	35.0	35.0	100.9	100.9	7.8		4.1					
IM1	Cloudy	Moderate	11:10	6.3	Surface	1.0	0.1	180	16.9	16.9	8.0	8.0	32.7	32.7	97.1	97.1	7.7	7.7	7.7	8.7	11	12	818374	806469
						1.0	0.1	186	16.9		8.0	8.0	32.7	32.7	97.1	97.1	7.7		7.7					
					Middle	3.2	0.1	209	16.8	16.8	8.0	8.0	32.7	32.7	97.0	97.0	7.7	7.7	8.6	12				
						3.2	0.1	205	16.8		8.0	8.0	32.7	32.7	97.0	97.0	7.7		8.7					
					Bottom	5.3	0.2	208	16.8	16.8	8.0	8.0	32.7	32.7	97.5	97.6	7.8	7.8	9.7	12				
						5.3	0.2	204	16.8		8.0	8.0	32.7	32.7	97.6	97.6	7.8		9.8					
IM2	Cloudy	Moderate	11:16	6.8	Surface	1.0	0.2	196	16.9	16.9	8.0	8.0	32.7	32.7	98.2	98.2	7.8	7.8	6.1	6.7	8	9	819172	806259
						1.0	0.2	192	16.9		8.0	8.0	32.7	32.7	98.2	98.2	7.8		6.1					
					Middle	3.4	0.1	196	16.8	16.8	8.1	8.1	32.7	32.7	98.2	98.2	7.8	7.8	6.6	9				
						3.4	0.1	197	16.8		8.1	8.1	32.7	32.7	98.2	98.2	7.8		6.6					
					Bottom	5.8	0.2	183	16.8	16.8	8.1	8.1	32.7	32.7	99.1	99.2	7.9	7.9	7.5	10				
						5.8	0.1	182	16.8		8.1	8.1	32.7	32.7	99.2	99.2	7.9		7.5					
IM7	Cloudy	Rough	11:52	8.4	Surface	1.0	0.2	194	16.9	16.9	8.1	8.1	32.7	32.7	98.4	98.4	7.8	7.9	3.9	3.9	14	11	821366	806821
						1.0	0.2	196	16.9		8.1	8.1	32.7	32.7	98.4	98.4	7.8		3.9					
					Middle	4.2	0.1	195	16.9	16.9	8.1	8.1	32.7	32.7	98.7	98.8	7.9	7.9	3.9	11				
						4.2	0.1	193	16.9		8.1	8.1	32.7	32.7	98.8	98.8	7.9		3.8					
					Bottom	7.4	0.1	194	16.7	16.7	8.1	8.1	32.9	32.9	100.2	100.3	8.0	8.0	3.8	8				
						7.4	0.1	195	16.6		8.1	8.1	32.9	32.9	100.3	100.3	8.0		3.8					

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 03 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA								
IM10	Rainy	Calm	11:43	9.2	Surface	1.0	0.2	135	17.4	7.9	7.9	34.9	34.9	102.1	102.2	7.9	8.0	8.0	1.1	1.9	4	4	822243	809858				
						1.0	0.3	128	17.4	7.9	7.9	34.9	34.9	102.3	102.2	8.0	8.0	1.1	1.9	3								
					Middle	4.6	0.2	111	17.3	7.9	7.9	34.9	34.9	103.0	103.1	8.0	8.0	1.8	1.9	4								
						4.6	0.2	112	17.3	7.9	7.9	34.9	34.9	103.2	103.1	8.0	8.0	1.7	1.9	5								
					Bottom	8.2	0.2	134	17.3	7.9	7.9	34.9	34.9	103.9	104.3	8.1	8.1	2.9	1.9	5								
						8.2	0.1	140	17.3	7.9	7.9	34.9	34.9	104.6	104.3	8.1	8.1	2.8	1.9	5								
IM11	Rainy	Calm	11:34	7.8	Surface	1.0	0.2	101	17.4	7.9	7.9	34.9	34.9	99.8	100.0	7.8	7.8	7.8	4.9	5.5	4	4	821488	810541				
						1.0	0.2	93	17.4	7.9	7.9	34.9	34.9	100.1	100.0	7.8	7.8	4.9	5.5	3								
					Middle	3.9	0.2	117	17.3	7.9	7.9	34.9	34.9	100.6	100.7	7.8	7.8	5.0	5.5	4								
						3.9	0.1	119	17.3	7.9	7.9	34.9	34.9	100.8	100.7	7.9	7.9	5.1	5.5	5								
					Bottom	6.8	0.2	94	17.3	7.9	7.9	34.9	34.9	101.3	101.5	7.9	7.9	6.4	5.5	5								
						6.8	0.2	100	17.3	7.9	7.9	34.9	34.9	101.6	101.5	7.9	7.9	6.5	5.5	4								
IM12	Rainy	Calm	11:27	9.2	Surface	1.0	0.2	110	17.8	7.9	7.9	34.8	34.8	99.5	99.6	7.7	7.7	7.8	1.1	1.2	3	4	821172	811508				
						1.0	0.2	112	17.8	7.9	7.9	34.8	34.8	99.7	99.6	7.7	7.7	1.1	1.2	4								
					Middle	4.6	0.2	94	17.8	7.9	7.9	34.8	34.8	101.0	101.2	7.8	7.8	1.1	1.2	3								
						4.6	0.2	87	17.8	7.9	7.9	34.8	34.8	101.4	101.2	7.8	7.8	1.2	1.2	4								
					Bottom	8.2	0.2	94	17.7	7.9	7.9	34.7	34.7	101.9	102.3	7.9	7.9	1.5	1.2	4								
						8.2	0.2	89	17.8	7.9	7.9	34.7	34.7	102.7	102.3	7.9	7.9	1.4	1.2	4								
SR1A	Misty	Calm	11:05	5.2	Surface	1.0	0.0	146	17.5	7.9	7.9	34.6	34.6	101.2	101.4	7.9	7.9	7.9	2.1	2.6	6	7	819970	812665				
						1.0	0.0	148	17.5	7.9	7.9	34.6	34.6	101.5	101.4	7.9	7.9	2.2	2.6	4								
					Middle	2.6	0.0	151	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						2.6	0.1	150	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	4.2	0.0	116	17.4	7.9	7.9	34.6	34.6	102.4	102.4	8.0	8.0	3.1	2.6	9								
						4.2	0.1	109	17.4	7.9	7.9	34.5	34.6	102.4	102.4	8.0	8.0	3.1	2.6	8								
SR2	Misty	Calm	10:53	5.2	Surface	1.0	0.1	39	17.8	7.7	7.7	35.0	35.0	93.4	93.5	7.2	7.2	7.2	1.8	2.3	4	6	821449	814161				
						1.0	0.1	45	17.8	7.7	7.7	35.0	35.0	93.5	93.5	7.2	7.2	1.9	2.3	5								
					Middle	-	0.1	60	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						-	0.1	60	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	4.2	0.1	45	17.8	7.6	7.6	35.0	35.0	93.8	93.9	7.2	7.3	2.8	2.3	6								
						4.2	0.1	48	17.8	7.6	7.6	35.0	35.0	94.0	93.9	7.3	7.3	2.7	2.3	8								
SR3	Cloudy	Rough	11:59	8.4	Surface	1.0	0.3	183	17.1	8.0	8.0	32.5	32.5	97.2	97.2	7.7	7.7	7.8	2.3	4.3	10	9	822154	807550				
						1.0	0.3	177	17.1	8.0	8.0	32.5	32.5	97.2	97.2	7.7	7.7	2.4	4.3	9								
					Middle	4.2	0.2	154	16.9	8.1	8.1	32.5	32.5	97.3	97.4	7.8	7.8	4.1	4.3	9								
						4.2	0.2	157	16.9	8.1	8.1	32.5	32.5	97.4	97.4	7.8	7.8	4.1	4.3	8								
					Bottom	7.4	0.2	161	16.8	8.1	8.1	32.6	32.6	97.5	97.5	7.8	7.8	6.3	4.3	8								
						7.4	0.2	161	16.8	8.1	8.1	32.6	32.6	97.5	97.5	7.8	7.8	6.5	4.3	7								
SR4A	Cloudy	Moderate	10:32	9.1	Surface	1.0	0.0	351	16.7	8.2	8.2	32.3	32.3	97.9	97.9	7.8	7.8	7.8	5.6	6.3	8	9	817199	807806				
						1.0	0.0	345	16.7	8.2	8.2	32.3	32.3	97.9	97.9	7.8	7.8	5.6	6.3	6								
					Middle	4.6	0.0	339	16.7	8.1	8.1	32.3	32.3	97.4	97.4	7.8	7.8	6.6	6.3	9								
						4.6	0.1	343	16.7	8.1	8.1	32.3	32.3	97.4	97.4	7.8	7.8	6.7	6.3	9								
					Bottom	8.1	0.1	347	16.7	8.1	8.1	32.2	32.2	97.4	97.4	7.8	7.8	6.7	6.3	10								
						8.1	0.0	349	16.7	8.1	8.1	32.2	32.2	97.4	97.4	7.8	7.8	6.7	6.3	9								
SR8	Misty	Calm	11:23	5.0	Surface	1.0	-	-	18.0	7.8	7.8	34.8	34.8	101.6	101.7	7.8	7.8	7.8	2.9	3.5	6	7	820410	811634				
						1.0	-	-	17.9	7.8	7.8	34.8	34.8	101.8	101.7	7.8	7.8	3.0	3.5	5								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
					Bottom	4.0	-	-	17.7	7.8	7.8	34.6	34.4	101.8	102.3	7.9	7.9	4.0	3.5	8								
						4.0	-	-	17.7	7.8	7.8	34.3	34.4	102.7	102.3	7.9	7.9	4.0	3.5	7								

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

Water Quality Monitoring Results on 03 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
C1	Cloudy	Rough	15:33	8.5	Surface	1.0	0.2	34	17.1	17.1	8.1	8.1	32.7	32.7	96.4	96.5	7.6	7.7	8.9	9.5	10	10	815629	804246		
						1.0	0.1	38	17.1		8.1		32.7		96.5		7.6		8.9		9					
					Middle	4.3	0.2	46	17.1	17.1	8.1	8.1	32.7	32.7	97.2	97.3	7.7	7.8	9.0	7.8	10.3				7.8	10
						4.3	0.1	47	17.1		8.1		32.7		97.3		7.7		9.2		10					
					Bottom	7.5	0.2	52	16.8	16.8	8.1	8.1	32.9	32.9	98.1	98.2	7.8	7.7	10.3	7.7	10.9				7.7	11
						7.5	0.2	51	16.7		8.1		33.0		98.3		7.8		10.9		10					
C2	Cloudy	Rough	14:25	11.4	Surface	1.0	0.1	195	17.2	17.2	8.0	8.0	32.5	32.5	97.4	97.4	7.7	7.7	1.8	2.7	7	6	825660	806961		
						1.0	0.1	194	17.2		8.0		32.5		97.4		7.7		1.8		7					
					Middle	5.7	0.1	191	16.8	16.8	8.1	8.1	32.6	32.6	96.7	96.7	7.7	7.7	2.8	7.7	6					
						5.7	0.1	189	16.8		8.1		32.6		96.7		7.7		2.9		7					
					Bottom	10.4	0.1	198	16.7	16.7	8.1	8.1	32.6	32.6	96.6	96.7	7.7	7.7	3.4	7.7	4					
						10.4	0.0	198	16.7		8.1		32.6		96.7		7.7		3.6		5					
C3	Rainy	Calm	15:29	8.4	Surface	1.0	0.3	272	17.9	17.9	8.0	8.0	34.9	34.9	97.2	97.4	7.5	7.6	1.4	2.4	5	4	822104	817825		
						1.0	0.3	274	17.9		8.0		34.9		97.5		7.5		1.4		4					
					Middle	4.2	0.3	255	17.9	17.9	8.0	8.0	34.9	34.9	98.4	98.8	7.6	7.7	2.3	7.7	4					
						4.2	0.3	260	17.9		8.0		34.9		98.8		7.6		2.2		4					
					Bottom	7.4	0.3	244	17.9	17.9	8.0	8.0	34.9	34.9	99.9	100.4	7.7	7.8	3.5	7.8	4					
						7.4	0.4	250	17.9		8.0		34.9		100.9		7.8		3.5		4					
IM1	Cloudy	Rough	15:17	6.7	Surface	1.0	0.1	8	16.9	16.9	8.1	8.1	32.7	32.7	97.7	97.7	7.8	7.8	7.2	8.3	7	9	818340	806479		
						1.0	0.1	2	16.9		8.1		32.7		97.7		7.8		7.2		8					
					Middle	3.4	0.1	7	16.9	16.9	8.1	8.1	32.7	32.7	98.6	98.8	7.8	7.9	7.5	7.9	9					
						3.4	0.1	5	16.9		8.1		32.7		98.9		7.9		7.8		10					
					Bottom	5.7	0.0	25	16.8	16.8	8.1	8.1	32.7	32.7	100.5	100.6	8.0	8.0	10.3	7.9	10					
						5.7	0.0	31	16.7		8.1		32.7		100.7		8.0		10.1		10					
IM2	Cloudy	Rough	15:12	7.0	Surface	1.0	0.1	263	16.9	16.9	8.1	8.1	32.8	32.8	98.9	98.9	7.9	7.9	6.8	7.8	4	6	819203	806232		
						1.0	0.1	264	16.9		8.1		32.8		98.9		7.9		7.0		4					
					Middle	3.5	0.1	261	16.9	16.9	8.1	8.1	32.8	32.8	98.9	98.9	7.9	7.9	8.3	7.9	5					
						3.5	0.1	262	16.9		8.1		32.8		98.9		7.9		8.4		6					
					Bottom	6.0	0.1	281	16.9	16.9	8.1	8.1	32.7	32.7	99.0	99.1	7.9	7.9	8.4	7.9	8					
						6.0	0.1	279	16.9		8.1		32.8		99.1		7.9		7.9		8					
IM7	Cloudy	Rough	14:51	7.7	Surface	1.0	0.1	249	16.9	16.9	8.1	8.1	32.7	32.7	98.9	98.9	7.9	7.9	3.4	3.4	7	8	821362	806841		
						1.0	0.1	243	16.9		8.1		32.7		98.9		7.9		3.4		7					
					Middle	3.9	0.0	269	16.9	16.9	8.1	8.1	32.7	32.7	99.1	99.1	7.9	7.9	3.4	7.9	8					
						3.9	0.0	275	16.9		8.1		32.7		99.1		7.9		3.4		9					
					Bottom	6.7	0.1	257	16.9	16.9	8.1	8.1	32.7	32.7	99.9	100.0	7.9	8.0	3.4	7.9	9					
						6.7	0.1	256	16.9		8.1		32.7		100.1		8.0		3.4		9					

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Water Quality Monitoring

Water Quality Monitoring Results on 03 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Rainy	Calm	14:25	9.2	Surface	1.0	0.1	222	17.5	17.5	8.1	8.1	34.9	34.9	102.4	102.5	7.9	8.0	1.5	1.9	3	5	822229	809833		
						1.0	0.1	221	17.5		8.0		34.9		102.6		8.0		1.5		4					
					Middle	4.6	0.1	218	17.5	17.5	8.0	8.0	34.9	34.9	102.9	103.1	8.0	8.1	1.6	1.9	5				1.9	5
						4.6	0.1	214	17.5		8.0		34.9		103.2		8.0		1.6		5					
					Bottom	8.2	0.1	229	17.5	17.5	8.0	8.0	34.9	34.9	103.8	104.1	8.1	8.1	2.7	1.9	5				1.9	5
						8.2	0.1	221	17.5		8.0		34.9		104.3		8.1		2.6		5					
IM11	Rainy	Calm	14:32	8.8	Surface	1.0	0.1	245	17.8	17.8	8.0	8.0	34.8	34.8	99.8	99.9	7.7	7.8	1.0	1.7	5	5	821504	810552		
						1.0	0.2	251	17.8		8.0		34.8		100.0		7.7		1.1		5					
					Middle	4.4	0.1	232	17.8	17.8	8.0	8.0	34.7	34.7	100.5	100.7	7.8	7.9	1.8	1.7	4				1.7	5
						4.4	0.1	238	17.8		8.0		34.7		100.8		7.8		1.7		5					
					Bottom	7.8	0.1	248	17.8	17.8	8.0	8.0	34.7	34.7	101.5	101.7	7.8	7.9	2.4	1.7	4				1.7	4
						7.8	0.1	247	17.8		8.0		34.7		101.9		7.9		2.4		4					
IM12	Rainy	Calm	14:42	8.6	Surface	1.0	0.2	264	17.9	17.9	8.0	8.0	34.8	34.8	101.1	101.2	7.8	7.8	1.2	1.8	6	6	821142	811531		
						1.0	0.2	257	17.9		8.0		34.8		101.3		7.8		1.2		6					
					Middle	4.3	0.1	265	17.9	17.9	8.0	8.0	34.8	34.8	101.1	101.2	7.8	7.9	1.5	1.8	5				1.8	6
						4.3	0.2	264	17.9		8.0		34.8		101.3		7.8		1.6		6					
					Bottom	7.6	0.1	298	17.8	17.9	8.0	8.0	34.7	34.7	102.0	102.3	7.9	7.9	2.7	1.8	6				1.8	6
						7.6	0.1	292	17.9		8.0		34.7		102.5		7.9		2.6		5					
SR1A	Rainy	Calm	14:57	4.6	Surface	1.0	-	199	17.6	17.6	8.0	8.0	34.5	34.5	98.5	98.6	7.7	7.7	3.4	3.7	4	5	819973	812661		
						1.0	0.0	200	17.6		8.0		34.5		98.6		7.7		3.5		4					
					Middle	2.3	0.0	170	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						2.3	0.0	173	-		-		-		-		-		-		-					-
					Bottom	3.6	0.0	212	17.6	17.6	8.0	8.0	34.5	34.5	99.0	99.1	7.7	7.7	4.0	3.7	5				3.7	5
						3.6	0.0	217	17.6		8.0		34.5		99.2		7.7		4.0		6					
SR2	Rainy	Calm	15:09	5.2	Surface	1.0	0.0	241	17.9	17.9	8.0	8.0	34.9	34.9	99.9	100.1	7.7	7.7	2.0	2.8	8	6	821444	814163		
						1.0	0.0	237	17.9		8.0		34.9		100.3		7.7		2.1		7					
					Middle	-	0.1	242	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						-	0.0	246	-		-		-		-		-		-		-					
					Bottom	4.2	0.1	244	17.9	17.9	8.0	8.0	34.9	34.8	101.5	101.8	7.8	7.9	3.5	2.8	5				2.8	5
						4.2	0.0	244	17.9		8.0		34.8		102.1		7.9		3.5		4					
SR3	Cloudy	Rough	14:44	8.5	Surface	1.0	0.0	227	17.1	17.1	8.0	8.0	32.5	32.5	97.8	97.8	7.8	7.8	1.8	3.2	6	6	822141	807589		
						1.0	0.0	226	17.1		8.0		32.5		97.8		7.8		1.8		5					
					Middle	4.3	0.0	228	16.9	16.9	8.1	8.1	32.6	32.6	98.3	98.4	7.8	7.9	3.4	3.2	6				3.2	6
						4.3	0.1	229	16.9		8.1		32.6		98.4		7.8		3.6		6					
					Bottom	7.5	0.0	211	16.9	16.9	8.1	8.1	32.6	32.6	99.6	99.7	7.9	7.9	4.3	3.2	8				3.2	8
						7.5	0.1	206	16.9		8.1		32.6		99.8		7.9		4.3		7					
SR4A	Cloudy	Rough	15:53	9.5	Surface	1.0	0.0	184	16.8	16.8	8.1	8.1	32.5	32.5	98.7	98.7	7.9	7.9	4.7	5.1	7	8	817170	807829		
						1.0	0.0	180	16.8		8.1		32.5		98.6		7.9		4.8		7					
					Middle	4.8	0.0	169	16.7	16.7	8.1	8.1	32.7	32.7	98.1	98.2	7.8	8.0	5.2	5.1	8				5.1	8
						4.8	0.0	168	16.7		8.1		32.7		98.2		7.8		5.2		7					
					Bottom	8.5	0.0	177	16.7	16.7	8.1	8.1	32.7	32.6	99.8	99.9	8.0	8.0	5.4	5.1	8				5.1	8
						8.5	0.0	173	16.7		8.1		32.6		100.0		8.0		5.4		8					
SR8	Rainy	Calm	14:52	5.0	Surface	1.0	-	-	17.9	18.0	8.0	8.0	34.7	34.7	97.8	98.0	7.5	7.5	2.7	3.0	4	4	820397	811615		
						1.0	-	-	18.0		8.0		34.7		98.1		7.5		2.6		4					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						-	-	-	-		-		-		-		-		-		-					
					Bottom	4.0	-	-	18.1	18.1	8.0	8.0	34.7	34.7	99.1	99.2	7.6	7.6	3.4	3.0	4				3.0	4
						4.0	-	-	18.1		8.0		34.7		99.3		7.6		3.3		5					

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

Water Quality Monitoring

Water Quality Monitoring Results on 05 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
C1	Cloudy	Moderate	12:22	8.0	Surface	1.0	0.1	201	17.7	17.7	7.9	7.9	35.0	35.0	97.8	97.8	7.6	7.6	7.6	7.6	7.7	9.7	17	16	815634	804247			
						1.0	0.1	205	17.7		7.9		35.0		97.8		7.6												
					Middle	4.0	0.1	212	17.6	17.6	7.9	7.9	35.1	35.1	97.3	97.3	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	16
						4.0	0.0	218	17.6		7.9		35.1		97.2		7.5												
					Bottom	7.0	0.1	177	17.6	17.6	7.9	7.9	35.1	35.1	97.2	97.3	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	15
						7.0	0.1	182	17.6		7.9		35.1		97.3		7.5												
C2	Cloudy	Moderate	11:10	12.0	Surface	1.0	0.1	358	17.7	17.7	7.9	7.9	34.7	34.7	97.5	97.4	7.5	7.5	7.5	7.5	7.5	4.0	11	12	825705	806947			
						1.0	0.1	354	17.7		7.9		34.7		97.3		7.5												
					Middle	6.0	0.1	347	17.6	17.6	7.9	7.9	34.7	34.7	96.4	96.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	12
						6.0	0.0	346	17.6		7.9		34.8		96.3		7.5												
					Bottom	11.0	0.0	344	17.5	17.5	7.9	7.9	34.8	34.8	95.7	95.8	7.4	7.4	7.4	7.4	7.4	7.4	7.4				7.4	7.4	13
						11.0	0.1	341	17.5		7.9		34.8		95.8		7.4												
C3	Rainy	Calm	11:58	8.6	Surface	1.0	0.1	60	17.5	17.5	8.0	8.0	32.5	32.5	95.7	95.8	7.5	7.5	7.5	7.5	7.5	1.8	7	6	822093	817821			
						1.0	0.2	60	17.5		8.0		32.5		95.9		7.6												
					Middle	4.3	0.0	44	17.4	17.4	8.0	8.0	32.5	32.5	96.5	96.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6				7.6	7.6	6
						4.3	0.1	38	17.4		8.1		32.5		96.8		7.6												
					Bottom	7.6	0.1	54	17.4	17.4	8.0	8.0	32.5	32.5	97.7	97.9	7.7	7.7	7.7	7.7	7.7	7.7	7.7				7.7	7.7	6
						7.6	0.1	46	17.4		8.0		32.5		98.1		7.7												
IM1	Cloudy	Moderate	12:07	6.8	Surface	1.0	0.0	158	17.8	17.8	8.0	8.0	34.9	34.9	98.4	98.4	7.6	7.6	7.6	7.6	7.6	7.6	14	15	818366	806434			
						1.0	0.0	165	17.7		8.0		34.9		98.3		7.6												
					Middle	3.4	-	149	17.5	17.5	8.0	8.0	35.0	35.1	96.8	96.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	16
						3.4	0.0	143	17.5		8.0		35.1		96.8		7.5												
					Bottom	5.8	0.0	148	17.5	17.5	8.0	8.0	35.1	35.1	97.0	97.1	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	16
						5.8	0.1	140	17.5		8.0		35.1		97.2		7.5												
IM2	Cloudy	Moderate	12:02	6.4	Surface	1.0	0.0	102	17.7	17.7	8.0	8.0	35.1	35.1	98.4	98.4	7.6	7.6	7.6	7.6	7.6	7.6	6	7	819183	806216			
						1.0	0.0	102	17.7		8.0		35.1		98.3		7.6												
					Middle	3.2	0.0	123	17.5	17.5	8.0	8.0	35.1	35.1	97.8	97.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6				7.6	7.6	7
						3.2	0.0	116	17.5		8.0		35.1		97.8		7.6												
					Bottom	5.4	0.0	111	17.6	17.6	8.0	8.0	35.1	35.0	98.2	98.3	7.6	7.6	7.6	7.6	7.6	7.6	7.6				7.6	7.6	8
						5.4	0.1	114	17.6		8.0		35.0		98.3		7.6												
IM7	Cloudy	Moderate	11:40	7.9	Surface	1.0	0.1	69	17.5	17.5	8.0	8.0	35.1	35.1	95.5	95.5	7.4	7.4	7.4	7.4	7.4	7.4	8	8	821347	806843			
						1.0	0.1	62	17.5		8.0		35.1		95.5		7.4												
					Middle	4.0	0.1	67	17.5	17.5	8.0	8.0	35.1	35.1	95.6	95.7	7.4	7.4	7.4	7.4	7.4	7.4	7.4				7.4	7.4	8
						4.0	0.1	62	17.5		8.0		35.1		95.7		7.4												
					Bottom	6.9	0.0	84	17.5	17.5	8.0	8.0	35.1	35.1	96.1	96.2	7.5	7.5	7.5	7.5	7.5	7.5	7.5				7.5	7.5	8
						6.9	0.1	78	17.5		8.0		35.1		96.2		7.5												

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Water Quality Monitoring

Water Quality Monitoring Results on 05 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Rainy	Calm	10:55	8.0	Surface	1.0	0.1	321	17.2	17.2	8.0	8.0	32.6	32.6	95.2	95.2	7.5	7.5	2.1	3.3	9	12	822258	809854
						1.0	0.2	313	17.2		8.0	8.0	32.6	32.6	95.1	95.2	7.5		2.1		10			
					Middle	4.0	0.1	338	17.2	17.2	8.0	8.0	32.6	32.6	95.2	95.3	7.5	7.6	3.4	12				
						4.0	0.1	332	17.2		8.0	8.0	32.6	32.6	95.3	95.3	7.5		3.5	12				
					Bottom	7.0	0.1	329	17.2	17.3	8.1	8.1	32.5	32.5	95.8	95.9	7.6	7.6	4.4	14				
						7.0	0.0	331	17.3		8.1	8.1	32.5	32.5	95.9	95.9	7.6		4.4	15				
IM11	Rainy	Calm	11:00	8.4	Surface	1.0	0.0	315	17.2	17.2	8.0	8.0	32.6	32.6	96.2	96.2	7.6	7.6	3.2	4.4	12	12	821480	810554
						1.0	0.0	310	17.2		8.0	8.0	32.6	32.6	96.2	96.2	7.6		3.3		11			
					Middle	4.2	0.1	310	17.2	17.2	8.0	8.0	32.6	32.6	96.3	96.3	7.6	7.8	4.5	11				
						4.2	0.1	316	17.2		8.0	8.0	32.6	32.6	96.3	96.3	7.6		4.6	12				
					Bottom	7.4	0.1	291	17.1	17.1	8.0	8.0	32.6	32.7	96.7	98.2	7.7	7.8	5.2	12				
						7.4	0.1	289	17.0		8.0	8.0	32.7	32.7	99.7	99.7	7.9		5.2	13				
IM12	Rainy	Calm	11:06	8.6	Surface	1.0	0.0	322	17.2	17.2	8.0	8.0	32.6	32.6	96.1	96.2	7.6	7.7	2.0	2.5	12	12	821175	811521
						1.0	0.1	315	17.2		8.0	8.0	32.6	32.6	96.2	96.2	7.6		1.9		13			
					Middle	4.3	0.0	306	17.2	17.2	8.0	8.0	32.6	32.6	98.0	98.1	7.8	7.9	2.4	12				
						4.3	0.0	312	17.2		8.0	8.0	32.6	32.6	98.2	98.2	7.8		2.3	12				
					Bottom	7.6	0.1	326	16.9	16.9	8.0	8.0	32.8	32.8	99.2	99.3	7.9	7.9	3.2	11				
						7.6	0.0	328	16.8		8.1	8.0	32.8	32.8	99.4	99.3	7.9		3.2	12				
SR1A	Rainy	Calm	11:26	5.0	Surface	1.0	0.0	132	17.3	17.3	8.0	8.0	32.4	32.4	95.0	95.0	7.5	7.5	2.3	2.7	5	6	819977	812654
						1.0	0.1	137	17.3		8.0	8.0	32.4	32.4	95.0	95.0	7.5		2.2		6			
					Middle	2.5	0.0	108	-	-	-	-	-	-	-	-	-	-	-	-				
						2.5	0.0	103	-		-	-	-	-	-	-	-		-	-				
					Bottom	4.0	0.0	105	17.3	17.3	8.0	8.0	32.4	32.4	95.2	95.2	7.5	7.5	3.2	6				
						4.0	0.1	111	17.3		8.0	8.0	32.4	32.4	95.2	95.2	7.5		3.3	6				
SR2	Rainy	Calm	11:38	4.8	Surface	1.0	0.1	32	17.3	17.3	8.0	8.0	32.5	32.5	98.7	98.8	7.8	7.8	4.1	4.6	5	6	821441	814164
						1.0	0.1	35	17.3		8.0	8.0	32.5	32.5	98.9	98.8	7.8		4.1		4			
					Middle	-	0.0	33	-	-	-	-	-	-	-	-	-	-	-	-				
						-	0.0	27	-		-	-	-	-	-	-	-		-	-				
					Bottom	3.8	0.1	28	17.2	17.3	8.0	8.0	32.5	32.5	99.9	100.1	7.9	7.9	5.0	7				
						3.8	0.1	21	17.3		8.0	8.0	32.4	32.5	100.2	100.1	7.9		5.1	7				
SR3	Cloudy	Moderate	11:32	8.9	Surface	1.0	0.1	25	17.6	17.6	7.9	7.9	34.9	34.9	96.1	96.0	7.4	7.4	4.4	5.7	5	4	822143	807593
						1.0	0.1	32	17.6		7.9	7.9	35.0	34.9	95.9	95.9	7.4		4.6		5			
					Middle	4.5	0.1	0	17.5	17.5	7.9	7.9	35.1	35.1	95.1	95.1	7.4	7.4	6.1	4				
						4.5	0.1	2	17.5		7.9	7.9	35.1	35.1	95.0	95.0	7.4		6.3	4				
					Bottom	7.9	0.1	0	17.5	17.5	7.9	7.9	35.2	35.1	95.4	95.4	7.4	7.4	6.6	4				
						7.9	0.1	5	17.5		7.9	7.9	35.1	35.1	95.4	95.4	7.4		6.5	3				
SR4A	Cloudy	Moderate	12:40	8.7	Surface	1.0	0.0	299	17.7	17.7	8.0	8.0	35.1	35.1	97.3	97.3	7.5	7.5	5.3	5.9	11	12	817206	807789
						1.0	0.1	303	17.7		8.0	8.0	35.1	35.1	97.3	97.3	7.5		5.3		12			
					Middle	4.4	0.0	295	17.5	17.5	8.0	8.0	35.1	35.1	96.9	96.9	7.5	7.6	5.9	12				
						4.4	0.0	301	17.5		8.0	8.0	35.1	35.1	96.9	96.9	7.5		6.1	12				
					Bottom	7.7	0.0	322	17.5	17.5	8.0	8.0	35.1	35.1	97.4	97.5	7.5	7.6	6.3	13				
						7.7	0.1	319	17.5		8.0	8.0	35.1	35.1	97.6	97.6	7.6		6.3	12				
SR8	Rainy	Calm	11:11	5.6	Surface	1.0	-	-	17.2	17.2	8.1	8.1	32.5	32.5	98.4	98.5	7.8	7.8	3.1	4.1	4	4	820384	811624
						1.0	-	-	17.2		8.1	8.1	32.5	32.5	98.5	98.5	7.8		3.2		4			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-		-	-	-	-	-	-	-		-	-				
					Bottom	4.6	-	-	17.2	17.2	8.1	8.1	32.5	32.5	99.7	100.2	7.9	8.0	4.9	4				
						4.6	-	-	17.2		8.1	8.1	32.5	32.5	100.6	100.6	8.0		4.9	5				

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Water Quality Monitoring

Water Quality Monitoring Results on 05 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	07:33	8.4	Surface	1.0	0.3	41	17.6	17.6	7.9	7.9	35.2	35.2	96.2	96.2	7.4	7.4	10.9	11.9	11	10	815596	804247
						1.0	0.3	45	17.6		7.9		35.2		96.1		7.4		10.9		10			
					Middle	4.2	0.3	11	17.6	7.9	7.9	35.2	35.2	96.1	96.1	7.4	7.4	11.6	11					
						4.2	0.3	18	17.6	7.9		35.2		96.1		7.4	7.4	11.5	11					
					Bottom	7.4	0.3	45	17.6	17.6	7.8	7.8	35.2	35.2	96.2	96.2	7.4	7.4	13.6	9				
						7.4	0.3	50	17.6		7.8		35.2		96.2		7.4		7.4	13.3	9			
C2	Cloudy	Moderate	08:39	11.4	Surface	1.0	0.3	341	17.7	17.7	7.9	7.9	34.6	34.6	98.1	98.1	7.6	7.5	2.3	3.9	10	11	825661	806955
						1.0	0.3	339	17.7		7.9		34.6		98.1		7.6		2.3		11			
					Middle	5.7	0.3	349	17.6	7.9	7.9	34.8	34.8	96.1	96.1	7.4	7.4	4.7	11					
						5.7	0.3	352	17.6	7.9		34.8		96.0		7.4	7.4	4.8	11					
					Bottom	10.4	0.3	15	17.5	17.5	7.9	7.9	34.8	34.8	95.8	95.8	7.4	7.4	4.7		11			
						10.4	0.2	12	17.5		7.9		34.8		95.8		7.4		7.4		4.6			
C3	Misty	Calm	08:01	11.2	Surface	1.0	0.5	254	17.4	17.4	8.0	8.0	32.1	32.1	91.2	91.2	7.2	7.2	2.2	3.4	6	6	822121	817782
						1.0	0.5	256	17.4		8.0		32.1		91.2		7.2		2.3		6			
					Middle	5.6	0.5	258	17.4	8.0	8.0	32.0	32.0	91.1	91.2	7.2	7.2	3.8	6					
						5.6	0.4	259	17.4	8.0		32.0		91.2		7.2	7.2	3.9	6					
					Bottom	10.2	0.5	272	17.4	17.4	8.0	8.0	31.8	31.8	92.4	92.5	7.3	7.3	4.1		5			
						10.2	0.5	267	17.4		8.0		31.8		92.5		7.3		7.3		4.2			
IM1	Cloudy	Moderate	07:47	6.7	Surface	1.0	0.2	4	17.5	17.5	7.9	7.9	35.2	35.2	95.9	95.9	7.4	7.4	9.9	10.0	9	9	818356	806441
						1.0	0.2	1	17.5		7.9		35.2		95.9		7.4		9.0		9			
					Middle	3.4	0.2	14	17.5	7.9	7.9	35.2	35.2	95.9	96.0	7.4	7.4	8.7	9					
						3.4	0.2	21	17.5	7.9		35.2		96.0		7.4	7.4	8.9	8					
					Bottom	5.7	0.2	1	17.5	17.5	7.8	7.8	35.1	35.1	96.8	97.0	7.5	7.5	11.3		8			
						5.7	0.3	5	17.5		7.8		35.1		97.1		7.5		7.5		12.0			
IM2	Cloudy	Moderate	07:53	6.8	Surface	1.0	0.3	4	17.5	17.5	7.9	7.9	35.1	35.1	97.9	97.9	7.6	7.6	10.3	11.2	10	12	819203	806254
						1.0	0.3	0	17.5		7.9		35.1		97.9		7.6		11					
					Middle	3.4	0.2	33	17.5	7.9	7.9	35.1	35.1	98.5	98.6	7.6	7.6	11.6	12					
						3.4	0.2	38	17.5	7.9		35.1		98.7		7.7	7.7	11.6	11					
					Bottom	5.8	0.2	16	17.5	17.5	7.9	7.9	35.1	35.1	99.7	99.8	7.7	7.7	11.6		13			
						5.8	0.2	14	17.5		7.9		35.1		99.9		7.7		7.7		11.8			
IM7	Cloudy	Moderate	08:14	7.8	Surface	1.0	0.2	347	17.5	17.5	7.9	7.9	35.2	35.2	94.9	94.9	7.4	7.3	7.1	7.8	5	6	821340	806850
						1.0	0.1	342	17.5		7.9		35.2		94.8		7.3		5					
					Middle	3.9	0.1	346	17.5	7.9	7.9	35.2	35.2	94.7	94.7	7.3	7.3	7.1	6					
						3.9	0.1	343	17.5	7.9		35.2		94.7		7.3	7.3	7.1	6					
					Bottom	6.8	0.2	8	17.4	17.4	7.9	7.9	35.2	35.2	94.9	95.0	7.4	7.4	9.3		7			
						6.8	0.2	14	17.4		7.9		35.2		95.0		7.4		7.4		9.3			

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 05 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
IM10	Rainy	Calm	09:05	9.4	Surface	1.0	0.3	290	17.2	17.2	8.0	8.0	32.6	32.6	96.6	96.7	7.6	7.7	3.6	4.7	7	7	822227	809851			
						1.0	0.3	285	17.2		8.0	8.0	32.6	32.6	96.7	96.7	7.7		3.5		7						
					Middle	4.7	0.3	305	17.2	17.2	8.0	8.0	32.6	32.6	97.4	97.5	7.7	7.8	5.0	7							
						4.7	0.4	310	17.2		8.0	8.0	32.6	32.6	97.5	97.5	7.7		5.0	8							
					Bottom	8.4	0.3	272	17.2	17.2	8.0	8.0	32.6	32.6	98.1	98.2	7.8	7.8	5.4	7							
						8.4	0.3	271	17.2		8.0	8.0	32.6	32.6	98.3	98.2	7.8		5.6	8							
IM11	Rainy	Calm	09:00	7.0	Surface	1.0	0.4	277	17.2	17.2	8.0	8.0	32.5	32.5	96.8	96.9	7.7	7.7	1.0	2.3	6	6	821499	810527			
						1.0	0.4	277	17.2		8.0	8.0	32.5	32.5	96.9	96.9	7.7		1.1		5						
					Middle	3.5	0.4	273	17.2	17.2	8.0	8.0	32.6	32.6	97.2	97.2	7.7	7.7	2.4	6							
						3.5	0.4	267	17.2		8.0	8.0	32.6	32.6	97.2	97.2	7.7		2.3	5							
					Bottom	6.0	0.3	291	17.2	17.2	8.0	8.0	32.6	32.6	97.6	97.7	7.7	7.7	3.4	6							
						6.0	0.3	296	17.2		8.0	8.0	32.6	32.6	97.7	97.7	7.7		3.4	7							
IM12	Rainy	Calm	08:55	7.6	Surface	1.0	0.4	280	17.2	17.2	8.0	8.0	32.6	32.6	96.7	96.8	7.7	7.7	1.6	2.5	6	7	821152	811498			
						1.0	0.4	278	17.1		8.0	8.0	32.6	32.6	96.8	96.8	7.7		1.5		6						
					Middle	3.8	0.3	290	17.1	17.1	8.0	8.0	32.6	32.6	97.3	97.4	7.7	7.7	2.6	6							
						3.8	0.3	295	17.0		8.0	8.0	32.7	32.7	97.4	97.4	7.7		2.5	7							
					Bottom	6.6	0.4	275	16.6	16.6	8.1	8.1	33.0	33.1	98.8	100.4	7.9	8.1	3.5	8							
						6.6	0.4	268	16.5		8.1	8.1	33.1	33.1	102.0	100.4	8.2		3.5	7							
SR1A	Misty	Calm	08:33	4.4	Surface	1.0	0.0	201	17.0	17.0	8.0	8.0	32.6	32.6	98.7	98.8	7.9	7.9	5.8	6.1	7	7	819971	812665			
						1.0	0.0	204	16.9		8.0	8.0	32.7	32.6	98.9	98.9	7.9		5.7		7						
					Middle	2.2	0.0	205	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-
						2.2	0.0	208	-		-	-	-	-	-	-	-	-	-	-	-	-			-	-	-
					Bottom	3.4	0.0	197	16.5	16.5	8.1	8.1	32.9	33.0	100.8	101.2	8.1	8.1	6.4	6							
						3.4	0.1	197	16.4		8.1	8.1	33.0	33.0	101.5	101.2	8.1		6.4	6							
SR2	Misty	Calm	08:21	5.4	Surface	1.0	0.0	286	17.3	17.3	8.1	8.1	32.4	32.4	97.7	97.9	7.7	7.8	1.1	2.0	6	7	821476	814176			
						1.0	0.1	287	17.3		8.1	8.1	32.4	32.4	98.0	97.9	7.8		1.2		7						
					Middle	-	0.1	268	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
						-	0.1	263	-		-	-	-	-	-	-	-	-	-	-	-	-			-	-	
					Bottom	4.4	0.0	291	17.3	17.3	8.1	8.0	32.4	32.4	102.0	102.1	8.1	8.1	2.8	7							
						4.4	0.1	294	17.3		8.0	8.0	32.4	32.4	102.1	102.1	8.1		2.8	7							
SR3	Cloudy	Moderate	08:21	8.9	Surface	1.0	0.2	332	17.7	17.7	7.9	7.9	34.8	34.8	96.7	96.7	7.5	7.5	5.2	7.4	10	10	822123	807560			
						1.0	0.2	333	17.7		7.9	7.9	34.9	34.8	96.7	96.7	7.5		5.3		10						
					Middle	4.5	0.2	348	17.6	17.6	7.9	7.9	35.0	35.0	96.6	96.7	7.5	7.5	5.5	10							
						4.5	0.2	340	17.6		7.9	7.9	35.0	35.0	96.7	96.7	7.5		5.6	10							
					Bottom	7.9	0.3	342	17.7	17.7	7.8	7.8	35.0	34.9	97.7	97.9	7.6	7.6	11.5	10							
						7.9	0.3	343	17.7		7.8	7.8	34.9	34.9	98.1	97.9	7.6		11.2	11							
SR4A	Cloudy	Moderate	07:12	9.5	Surface	1.0	0.0	251	17.5	17.5	7.8	7.8	35.1	35.1	95.1	95.1	7.4	7.4	3.9	5.4	7	9	817170	807811			
						1.0	0.0	252	17.5		7.8	7.8	35.2	35.1	95.0	95.0	7.4		4.1		8						
					Middle	4.8	-	268	17.4	17.4	7.8	7.8	35.2	35.2	94.0	94.0	7.3	7.3	6.3	9							
						4.8	0.0	265	17.4		7.8	7.8	35.2	35.2	94.0	94.0	7.3		6.2	10							
					Bottom	8.5	0.0	277	17.4	17.4	7.8	7.8	35.2	35.2	94.0	94.0	7.3	7.3	6.1	10							
						8.5	0.1	273	17.4		7.8	7.8	35.2	35.2	94.0	94.0	7.3		6.0	10							
SR8	Misty	Calm	08:50	5.4	Surface	1.0	-	-	17.4	17.4	8.0	8.0	32.5	32.5	98.3	98.3	7.8	7.8	2.9	3.5	6	6	820404	811635			
						1.0	-	-	17.4		8.0	8.0	32.5	32.5	98.3	98.3	7.8		2.9		7						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-		
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	4.4	-	-	17.1	17.1	8.1	8.1	32.5	32.5	99.8	99.9	7.9	7.9	4.1	6							
						4.4	-	-	17.1		8.1	8.1	32.5	32.5	100.0	99.9	7.9		4.1	6							

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	13:20	8.0	Surface	1.0	0.0	89	17.5	17.5	7.9	7.9	32.1	32.1	97.9	97.9	7.7	7.7	7.5	9.8	7	8	815615	804238
						1.0	0.0	94	17.5		7.9		32.1		97.8		7.7		7.6		8			
					Middle	4.0	0.0	92	17.4	17.4	7.9	7.9	32.3	32.3	96.4	96.4	7.6	7.6	9.4	7.6	8			
						4.0	0.0	94	17.4		7.9		32.3		96.4		7.6		8					
					Bottom	7.0	0.0	84	17.5	17.6	7.9	7.9	32.3	32.3	96.4	96.5	7.6	7.6	12.0	7.6	8			
						7.0	0.1	82	17.6		7.9		32.2		96.6		7.6		12.5		8			
C2	Cloudy	Moderate	11:48	11.7	Surface	1.0	0.1	345	17.5	17.5	7.9	7.9	31.9	31.9	98.8	98.8	7.8	7.8	2.9	4.2	4	5	825689	806946
						1.0	0.1	350	17.5		7.9		31.9		98.8		7.8		4					
					Middle	5.9	0.1	354	17.4	17.4	7.9	7.9	32.0	32.0	97.5	97.5	7.7	7.7	4.3	7.7	4			
						5.9	0.1	351	17.4		7.9		32.0		97.4		7.7		4					
					Bottom	10.7	0.2	6	17.3	17.3	7.9	7.9	32.0	32.0	97.1	97.1	7.7	7.7	5.2	7.7	6			
						10.7	0.2	2	17.3		7.9		32.0		97.1		7.7		5.2		5			
C3	Fine	Calm	12:49	8.6	Surface	1.0	0.1	97	18.1	18.1	8.0	8.0	34.8	34.8	97.6	97.7	7.5	7.6	2.3	3.2	6	7	822128	817788
						1.0	0.0	96	18.1		8.0		34.8		97.7		7.5		5					
					Middle	4.3	0.1	109	17.8	17.8	8.0	8.0	35.0	35.1	98.5	98.7	7.6	7.6	3.2	7.6	7			
						4.3	0.1	107	17.7		8.0		35.1		98.9		7.6		8					
					Bottom	7.6	0.0	101	17.5	17.5	8.0	8.0	35.3	35.3	102.9	103.1	8.0	8.0	4.2	8.0	8			
						7.6	0.0	98	17.5		8.0		35.3		103.2		8.0		4.1		7			
IM1	Cloudy	Moderate	12:55	6.5	Surface	1.0	0.0	56	17.4	17.4	7.9	7.9	32.0	32.0	96.8	96.8	7.7	7.6	9.4	7.6	13	14	818344	806449
						1.0	0.1	49	17.4		7.9		32.0		96.7		7.6		13					
					Middle	3.3	0.1	36	17.4	17.4	7.9	7.9	32.1	32.1	96.2	96.2	7.6	7.6	9.6	7.6	14			
						3.3	0.1	40	17.4		7.9		32.1		96.2		7.6		12					
					Bottom	5.5	0.1	34	17.3	17.3	7.9	7.9	32.2	32.2	95.9	95.9	7.6	7.6	11.8	7.6	15			
						5.5	0.1	27	17.3		7.9		32.2		95.8		7.6		12.1		14			
IM2	Cloudy	Moderate	12:49	7.1	Surface	1.0	0.1	27	17.5	17.5	7.9	7.9	31.9	31.9	97.4	97.4	7.7	7.7	7.5	9.2	11	10	819184	806220
						1.0	0.0	21	17.4		7.9		32.0		97.3		7.7		10					
					Middle	3.6	0.1	32	17.4	17.4	7.9	7.9	32.2	32.2	96.1	96.1	7.6	7.6	9.7	7.6	11			
						3.6	0.1	28	17.4		7.9		32.2		96.0		7.6		10					
					Bottom	6.1	0.1	34	17.4	17.4	7.8	7.8	32.2	32.2	95.8	95.8	7.6	7.6	10.4	7.6	9			
						6.1	0.1	37	17.4		7.8		32.2		95.8		7.6		10.4		8			
IM7	Cloudy	Moderate	12:27	8.3	Surface	1.0	0.1	44	17.5	17.5	7.9	7.9	32.3	32.3	96.5	96.5	7.6	7.6	4.8	7.6	6	8	821372	806854
						1.0	0.2	37	17.5		7.9		32.3		96.5		7.6		7					
					Middle	4.2	0.2	45	17.4	17.4	7.9	7.9	32.3	32.3	96.2	96.2	7.6	7.6	5.5	7.6	7			
						4.2	0.2	38	17.4		7.9		32.3		96.2		7.6		8					
					Bottom	7.3	0.1	67	17.4	17.5	7.9	7.8	32.3	32.3	96.0	96.1	7.6	7.6	5.6	7.6	8			
						7.3	0.1	66	17.5		7.8		32.3		96.1		7.6		5.7		9			

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)									
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA							
IM10	Fine	Calm	11:48	8.0	Surface	1.0	0.2	317	18.2	18.2	8.0	8.0	34.6	34.5	97.1	97.1	7.5	7.4	1.2	2.2	8	7	822263	809826									
						1.0	0.2	322	18.2		8.0	8.0	34.5	34.5	97.0	97.1	7.4		1.2		8												
					Middle	4.0	0.1	321	18.2	18.2	8.0	8.0	34.6	34.5	96.8	96.7	7.4	7.4	2.1	7.4	7				7.4	8	7	8	7				
						4.0	0.1	320	18.2		8.1	8.0	34.5	34.5	96.6	96.7	7.4		2.1		7												
					Bottom	7.0	0.1	335	18.2	18.2	8.1	8.1	34.8	34.7	96.1	95.7	7.4	7.4	3.3	7.3	6				7.3	6	7.3	6	7	8	7		
						7.0	0.1	339	18.1		8.1	8.1	34.7	34.7	95.2	95.7	7.3		3.3		6												
IM11	Fine	Calm	11:58	8.4	Surface	1.0	0.1	302	17.9	17.9	8.1	8.1	34.6	34.6	100.7	100.8	7.8	7.9	1.1	1.8	7	7	821512	810528									
						1.0	0.1	300	17.9		8.1	8.1	34.6	34.6	100.9	100.8	7.8		1.1		8												
					Middle	4.2	0.1	292	17.8	17.8	8.1	8.1	34.7	34.7	101.7	101.9	7.9	7.9	1.6	7.9	7				7.9	6	7.9	6	7	8	7		
						4.2	0.1	290	17.8		8.1	8.1	34.7	34.7	102.0	101.9	7.9		1.5		6												
					Bottom	7.4	0.2	301	17.7	17.7	8.1	8.1	34.8	34.8	102.8	102.9	8.0	8.0	2.8	8.0	6				8.0	6	8.0	6	7	8	7		
						7.4	0.2	305	17.6		8.0	8.1	34.8	34.8	103.0	102.9	8.0		2.8		6												
IM12	Fine	Calm	12:03	8.8	Surface	1.0	0.1	277	17.9	17.9	8.0	8.0	34.6	34.6	100.5	100.6	7.8	7.8	1.0	1.8	5	6	821156	811496									
						1.0	0.1	282	17.9		8.0	8.0	34.6	34.6	100.6	100.6	7.8		1.1		5												
					Middle	4.4	0.1	278	17.9	17.9	8.0	8.0	34.6	34.6	100.9	101.0	7.8	7.8	1.7	7.8	6				7.8	6	7.8	6	7	8	7		
						4.4	0.1	274	17.9		8.0	8.0	34.6	34.6	101.0	101.0	7.8		1.7		6												
					Bottom	7.8	0.1	275	17.9	17.9	8.0	8.0	34.6	34.6	101.4	101.7	7.8	7.9	2.6	7.9	7				7.9	7	7.9	7	8	7	8	7	
						7.8	0.0	281	17.9		8.0	8.0	34.6	34.6	101.9	101.7	7.9		2.7		7												
SR1A	Fine	Calm	12:21	5.4	Surface	1.0	0.0	351	18.3	18.3	8.0	8.0	34.8	34.8	101.0	101.1	7.7	7.7	2.5	3.0	7	7	819973	812655									
						1.0	0.0	357	18.3		8.0	8.0	34.8	34.8	101.1	101.1	7.7		2.5		8												
					Middle	2.7	0.0	331	-	-	-	-	-	-	-	-	-	-	-		-				-	-	-	-	-	-	-	-	-
						2.7	0.0	326	-		-	-	-	-	-	-	-		-						-		-						
					Bottom	4.4	0.0	319	18.3	18.3	8.0	8.0	34.8	34.8	101.3	101.4	7.8	7.8	3.5		7.8				6	7.8	6	7.8	6	7	8	7	
						4.4	0.1	325	18.3		8.0	8.0	34.8	34.8	101.5	101.4	7.8		3.7						7								
SR2	Fine	Calm	12:33	5.0	Surface	1.0	0.0	12	18.0	18.0	8.0	8.0	34.7	34.7	102.9	103.0	7.9	7.9	2.0	2.5	7	7	821478	814151									
						1.0	0.0	18	18.0		8.0	8.0	34.7	34.7	103.1	103.0	7.9		2.0		7												
					Middle	-	0.0	10	-	-	-	-	-	-	-	-	-	-	-		-				-	-	-	-	-	-	-	-	
						-	0.0	10	-		-	-	-	-	-	-	-		-						-								
					Bottom	4.0	0.0	8	18.0	18.0	8.0	8.0	34.6	34.6	103.5	103.8	8.0	8.0	3.1		8.0				6	8.0	6	8.0	6	7	8	7	
						4.0	0.0	7	18.0		8.0	8.0	34.6	34.6	104.0	103.8	8.0		3.1						6								
SR3	Cloudy	Moderate	12:21	8.5	Surface	1.0	0.1	16	17.4	17.4	7.9	7.9	32.2	32.2	96.4	96.4	7.6	7.6	4.7	6.3	6	6	822170	807554									
						1.0	0.1	13	17.4		7.9	7.9	32.2	32.2	96.4	96.4	7.6		4.9		6												
					Middle	4.3	0.2	21	17.4	17.4	7.9	7.9	32.2	32.2	96.1	96.1	7.6	7.6	5.7		7.6				6	7.6	6	7.6	6	7	8	7	
						4.3	0.2	15	17.4		7.9	7.9	32.2	32.2	96.1	96.1	7.6		5.9						7								
					Bottom	7.5	0.2	1	17.4	17.4	7.9	7.9	32.2	32.2	95.9	95.9	7.6	7.6	8.3		7.6				6	7.6	6	7.6	6	7	8	7	
						7.5	0.1	357	17.4		7.9	7.9	32.2	32.2	95.8	95.9	7.6		8.5						6								
SR4A	Cloudy	Moderate	13:41	8.7	Surface	1.0	0.0	315	17.5	17.5	7.9	7.9	32.2	32.2	97.8	97.8	7.7	7.7	6.7	7.0	8	10	817166	807813									
						1.0	0.0	318	17.5		7.9	7.9	32.2	32.2	97.8	97.8	7.7		6.8		9												
					Middle	4.4	0.0	303	17.5	17.5	7.9	7.9	32.2	32.2	97.4	97.4	7.7	7.7	7.1		7.7				11	7.7	10	7.7	10	7	8	7	
						4.4	0.0	304	17.5		7.9	7.9	32.2	32.2	97.4	97.4	7.7		7.2						11								
					Bottom	7.7	0.0	296	17.5	17.5	7.9	7.9	32.2	32.2	97.5	97.5	7.7	7.7	7.2		7.7				11	7.7	11	7.7	11	7	8	7	
						7.7	0.1	293	17.5		7.9	7.9	32.2	32.2	97.5	97.5	7.7		7.2						11								
SR8	Fine	Calm	12:09	5.6	Surface	1.0	-	-	17.9	17.9	8.0	8.0	34.6	34.6	99.2	99.2	7.6	7.7	2.2	2.5	7	8	820395	811636									
						1.0	-	-	17.9		8.0	8.0	34.6	34.6	99.2	99.2	7.7		2.2		8												
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-				-	-	-	-	-	-	-	-	
						-	-	-	-		-	-	-	-	-	-	-		-						-								
					Bottom	4.6	-	-	17.9	17.9	8.0	8.0	34.6	34.6	99.5	99.6	7.7	7.7	2.8		7.7				8	7.7	8	7.7	8	7	8	7	
						4.6	-	-	17.9		8.0	8.0	34.6	34.6	99.7	99.7	7.7		2.8						8								

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
C1	Cloudy	Moderate	08:37	8.4	Surface	1.0	0.3	38	17.3	17.3	8.0	8.0	32.2	32.2	97.1	97.1	7.7	7.7	7.7	7.7	12.7	15	13	815608	804244
						1.0	0.3	37	17.3	8.0	8.0	32.2	32.2	97.1	97.1	7.7	7.7	7.7	7.7	13.0	14				
					Middle	4.2	0.3	48	17.3	8.0	8.0	32.2	32.2	96.9	96.9	7.7	7.7	7.7	7.7	12.4	13				
						4.2	0.3	42	17.3	8.0	8.0	32.2	32.2	96.8	96.8	7.7	7.7	7.7	7.7	12.3	12				
					Bottom	7.4	0.3	55	17.3	8.0	8.0	32.2	32.2	96.8	96.8	7.7	7.7	7.7	7.7	13.3	12				
						7.4	0.3	56	17.3	8.0	8.0	32.2	32.2	96.8	96.8	7.7	7.7	7.7	7.7	13.5	12				
C2	Cloudy	Moderate	10:09	12.3	Surface	1.0	0.3	2	17.5	17.5	7.9	7.9	31.9	31.9	98.9	98.9	7.8	7.8	7.8	7.8	3.2	7	6	825705	806957
						1.0	0.2	8	17.5	7.9	7.9	31.9	31.9	98.8	98.8	7.8	7.8	7.8	7.8	3.3	6				
					Middle	6.2	0.3	338	17.4	7.9	7.9	32.0	32.0	97.3	97.3	7.7	7.7	7.7	7.7	4.5	5				
						6.2	0.3	341	17.3	7.9	7.9	32.0	32.0	97.2	97.2	7.7	7.7	7.7	7.7	4.7	6				
					Bottom	11.3	0.3	2	17.3	7.9	7.9	32.0	32.0	96.8	96.8	7.7	7.7	7.7	7.7	7.4	5				
						11.3	0.3	356	17.3	7.9	7.9	32.0	32.0	96.8	96.8	7.7	7.7	7.7	7.7	7.6	4				
C3	Fine	Calm	08:58	10.8	Surface	1.0	0.5	255	18.0	18.0	8.0	8.0	35.0	35.0	93.0	93.0	7.1	7.1	7.1	7.1	1.0	6	6	822130	817809
						1.0	0.5	257	18.0	8.0	8.0	35.0	35.0	93.0	93.0	7.1	7.1	7.1	7.1	1.1	5				
					Middle	5.4	0.5	272	18.0	8.0	8.0	35.0	35.0	93.7	93.8	7.2	7.2	7.2	7.2	2.7	5				
						5.4	0.5	267	18.0	8.0	8.0	35.0	35.0	93.9	93.8	7.2	7.2	7.2	7.2	2.7	6				
					Bottom	9.8	0.5	245	18.0	8.0	8.0	35.0	35.0	95.9	96.0	7.4	7.4	7.4	7.4	3.5	6				
						9.8	0.5	252	18.0	8.0	8.0	35.0	35.0	96.1	96.0	7.4	7.4	7.4	7.4	3.5	6				
IM1	Cloudy	Moderate	09:04	6.8	Surface	1.0	0.2	9	17.4	17.4	8.0	8.0	32.2	32.2	96.8	96.8	7.7	7.7	7.7	7.7	12.5	16	14	818335	806479
						1.0	0.2	6	17.4	8.0	8.0	32.2	32.2	96.8	96.8	7.7	7.7	7.7	7.7	12.6	15				
					Middle	3.4	0.2	355	17.3	8.0	8.0	32.2	32.2	97.1	97.1	7.7	7.7	7.7	7.7	11.0	14				
						3.4	0.2	354	17.3	8.0	8.0	32.2	32.2	97.1	97.1	7.7	7.7	7.7	7.7	10.9	15				
					Bottom	5.8	0.2	29	17.3	8.1	8.1	32.2	32.2	97.9	98.0	7.7	7.7	7.7	7.7	11.8	13				
						5.8	0.2	22	17.3	8.1	8.1	32.2	32.2	98.0	98.0	7.8	7.8	7.8	7.8	11.9	12				
IM2	Cloudy	Moderate	09:09	7.0	Surface	1.0	0.3	15	17.3	17.3	8.0	8.0	32.2	32.2	96.6	96.6	7.6	7.6	7.6	7.6	10.7	16	15	819161	806230
						1.0	0.3	8	17.3	8.0	8.0	32.2	32.2	96.6	96.6	7.6	7.6	7.6	7.6	10.6	16				
					Middle	3.5	0.2	30	17.3	8.0	8.0	32.2	32.2	96.3	96.3	7.6	7.6	7.6	7.6	11.2	15				
						3.5	0.2	37	17.3	8.0	8.0	32.2	32.2	96.3	96.3	7.6	7.6	7.6	7.6	11.2	15				
					Bottom	6.0	0.3	12	17.3	8.0	7.9	32.2	32.2	96.0	96.0	7.6	7.6	7.6	7.6	14.2	15				
						6.0	0.3	9	17.3	7.9	7.9	32.2	32.2	96.0	96.0	7.6	7.6	7.6	7.6	14.5	15				
IM7	Cloudy	Moderate	09:29	8.2	Surface	1.0	0.2	350	17.5	17.5	7.9	7.9	32.4	32.4	96.7	96.7	7.6	7.6	7.6	7.6	3.7	7	8	821335	806825
						1.0	0.2	353	17.5	7.9	7.9	32.4	32.4	96.7	96.7	7.6	7.6	7.6	7.6	3.7	7				
					Middle	4.1	0.1	2	17.4	7.9	7.9	32.4	32.4	96.1	96.1	7.6	7.6	7.6	7.6	4.2	8				
						4.1	0.2	357	17.4	7.9	7.9	32.4	32.4	96.1	96.1	7.6	7.6	7.6	7.6	4.2	7				
					Bottom	7.2	0.1	336	17.4	7.9	7.9	32.4	32.4	95.9	95.9	7.6	7.6	7.6	7.6	5.1	8				
						7.2	0.1	332	17.4	7.9	7.9	32.4	32.4	95.9	95.9	7.6	7.6	7.6	7.6	5.1	9				

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
IM10	Fine	Calm	10:12	9.4	Surface	1.0	0.2	305	17.9	17.9	7.9	7.9	34.6	34.6	103.6	103.7	8.0	8.0	2.5	3.4	8	7	822249	809831					
						1.0	0.2	300	17.9		7.9		34.6	34.6	103.7	103.7	8.0		2.4		9								
					Middle	4.7	0.3	297	17.9	7.9	7.9	34.6	34.6	104.3	104.5	8.0	8.1	3.7	7										
						4.7	0.2	291	17.9	8.0	8.0	34.6	34.6	104.6	104.5	8.1	8.2	3.7	7										
					Bottom	8.4	0.2	282	17.9	8.0	8.0	34.6	34.6	105.1	105.5	8.1	8.2	4.1	6										
						8.4	0.3	280	17.9	8.0	8.0	34.6	34.6	105.8	105.5	8.2	8.2	4.1	6										
IM11	Fine	Calm	10:07	7.6	Surface	1.0	0.3	283	17.9	17.9	7.9	7.9	34.7	34.7	102.5	102.7	7.9	8.0	3.8	4.5	5	6	821497	810542					
						1.0	0.3	285	17.9		7.9		34.7	34.7	102.8	102.7	7.9		3.8		6								
					Middle	3.8	0.3	293	17.9	7.9	7.9	34.6	34.6	103.7	103.8	8.0	8.0	4.2	6										
						3.8	0.3	286	17.9	8.0	8.0	34.6	34.6	103.9	103.8	8.0	8.1	4.2	6										
					Bottom	6.6	0.3	263	17.9	8.0	8.0	34.6	34.6	104.6	104.8	8.1	8.1	5.4	7										
						6.6	0.3	268	17.9	8.0	8.0	34.6	34.6	105.0	104.8	8.1	8.1	5.5	7										
IM12	Fine	Calm	09:52	7.6	Surface	1.0	0.3	284	17.8	17.8	7.9	7.9	34.6	34.6	102.3	102.4	7.9	8.0	4.1	5.4	6	8	821163	811516					
						1.0	0.3	277	17.8		7.9		34.6	34.6	102.5	102.4	7.9		4.1		7								
					Middle	3.8	0.4	302	17.8	7.9	7.9	34.6	34.6	103.2	103.3	8.0	8.0	5.3	7										
						3.8	0.4	302	17.8	7.9	7.9	34.6	34.6	103.4	103.3	8.0	8.1	5.4	8										
					Bottom	6.6	0.3	268	17.8	7.9	7.9	34.6	34.6	103.8	104.2	8.0	8.1	6.7	9										
						6.6	0.4	261	17.8	7.9	7.9	34.6	34.6	104.6	104.2	8.1	8.1	6.7	8										
SR1A	Fine	Calm	09:32	4.0	Surface	1.0	0.0	236	18.1	18.1	8.1	8.1	34.8	34.8	98.8	98.9	7.6	7.6	3.7	4.0	9	8	819977	812661					
						1.0	0.0	238	18.1		8.1		8.1	34.8	34.8	98.9	98.9		7.6		3.7				10				
					Middle	2.0	0.0	237	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						2.0	0.1	240	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	3.0	0.0	210	18.1	8.1	8.1	34.8	34.8	99.2	99.3	7.6	7.6	4.4	7										
						3.0	0.1	204	18.1	8.1	8.1	34.8	34.8	99.4	99.3	7.6	7.6	4.3	7										
SR2	Fine	Calm	09:18	4.6	Surface	1.0	0.1	298	17.9	17.9	8.0	8.0	34.7	34.7	102.3	102.5	7.9	7.9	2.6	3.0	6	6	821459	814147					
						1.0	0.1	302	17.9		8.0		8.0	34.7	34.7	102.6	102.5		7.9		2.5				6				
					Middle	-	0.1	301	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	
						-	0.1	299	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	
					Bottom	3.6	0.1	321	17.9	8.0	8.0	34.8	34.7	103.2	103.4	8.0	8.0	3.4	6										
						3.6	0.1	324	17.9	8.0	8.0	34.6	34.7	103.5	103.4	8.0	8.0	3.5	5										
SR3	Cloudy	Moderate	09:36	8.9	Surface	1.0	0.3	328	17.5	17.5	7.9	7.9	32.2	32.2	96.6	96.6	7.6	7.6	7.3	7.7	11	11	822160	807547					
						1.0	0.3	320	17.5		7.9		32.2	32.2	96.5	96.6	7.6		7.4		10								
					Middle	4.5	0.2	357	17.5	7.9	7.9	32.2	32.2	96.4	96.4	7.6	7.6	7.8	10										
						4.5	0.2	351	17.5	7.9	7.9	32.2	32.2	96.4	96.4	7.6	7.6	7.8	11										
					Bottom	7.9	0.2	357	17.5	7.9	7.9	32.2	32.2	96.5	96.5	7.6	7.6	7.9	11										
						7.9	0.2	1	17.5	7.9	7.9	32.2	32.2	96.5	96.5	7.6	7.6	7.9	12										
SR4A	Cloudy	Moderate	08:18	8.8	Surface	1.0	0.0	224	17.3	17.3	8.0	8.0	31.9	31.9	96.5	96.5	7.7	7.7	7.0	7.4	11	11	817211	807829					
						1.0	0.0	231	17.3		8.0		8.0	31.9	31.8	96.5	96.3		7.7		7.0				12				
					Middle	4.4	0.0	231	17.3	8.0	8.0	31.9	31.8	96.3	96.3	7.6	7.6	7.6	11										
						4.4	0.0	232	17.3	8.0	8.0	31.8	31.8	96.2	96.2	7.6	7.6	7.7	10										
					Bottom	7.8	0.0	211	17.3	8.0	8.0	31.8	31.8	96.1	96.1	7.6	7.6	7.7	10										
						7.8	0.0	204	17.3	8.0	8.0	31.8	31.8	96.1	96.1	7.6	7.6	7.7	9										
SR8	Fine	Calm	09:48	5.8	Surface	1.0	-	-	18.0	18.0	8.1	8.1	34.5	34.5	102.4	102.5	7.9	7.9	4.9	5.0	8	7	820378	811600					
						1.0	-	-	17.9		8.1		8.1	34.6	34.5	102.6	102.5		7.9		4.8				7				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-		
					Bottom	4.8	-	-	17.9	8.1	8.1	34.5	34.5	103.2	103.5	8.0	8.0	5.1	6										
						4.8	-	-	17.9	8.1	8.1	34.5	34.5	103.8	103.5	8.0	8.0	5.1	7										

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 10 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
C1	Rainy	Moderate	14:31	8.6	Surface	1.0	0.0	93	17.4	17.4	7.9	7.9	32.2	32.2	96.3	96.3	7.6	7.6	7.6	9.5	7	8	7	815631	804246				
						1.0	0.0	96	17.4	7.9	7.9	32.2	32.2	96.3	96.3	7.6	7.6												
					Middle	4.3	0.1	96	17.4	17.4	7.9	7.9	32.4	32.4	96.6	96.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
						4.3	0.0	93	17.4	17.4	7.9	7.9	32.4	32.4	96.7	96.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
					Bottom	7.6	0.1	104	17.4	17.4	7.9	7.9	32.4	32.4	98.2	98.4	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
						7.6	0.1	102	17.4	17.4	7.9	7.9	32.4	32.4	98.6	98.6	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
C2	Rainy	Moderate	13:19	11.0	Surface	1.0	0.1	8	17.4	17.4	7.7	7.7	31.4	31.4	96.4	96.4	7.6	7.6	7.6	8.9	7	8	7	825694	806965				
						1.0	0.1	14	17.4	7.7	7.7	31.4	31.4	96.4	96.4	7.6	7.6												
					Middle	5.5	0.1	357	17.4	17.4	7.6	7.6	31.5	31.5	96.2	96.2	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
						5.5	0.1	352	17.4	17.4	7.6	7.6	31.5	31.5	96.2	96.2	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
					Bottom	10.0	0.1	26	17.4	17.4	7.6	7.6	31.5	31.5	98.3	98.5	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
						10.0	0.2	26	17.4	17.4	7.6	7.6	31.5	31.5	98.6	98.6	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
C3	Rainy	Moderate	15:14	10.5	Surface	1.0	0.2	85	18.0	18.0	7.9	7.9	34.6	34.6	92.4	92.4	7.1	7.1	7.1	1.4	7	6	7	822087	817821				
						1.0	0.3	82	18.0	18.0	7.9	7.9	34.6	34.6	92.4	92.4	7.1	7.1											
					Middle	5.3	0.2	93	18.0	18.0	7.9	7.9	34.7	34.7	90.6	90.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
						5.3	0.2	98	18.0	18.0	7.9	7.9	34.7	34.7	90.6	90.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
					Bottom	9.5	0.2	92	18.0	18.0	7.9	7.9	34.7	34.7	90.6	90.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
						9.5	0.2	99	18.0	18.0	7.9	7.9	34.7	34.7	90.7	90.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
IM1	Rainy	Moderate	14:09	6.3	Surface	1.0	0.0	51	17.3	17.3	7.9	7.9	31.9	31.9	96.4	96.5	7.6	7.6	7.7	9.3	7	8	7	818339	806434				
						1.0	0.0	53	17.3	17.3	7.9	7.9	31.9	31.9	96.5	96.5	7.6	7.6											
					Middle	3.2	0.0	62	17.3	17.3	7.9	7.9	31.9	31.9	97.2	97.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	
						3.2	0.0	66	17.3	17.3	7.9	7.9	31.9	31.9	97.5	97.5	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	
					Bottom	5.3	0.0	63	17.3	17.3	7.9	7.9	31.9	31.9	98.8	99.0	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
						5.3	0.0	56	17.3	17.3	7.9	7.9	31.9	31.9	99.2	99.2	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
IM2	Rainy	Moderate	14:04	7.0	Surface	1.0	0.1	35	17.3	17.3	7.9	7.9	31.8	31.8	94.5	94.5	7.5	7.5	7.6	9.8	6	6	7	819186	806225				
						1.0	0.1	35	17.3	17.3	7.9	7.9	31.8	31.8	94.5	94.5	7.5	7.5											
					Middle	3.5	0.1	43	17.3	17.3	7.9	7.9	31.9	31.9	95.6	95.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
						3.5	0.2	49	17.3	17.3	7.9	7.9	31.9	31.9	95.7	95.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
					Bottom	6.0	0.1	19	17.3	17.3	7.9	7.9	31.8	31.8	95.9	96.0	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
						6.0	0.1	14	17.3	17.3	7.9	7.9	31.8	31.8	96.1	96.1	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
IM7	Rainy	Moderate	13:43	8.5	Surface	1.0	0.2	41	17.3	17.3	7.9	7.9	31.8	31.8	95.3	95.3	7.6	7.6	7.6	10.1	7	8	7	821326	806850				
						1.0	0.2	38	17.3	17.3	7.9	7.9	31.8	31.8	95.3	95.3	7.6	7.6											
					Middle	4.3	0.2	61	17.3	17.3	7.9	7.9	31.9	31.9	95.4	95.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
						4.3	0.2	54	17.3	17.3	7.9	7.9	31.9	31.9	95.5	95.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
					Bottom	7.5	0.2	25	17.3	17.3	7.9	7.9	31.9	31.9	96.0	96.1	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
						7.5	0.2	30	17.3	17.3	7.9	7.9	31.9	31.9	96.1	96.1	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	

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Water Quality Monitoring

Water Quality Monitoring Results on 10 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value
IM10	Rainy	Moderate	13:20	8.2	Surface	1.0	0.0	324	17.9	17.9	7.9	7.9	34.1	34.1	95.9	95.9	7.4	7.4	2.8	2.8	7	8	822233	809822	
						1.0	0.0	330	17.9		7.9		34.1		95.9		7.4		2.8		8				
					Middle	4.1	0.1	315	17.8	17.8	7.9	7.9	34.1	34.1	95.6	95.6	7.4	7.4	2.8	2.8	8				8
						4.1	0.1	310	17.8		7.9		34.1		95.6		7.4		2.8		8				
					Bottom	7.2	0.0	333	17.8	17.8	7.9	7.9	34.1	34.1	95.7	95.7	7.4	7.4	2.7	2.7	8				8
						7.2	0.1	327	17.8		7.9		34.1		95.7		7.4		2.7		8				
IM11	Rainy	Moderate	13:31	7.8	Surface	1.0	0.0	320	17.9	17.9	7.9	7.9	34.2	34.2	96.1	96.1	7.4	7.4	3.5	3.5	6	6	821485	810536	
						1.0	0.0	324	17.9		7.9		34.2		96.1		7.4		3.5		7				
					Middle	3.9	0.0	345	17.8	17.8	7.9	7.9	34.2	34.2	96.1	96.1	7.4	7.4	3.7	3.7	7				7
						3.9	0.0	346	17.8		7.9		34.2		96.1		7.4		3.9		6				
					Bottom	6.8	0.0	310	17.8	17.8	7.9	7.9	34.2	34.2	96.3	96.4	7.5	7.5	4.0	4.0	6				6
						6.8	0.0	303	17.8		7.9		34.2		96.4		7.5		4.0		5				
IM12	Rainy	Moderate	13:39	7.4	Surface	1.0	0.0	45	17.8	17.8	7.9	7.9	34.2	34.2	96.3	96.3	7.5	7.5	3.0	3.0	6	6	821143	811505	
						1.0	0.0	40	17.8		7.9		34.2		96.3		7.5		3.0		7				
					Middle	3.7	0.0	40	17.8	17.8	7.9	7.9	34.2	34.2	96.5	96.6	7.5	7.5	3.2	3.2	7				7
						3.7	0.1	41	17.8		7.9		34.2		96.6		7.5		3.3		6				
					Bottom	6.4	0.0	81	17.8	17.8	7.9	7.9	34.2	34.2	97.5	97.7	7.6	7.6	3.6	3.6	6				6
						6.4	0.1	86	17.8		7.9		34.2		97.9		7.6		3.7		6				
SR1A	Rainy	Calm	14:28	5.1	Surface	1.0	0.0	356	17.9	17.9	7.9	7.9	34.2	34.2	96.9	96.9	7.5	7.5	2.6	2.6	6	7	819972	812665	
						1.0	0.1	351	17.9		7.9		34.2		96.9		7.5		2.6		6				
					Middle	2.6	-	351	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						2.6	0.0	344	-		-		-		-		-		-		-				
					Bottom	4.1	0.0	3	17.9	17.9	7.9	7.9	34.2	34.2	97.4	97.5	7.5	7.5	3.1	3.1	8				8
						4.1	0.0	4	17.9		7.9		34.2		97.5		7.5		3.1		8				
SR2	Rainy	Moderate	14:52	5.3	Surface	1.0	0.1	74	17.9	17.9	7.9	7.9	34.3	34.3	96.1	96.1	7.4	7.4	2.4	2.4	8	8	821467	814180	
						1.0	0.1	72	17.9		7.9		34.3		96.1		7.4		2.4		9				
					Middle	-	0.2	69	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						-	0.2	73	-		-		-		-		-		-						
					Bottom	4.3	0.1	49	17.9	17.9	7.9	7.9	34.3	34.3	95.9	95.9	7.4	7.4	2.5	2.5	7				7
						4.3	0.2	47	17.9		7.9		34.3		95.9		7.4		2.5		8				
SR3	Rainy	Moderate	13:36	9.4	Surface	1.0	0.2	19	17.4	17.4	7.9	7.9	31.8	31.8	95.3	95.3	7.6	7.6	6.2	6.2	8	7	822170	807577	
						1.0	0.2	12	17.4		7.9		31.8		95.3		7.6		6.3		6				
					Middle	4.7	0.2	2	17.4	17.4	7.9	7.9	31.9	31.9	95.3	95.3	7.5	7.5	6.6	6.6	7				7
						4.7	0.2	357	17.4		7.9		31.9		95.3		7.6		6.5		6				
					Bottom	8.4	0.2	31	17.4	17.4	7.9	7.9	31.9	31.9	97.1	97.2	7.7	7.7	9.9	9.9	6				6
						8.4	0.2	25	17.4		7.9		31.9		97.3		7.7		9.9		6				
SR4A	Rainy	Moderate	14:58	9.4	Surface	1.0	0.1	104	17.4	17.4	7.9	7.9	31.9	31.9	96.1	96.1	7.6	7.6	6.6	6.6	7	7	817188	807788	
						1.0	0.0	98	17.4		7.9		31.9		96.1		7.6		6.7		6				
					Middle	4.7	0.0	81	17.4	17.4	7.9	7.9	31.9	31.9	96.1	96.1	7.6	7.6	7.0	7.0	8				8
						4.7	0.1	82	17.4		7.9		31.9		96.1		7.6		6.9		7				
					Bottom	8.4	0.0	74	17.4	17.4	7.9	7.9	31.9	31.9	96.5	96.5	7.6	7.6	6.8	6.8	8				8
						8.4	0.0	69	17.3		7.9		31.9		96.5		7.6		6.8		7				
SR8	Rainy	Calm	13:49	5.6	Surface	1.0	-	-	17.9	17.9	7.9	7.9	34.1	34.1	96.6	96.6	7.5	7.5	2.8	2.8	7	7	820392	811639	
						1.0	-	-	17.9		7.9		34.1		96.6		7.5		2.8		7				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						-	-	-	-		-		-		-		-		-						
					Bottom	4.6	-	-	17.8	17.8	7.9	7.9	34.2	34.2	96.3	96.4	7.5	7.5	4.7	4.7	7				7
						4.6	-	-	17.8		7.9		34.2		96.4		7.5		4.7		8				

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									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
C1	Rainy	Moderate	10:14	8.0	Surface	1.0	0.3	28	17.3	17.3	7.9	7.9	31.8	31.8	95.8	95.9	7.6	7.6	8.3	9.4	7	9	815622	804251	
						1.0	0.3	26	17.3		7.9		31.8		95.9		7.6		9.1		7				
					Middle	4.0	0.4	52	17.3	17.3	7.9	7.9	31.8	31.8	96.1	96.1	7.6	7.6	9.3	7.6	9				
						4.0	0.3	52	17.3		7.9		31.8		96.1		7.6		9.5		9				
					Bottom	7.0	0.3	57	17.1	17.1	7.9	7.9	32.0	32.0	100.0	100.1	8.0	8.0	10.2	8.0	10.2	8.0			9
						7.0	0.4	59	17.0		7.9		32.1		100.2		8.0		10.2		10				
C2	Rainy	Moderate	11:25	11.2	Surface	1.0	0.3	356	17.5	17.5	7.9	7.9	31.4	31.4	96.3	96.3	7.6	7.6	3.4	7.9	7	825676	806926		
						1.0	0.3	351	17.5		7.9		31.4		96.3		7.6		3.4		8				
					Middle	5.6	0.2	359	17.4	17.4	7.9	7.9	31.4	31.4	96.2	96.2	7.6	7.6	9.5	7.6	8				
						5.6	0.2	0	17.4		7.9		31.4		96.2		7.6		10.0		9				
					Bottom	10.2	0.3	333	17.4	17.4	7.9	7.9	31.3	31.3	97.7	97.8	7.8	7.8	10.9	7.8	10.9			7.8	10
						10.2	0.3	329	17.4		7.9		31.3		97.8		7.8		10.1		9				
C3	Rainy	Moderate	09:34	10.3	Surface	1.0	0.4	275	17.9	17.9	8.0	8.0	34.4	34.4	94.9	94.9	7.3	7.3	2.5	3.9	8	822119	817788		
						1.0	0.4	269	17.9		8.0		34.4		94.9		7.3		2.5		9				
					Middle	5.2	0.4	267	17.9	17.9	7.9	7.9	34.4	34.4	94.5	94.5	7.3	7.3	2.6	7.3	9				
						5.2	0.4	270	17.9		7.9		34.4		94.5		7.3		2.7		8				
					Bottom	9.3	0.5	241	17.9	17.9	7.9	7.9	34.5	34.5	94.3	94.3	7.3	7.3	6.6	7.3	6.6			7.3	7
						9.3	0.5	243	17.9		7.9		34.5		94.3		7.3		6.6		8				
IM1	Rainy	Moderate	10:40	6.8	Surface	1.0	0.2	2	17.3	17.3	7.9	7.9	31.8	31.8	96.3	96.3	7.6	7.6	10.3	9.8	8	818343	806462		
						1.0	0.2	4	17.3		7.9		31.8		96.3		7.6		10.6		8				
					Middle	3.4	0.3	12	17.3	17.3	7.9	7.9	31.8	31.8	96.4	96.4	7.7	7.7	8.5	7.7	7				
						3.4	0.3	8	17.3		7.9		31.8		96.4		7.7		8.8		6				
					Bottom	5.8	0.3	4	17.3	17.3	7.9	7.9	31.8	31.8	97.3	97.4	7.7	7.7	10.4	7.7	6				
						5.8	0.3	9	17.3		7.9		31.8		97.4		7.7		10.2		7				
IM2	Rainy	Moderate	10:45	7.0	Surface	1.0	0.3	7	17.3	17.3	7.9	7.9	31.7	31.7	96.5	96.6	7.7	7.7	6.9	8.0	6	819177	806244		
						1.0	0.3	11	17.3		7.9		31.7		96.6		7.7		7.0		6				
					Middle	3.5	0.3	359	17.3	17.3	7.9	7.9	31.7	31.7	96.8	96.9	7.7	7.7	7.5	7.7	7				
						3.5	0.3	359	17.3		7.9		31.7		96.9		7.7		7.8		6				
					Bottom	6.0	0.2	42	17.3	17.3	7.9	7.9	31.7	31.7	98.0	98.1	7.8	7.8	9.4	7.8	7				
						6.0	0.2	40	17.3		7.9		31.7		98.1		7.8		9.6		7				
IM7	Rainy	Moderate	11:04	8.2	Surface	1.0	0.2	14	17.4	17.4	7.9	7.9	31.6	31.6	96.3	96.3	7.6	7.6	6.8	6.8	8	821358	806819		
						1.0	0.2	19	17.4		7.9		31.6		96.3		7.6		6.8		9				
					Middle	4.1	0.2	35	17.4	17.4	7.9	7.9	31.6	31.6	96.7	96.8	7.7	7.7	7.0	7.7	9				
						4.1	0.2	34	17.4		7.9		31.6		96.8		7.7		6.9		8				
					Bottom	7.2	0.2	8	17.4	17.4	7.9	7.9	31.6	31.6	98.0	98.1	7.8	7.8	6.7	7.8	6				
						7.2	0.2	10	17.4		7.9		31.6		98.2		7.8		6.8		7				

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is **bolded and underlined**

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

Water Quality Monitoring

Water Quality Monitoring Results on 10 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA		
IM10	Rainy	Moderate	11:01	7.9	Surface	1.0	0.2	293	17.8	17.8	7.9	7.9	34.1	34.1	96.1	96.1	7.4	7.4	6.5	5.7	6	7	822221	809829				
						1.0	0.2	287	17.8		7.9	7.9	34.1	34.1	96.1	96.1	7.5		6.5									
					Middle	4.0	0.3	290	17.8	17.8	7.9	7.9	34.1	34.1	95.6	95.6	7.4	7.4	4.9	7.4	7							
						4.0	0.3	294	17.8		7.9	7.9	34.1	34.1	95.6	95.6	7.4		4.9									
					Bottom	6.9	0.2	287	17.8	17.8	7.9	7.9	34.1	34.1	95.7	95.7	7.4	7.4	5.7	7.4	7.4				5.7	7.4	7.4	5.7
						6.9	0.2	289	17.8		7.9	7.9	34.1	34.1	95.7	95.7	7.4		5.7									
IM11	Rainy	Moderate	10:49	7.3	Surface	1.0	0.3	284	17.8	17.8	7.9	7.9	34.2	34.2	96.3	96.3	7.5	7.5	4.8	4.5	7	8	821518	810545				
						1.0	0.3	283	17.8		7.9	7.9	34.2	34.2	96.3	96.3	7.5		4.7									
					Middle	3.7	0.3	276	17.8	17.8	7.9	7.9	34.2	34.2	95.9	95.9	7.4	7.4	4.0	7.4	8							
						3.7	0.3	272	17.8		7.9	7.9	34.2	34.2	95.9	95.9	7.4		4.1									
					Bottom	6.3	0.3	273	17.8	17.8	7.9	7.9	34.2	34.2	95.9	95.9	7.4	7.4	4.5	7.4	7.4				4.5	7.4	7.4	4.5
						6.3	0.3	272	17.8		7.9	7.9	34.2	34.2	95.9	95.9	7.4		4.6									
IM12	Rainy	Moderate	10:42	7.1	Surface	1.0	0.3	292	17.8	17.8	7.9	7.9	34.2	34.2	95.5	95.5	7.4	7.4	7.8	7.5	11	9	821180	811524				
						1.0	0.4	295	17.8		7.9	7.9	34.2	34.2	95.5	95.5	7.4		7.7									
					Middle	3.6	0.3	281	17.8	17.8	7.9	7.9	34.2	34.2	95.3	95.4	7.4	7.4	8.3	7.4	9							
						3.6	0.3	286	17.8		7.9	7.9	34.2	34.2	95.4	95.4	7.4		8.3									
					Bottom	6.1	0.3	270	17.8	17.8	7.9	7.9	34.2	34.2	95.4	95.4	7.4	7.4	6.4	7.4	7.4				6.4	7.4	7.4	6.4
						6.1	0.3	270	17.8		7.9	7.9	34.2	34.2	95.4	95.4	7.4		6.5									
SR1A	Rainy	Calm	10:06	4.9	Surface	1.0	0.0	194	17.9	17.9	7.9	7.9	34.4	34.4	95.6	95.7	7.4	7.4	4.5	4.1	8	8	819971	812663				
						1.0	0.0	191	17.9		7.9	7.9	34.4	34.4	95.7	95.7	7.4		4.5									
					Middle	2.5	0.1	193	-	-	-	-	-	-	-	-	-	-	-	-	-							
						2.5	0.0	191	-		-	-	-	-	-	-	-		-									
					Bottom	3.9	0.0	188	17.9	17.9	7.9	7.9	34.5	34.5	96.3	96.4	7.4	7.5	3.7	7.5	9							
						3.9	0.1	183	17.9		7.9	7.9	34.5	34.5	96.4	96.4	7.5		3.7									
SR2	Rainy	Moderate	09:53	4.2	Surface	1.0	0.0	281	17.8	17.8	8.0	8.0	34.1	34.1	95.8	95.8	7.4	7.4	4.7	5.3	7	8	821455	814142				
						1.0	0.0	287	17.8		8.0	8.0	34.1	34.1	95.8	95.8	7.4		4.6									
					Middle	-	0.0	307	-	-	-	-	-	-	-	-	-	-	-	-	-							
						-	0.0	310	-		-	-	-	-	-	-	-		-									
					Bottom	3.2	0.1	313	17.8	17.8	8.0	8.0	34.2	34.2	95.6	95.7	7.4	7.4	6.0	7.4	6.0							
						3.2	0.0	314	17.8		8.0	8.0	34.2	34.2	95.7	95.7	7.4		6.0									
SR3	Rainy	Moderate	11:10	9.0	Surface	1.0	0.2	342	17.4	17.4	7.9	7.9	31.4	31.4	96.3	96.3	7.6	7.6	4.0	4.6	9	10	822144	807564				
						1.0	0.2	345	17.4		7.9	7.9	31.4	31.4	96.2	96.2	7.6		4.0									
					Middle	4.5	0.3	333	17.4	17.4	7.9	7.9	31.5	31.5	96.2	96.2	7.6	7.6	4.7	7.6	9							
						4.5	0.3	333	17.4		7.9	7.9	31.5	31.5	96.2	96.2	7.6		4.8									
					Bottom	8.0	0.3	329	17.4	17.4	7.9	7.9	31.5	31.5	97.5	97.6	7.7	7.8	5.3	7.8	10							
						8.0	0.3	323	17.4		7.9	7.9	31.5	31.5	97.7	97.6	7.8		5.2									
SR4A	Rainy	Moderate	09:44	9.4	Surface	1.0	0.0	189	17.5	17.5	7.9	7.9	31.8	31.8	94.7	94.7	7.5	7.5	4.5	4.5	8	7	817178	807787				
						1.0	0.0	182	17.5		7.9	7.9	31.8	31.8	94.7	94.7	7.5		4.6									
					Middle	4.7	0.1	172	17.5	17.5	7.8	7.8	31.7	31.7	94.7	94.7	7.5	7.5	4.5	7.5	8							
						4.7	0.0	166	17.5		7.8	7.8	31.7	31.7	94.7	94.7	7.5		4.5									
					Bottom	8.4	0.0	211	17.5	17.5	7.8	7.8	31.5	31.5	95.7	95.9	7.6	7.6	4.6	7.6	7							
						8.4	0.0	211	17.5		7.8	7.8	31.5	31.5	96.0	96.0	7.6		4.6									
SR8	Rainy	Calm	10:34	4.5	Surface	1.0	-	-	19.2	19.2	7.9	7.9	33.7	33.7	96.7	96.7	7.3	7.3	3.8	6.6	6	7	820384	811637				
						1.0	-	-	19.2		7.9	7.9	33.7	33.7	96.7	96.7	7.3		3.9									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
						-	-	-	-		-	-	-	-	-	-	-		-									
					Bottom	3.5	-	-	17.9	17.9	7.9	7.9	34.2	34.2	96.0	96.1	7.4	7.4	9.3	7.4	7.4				9.3	7.4	7.4	9.3
						3.5	-	-	17.9		7.9	7.9	34.2	34.2	96.1	96.1	7.4		9.2									

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Water Quality Monitoring

Water Quality Monitoring Results on 12 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Rough	16:19	8.3	Surface	1.0	0.1	218	17.6	17.6	8.0	8.0	32.2	32.2	96.6	96.6	7.6	7.6	8.9	9.7	4	4	815598	804257
						1.0	0.1	211	17.6		8.0		32.2		96.5		7.6		9.0		4			
					Middle	4.2	0.1	210	17.6	8.0	8.0	32.2	32.2	96.3	96.3	7.6	7.6	9.1	4					
						4.2	0.1	217	17.6	8.0	8.0	32.2	32.2	96.3	96.3	7.6	7.6	9.3	4					
					Bottom	7.3	0.1	195	17.6	8.0	8.0	32.2	32.2	96.5	96.5	7.6	7.6	11.0	5					
						7.3	0.1	199	17.6	8.0	8.0	32.2	32.2	96.5	96.5	7.6	7.6	11.2	4					
C2	Cloudy	Rough	14:41	11.3	Surface	1.0	0.0	9	17.5	17.5	7.8	7.8	31.4	31.4	95.7	95.7	7.6	7.6	3.1	5.3	6	6	825664	806964
						1.0	0.0	12	17.5		7.8		31.4		95.7		7.6		3.1		6			
					Middle	5.7	0.0	0	17.5	7.7	7.7	31.4	31.4	95.5	95.5	7.6	7.6	4.6	6					
						5.7	0.0	5	17.5	7.7	7.7	31.4	31.4	95.5	95.5	7.6	7.6	4.8	6					
					Bottom	10.3	0.1	31	17.5	7.7	7.7	31.4	31.4	95.6	95.6	7.6	7.6	8.0	7					
						10.3	0.1	37	17.5	7.7	7.7	31.4	31.4	95.6	95.6	7.6	7.6	8.4	6					
C3	Misty	Calm	16:05	9.4	Surface	1.0	0.2	82	18.1	18.2	7.9	7.9	34.5	34.5	94.3	94.4	7.2	7.3	1.2	1.6	4	5	822105	817811
						1.0	0.3	78	18.2		7.9		34.5		94.4		7.2		1.1		4			
					Middle	4.7	0.3	70	18.3	7.9	7.9	34.5	34.4	95.0	95.1	7.3	7.3	1.7	5					
						4.7	0.3	63	18.3	7.9	7.9	34.4	34.4	95.2	95.2	7.3	7.3	1.6	5					
					Bottom	8.4	0.2	83	18.3	7.9	7.9	34.4	34.4	95.8	96.0	7.3	7.4	2.0	5					
						8.4	0.3	88	18.4	7.9	7.9	34.4	34.4	96.2	96.0	7.4	7.4	2.1	5					
IM1	Cloudy	Rough	15:49	6.4	Surface	1.0	0.1	169	17.6	17.6	8.0	8.0	32.1	32.1	96.5	96.5	7.6	7.6	10.1	10.3	5	4	818328	806446
						1.0	0.0	169	17.6		8.0		32.1		96.5		7.6		10.2		5			
					Middle	3.2	0.1	168	17.6	8.0	8.0	32.1	32.1	96.4	96.4	7.6	7.6	10.4	4					
						3.2	0.1	161	17.6	8.0	8.0	32.1	32.1	96.4	96.4	7.6	7.6	10.3	4					
					Bottom	5.4	0.0	159	17.6	8.0	8.0	32.1	32.0	96.4	96.4	7.6	7.6	10.6	4					
						5.4	0.0	156	17.6	8.0	8.0	32.0	32.0	96.4	96.4	7.6	7.6	10.3	4					
IM2	Cloudy	Rough	15:42	6.9	Surface	1.0	0.0	100	17.6	17.6	8.0	8.0	32.1	32.1	95.9	95.9	7.5	7.6	9.2	11.0	4	4	819172	806243
						1.0	0.0	94	17.6		8.0		32.1		95.9		7.5		9.3		4			
					Middle	3.5	0.1	108	17.6	8.0	8.0	32.1	32.1	96.1	96.1	7.6	7.6	11.2	4					
						3.5	0.1	103	17.6	8.0	8.0	32.1	32.1	96.1	96.1	7.6	7.6	11.3	5					
					Bottom	5.9	0.0	81	17.6	8.0	8.0	32.1	32.1	96.5	96.5	7.6	7.6	12.2	4					
						5.9	0.0	75	17.6	8.0	8.0	32.1	32.1	96.5	96.5	7.6	7.6	12.5	4					
IM7	Cloudy	Rough	15:23	8.3	Surface	1.0	0.1	61	17.6	17.6	8.0	8.0	31.8	31.8	96.5	96.5	7.6	7.6	6.7	7.3	5	5	821329	806829
						1.0	0.1	56	17.6		8.0		31.8		96.5		7.6		7.0		4			
					Middle	4.2	0.1	88	17.7	8.0	8.0	31.9	31.9	96.6	96.7	7.6	7.6	7.4	6					
						4.2	0.1	88	17.6	8.0	8.0	31.9	31.9	96.7	96.7	7.6	7.6	7.4	5					
					Bottom	7.3	0.1	47	17.7	7.9	7.9	32.0	32.0	97.3	97.3	7.7	7.7	7.7	6					
						7.3	0.2	43	17.7	7.9	7.9	32.0	32.0	97.3	97.3	7.7	7.7	7.7	6					

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Water Quality Monitoring

Water Quality Monitoring Results on 12 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Misty	Calm	14:40	8.4	Surface	1.0	0.1	45	18.0	18.0	8.0	8.0	34.2	34.2	97.1	97.1	7.5	7.5	1.1	7.5	7	6	822218	809855			
						1.0	0.1	43	18.0	8.0	8.0	34.2	34.2	97.1	97.1	7.5	7.5	1.2	7.5	6							
					Middle	4.2	0.0	38	18.0	8.0	8.0	34.2	34.2	97.1	97.1	7.5	7.5	2.1	7.5	6							
						4.2	0.1	39	18.0	8.0	8.0	34.2	34.2	97.1	97.1	7.5	7.5	2.1	7.5	5							
					Bottom	7.4	0.0	59	18.0	8.0	8.0	34.2	34.2	97.3	97.3	7.5	7.5	3.2	7.5	5							
						7.4	0.0	65	18.0	8.0	8.0	34.2	34.2	97.3	97.3	7.5	7.5	3.2	7.5	5							
IM11	Misty	Calm	15:11	10.0	Surface	1.0	0.1	92	18.0	18.0	8.0	8.0	34.1	34.1	98.9	98.9	7.6	7.6	5.9	7.7	4	5	821501	810535			
						1.0	0.2	86	18.0	8.0	8.0	34.1	34.1	98.9	98.9	7.6	7.6	5.8	7.7	4							
					Middle	5.0	0.1	67	18.0	8.0	8.0	34.1	34.1	99.4	99.5	7.7	7.7	6.1	7.7	5							
						5.0	0.1	74	18.0	8.0	8.0	34.1	34.1	99.6	99.5	7.7	7.7	6.0	7.7	5							
					Bottom	9.0	0.1	63	18.1	8.0	8.0	34.0	34.0	100.7	100.8	7.8	7.8	7.0	7.8	6							
						9.0	0.2	65	18.1	8.0	8.0	34.0	34.0	100.8	100.8	7.8	7.8	7.1	7.8	7							
IM12	Misty	Calm	15:15	9.0	Surface	1.0	0.1	75	18.1	18.1	8.0	8.0	34.2	34.2	100.5	100.6	7.8	7.8	1.0	7.8	6	5	821141	811522			
						1.0	0.0	77	18.1	8.0	8.0	34.2	34.2	100.7	100.6	7.8	7.8	1.0	7.8	5							
					Middle	4.5	0.1	78	18.1	8.0	8.0	34.2	34.1	101.2	101.3	7.8	7.8	1.9	7.8	4							
						4.5	0.1	80	18.1	8.0	8.0	34.1	34.1	101.4	101.3	7.8	7.8	1.8	7.8	6							
					Bottom	8.0	0.1	96	18.1	8.0	8.0	34.1	34.2	101.9	102.0	7.9	7.9	2.7	7.9	5							
						8.0	0.1	94	18.1	8.0	8.0	34.2	34.2	102.1	102.0	7.9	7.9	2.6	7.9	4							
SR1A	Misty	Calm	15:34	5.2	Surface	1.0	0.0	41	18.2	18.2	7.9	7.9	34.2	34.2	96.8	96.8	7.4	7.4	4.7	7.4	5	6	819974	812654			
						1.0	0.0	37	18.2	7.9	7.9	34.2	34.2	96.8	96.8	7.4	7.4	4.7	7.4	6							
					Middle	2.6	0.0	31	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
						2.6	0.0	29	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
					Bottom	4.2	0.0	37	18.2	7.9	7.9	34.2	34.2	96.8	96.8	7.4	7.4	5.7	7.4	6							
						4.2	0.0	41	18.2	7.9	7.9	34.2	34.2	96.8	96.8	7.4	7.4	5.7	7.4	6							
SR2	Misty	Calm	15:45	4.8	Surface	1.0	0.1	72	18.3	18.3	7.9	7.9	34.0	34.0	99.6	99.7	7.7	7.7	3.4	7.7	6	6	821478	814171			
						1.0	0.2	69	18.3	7.9	7.9	33.9	34.0	99.8	99.7	7.7	7.7	3.4	7.7	7							
					Middle	-	0.1	47	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
						-	0.1	51	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
					Bottom	3.8	0.1	68	18.5	8.0	8.0	33.9	33.8	100.6	100.7	7.7	7.7	4.1	7.7	5							
						3.8	0.1	72	18.5	8.0	8.0	33.8	33.8	100.8	100.7	7.7	7.7	4.1	7.7	4							
SR3	Cloudy	Rough	15:17	9.0	Surface	1.0	0.0	42	17.6	17.6	8.0	8.0	31.4	31.4	95.2	95.2	7.5	7.5	4.4	7.5	6	9	822138	807568			
						1.0	0.0	35	17.6	8.0	8.0	31.5	31.4	95.2	95.2	7.5	7.5	4.5	7.5	7							
					Middle	4.5	0.1	55	17.6	8.0	8.0	31.7	31.7	95.2	95.2	7.5	7.5	6.1	7.5	9							
						4.5	0.0	53	17.6	8.0	8.0	31.7	31.7	95.2	95.2	7.5	7.5	6.5	7.5	9							
					Bottom	8.0	0.0	28	17.6	8.0	8.0	31.9	31.9	95.6	95.7	7.5	7.5	8.3	7.5	11							
						8.0	0.0	21	17.6	8.0	8.0	31.9	31.9	95.7	95.7	7.5	7.5	8.2	7.5	10							
SR4A	Cloudy	Rough	16:54	9.2	Surface	1.0	0.0	13	17.9	17.9	8.0	8.0	32.1	32.1	96.4	96.4	7.6	7.6	8.7	7.6	5	6	817194	807825			
						1.0	0.1	6	17.9	8.0	8.0	32.1	32.1	96.4	96.4	7.6	7.6	8.8	7.6	6							
					Middle	4.6	0.0	6	17.9	8.0	8.0	32.1	32.1	96.2	96.2	7.5	7.5	9.0	7.5	6							
						4.6	0.0	8	17.9	8.0	8.0	32.1	32.1	96.2	96.2	7.5	7.5	9.1	7.5	6							
					Bottom	8.2	0.0	5	17.9	8.0	8.0	32.1	32.1	96.2	96.2	7.5	7.5	9.0	7.5	6							
						8.2	0.0	0	17.9	8.0	8.0	32.1	32.1	96.2	96.2	7.5	7.5	9.0	7.5	7							
SR8	Misty	Calm	15:19	5.4	Surface	1.0	-	-	18.1	18.1	8.0	8.0	34.2	34.2	101.2	101.4	7.8	7.8	1.3	7.8	6	6	820384	811612			
						1.0	-	-	18.1	8.0	8.0	34.2	34.2	101.5	101.4	7.8	7.8	1.4	7.8	7							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	4
					Bottom	4.4	-	-	18.1	8.0	8.0	34.1	34.1	102.1	102.2	7.9	7.9	2.5	7.9	5							
						4.4	-	-	18.1	8.0	8.0	34.1	34.1	102.2	102.2	7.9	7.9	2.5	7.9	4							

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 12 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA	
C1	Cloudy	Moderate	11:12	8.2	Surface	1.0	0.3	46	17.6	17.6	7.9	7.9	32.1	32.1	95.9	95.9	7.6	7.6	7.6	7.6	9.1	9.1	5	4	815634	804249	
						1.0	0.3	47	17.6	7.9	7.9	32.1	32.1	95.9	95.9	7.6	7.6	7.6	7.6	9.1	9.1	5					
					Middle	4.1	0.3	17	17.6	17.6	17.6	7.9	7.9	32.1	32.1	95.8	95.8	7.5	7.5	7.5	7.5	9.5	9.5				4
						4.1	0.4	16	17.6	17.6	17.6	7.9	7.9	32.1	32.1	95.8	95.8	7.5	7.5	7.5	7.5	9.6	9.6				5
					Bottom	7.2	0.4	8	17.6	17.6	17.6	7.9	7.9	32.0	32.0	96.0	96.0	7.6	7.6	7.6	7.6	9.0	9.0				3
						7.2	0.4	13	17.6	17.6	17.6	7.9	7.9	32.0	32.0	96.0	96.0	7.6	7.6	7.6	7.6	8.8	8.8				4
C2	Cloudy	Rough	12:36	11.8	Surface	1.0	0.3	345	17.6	17.6	8.0	8.0	31.4	31.4	94.6	94.6	7.5	7.5	7.5	7.5	2.6	2.6	6	6	825691	806931	
						1.0	0.3	337	17.6	17.6	8.0	8.0	31.4	31.4	94.5	94.5	7.5	7.5	7.5	7.5	2.6	2.6	6				
					Middle	5.9	0.3	3	17.6	17.6	17.6	8.0	8.0	31.4	31.4	94.4	94.4	7.5	7.5	7.5	7.5	2.7	2.7				6
						5.9	0.3	359	17.6	17.6	17.6	8.0	8.0	31.4	31.4	94.4	94.4	7.5	7.5	7.5	7.5	2.7	2.7				7
					Bottom	10.8	0.3	15	17.6	17.6	17.6	8.0	8.0	31.4	31.4	94.2	94.2	7.5	7.5	7.5	7.5	5.4	5.4				6
						10.8	0.4	11	17.6	17.6	17.6	8.0	8.0	31.4	31.4	94.2	94.2	7.5	7.5	7.5	7.5	5.9	5.9				7
C3	Rainy	Moderate	11:37	11.8	Surface	1.0	0.4	251	18.0	18.0	8.0	8.0	34.6	34.6	91.7	91.7	7.1	7.1	7.1	7.1	2.1	2.1	7	6	822088	817785	
						1.0	0.4	249	18.0	18.0	8.0	8.0	34.6	34.6	91.7	91.7	7.1	7.1	7.1	7.1	2.2	2.2	6				
					Middle	5.9	0.4	245	18.0	18.0	18.0	8.0	8.0	34.6	34.6	91.7	91.7	7.1	7.1	7.1	7.1	2.9	2.9				6
						5.9	0.4	244	18.0	18.0	18.0	8.0	8.0	34.6	34.6	91.7	91.7	7.1	7.1	7.1	7.1	2.9	2.9				6
					Bottom	10.8	0.4	257	18.0	18.0	18.0	8.0	8.0	34.6	34.6	91.8	91.8	7.1	7.1	7.1	7.1	3.5	3.5				4
						10.8	0.4	256	18.0	18.0	18.0	8.0	8.0	34.6	34.6	91.8	91.8	7.1	7.1	7.1	7.1	3.5	3.5				5
IM1	Cloudy	Moderate	11:35	6.9	Surface	1.0	0.2	14	17.6	17.6	8.0	8.0	32.0	32.0	95.4	95.4	7.5	7.5	7.5	7.5	10.1	10.1	4	5	818335	806450	
						1.0	0.2	12	17.6	17.6	8.0	8.0	32.0	32.0	95.4	95.4	7.5	7.5	7.5	7.5	10.0	10.0	4				
					Middle	3.5	0.2	20	17.5	17.5	17.5	8.0	8.0	32.0	31.9	95.5	95.5	7.5	7.5	7.5	7.5	8.6	8.6				5
						3.5	0.3	16	17.5	17.5	17.5	8.0	8.0	31.9	31.9	95.5	95.5	7.5	7.5	7.5	7.5	8.9	8.9				5
					Bottom	5.9	0.2	9	17.6	17.6	17.6	8.0	8.0	31.9	31.9	95.9	96.0	7.6	7.6	7.6	7.6	8.6	8.6				5
						5.9	0.2	2	17.6	17.6	17.6	8.0	8.0	31.9	31.9	96.0	96.0	7.6	7.6	7.6	7.6	8.1	8.1				6
IM2	Cloudy	Moderate	11:39	7.3	Surface	1.0	0.2	15	17.6	17.6	8.0	8.0	31.9	31.9	96.2	96.2	7.6	7.6	7.6	7.6	8.6	8.6	5	6	819188	806252	
						1.0	0.2	20	17.6	17.6	8.0	8.0	31.9	31.9	96.2	96.2	7.6	7.6	7.6	7.6	8.7	8.7	5				
					Middle	3.7	0.3	28	17.5	17.5	17.5	8.0	8.0	31.9	31.9	96.3	96.3	7.6	7.6	7.6	7.6	9.5	9.5				6
						3.7	0.3	21	17.5	17.5	17.5	8.0	8.0	31.9	31.9	96.3	96.3	7.6	7.6	7.6	7.6	9.6	9.6				6
					Bottom	6.3	0.3	24	17.5	17.5	17.5	8.0	8.0	31.9	31.9	96.6	96.6	7.6	7.6	7.6	7.6	10.8	10.8				6
						6.3	0.2	18	17.5	17.5	17.5	8.0	8.0	31.9	31.9	96.6	96.6	7.6	7.6	7.6	7.6	10.9	10.9				7
IM7	Cloudy	Rough	12:00	7.7	Surface	1.0	0.2	359	17.5	17.5	8.0	8.0	31.4	31.4	96.0	96.0	7.6	7.6	7.6	7.6	4.5	4.5	6	5	821338	806845	
						1.0	0.2	359	17.5	17.5	8.0	8.0	31.4	31.4	96.0	96.0	7.6	7.6	7.6	7.6	4.5	4.5	5				
					Middle	3.9	0.2	2	17.5	17.5	17.5	8.0	8.0	31.4	31.4	96.0	96.0	7.6	7.6	7.6	7.6	4.7	4.7				5
						3.9	0.2	356	17.5	17.5	17.5	8.0	8.0	31.4	31.4	96.0	96.0	7.6	7.6	7.6	7.6	4.7	4.7				5
					Bottom	6.7	0.2	4	17.5	17.5	17.5	8.0	8.0	31.4	31.4	96.4	96.4	7.6	7.6	7.6	7.6	4.4	4.4				5
						6.7	0.2	5	17.5	17.5	17.5	8.0	8.0	31.4	31.4	96.4	96.4	7.6	7.6	7.6	7.6	4.4	4.4				5

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 12 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Rainy	Moderate	12:46	9.0	Surface	1.0	0.2	323	18.0	18.0	7.9	7.9	34.2	34.2	97.8	97.9	7.5	7.6	4.4	5.5	6	7	822244	809846				
						1.0	0.2	318	18.0		7.9		34.2		98.0		7.6		4.4		6							
					Middle	4.5	0.2	303	18.0	7.9	7.9	34.2	34.2	98.7	98.8	7.6	7.6	5.1	6									
						4.5	0.2	300	18.0	7.9	34.2	34.2	98.9	98.8	7.6	7.6	5.2	7										
					Bottom	8.0	0.2	303	18.1	7.9	7.9	34.1	34.1	100.6	100.7	7.8	7.8	6.9	7									
						8.0	0.1	300	18.1	7.9	34.1	34.1	100.8	100.7	7.8	7.8	7.0	8										
IM11	Rainy	Moderate	12:36	7.6	Surface	1.0	0.2	292	18.0	18.0	7.9	7.9	34.2	34.2	99.0	99.2	7.6	7.7	3.9	4.3	6	6	821512	810532				
						1.0	0.2	289	18.0		7.9		34.2		99.3		7.7		3.8		6							
					Middle	3.8	0.2	294	18.0	7.9	7.9	34.2	34.2	99.9	100.0	7.7	7.7	4.0	6									
						3.8	0.3	291	18.0	7.9	34.2	34.2	100.1	100.0	7.7	7.7	4.0	6										
					Bottom	6.6	0.2	302	18.0	7.9	7.9	34.2	34.2	100.8	100.9	7.8	7.8	5.1	6									
						6.6	0.2	298	18.0	7.9	34.2	34.2	101.0	100.9	7.8	7.8	5.2	6										
IM12	Rainy	Moderate	12:33	7.4	Surface	1.0	0.2	272	18.0	18.0	7.9	7.9	34.2	34.2	98.0	98.1	7.6	7.6	1.4	2.5	6	7	821176	811502				
						1.0	0.2	265	18.0		7.9		34.2		98.2		7.6		1.5		6							
					Middle	3.7	0.2	291	18.0	7.9	7.9	34.2	34.1	98.9	99.1	7.6	7.6	2.6	6									
						3.7	0.2	289	18.1	7.9	34.1	34.1	99.2	99.1	7.7	7.7	2.6	7										
					Bottom	6.4	0.3	265	18.1	7.9	7.9	34.1	34.1	100.1	100.2	7.7	7.7	3.4	7									
						6.4	0.3	271	18.1	7.9	34.1	34.1	100.3	100.2	7.7	7.7	3.4	8										
SR1A	Rainy	Moderate	12:12	4.0	Surface	1.0	0.0	183	18.1	18.1	7.9	7.9	34.2	34.2	99.3	99.5	7.6	7.7	8.7	9.1	5	5	819973	812665				
						1.0	0.0	184	18.1		7.9		34.2		99.6		7.7		8.7		5							
					Middle	2.0	0.0	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
						2.0	-	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
					Bottom	3.0	0.0	179	18.2	7.9	7.9	34.2	33.8	100.5	100.7	7.7	7.8	9.4	4									
						3.0	0.1	185	18.2	7.9	33.5	33.8	100.8	100.7	7.8	7.8	9.5	4										
SR2	Rainy	Moderate	12:01	4.6	Surface	1.0	0.1	256	18.0	18.0	8.0	8.0	34.1	34.1	97.5	97.6	7.5	7.5	3.7	4.0	4	5	821472	814149				
						1.0	0.1	249	18.0		8.0		34.1		97.6		7.5		3.8		5							
					Middle	-	0.0	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
						-	0.1	233	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
					Bottom	3.6	0.1	256	18.0	8.0	8.0	34.1	34.1	97.8	97.9	7.6	7.6	4.2	6									
						3.6	0.2	261	18.0	8.0	34.1	34.1	98.0	97.9	7.6	7.6	4.2	5										
SR3	Cloudy	Rough	12:07	8.9	Surface	1.0	0.3	349	17.5	17.5	8.0	8.0	31.4	31.4	95.4	95.4	7.6	7.6	4.1	4.0	6	6	822147	807577				
						1.0	0.2	343	17.5		8.0		31.4		95.4		7.6		4.1		5							
					Middle	4.5	0.3	346	17.5	8.0	8.0	31.5	31.5	95.4	95.5	7.6	7.6	4.0	5									
						4.5	0.2	347	17.5	8.0	31.5	31.5	95.5	95.5	7.6	7.6	4.0	6										
					Bottom	7.9	0.3	5	17.5	8.0	8.0	31.5	31.5	95.6	95.7	7.6	7.6	4.0	6									
						7.9	0.2	9	17.5	8.0	31.5	31.5	95.7	95.7	7.6	7.6	4.0	6										
SR4A	Cloudy	Moderate	10:46	8.8	Surface	1.0	0.0	226	17.7	17.7	8.0	8.0	31.5	31.5	95.1	95.1	7.5	7.5	5.9	5.9	6	5	817188	807790				
						1.0	0.0	219	17.7		8.0		31.5		95.0		7.5		5.9		5							
					Middle	4.4	0.0	229	17.6	8.0	8.0	31.5	31.5	94.6	94.6	7.5	7.5	5.9	5									
						4.4	0.0	228	17.6	8.0	31.5	31.5	94.6	94.6	7.5	7.5	6.0	6										
					Bottom	7.8	0.0	204	17.6	7.9	7.9	31.4	31.4	94.7	94.8	7.5	7.5	5.8	5									
						7.8	0.0	211	17.6	7.9	31.4	31.4	94.8	94.8	7.5	7.5	5.9	5										
SR8	Rainy	Moderate	12:28	5.4	Surface	1.0	-	-	18.2	18.2	7.9	7.9	34.1	34.1	100.0	100.2	7.7	7.7	2.2	2.8	4	5	820413	811624				
						1.0	-	-	18.2		7.9		34.1		100.3		7.7		2.2		4							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	
					Bottom	4.4	-	-	18.3	18.3	7.9	7.9	34.0	34.0	101.2	101.4	7.8	7.8	3.1	3.5	6							
						4.4	-	-	18.3		7.9		34.0		101.5		7.8		3.5		6							

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Foggy	Rough	18:24	8.5	Surface	1.0	0.2	225	17.8	8.1	8.1	32.5	32.5	94.2	94.2	7.3	7.3	8.1	9.0	3	2	815623	804266	
						1.0	0.2	225	17.8	8.1	8.1	32.5	32.5	94.1	94.1	7.3	7.3	8.2	3					
					Middle	4.3	0.3	195	17.8	8.1	8.1	32.5	32.5	93.9	93.9	7.3	7.3	8.3	2					
						4.3	0.3	199	17.8	8.1	8.1	32.5	32.5	93.9	93.9	7.3	7.3	8.5	2					
					Bottom	7.5	0.3	200	17.8	8.1	8.1	32.5	32.4	94.1	94.1	7.3	7.3	10.2	<2					
						7.5	0.3	197	17.8	8.1	8.1	32.4	32.4	94.1	94.1	7.3	7.3	10.4	<2					
C2	Foggy	Moderate	16:32	11.8	Surface	1.0	0.1	162	17.7	7.9	7.9	31.6	31.6	93.3	93.3	7.3	7.3	2.3	4.6	<2	3	825662	806961	
						1.0	0.1	164	17.7	7.9	7.9	31.6	31.6	93.3	93.3	7.3	7.3	2.4	<2					
					Middle	5.9	-	174	17.7	7.8	7.8	31.7	31.7	93.1	93.1	7.3	7.3	3.8	2					
						5.9	0.0	181	17.7	7.8	7.8	31.7	31.7	93.1	93.1	7.3	7.3	4.0	3					
					Bottom	10.8	0.0	173	17.7	7.8	7.8	31.7	31.7	93.2	93.2	7.3	7.3	7.3	3					
						10.8	0.0	172	17.7	7.8	7.8	31.7	31.7	93.2	93.2	7.3	7.3	7.6	3					
C3	Foggy	Moderate	18:08	11.9	Surface	1.0	0.2	94	18.0	8.0	8.0	32.2	32.2	91.8	91.9	7.2	7.2	4.3	4.8	3	3	822092	817793	
						1.0	0.2	88	18.1	8.0	8.0	32.2	32.2	91.9	91.9	7.2	7.2	4.3	3					
					Middle	6.0	0.2	95	18.2	8.0	8.0	32.1	32.1	92.5	92.6	7.2	7.2	4.8	2					
						6.0	0.2	90	18.2	8.0	8.0	32.1	32.1	92.7	92.7	7.2	7.2	4.8	3					
					Bottom	10.9	0.2	74	18.2	8.0	8.0	32.0	32.0	93.3	93.3	7.3	7.3	5.2	2					
						10.9	0.2	79	18.3	8.0	8.0	32.0	32.0	93.7	93.5	7.3	7.3	5.2	2					
IM1	Foggy	Moderate	17:47	6.4	Surface	1.0	0.1	177	17.8	8.2	8.2	32.3	32.3	94.1	94.1	7.4	7.3	9.3	9.5	2	2	818330	806444	
						1.0	0.1	169	17.8	8.2	8.2	32.3	32.3	94.1	94.1	7.3	7.3	9.4	2					
					Middle	3.2	0.1	188	17.8	8.2	8.2	32.3	32.3	94.0	94.0	7.3	7.3	9.6	2					
						3.2	0.1	185	17.8	8.2	8.2	32.3	32.3	94.0	94.0	7.3	7.3	9.5	2					
					Bottom	5.4	0.1	183	17.8	8.1	8.1	32.3	32.3	94.0	94.0	7.3	7.3	9.8	2					
						5.4	0.0	176	17.8	8.1	8.1	32.3	32.3	94.0	94.0	7.3	7.3	9.6	2					
IM2	Foggy	Moderate	17:40	6.9	Surface	1.0	0.1	167	17.8	8.1	8.1	32.4	32.4	93.5	93.5	7.3	7.3	8.4	10.2	<2	2	819192	806238	
						1.0	0.1	165	17.8	8.1	8.1	32.4	32.4	93.5	93.5	7.3	7.3	8.6	<2					
					Middle	3.5	0.1	190	17.8	8.1	8.1	32.4	32.4	93.7	93.7	7.3	7.3	10.4	2					
						3.5	0.1	189	17.8	8.1	8.1	32.4	32.4	93.7	93.7	7.3	7.3	10.6	2					
					Bottom	5.9	0.1	183	17.8	8.1	8.1	32.4	32.4	94.1	94.1	7.4	7.4	11.5	2					
						5.9	0.1	179	17.8	8.1	8.1	32.4	32.4	94.1	94.1	7.4	7.4	11.7	3					
IM7	Foggy	Moderate	17:22	8.1	Surface	1.0	0.1	120	17.8	8.1	8.1	32.1	32.1	94.1	94.1	7.4	7.4	6.0	6.6	3	2	821353	806857	
						1.0	0.1	118	17.8	8.1	8.1	32.1	32.1	94.1	94.1	7.4	7.4	6.3	2					
					Middle	4.1	0.1	109	17.9	8.1	8.1	32.2	32.2	94.2	94.3	7.4	7.4	6.6	2					
						4.1	0.1	112	17.8	8.1	8.1	32.2	32.2	94.3	94.3	7.4	7.4	6.7	3					
					Bottom	7.1	0.0	122	17.9	8.1	8.1	32.2	32.2	94.9	94.9	7.4	7.4	7.0	<2					
						7.1	0.0	121	17.9	8.1	8.1	32.2	32.2	94.9	94.9	7.4	7.4	7.0	<2					

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)							
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA									
IM10	Foggy	Moderate	16:42	8.1	Surface	1.0	0.1	70	17.9	17.9	8.0	8.0	31.8	31.8	94.6	94.6	7.5	7.5	4.3	5.3	<2	3	822261	809827							
						1.0	0.2	67	17.9		8.0	8.0	31.8	31.8	94.6	94.6	7.5		4.3		<2										
					Middle	4.1	0.2	62	17.9	17.9	8.0	8.0	31.8	31.8	94.6	94.6	7.5	7.5	5.3	2											
						4.1	0.1	59	17.9		8.0	8.0	31.8	31.8	94.6	94.6	7.5		5.3	3											
					Bottom	7.1	0.1	89	17.9	17.9	8.0	8.0	31.8	31.8	94.8	94.8	7.5	7.5	6.4	4											
						7.1	0.1	87	17.9		8.0	8.0	31.8	31.8	94.8	94.8	7.5		6.4	3											
IM11	Foggy	Moderate	17:13	8.2	Surface	1.0	0.2	94	17.9	17.9	8.0	8.0	31.7	31.7	96.4	96.4	7.6	7.6	9.0	8.8	<2	2	821511	810531							
						1.0	0.2	90	17.9		8.0	8.0	31.7	31.7	96.4	96.4	7.6		9.0		<2										
					Middle	4.1	0.2	100	17.9	17.9	8.0	8.0	31.7	31.7	96.9	97.0	7.6	7.6	9.3	2											
						4.1	0.2	95	17.9		8.0	8.0	31.7	31.7	97.1	97.0	7.7		9.2	2											
					Bottom	7.2	0.2	101	18.0	18.0	8.0	8.0	31.6	31.6	98.2	98.3	7.7	7.7	8.2	2											
						7.2	0.2	105	18.0		8.0	8.0	31.7	31.6	98.3	98.3	7.7		8.2	2											
IM12	Foggy	Moderate	17:17	8.6	Surface	1.0	0.2	90	18.0	18.0	8.0	8.0	31.8	31.8	98.0	98.1	7.7	7.8	4.2	5.0	2	3	821179	811536							
						1.0	0.2	92	18.0		8.0	8.0	31.8	31.8	98.2	98.1	7.7		4.2		2										
					Middle	4.3	0.2	92	18.0	18.0	8.0	8.0	31.8	31.8	98.7	98.8	7.8	7.8	5.0	3											
						4.3	0.2	87	18.0		8.0	8.0	31.8	31.8	98.9	98.8	7.8		5.0	3											
					Bottom	7.6	0.1	108	18.0	18.0	8.0	8.0	31.8	31.8	99.4	99.5	7.8	7.8	5.9	2											
						7.6	0.2	105	18.0		8.0	8.0	31.8	31.8	99.6	99.5	7.8		5.8	3											
SR1A	Foggy	Moderate	17:36	5.2	Surface	1.0	0.0	98	18.1	18.1	8.0	8.0	31.9	31.9	94.3	94.3	7.4	7.4	7.8	8.3	2	2	819976	812666							
						1.0	0.0	92	18.1		8.0	8.0	31.9	31.9	94.3	94.3	7.4		7.8		2										
					Middle	2.6	0.0	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2	819976	812666		
						2.6	0.0	91	-		-	-	-	-	-	-	-	-	-	-	-	-			-	-				-	
					Bottom	4.2	0.0	69	18.1	18.1	8.0	8.0	31.8	31.8	94.3	94.3	7.4	7.4	8.9	3											
						4.2	0.1	63	18.1		8.0	8.0	31.8	31.8	94.3	94.3	7.4		8.9	2											
SR2	Foggy	Moderate	17:47	4.6	Surface	1.0	0.2	48	18.2	18.2	8.0	8.0	31.6	31.6	97.1	97.2	7.6	7.6	6.5	6.9	2	3	821463	814142							
						1.0	0.2	54	18.2		8.0	8.0	31.6	31.6	97.3	97.2	7.6		6.5		2										
					Middle	-	0.2	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	3	821463	814142
						-	0.2	28	-		-	-	-	-	-	-	-	-	-	-	-	-			-	-					
					Bottom	3.6	0.2	62	18.4	18.4	8.0	8.0	31.5	31.5	98.1	98.2	7.7	7.7	7.3	3											
						3.6	0.2	63	18.4		8.0	8.0	31.4	31.5	98.3	98.2	7.7		7.3	3											
SR3	Foggy	Moderate	17:15	8.9	Surface	1.0	0.2	177	17.8	17.8	8.1	8.1	31.7	31.7	92.8	92.8	7.3	7.3	3.7	5.6	3	3	822156	807559							
						1.0	0.2	180	17.8		8.1	8.1	31.7	31.7	92.8	92.8	7.3		3.7		2										
					Middle	4.5	0.1	157	17.8	17.8	8.1	8.1	31.9	32.0	92.8	92.8	7.3	7.3	5.4	3											
						4.5	0.1	154	17.8		8.1	8.1	32.0	32.0	92.8	92.8	7.3		5.7	2											
					Bottom	7.9	0.1	138	17.8	17.8	8.1	8.1	32.2	32.2	93.2	93.3	7.3	7.3	7.5	3											
						7.9	0.1	141	17.8		8.1	8.1	32.2	32.2	93.3	93.3	7.3		7.4	3											
SR4A	Foggy	Rough	19:00	9.0	Surface	1.0	0.1	339	18.1	18.1	8.1	8.1	32.4	32.4	94.0	94.0	7.3	7.3	7.9	8.2	2	3	817188	807824							
						1.0	0.1	345	18.1		8.1	8.1	32.4	32.4	94.0	94.0	7.3		8.0		2										
					Middle	4.5	0.0	329	18.1	18.1	8.1	8.1	32.4	32.4	93.8	93.8	7.3	7.3	8.2	3											
						4.5	0.0	322	18.1		8.1	8.1	32.4	32.4	93.8	93.8	7.3		8.4	2											
					Bottom	8.0	0.0	349	18.1	18.1	8.1	8.1	32.4	32.4	93.8	93.8	7.3	7.3	8.2	3											
						8.0	0.0	341	18.1		8.1	8.1	32.4	32.4	93.8	93.8	7.3		8.2	3											
SR8	Foggy	Moderate	17:22	4.9	Surface	1.0	-	-	18.0	18.0	8.0	8.0	31.8	31.8	98.7	98.9	7.8	7.8	4.5	5.1	2	2	820393	811600							
						1.0	-	-	18.0		8.0	8.0	31.8	31.8	99.0	99.0	7.8		4.5		2										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	2	820393	811600
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-			-	-					
					Bottom	3.9	-	-	18.0	18.0	8.0	8.0	31.8	31.7	99.6	99.7	7.8	7.8	5.7	2											
						3.9	-	-	18.0		8.0	8.0	31.7	31.7	99.7	99.7	7.8		5.7	2											

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Water Quality Monitoring

Water Quality Monitoring Results on 14 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Foggy	Moderate	11:43	8.3	Surface	1.0	0.2	42	17.8	17.8	8.1	8.1	32.4	32.4	93.5	93.5	7.3	7.3	8.4	8.4	2	2	815611	804257		
						1.0	0.2	42	17.8		8.1		32.4		93.5		7.3		8.3		2					
					Middle	4.2	0.3	22	17.8	17.8	8.0	8.0	32.4	32.4	93.4	93.4	7.3	7.3	8.7	7.3	8.8	7.3			2	2
						4.2	0.2	26	17.8		8.0		32.4		93.4		7.3		8.8		2					
					Bottom	7.3	0.3	41	17.8	17.8	8.0	8.0	32.3	32.3	93.6	93.6	7.3	7.3	8.2	7.3	8.1	7.3			<2	<2
						7.3	0.3	39	17.8		8.0		32.3		93.6		7.3		8.1		<2					
C2	Foggy	Moderate	13:37	11.3	Surface	1.0	0.3	352	17.8	17.8	8.1	8.1	31.7	31.7	92.2	92.2	7.2	7.2	1.8	2.9	3	2	825673	806938		
						1.0	0.3	357	17.8		8.1		31.7		92.1		7.2		1.9		2					
					Middle	5.7	0.3	352	17.8	17.8	8.1	8.1	31.7	31.7	92.0	92.0	7.2	7.2	1.9	7.2	1.9	7.2			2	2
						5.7	0.3	350	17.8		8.1		31.7		92.0		7.2		1.9		2					
					Bottom	10.3	0.3	330	17.8	17.8	8.1	8.1	31.7	31.7	91.8	91.8	7.2	7.2	4.7	7.2	5.2	7.2			2	2
						10.3	0.3	333	17.8		8.1		31.7		91.8		7.2		5.2		2					
C3	Foggy	Moderate	12:17	12.2	Surface	1.0	0.5	267	17.8	17.8	8.0	8.0	32.4	32.4	88.5	88.5	7.0	7.0	3.3	4.1	2	2	822086	817798		
						1.0	0.4	260	17.8		8.0		32.4		88.5		7.0		3.4		3					
					Middle	6.1	0.5	276	17.8	17.8	8.0	8.0	32.4	32.4	88.5	88.5	7.0	7.0	4.1	7.0	4.1	7.0			2	2
						6.1	0.4	275	17.8		8.0		32.4		88.5		7.0		4.1		2					
					Bottom	11.2	0.4	264	17.8	17.8	8.0	8.0	32.4	32.4	88.6	88.6	7.0	7.0	4.7	7.0	4.7	7.0			2	2
						11.2	0.4	262	17.8		8.0		32.4		88.6		7.0		4.7		2					
IM1	Foggy	Moderate	12:06	6.4	Surface	1.0	0.1	19	17.8	17.8	8.1	8.1	32.2	32.2	93.0	93.0	7.3	7.3	9.3	8.3	2	3	818361	806444		
						1.0	0.2	19	17.8		8.1		32.2		93.0		7.3		9.2		2					
					Middle	3.2	0.1	356	17.7	17.7	8.1	8.1	32.2	32.2	93.1	93.1	7.3	7.3	7.8	7.3	8.1	7.3			2	2
						3.2	0.1	354	17.7		8.1		32.2		93.1		7.3		8.1		2					
					Bottom	5.4	0.2	2	17.8	17.8	8.1	8.1	32.2	32.2	93.5	93.6	7.3	7.3	7.9	7.3	7.3	7.3			3	3
						5.4	0.1	0	17.8		8.1		32.2		93.6		7.3		7.3		4					
IM2	Foggy	Moderate	12:10	6.7	Surface	1.0	0.2	6	17.8	17.8	8.1	8.1	32.2	32.2	93.8	93.8	7.3	7.4	7.9	8.9	2	3	819196	806233		
						1.0	0.2	12	17.8		8.1		32.2		93.8		7.3		7.9		3					
					Middle	3.4	0.2	18	17.7	17.7	8.1	8.1	32.2	32.2	93.9	93.9	7.4	7.4	8.8	7.4	8.9	7.4			3	3
						3.4	0.2	16	17.7		8.1		32.2		93.9		7.4		8.9		3					
					Bottom	5.7	0.2	21	17.7	17.7	8.1	8.1	32.2	32.2	94.2	94.2	7.4	7.4	10.1	7.4	10.2	7.4			4	3
						5.7	0.1	21	17.7		8.1		32.2		94.2		7.4		10.2		3					
IM7	Foggy	Moderate	12:31	7.8	Surface	1.0	0.2	331	17.7	17.7	8.1	8.1	31.7	31.7	93.6	93.6	7.4	7.4	3.7	3.7	3	3	821334	806814		
						1.0	0.1	325	17.7		8.1		31.7		93.6		7.4		3.7		3					
					Middle	3.9	0.2	320	17.7	17.7	8.1	8.1	31.7	31.7	93.6	93.6	7.4	7.4	3.9	7.4	3.9	7.4			3	3
						3.9	0.1	326	17.7		8.1		31.7		93.6		7.4		3.9		3					
					Bottom	6.8	0.2	335	17.7	17.7	8.1	8.1	31.7	31.7	94.0	94.0	7.4	7.4	3.6	7.4	3.6	7.4			3	3
						6.8	0.2	334	17.7		8.1		31.7		94.0		7.4		3.6		4					

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is **bolded and underlined**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)						
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA				
IM10	Foggy	Moderate	13:26	8.6	Surface	1.0	0.3	285	17.8	17.8	8.0	8.0	32.0	32.0	94.6	94.7	7.4	7.5	5.7	6.7	2	3	822238	809834						
						1.0	0.3	284	17.8		8.0	8.0	32.0	32.0	94.8	94.7	7.5		5.6		2									
					Middle	4.3	0.2	311	17.8	17.8	8.0	8.0	32.0	32.0	95.5	95.6	7.5	7.7	6.3	7.7	3	7.7			3	7.7	822238	809834		
						4.3	0.2	316	17.8		8.0	8.0	32.0	32.0	95.7	95.6	7.5		6.4		3									
					Bottom	7.6	0.3	280	17.9	17.9	8.0	8.0	31.9	31.9	97.4	97.5	7.7	7.7	8.1	7.7	3	7.7			3	7.7			822238	809834
						7.6	0.3	278	17.9		8.0	8.0	31.9	31.9	97.6	97.5	7.7		8.2		4									
IM11	Foggy	Moderate	13:16	7.8	Surface	1.0	0.4	275	17.8	17.8	8.0	8.0	32.0	32.0	95.8	95.9	7.5	7.6	5.1	5.6	2	2	821502	810562						
						1.0	0.4	279	17.8		8.0	8.0	32.0	32.0	96.1	96.8	7.6		5.1		3									
					Middle	3.9	0.4	281	17.8	17.8	8.0	8.0	32.0	32.0	96.7	96.8	7.6	7.7	5.2	7.7	2	7.7			2	7.7	821502	810562		
						3.9	0.4	287	17.8		8.0	8.0	32.0	32.0	96.9	96.8	7.6		5.3		2									
					Bottom	6.8	0.4	281	17.8	17.8	8.0	8.0	32.0	32.0	97.6	97.7	7.7	7.7	6.3	7.7	<2	7.7			<2	7.7			821502	810562
						6.8	0.4	284	17.8		8.0	8.0	32.0	32.0	97.8	97.7	7.7		6.4		<2									
IM12	Foggy	Moderate	13:13	8.4	Surface	1.0	0.4	282	17.8	17.8	8.0	8.0	32.0	32.0	94.8	94.9	7.5	7.5	2.7	3.7	2	3	821169	811530						
						1.0	0.3	288	17.8		8.0	8.0	32.0	32.0	95.0	94.9	7.5		2.7		2									
					Middle	4.2	0.3	300	17.8	17.9	8.0	8.0	32.0	32.0	95.7	95.8	7.5	7.6	3.8	7.6	3	7.6			3	7.6	821169	811530		
						4.2	0.3	306	17.9		8.0	8.0	32.0	32.0	96.0	95.8	7.5		3.9		4									
					Bottom	7.4	0.4	289	17.9	17.9	8.0	8.0	31.9	31.9	96.9	97.0	7.6	7.6	4.6	7.6	5	7.6			5	7.6			821169	811530
						7.4	0.3	291	17.9		8.0	8.0	31.9	31.9	97.1	97.0	7.6		4.6		4									
SR1A	Foggy	Moderate	12:52	5.2	Surface	1.0	0.0	215	17.9	17.9	7.9	7.9	32.1	32.1	96.1	96.2	7.6	7.6	9.9	10.3	2	3	819980	812665						
						1.0	0.0	208	17.9		7.9	7.9	32.1	32.1	96.4	96.2	7.6		9.9		3									
					Middle	2.6	0.0	192	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	819980	812665		
						2.6	0.0	197	-		-	-	-	-	-	-	-		-		-				-					
					Bottom	4.2	0.1	213	18.0	18.0	7.9	7.9	32.0	31.7	97.3	97.4	7.6	7.7	10.7	7.7	3	7.7			3	7.7			819980	812665
						4.2	0.1	217	18.0		7.9	7.9	31.3	31.7	97.6	97.4	7.7		10.7		3									
SR2	Foggy	Moderate	12:41	4.6	Surface	1.0	0.1	228	17.8	17.8	8.0	8.0	32.0	32.0	94.3	94.3	7.4	7.4	5.0	5.2	3	3	821480	814142						
						1.0	0.1	224	17.8		8.0	8.0	32.0	32.0	94.4	94.3	7.4		5.0		3									
					Middle	-	0.1	216	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	821480	814142		
						-	0.1	209	-		-	-	-	-	-	-	-		-		-									
					Bottom	3.6	0.1	255	17.8	17.8	8.0	8.0	32.0	32.0	94.6	94.7	7.5	7.5	5.5	7.5	3	7.5			3	7.5			821480	814142
						3.6	0.1	254	17.8		8.0	8.0	32.0	32.0	94.8	94.7	7.5		5.4		3									
SR3	Foggy	Moderate	12:53	8.6	Surface	1.0	0.3	343	17.7	17.7	8.1	8.1	31.7	31.7	93.0	93.0	7.3	7.3	3.3	3.3	3	3	822149	807560						
						1.0	0.3	343	17.7		8.1	8.1	31.7	31.7	93.0	93.0	7.3		3.4		2									
					Middle	4.3	0.2	323	17.7	17.7	8.1	8.1	31.7	31.7	93.0	93.1	7.3	7.3	3.3	7.3	2	7.3			2	7.3	822149	807560		
						4.3	0.2	329	17.7		8.1	8.1	31.7	31.7	93.1	93.1	7.3		3.3		2									
					Bottom	7.6	0.2	318	17.7	17.7	8.1	8.1	31.7	31.7	93.2	93.3	7.3	7.3	3.2	7.3	3	7.3			3	7.3			822149	807560
						7.6	0.2	316	17.7		8.1	8.1	31.7	31.7	93.3	93.3	7.3		3.2		3									
SR4A	Foggy	Moderate	11:01	8.9	Surface	1.0	0.0	267	17.9	17.9	8.1	8.1	31.8	31.8	92.7	92.7	7.3	7.3	5.1	5.1	<2	2	817172	807791						
						1.0	0.0	272	17.9		8.1	8.1	31.8	31.8	92.6	92.7	7.3		5.1		<2									
					Middle	4.5	0.1	272	17.8	17.8	8.1	8.1	31.8	31.8	92.2	92.2	7.2	7.3	5.2	7.3	2	7.3			2	7.3	817172	807791		
						4.5	0.1	271	17.8		8.1	8.1	31.8	31.8	92.2	92.2	7.2		5.2		2									
					Bottom	7.9	0.0	243	17.8	17.8	8.1	8.1	31.7	31.7	92.3	92.4	7.3	7.3	5.0	7.3	3	7.3			3	7.3			817172	807791
						7.9	0.0	240	17.8		8.1	8.1	31.7	31.7	92.4	92.4	7.3		5.1		3									
SR8	Foggy	Moderate	13:08	4.9	Surface	1.0	-	-	18.0	18.0	8.0	8.0	32.0	32.0	96.8	96.9	7.6	7.6	3.4	4.0	2	3	820374	811599						
						1.0	-	-	18.0		8.0	8.0	31.9	31.9	97.1	96.9	7.6		3.4		2									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	820374	811599		
						-	-	-	-		-	-	-	-	-	-	-		-		-									
					Bottom	3.9	-	-	18.1	18.1	8.0	8.0	31.9	31.9	98.0	98.1	7.7	7.7	4.4	7.7	3	7.7			3	7.7			820374	811599
						3.9	-	-	18.1		8.0	8.0	31.9	31.9	98.3	98.1	7.7		4.7		4									

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	08:27	8.6	Surface	1.0	0.2	206	16.5	16.5	7.9	7.9	31.7	31.7	98.1	98.2	7.9	8.0	6.2	6.2	5	5	815609	804255
						1.0	0.3	206	16.5		7.9		31.7		98.3		7.9				3.7			
					Middle	4.3	0.2	221	16.5	8.0	8.0	31.6	31.6	99.6	99.7	8.0	8.1	6.3	6.6	6	4			
						4.3	0.2	225	16.4	8.0	8.0	31.6	31.6	99.7	99.7	8.0	8.1	6.3	6.6	6	4			
					Bottom	7.6	0.2	194	16.4	8.0	8.0	31.5	31.5	100.1	100.1	8.1	8.1	8.3	8.6	5	6			
						7.6	0.3	187	16.4	8.0	8.0	31.5	31.5	100.1	100.1	8.1	8.1	8.3	8.6	5	6			
C2	Cloudy	Moderate	09:49	11.2	Surface	1.0	0.4	168	17.1	17.1	7.9	7.9	31.4	31.4	91.4	91.3	7.3	7.3	3.6	3.6	2	2	825673	806933
						1.0	0.4	164	17.1		7.9		31.4		91.1		7.3				0.7			
					Middle	5.6	0.3	177	17.4	7.9	7.9	31.8	31.9	91.2	91.4	7.2	7.2	0.6	0.6	2	2			
						5.6	0.4	184	17.4	7.9	7.9	31.9	31.9	91.5	91.4	7.2	7.2	0.6	0.6	2	2			
					Bottom	10.2	0.3	180	17.4	8.0	8.0	31.9	31.9	92.4	92.5	7.3	7.3	9.7	9.6	3	2			
						10.2	0.4	176	17.4	8.0	8.0	31.9	31.9	92.6	92.5	7.3	7.3	9.7	9.6	3	2			
C3	Misty	Calm	09:08	12.0	Surface	1.0	0.2	69	17.7	17.7	7.6	7.6	34.3	34.3	90.6	90.6	7.0	7.0	1.9	1.9	2	2	822114	817812
						1.0	0.2	73	17.7		7.6		34.3		90.6		7.0				1.1			
					Middle	6.0	0.1	74	17.8	7.6	7.6	34.4	34.4	90.8	90.9	7.0	7.0	1.7	1.7	2	2			
						6.0	0.1	72	17.8	7.6	7.6	34.4	34.4	90.9	90.9	7.0	7.0	1.7	1.7	2	2			
					Bottom	11.0	0.2	90	17.8	7.6	7.6	34.4	34.4	91.0	91.3	7.0	7.1	3.0	3.0	2	2			
						11.0	0.2	90	17.8	7.6	7.6	34.4	34.4	91.6	91.3	7.1	7.1	3.0	3.0	2	2			
IM1	Cloudy	Moderate	08:50	6.5	Surface	1.0	0.1	194	16.6	16.6	7.9	7.9	31.6	31.6	97.7	97.7	7.9	7.9	2.6	2.6	4	4	818350	806436
						1.0	0.1	193	16.6		7.9		31.6		97.7		7.9				2.9			
					Middle	3.3	0.2	181	16.6	7.9	7.9	31.6	31.6	97.7	97.7	7.9	7.9	2.2	2.2	4	5			
						3.3	0.2	184	16.6	7.9	7.9	31.6	31.6	97.7	97.7	7.9	7.9	2.2	2.2	4	5			
					Bottom	5.5	0.2	209	16.6	8.0	8.0	31.7	31.7	99.0	99.2	8.0	8.0	2.6	2.6	4	4			
						5.5	0.2	211	16.6	8.0	8.0	31.7	31.7	99.3	99.2	8.0	8.0	2.6	2.6	4	4			
IM2	Cloudy	Moderate	08:54	6.8	Surface	1.0	0.2	197	16.7	16.7	7.9	7.9	31.5	31.5	96.8	96.9	7.8	7.8	2.1	2.1	6	5	819189	806248
						1.0	0.2	200	16.7		7.9		31.5		96.9		7.8				1.9			
					Middle	3.4	0.2	200	16.7	7.9	7.9	31.6	31.6	97.6	97.7	7.8	7.8	2.0	2.0	6	5			
						3.4	0.2	202	16.7	7.9	7.9	31.6	31.6	97.7	97.7	7.9	7.9	2.0	2.0	5	5			
					Bottom	5.8	0.2	197	16.7	8.0	8.0	31.9	31.9	99.0	99.2	7.9	8.0	2.4	2.4	3	3			
						5.8	0.2	192	16.7	8.0	8.0	31.9	31.9	99.3	99.2	8.0	8.0	2.5	2.5	3	3			
IM7	Cloudy	Moderate	09:17	8.2	Surface	1.0	0.2	194	16.8	16.8	8.0	8.0	31.0	31.0	96.4	96.5	7.8	7.9	4.7	4.7	3	4	821366	806841
						1.0	0.2	188	16.8		8.0		31.0		96.5		7.8				1.4			
					Middle	4.1	0.2	193	16.8	8.0	8.0	31.1	31.1	97.9	98.2	7.9	7.9	1.7	1.7	4	4			
						4.1	0.2	197	16.8	8.0	8.0	31.1	31.1	98.4	98.2	7.9	7.9	1.7	1.7	4	4			
					Bottom	7.2	0.2	176	16.8	8.1	8.1	31.1	31.1	99.5	99.7	8.0	8.0	10.9	10.9	5	4			
						7.2	0.2	169	16.8	8.1	8.1	31.1	31.1	99.8	99.7	8.0	8.0	10.9	10.9	5	4			

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Water Quality Monitoring

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Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA			
IM10	Misty	Moderate	10:14	9.2	Surface	1.0	0.2	126	17.4	17.4	7.9	7.9	33.4	33.4	101.0	101.2	7.9	8.0	8.0	1.0	1.5	2	3	822236	809819				
						1.0	0.2	121	17.4		7.9		33.4		101.3		8.0					1.1				2			
					Middle	4.6	0.2	146	17.5	7.9	7.9	33.5	33.5	102.4	102.9	8.1	8.1	1.3	3										
						4.6	0.2	140	17.5	7.9	7.9	33.5	33.5	103.3	103.3	8.1	8.1	1.3	3										
					Bottom	8.2	0.2	121	17.4	7.9	7.9	33.6	33.6	110.0	110.3	8.6	8.7	2.2	4										
						8.2	0.2	116	17.2	7.9	7.9	33.5		110.5		8.7	8.7	2.2	3										
IM11	Misty	Calm	10:06	7.8	Surface	1.0	0.2	105	17.3	17.3	7.9	7.9	33.2	33.2	97.9	97.9	7.7	7.7	7.7	1.4	1.9	3	3	821496	810559				
						1.0	0.1	105	17.3		7.9		33.2		97.8		7.7					1.5				3			
					Middle	3.9	0.2	101	17.3	7.9	7.9	33.2	33.2	97.9	97.9	7.7	7.7	1.5	3										
						3.9	0.1	96	17.3	7.9	7.9	33.2	33.2	97.8	97.8	7.7	7.7	1.5	3										
					Bottom	6.8	0.2	99	17.4	7.9	7.9	33.6	33.6	100.1	101.3	7.8	7.9	2.7	2										
						6.8	0.2	103	17.4	7.9	7.9	33.5		102.5		8.0	8.0	2.6	3										
IM12	Misty	Calm	10:00	6.8	Surface	1.0	0.2	86	17.3	17.3	7.9	7.9	33.6	33.6	101.3	101.6	7.9	8.0	8.0	1.0	1.4	3	3	821166	811509				
						1.0	0.3	84	17.3		7.9		33.6		101.9		8.0					1.1				2			
					Middle	3.4	0.3	112	17.3	7.9	7.9	33.7	33.7	106.5	106.7	8.4	8.4	1.2	4										
						3.4	0.3	112	17.3	7.9	7.9	33.7	33.7	106.9	106.9	8.4	8.4	1.2	3										
					Bottom	5.8	0.2	79	17.2	7.9	7.9	33.7	33.7	107.7	108.5	8.5	8.6	2.0	4										
						5.8	0.2	77	17.3	7.9	7.9	33.7		109.3		8.6	8.6	2.0	3										
SR1A	Misty	Calm	09:40	5.6	Surface	1.0	0.1	46	17.4	17.4	7.8	7.8	33.6	33.6	93.5	93.5	7.3	7.3	7.3	1.9	2.3	3	3	819975	812657				
						1.0	0.0	49	17.4		7.8		33.6		93.4		7.3					1.8				2			
					Middle	2.8	0.0	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						2.8	0.0	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	4.6	0.0	80	17.4	7.8	7.8	33.6	33.6	92.8	92.8	7.3	7.3	2.7	3										
						4.6	0.0	83	17.5	7.8	7.8	33.7		92.7		7.2	7.3	2.7	3										
SR2	Misty	Calm	09:28	5.0	Surface	1.0	0.2	37	17.5	17.5	7.6	7.6	34.1	34.1	91.3	91.3	7.1	7.1	7.1	2.4	2.8	4	4	821471	814186				
						1.0	0.3	42	17.5		7.6		34.1		91.2		7.1					2.5				3			
					Middle	-	0.2	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						-	0.1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	4.0	0.2	56	17.6	7.6	7.6	34.2	34.2	90.9	90.9	7.1	7.1	3.1	4										
						4.0	0.3	52	17.6	7.6	7.6	34.2		90.9		7.1	7.1	3.2	5										
SR3	Cloudy	Moderate	09:22	8.6	Surface	1.0	0.3	157	16.8	16.8	8.0	8.0	31.0	31.0	95.8	95.8	7.7	7.7	7.7	0.7	1.0	3	4	822152	807566				
						1.0	0.2	152	16.8		8.0		31.0		95.8		7.7					0.7				3			
					Middle	4.3	0.2	165	16.8	8.1	8.1	31.0	31.0	97.3	97.4	7.8	7.8	0.9	4										
						4.3	0.2	165	16.8	8.1	8.1	31.0	31.0	97.5	97.5	7.8	7.8	0.9	4										
					Bottom	7.6	0.3	142	16.8	8.2	8.2	31.0	31.0	98.3	98.4	7.9	7.9	1.5	5										
						7.6	0.2	138	16.8	8.2	8.2	31.0		98.5		7.9	7.9	1.6	4										
SR4A	Cloudy	Moderate	08:00	9.0	Surface	1.0	0.0	310	16.6	16.6	8.1	8.1	31.0	31.0	95.0	95.0	7.7	7.7	7.7	3.9	4.7	7	7	817167	807824				
						1.0	0.0	314	16.6		8.1		31.0		95.0		7.7					3.9				8			
					Middle	4.5	0.0	304	16.8	8.0	8.0	31.3	31.3	95.0	95.0	7.6	7.6	4.4	7										
						4.5	0.0	309	16.8	8.0	8.0	31.3	31.3	95.0	95.0	7.6	7.6	4.6	7										
					Bottom	8.0	0.0	318	16.9	8.0	8.0	31.4	31.4	95.1	95.1	7.6	7.6	5.8	7										
						8.0	0.0	314	16.9	8.0	8.0	31.4		95.1		7.6	7.6	5.8	6										
SR8	Misty	Calm	09:56	4.6	Surface	1.0	-	-	17.5	17.5	7.9	7.9	33.7	33.7	106.7	106.8	8.3	8.4	8.4	2.7	3.0	<2	2	820391	811608				
						1.0	-	-	17.4		7.9		33.7		106.9		8.4					2.6				<2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
					Bottom	3.6	-	-	17.3	7.9	7.9	33.7	33.4	107.8	108.2	8.5	8.5	3.4	2										
						3.6	-	-	17.4	7.9	7.9	33.0		108.6		8.5	8.5	3.5	2										

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA			
C1	Cloudy	Moderate	14:01	8.4	Surface	1.0	0.2	46	16.7	16.7	8.1	8.1	32.1	32.1	99.5	99.5	8.0	8.1	2.0	5.8	3	2	815626	804266					
						1.0	0.1	43	16.7		8.1		32.1		99.5		8.0		2.0		3								
					Middle	4.2	0.3	36	16.7	16.7	8.1	8.1	32.1	32.1	101.7	101.8	8.1	8.2	6.2	8.2	2	8.2			2	8.2	2	2	
						4.2	0.2	31	16.7		8.1		32.1		101.9		8.2		6.5		2								
					Bottom	7.4	0.2	55	16.7	16.7	8.1	8.1	32.1	32.1	102.4	102.6	8.2	8.2	9.1	8.2	2	8.2			2	8.2	2	2	2
						7.4	0.2	60	16.7		8.1		32.1		102.7		8.2		9.2		2								
C2	Cloudy	Moderate	12:41	11.6	Surface	1.0	0.1	346	17.1	17.2	7.8	7.8	31.4	31.4	92.3	91.2	7.4	7.2	1.1	3.7	3	3	825683	806923					
						1.0	0.1	345	17.2		7.8		31.5		90.0		7.2		1.2		2								
					Middle	5.8	0.1	349	17.4	17.4	7.8	7.8	31.9	31.9	89.7	89.8	7.1	7.1	4.7	7.3	3	7.3			3	7.3	3	3	
						5.8	0.1	354	17.4		7.8		31.9		89.9		7.1		4.9		3								
					Bottom	10.6	0.1	359	17.4	17.4	7.8	7.8	31.9	31.8	91.8	92.0	7.3	7.3	5.1	7.3	3	7.3			3	7.3	3	3	3
						10.6	0.2	358	17.3		7.8		31.8		92.1		7.3		5.3		3								
C3	Misty	Calm	13:45	9.4	Surface	1.0	0.4	249	17.6	17.6	7.9	7.9	34.6	34.6	94.6	94.7	7.3	7.4	1.3	2.3	4	3	822116	817796					
						1.0	0.4	245	17.6		7.9		34.6		94.7		7.3		1.3		3								
					Middle	4.7	0.4	263	17.6	17.6	7.9	7.9	34.6	34.6	94.8	94.9	7.4	7.4	2.1	7.4	2	7.4			2	7.4	2	2	
						4.7	0.4	263	17.6		7.9		34.6		94.9		7.4		2.2		3								
					Bottom	8.4	0.3	280	17.6	17.6	8.0	8.0	34.6	34.6	95.0	95.4	7.4	7.4	3.4	7.4	2	7.4			2	7.4	2	2	
						8.4	0.2	287	17.6		8.0		34.6		95.7		7.4		3.3		2								
IM1	Cloudy	Moderate	13:39	6.4	Surface	1.0	0.1	9	16.6	16.6	8.1	8.1	31.8	31.8	99.1	99.1	8.0	8.0	1.5	1.7	2	2	818346	806478					
						1.0	0.1	13	16.6		8.1		31.8		99.1		8.0		1.5		2								
					Middle	3.2	0.1	3	16.6	16.6	8.1	8.1	31.8	31.8	99.7	99.8	8.0	8.0	1.7	8.0	2	8.0			2	8.0	2	2	
						3.2	0.1	8	16.6		8.1		31.8		99.9		8.0		1.7		3								
					Bottom	5.4	0.1	29	16.6	16.6	8.1	8.1	31.7	31.7	101.2	101.3	8.1	8.2	2.0	8.2	2	8.2			2	8.2	2	2	
						5.4	0.1	35	16.6		8.1		31.7		101.3		8.2		2.2		3								
IM2	Cloudy	Moderate	13:34	7.5	Surface	1.0	0.1	324	16.7	16.7	8.1	8.1	31.6	31.6	98.5	98.6	7.9	8.0	1.8	2.9	3	3	819185	806253					
						1.0	0.1	317	16.7		8.1		31.6		98.6		7.9		1.8		3								
					Middle	3.8	0.1	351	16.7	16.7	8.1	8.1	31.6	31.6	99.2	99.3	8.0	8.0	2.4	8.0	3	8.0			3	8.0	3		
						3.8	0.1	348	16.7		8.1		31.7		99.4		8.0		2.7		3								
					Bottom	6.5	0.1	333	16.7	16.7	8.1	8.1	31.8	31.8	101.4	101.6	8.1	8.2	4.2	8.2	2	8.2			2	8.2	2		
						6.5	0.0	331	16.7		8.1		31.8		101.7		8.2		4.4		2								
IM7	Cloudy	Moderate	13:16	7.7	Surface	1.0	0.1	273	16.8	16.8	8.0	8.0	31.0	31.0	96.8	96.9	7.8	7.9	0.9	1.1	6	6	821367	806814					
						1.0	0.0	267	16.8		8.0		31.0		96.9		7.8		0.9		6								
					Middle	3.9	0.1	293	16.8	16.8	8.0	8.0	31.0	31.0	97.6	97.7	7.9	7.9	1.1	8.1	6	8.1			6	8.1	6		
						3.9	0.2	297	16.8		8.0		31.1		97.7		7.9		1.1		6								
					Bottom	6.7	0.1	278	16.8	16.8	8.1	8.1	31.1	31.1	100.0	100.2	8.1	8.1	1.4	8.1	7	8.1			7	8.1	7		
						6.7	0.1	282	16.8		8.1		31.1		100.4		8.1		1.4		7								

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Misty	Calm	12:35	8.2	Surface	1.0	0.1	242	17.2	17.2	7.9	7.9	33.4	33.4	99.3	99.4	7.8	7.9	3.8	4.6	2	3	822220	809834
						1.0	0.1	237	17.2		7.9		33.4		99.5		7.8		3.7		2			
					Middle	4.1	0.1	262	17.2	17.2	7.9	7.9	33.5	33.5	99.9	100.0	7.9	7.9	4.8	3	3			
						4.1	0.1	255	17.2		7.9		33.5		100.0		7.9		4.9		3			
					Bottom	7.2	0.1	251	17.1	17.1	7.9	7.9	33.6	33.4	100.1	100.1	7.9	7.9	5.3	3	3			
						7.2	0.0	254	17.1		7.9		33.2		100.1		7.9		5.3		4			
IM11	Misty	Calm	12:45	9.0	Surface	1.0	0.2	259	17.3	17.3	8.0	8.0	33.2	33.2	105.3	105.5	8.3	8.4	1.3	2.4	<2	3	821484	810528
						1.0	0.1	258	17.3		8.0		33.2		105.6		8.3		1.3		<2			
					Middle	4.5	0.2	247	17.3	17.3	8.0	8.0	33.2	33.2	106.6	106.8	8.4	8.6	2.2	3	3			
						4.5	0.2	244	17.3		8.0		33.3		106.9		8.4		2.2		2			
					Bottom	8.0	0.2	273	17.3	17.4	8.0	8.0	33.3	33.2	107.8	108.5	8.5	8.6	3.6	3	3			
						8.0	0.2	279	17.4		8.0		33.2		109.2		8.6		3.6		3			
IM12	Misty	Calm	12:51	9.2	Surface	1.0	0.1	267	17.4	17.4	7.9	7.9	33.7	33.7	98.0	98.0	7.7	7.7	1.0	1.4	2	3	821162	811537
						1.0	0.1	269	17.4		7.9		33.8		98.0		7.7		1.1		2			
					Middle	4.6	0.2	275	17.4	17.4	7.9	7.9	33.8	33.8	98.4	98.5	7.7	7.7	1.2	3	3			
						4.6	0.2	278	17.4		7.9		33.8		98.5		7.7		1.1		3			
					Bottom	8.2	0.2	296	17.4	17.4	7.9	7.9	33.8	33.8	98.8	98.9	7.7	7.7	2.0	4	4			
						8.2	0.2	289	17.4		7.9		33.8		99.0		7.7		2.0		3			
SR1A	Misty	Calm	13:10	5.0	Surface	1.0	0.0	185	17.4	17.4	7.9	7.9	33.5	33.5	95.6	95.7	7.5	7.5	1.2	1.7	2	2	819976	812658
						1.0	0.0	183	17.4		7.9		33.5		95.7		7.5		1.2		2			
					Middle	2.5	0.1	195	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.5	0.1	201	-		-		-		-		-		-		-			
					Bottom	4.0	0.1	208	17.4	17.4	7.9	7.9	33.5	33.5	95.8	95.9	7.5	7.5	2.2	7.5	3			
						4.0	0.0	202	17.4		7.9		33.5		95.9		7.5		2.3		2			
SR2	Misty	Calm	13:22	5.8	Surface	1.0	0.1	339	17.6	17.6	7.9	7.9	34.2	34.2	103.1	103.4	8.0	8.1	2.6	3.3	2	3	821476	814186
						1.0	0.1	333	17.6		7.9		34.2		103.6		8.1		2.7		2			
					Middle	-	0.1	335	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	0.1	328	-		-		-		-		-		-		-			
					Bottom	4.8	0.1	338	17.6	17.6	7.9	7.9	34.1	34.1	106.0	106.6	8.2	8.3	3.9	8.3	4			
						4.8	0.0	339	17.6		7.9		34.1		107.1		8.3		3.8		4			
SR3	Cloudy	Moderate	13:08	8.6	Surface	1.0	0.1	315	16.9	16.9	8.0	8.0	31.0	31.0	96.2	96.3	7.7	7.8	0.8	0.9	5	4	822146	807571
						1.0	0.1	320	16.9		8.0		31.0		96.3		7.7		0.8		4			
					Middle	4.3	0.1	290	16.8	16.8	8.0	8.0	31.0	31.0	96.9	97.0	7.8	8.0	0.8	8.0	4			
						4.3	0.1	283	16.8		8.0		31.0		97.0		7.8		0.8		3			
					Bottom	7.6	0.1	280	16.9	16.9	8.1	8.1	31.0	31.0	99.7	99.9	8.0	8.0	1.1	8.0	3			
						7.6	0.1	285	16.9		8.1		31.0		100.0		8.0		1.2		2			
SR4A	Cloudy	Moderate	14:30	8.8	Surface	1.0	0.0	198	16.6	16.6	8.1	8.1	31.0	31.0	96.2	96.2	7.8	7.8	4.5	4.3	3	3	817188	807812
						1.0	0.0	196	16.6		8.1		31.1		96.2		7.8		4.3		2			
					Middle	4.4	0.0	188	16.8	16.8	8.2	8.2	31.4	31.4	96.6	96.7	7.8	7.8	3.8	8.0	3			
						4.4	0.0	190	16.8		8.2		31.4		96.7		7.8		3.9		3			
					Bottom	7.8	0.0	170	16.8	16.8	8.3	8.3	31.6	31.6	97.6	97.7	7.8	7.8	4.7	8.0	3			
						7.8	0.0	172	16.8		8.3		31.6		97.7		7.8		4.7		3			
SR8	Misty	Calm	12:56	5.2	Surface	1.0	-	-	17.4	17.4	7.9	7.9	33.6	33.6	104.7	104.9	8.2	8.2	1.3	1.9	2	3	820372	811646
						1.0	-	-	17.4		7.9		33.6		105.1		8.2		1.4		2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	4.2	-	-	17.4	17.4	7.9	7.9	33.2	33.3	106.7	107.6	8.4	8.5	2.4	8.5	3			
						4.2	-	-	17.4		8.0		33.5		108.4		8.5		2.4		3			

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)						
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA								
C1	Cloudy	Moderate	10:54	8.6	Surface	1.0	0.1	192	16.2	16.2	8.1	8.1	32.2	32.2	98.9	98.9	8.0	8.0	8.0	8.6	8.6	3	3	815629	804261					
						1.0	0.0	190	16.2	8.1	8.1	32.2	32.2	98.8	98.8	8.0	8.0													
					Middle	4.3	0.1	201	16.1	16.1	8.1	8.1	32.3	32.3	98.5	98.6	8.0	8.0	8.0	8.6	8.6	3	3			3	3	3	3	
						4.3	0.1	198	16.1	16.1	8.1	8.1	32.3	32.3	98.6	98.6	8.0	8.0												
					Bottom	7.6	0.1	226	16.0	16.0	8.1	8.1	32.2	32.2	98.8	98.8	8.0	8.0	8.0	8.6	8.6	3	3			3	3	3	3	3
						7.6	0.1	225	16.0	16.0	8.1	8.1	32.2	32.2	98.8	98.8	8.0	8.0												
C2	Cloudy	Moderate	12:21	11.2	Surface	1.0	0.2	166	16.5	16.5	8.1	8.1	31.7	31.7	97.7	97.8	7.9	7.9	8.0	2.4	2.4	3	3	825683	806948					
						1.0	0.2	160	16.5	16.5	8.1	8.1	31.7	31.7	97.8	97.8	7.9	7.9												
					Middle	5.6	0.2	161	16.3	16.3	8.2	8.2	31.8	31.8	98.6	98.7	8.0	8.0	8.0	2.4	2.4	3	3			3	3	3	3	
						5.6	0.2	155	16.3	16.3	8.2	8.2	31.9	31.9	98.7	98.7	8.0	8.0												
					Bottom	10.2	0.2	187	16.2	16.2	8.3	8.3	31.9	31.9	99.2	99.3	8.0	8.0	8.1	2.4	2.4	3	3			3	3	3	3	3
						10.2	0.2	191	16.2	16.2	8.3	8.3	31.9	31.9	99.4	99.3	8.1	8.1												
C3	Fine	Calm	11:06	11.8	Surface	1.0	0.2	93	17.3	17.3	7.9	7.9	34.7	34.7	98.1	98.1	7.6	7.6	7.7	5.3	5.3	3	3	822101	817819					
						1.0	0.2	99	17.3	17.3	7.9	7.9	34.7	34.7	98.1	98.1	7.7	7.7												
					Middle	5.9	0.2	76	17.3	17.3	7.9	7.9	34.7	34.7	98.5	98.6	7.7	7.7	7.7	5.3	5.3	3	3			3	3	3	3	
						5.9	0.1	79	17.3	17.3	7.9	7.9	34.7	34.7	98.7	98.7	7.7	7.7												
					Bottom	10.8	0.2	58	17.3	17.3	7.9	7.9	34.7	34.7	99.4	99.5	7.7	7.7	7.8	5.3	5.3	3	3			3	3	3	3	3
						10.8	0.1	64	17.3	17.3	7.9	7.9	34.7	34.7	99.6	99.5	7.8	7.8												
IM1	Cloudy	Moderate	11:19	6.6	Surface	1.0	0.1	182	16.2	16.2	8.1	8.1	32.1	32.1	100.2	100.2	8.1	8.1	8.1	3.8	3.8	3	3	818361	806443					
						1.0	0.1	183	16.2	16.2	8.1	8.1	32.1	32.1	100.2	100.2	8.1	8.1												
					Middle	3.3	0.0	196	16.0	16.0	8.2	8.2	32.2	32.2	99.1	99.1	8.0	8.0	8.1	3.8	3.8	3	3			3	3	3	3	
						3.3	0.1	203	16.0	16.0	8.2	8.2	32.2	32.2	99.1	99.1	8.0	8.0												
					Bottom	5.6	0.1	196	16.0	16.0	8.2	8.2	32.2	32.2	99.7	99.8	8.1	8.1	8.1	3.8	3.8	3	3			3	3	3	3	3
						5.6	0.1	201	16.0	16.0	8.2	8.2	32.2	32.2	99.9	99.8	8.1	8.1												
IM2	Cloudy	Moderate	11:24	7.1	Surface	1.0	0.1	168	16.2	16.2	8.1	8.1	32.1	32.1	100.2	100.2	8.1	8.1	8.1	3.1	3.1	3	3	819163	806253					
						1.0	0.1	172	16.2	16.2	8.1	8.1	32.1	32.1	100.1	100.1	8.1	8.1												
					Middle	3.6	0.1	185	16.0	16.0	8.1	8.1	32.2	32.2	99.6	99.6	8.1	8.1	8.1	3.1	3.1	3	3			3	3	3	3	
						3.6	0.1	187	16.0	16.0	8.1	8.1	32.2	32.2	99.5	99.5	8.1	8.1												
					Bottom	6.1	0.1	171	16.0	16.0	8.1	8.1	32.3	32.3	99.7	99.8	8.1	8.1	8.1	3.1	3.1	3	3			3	3	3	3	3
						6.1	0.1	175	16.0	16.0	8.1	8.1	32.3	32.3	99.8	99.8	8.1	8.1												
IM7	Cloudy	Moderate	11:45	7.3	Surface	1.0	0.1	168	16.3	16.3	8.1	8.1	32.1	32.1	100.4	100.4	8.1	8.1	8.1	2.0	2.0	3	3	821372	806843					
						1.0	0.0	166	16.3	16.3	8.1	8.1	32.1	32.1	100.4	100.4	8.1	8.1												
					Middle	3.7	0.1	176	16.1	16.1	8.2	8.2	32.2	32.2	100.4	100.4	8.1	8.1	8.1	2.0	2.0	3	3			3	3	3	3	
						3.7	0.0	182	16.1	16.1	8.2	8.2	32.2	32.2	100.4	100.4	8.1	8.1												
					Bottom	6.3	0.1	180	16.1	16.1	8.2	8.2	32.2	32.2	101.0	101.0	8.2	8.2	8.2	2.0	2.0	3	3			3	3	3	3	3
						6.3	0.0	182	16.1	16.1	8.2	8.2	32.2	32.2	101.1	101.1	8.2	8.2												

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Fine	Moderate	12:12	9.2	Surface	1.0	0.2	134	16.7	8.0	8.0	34.4	34.4	102.0	102.1	8.1	8.1	1.6	1.6	3	3	822444	809856					
						1.0	0.2	134	16.7	8.0	8.0	34.4	34.4	102.1	102.1	8.1	8.1	1.6	1.6	3	3							
					Middle	4.6	0.1	102	16.6	8.0	8.0	34.4	34.4	102.3	102.3	8.1	8.1	1.8	1.8	3	3							
						4.6	0.1	98	16.6	8.0	8.0	34.4	34.4	102.3	102.3	8.1	8.1	1.9	1.9	3	3							
					Bottom	8.2	0.1	140	16.6	8.0	8.0	34.4	34.4	102.8	102.9	8.1	8.2	2.3	2.3	4	4							
						8.2	0.1	140	16.6	8.0	8.0	34.4	34.4	103.0	102.9	8.1	8.2	2.3	2.3	3	3							
IM11	Fine	Calm	12:04	7.8	Surface	1.0	0.2	102	16.9	8.0	8.0	34.3	34.3	102.4	102.6	8.1	8.1	1.1	1.1	2	3	821520	810567					
						1.0	0.2	104	16.9	8.0	8.0	34.3	34.3	102.7	102.6	8.1	8.1	1.1	1.1	3	3							
					Middle	3.9	0.2	91	16.8	8.0	7.9	34.3	34.3	103.2	103.3	8.1	8.1	2.0	2.0	2	4							
						3.9	0.1	94	16.8	7.9	7.9	34.3	34.3	103.4	103.3	8.2	8.2	2.0	2.0	4	4							
					Bottom	6.8	0.1	85	16.8	7.9	7.9	34.3	34.2	104.3	104.7	8.2	8.3	2.4	2.4	4	4							
						6.8	0.2	89	16.9	7.9	7.9	34.2	34.2	105.0	104.7	8.3	8.3	2.3	2.3	3	3							
IM12	Fine	Calm	11:59	6.8	Surface	1.0	0.1	96	17.0	8.0	8.0	34.3	34.3	102.8	102.9	8.1	8.1	1.1	1.0	2	3	821179	811515					
						1.0	0.2	96	17.0	8.0	8.0	34.3	34.3	103.0	102.9	8.1	8.1	1.0	1.0	3	3							
					Middle	3.4	0.2	122	17.0	8.0	8.0	34.3	34.3	103.4	103.5	8.1	8.1	1.2	1.2	3	3							
						3.4	0.2	126	17.0	8.0	8.0	34.3	34.3	103.6	103.5	8.1	8.1	1.1	1.1	3	3							
					Bottom	5.8	0.2	100	17.0	7.9	7.9	34.3	34.3	104.3	104.6	8.2	8.2	1.2	1.2	3	3							
						5.8	0.2	105	17.0	7.9	7.9	34.3	34.3	104.8	104.6	8.2	8.2	1.3	1.3	3	3							
SR1A	Fine	Calm	11:38	5.4	Surface	1.0	0.0	100	17.0	7.9	7.9	34.1	34.1	103.5	103.8	8.1	8.2	1.3	1.4	3	4	819982	812664					
						1.0	0.0	100	17.0	7.9	7.9	34.2	34.1	104.0	103.8	8.2	8.2	1.4	1.4	4	4							
					Middle	2.7	0.0	86	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4	
						2.7	0.0	85	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	4	4
					Bottom	4.4	0.0	128	16.9	7.8	7.8	34.2	33.0	105.1	105.5	8.3	8.4	2.6	2.5	5	4							
						4.4	0.0	125	16.9	7.8	7.8	31.8	33.0	105.9	105.5	8.5	8.4	2.5	2.5	4	4							
SR2	Fine	Calm	11:26	5.2	Surface	1.0	0.1	40	17.0	7.9	7.9	34.4	34.4	102.0	102.2	8.0	8.0	2.2	2.2	4	3	821454	814167					
						1.0	0.1	41	17.0	7.9	7.9	34.4	34.4	102.3	102.2	8.0	8.0	2.2	2.2	3	3							
					Middle	-	0.1	34	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	4	4
						-	0.2	40	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	4
					Bottom	4.2	0.2	31	16.9	7.8	7.8	34.3	34.2	102.2	102.6	8.1	8.1	3.4	3.5	4	5							
						4.2	0.1	33	16.9	7.8	7.8	34.1	34.2	103.0	102.6	8.1	8.1	3.5	3.5	5	5							
SR3	Cloudy	Moderate	11:52	8.8	Surface	1.0	0.1	163	16.3	8.1	8.1	32.0	32.0	98.2	98.2	7.9	7.9	1.2	1.2	3	3	822130	807578					
						1.0	0.1	162	16.3	8.1	8.1	32.0	32.0	98.2	98.2	7.9	7.9	1.2	1.2	3	3							
					Middle	4.4	0.2	179	16.1	8.2	8.2	32.0	32.0	98.6	98.7	8.0	8.0	3.0	3.2	3	3							
						4.4	0.2	173	16.1	8.2	8.2	32.0	32.0	98.7	98.7	8.0	8.0	3.2	3.2	3	3							
					Bottom	7.8	0.1	145	16.0	8.2	8.2	32.0	32.0	99.6	99.7	8.1	8.1	4.0	4.1	2	3							
						7.8	0.2	147	16.0	8.2	8.2	32.0	32.0	99.8	99.7	8.1	8.1	4.1	4.1	3	3							
SR4A	Cloudy	Moderate	10:23	8.8	Surface	1.0	0.0	10	16.0	8.0	8.0	31.9	31.9	98.0	98.0	8.0	8.0	5.2	5.3	3	4	817175	807817					
						1.0	0.1	15	16.0	8.0	8.0	31.9	31.9	98.0	98.0	8.0	8.0	5.3	5.4	4	5							
					Middle	4.4	0.0	7	15.9	8.0	8.0	31.9	31.9	97.7	97.7	8.0	8.0	5.4	5.4	4	5							
						4.4	0.1	3	15.9	8.0	8.0	31.9	31.9	97.7	97.7	8.0	8.0	5.4	5.5	4	5							
					Bottom	7.8	0.0	346	15.9	8.0	8.0	31.9	31.9	97.7	97.7	8.0	8.0	5.5	5.6	4	5							
						7.8	0.0	346	15.9	8.0	8.0	31.9	31.9	97.6	97.6	8.0	8.0	5.6	5.6	5	5							
SR8	Fine	Calm	11:55	4.2	Surface	1.0	-	-	17.1	8.0	8.0	34.4	34.4	103.1	103.2	8.1	8.1	1.3	1.3	3	2	820412	811630					
						1.0	-	-	17.0	8.0	8.0	34.4	34.4	103.2	103.2	8.1	8.1	1.3	1.3	2	2							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	2	2
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	2
					Bottom	3.2	-	-	16.9	7.9	7.9	34.3	34.3	104.0	104.3	8.2	8.2	2.1	2.1	2	2							
						3.2	-	-	17.0	7.9	7.9	34.4	34.4	104.6	104.3	8.2	8.2	2.1	2.1	2	2							

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Cloudy	Moderate	15:40	8.5	Surface	1.0	0.2	37	16.5	16.5	8.1	8.1	32.1	32.1	100.8	100.8	8.1	8.1	4.1	4.6	4	3	815634	804229		
						1.0	0.2	36	16.5		8.1		32.1		100.7		8.1		4.2		3					
					Middle	4.3	0.2	22	16.3	16.3	8.1	8.1	32.2	32.2	99.6	99.6	8.0	8.0	4.7	8.1	4				8.0	3
						4.3	0.2	28	16.3		8.1		32.2		99.6		8.0		4.8		3					
					Bottom	7.5	0.2	19	16.3	16.3	8.1	8.1	32.2	32.2	100.1	100.1	8.1	8.1	4.8	8.1	3				8.1	3
						7.5	0.2	17	16.3		8.1		32.2		100.1		8.1		4.8		3					
C2	Cloudy	Moderate	14:18	11.6	Surface	1.0	0.1	338	16.6	16.6	8.0	8.0	31.8	31.8	98.4	98.5	7.9	8.0	1.7	2.0	4	4	825678	806964		
						1.0	0.1	335	16.6		8.0		31.8		98.6		7.9		1.7		5					
					Middle	5.8	-	336	16.1	16.1	8.0	8.0	32.1	32.1	98.8	98.8	8.0	8.0	2.2	8.1	3				8.0	3
						5.8	0.0	332	16.1		8.0		32.1		98.8		8.0		2.2		4					
					Bottom	10.6	0.1	0	16.1	16.1	8.0	8.0	32.1	32.1	99.2	99.3	8.1	8.1	2.1	8.1	3				8.1	3
						10.6	0.1	354	16.1		8.0		32.1		99.3		8.1		2.1		3					
C3	Fine	Calm	16:03	10.0	Surface	1.0	0.3	266	17.3	17.3	8.1	8.1	34.6	34.6	97.8	97.9	7.6	7.7	1.1	1.9	4	3	822102	817826		
						1.0	0.4	271	17.3		8.1		34.6		97.9		7.6		1.1		3					
					Middle	5.0	0.3	254	17.3	17.3	8.0	8.0	34.6	34.6	98.3	98.4	7.7	7.7	1.6	7.8	3				7.8	3
						5.0	0.4	252	17.3		8.0		34.6		98.5		7.7		1.5		3					
					Bottom	9.0	0.3	244	17.2	17.3	8.0	8.0	34.6	34.6	99.4	100.0	7.8	7.8	3.0	7.8	3				7.8	3
						9.0	0.3	243	17.3		8.0		34.6		100.5		7.8		3.0		3					
IM1	Cloudy	Moderate	15:16	6.1	Surface	1.0	0.1	41	16.5	16.5	8.0	8.0	32.1	32.1	101.1	101.1	8.1	8.1	4.1	6.6	3	3	818353	806463		
						1.0	0.1	40	16.5		8.0		32.1		101.0		8.1		4.1		3					
					Middle	3.1	0.1	46	16.3	16.3	8.0	8.0	32.2	32.2	99.5	99.4	8.0	8.0	6.3	8.0	3				8.0	3
						3.1	0.1	46	16.2		8.0		32.2		99.2		8.0		6.7		2					
					Bottom	5.1	0.0	36	16.1	16.1	8.0	8.0	32.2	32.2	99.2	99.3	8.0	8.0	9.3	8.0	2				8.0	2
						5.1	0.1	34	16.1		8.0		32.2		99.3		8.0		9.1		2					
IM2	Cloudy	Moderate	15:12	6.7	Surface	1.0	0.1	26	16.3	16.3	8.0	8.0	32.1	32.1	99.7	99.7	8.0	8.0	4.3	4.4	4	5	819205	806222		
						1.0	0.1	28	16.3		8.0		32.1		99.6		8.0		4.4		4					
					Middle	3.4	0.1	33	16.1	16.1	8.0	8.0	32.2	32.3	98.7	98.6	8.0	8.0	4.3	8.0	4				8.0	4
						3.4	0.1	37	16.1		8.0		32.3		98.5		8.0		4.4		5					
					Bottom	5.7	0.1	39	16.1	16.1	8.0	8.0	32.3	32.3	98.1	98.1	8.0	8.0	4.4	8.0	3				8.0	3
						5.7	0.1	44	16.1		8.0		32.3		98.1		7.9		4.4		6					
IM7	Cloudy	Moderate	14:53	7.8	Surface	1.0	0.1	310	16.1	16.1	8.1	8.1	32.2	32.2	100.0	100.0	8.1	8.1	2.4	2.7	4	4	821332	806814		
						1.0	0.0	314	16.1		8.2		32.2		100.0		8.1		2.4		4					
					Middle	3.9	0.1	300	16.1	16.1	8.2	8.2	32.2	32.2	100.1	100.1	8.1	8.1	2.6	8.1	4				8.1	4
						3.9	0.0	301	16.1		8.2		32.2		100.1		8.1		2.6		3					
					Bottom	6.8	0.0	312	16.1	16.1	8.3	8.3	32.2	32.2	100.8	100.9	8.2	8.2	3.1	8.2	3				8.2	3
						6.8	0.1	312	16.1		8.3		32.2		100.9		8.2		3.2		3					

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Water Quality Monitoring

Water Quality Monitoring Results on 19 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
IM10	Fine	Calm	14:23	8.0	Surface	1.0	0.1	266	16.8	16.8	8.1	8.1	34.4	34.4	100.3	100.4	7.9	7.9	1.1	1.6	3	3	822261	809824	
						1.0	0.1	267	16.8		8.1		34.4		100.4		7.9		1.1		2				
					Middle	4.0	0.1	270	16.8	16.8	8.0	8.0	34.4	34.4	100.7	100.8	7.9	8.0	1.3	8.0	3				
						4.0	0.1	263	16.8		8.0		34.4		100.9		8.0		1.3		4				
					Bottom	7.0	0.1	261	16.8	16.8	8.0	8.0	34.4	34.4	101.1	101.2	8.0	8.0	2.3	8.0	4				
						7.0	0.1	267	16.8		8.0		34.4		101.2		8.0		2.3		4				
IM11	Fine	Calm	15:05	9.2	Surface	1.0	0.2	274	16.8	16.8	8.0	8.0	34.4	34.4	102.2	102.3	8.1	8.1	1.1	1.8	2	3	821511	810552	
						1.0	0.2	271	16.8		8.0		34.4		102.4		8.1		1.1		3				
					Middle	4.6	0.2	281	16.8	16.8	7.9	7.9	34.4	34.4	102.8	102.9	8.1	8.1	1.4	8.2	4				
						4.6	0.2	280	16.8		7.9		34.4		102.9		8.1		1.5		3				
					Bottom	8.2	0.2	282	16.8	16.8	7.9	7.9	34.3	34.3	103.8	103.9	8.2	8.2	3.0	8.2	4				
						8.2	0.2	281	16.8		7.9		34.3		104.0		8.2		2.9		4				
IM12	Fine	Calm	15:11	9.0	Surface	1.0	0.3	271	17.0	17.0	8.1	8.1	34.3	34.3	99.8	99.8	7.9	7.9	1.0	1.4	3	4	821161	811523	
						1.0	0.2	275	17.0		8.1		34.3		99.8		7.9		1.0		3				
					Middle	4.5	0.2	279	17.0	17.0	8.1	8.1	34.3	34.3	99.9	100.0	7.9	7.9	1.2	7.9	4				
						4.5	0.3	285	17.0		8.1		34.3		100.0		7.9		1.2		3				
					Bottom	8.0	0.2	294	17.0	17.0	8.1	8.1	34.3	34.3	100.1	100.2	7.9	7.9	2.1	7.9	4				
						8.0	0.2	290	16.9		8.1		34.3		100.2		7.9		2.1		4				
SR1A	Fine	Calm	15:31	5.2	Surface	1.0	0.0	191	17.0	17.0	8.1	8.1	34.1	34.1	98.6	98.7	7.8	7.8	2.3	2.8	4	3	819983	812658	
						1.0	0.0	191	17.0		8.1		34.1		98.7		7.8		2.3		3				
					Middle	2.6	0.0	205	-	-	-	-	-	-	-	-	-	-	-	-	-				
						2.6	0.0	206	-		-		-		-		-		-		-				
					Bottom	4.2	0.0	220	17.0	17.0	8.0	8.0	34.1	34.1	99.6	99.7	7.8	7.8	3.3	99.7	7.8				3
						4.2	0.0	218	17.0		8.0		34.1		99.7		7.8		3.3		3				
SR2	Fine	Calm	15:43	5.8	Surface	1.0	0.1	242	17.2	17.2	8.0	8.0	34.4	34.4	100.5	100.6	7.9	7.9	1.4	2.1	3	3	821449	814158	
						1.0	0.1	235	17.2		8.0		34.4		100.6		7.9		1.4		3				
					Middle	-	0.1	264	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	0.1	265	-		-		-		-		-		-		-				
					Bottom	4.8	0.1	251	17.2	17.2	8.0	8.0	34.4	34.2	101.6	101.8	8.0	8.0	2.8	8.0	4				
						4.8	0.1	244	17.2		8.0		34.0		101.9		8.0		2.8		3				
SR3	Cloudy	Moderate	14:46	8.5	Surface	1.0	0.1	290	16.5	16.5	8.0	8.0	31.9	31.9	98.1	98.1	7.9	7.9	1.2	2.4	6	4	822166	807564	
						1.0	0.0	292	16.5		8.0		31.9		98.1		7.9		1.2		5				
					Middle	4.3	0.0	296	16.3	16.3	8.1	8.1	32.0	32.0	98.9	98.9	8.0	8.0	2.2	8.0	4				
						4.3	0.0	300	16.3		8.1		32.0		98.9		8.0		2.4		4				
					Bottom	7.5	0.1	309	16.1	16.1	8.2	8.2	32.2	32.2	98.7	98.7	8.0	8.0	3.7	8.0	3				
						7.5	0.1	306	16.1		8.2		32.2		98.7		8.0		3.6		4				
SR4A	Cloudy	Moderate	16:09	8.2	Surface	1.0	0.0	164	16.3	16.3	8.2	8.2	32.2	32.2	100.0	99.9	8.1	8.1	3.0	3.3	2	3	817212	807818	
						1.0	0.0	171	16.3		8.2		32.2		99.8		8.1		3.0		3				
					Middle	4.1	0.1	164	16.1	16.1	8.2	8.2	32.2	32.2	99.3	99.3	8.0	8.1	3.4	8.1	3				
						4.1	0.1	157	16.1		8.2		32.2		99.3		8.1		3.4		3				
					Bottom	7.2	0.1	160	16.0	16.0	8.2	8.2	32.2	32.2	99.9	100.0	8.1	8.1	3.6	8.1	4				
						7.2	0.1	157	16.0		8.3		32.2		100.1		8.1		3.6		5				
SR8	Fine	Calm	15:15	5.2	Surface	1.0	-	-	17.0	17.0	8.0	8.0	34.3	34.3	101.9	102.0	8.0	8.0	1.4	1.7	3	3	820390	811635	
						1.0	-	-	17.0		8.0		34.3		102.0		8.0		1.5		3				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-		-		-		-		-		-		-				
					Bottom	4.2	-	-	17.0	17.0	8.0	8.0	34.3	34.3	102.5	102.6	8.1	8.1	1.9	8.1	3				
						4.2	-	-	17.0		8.0		34.3		102.7		8.1		1.9		4				

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	12:45	8.4	Surface	1.0	0.0	205	16.8	16.8	7.9	7.9	34.0	34.0	100.3	100.3	7.9	7.9	7.5	10.2	11	10	815630	804246
						1.0	0.0	205	16.8		7.9	7.9	34.0	34.0	100.2	100.3	7.9		7.7					
					Middle	4.2	0.1	182	16.8	16.8	7.9	7.9	34.1	34.1	100.5	100.6	7.9	7.9	10.6	10				
						4.2	0.1	183	16.8		7.9	7.9	34.1	34.1	100.6	100.6	8.0	8.0	10.9	11				
					Bottom	7.4	0.1	200	16.9	16.9	7.8	7.8	33.9	33.9	101.3	101.4	8.0	8.0	12.2	7				
						7.4	0.1	206	16.9		7.8	7.8	33.9	33.9	101.5	101.4	8.0	8.0	12.4	8				
C2	Cloudy	Moderate	11:15	11.8	Surface	1.0	0.1	343	16.7	16.7	7.9	7.9	34.2	34.2	99.3	99.3	7.9	7.9	5.1	6.9	8	7	825685	806933
						1.0	0.1	350	16.7		7.9	7.9	34.2	34.2	99.2	99.3	7.9		5.3					
					Middle	5.9	0.2	8	16.7	16.7	7.9	7.9	34.2	34.2	99.1	99.1	7.8	7.9	6.4	7				
						5.9	0.2	4	16.7		7.9	7.9	34.2	34.2	99.1	99.1	7.8	7.9	6.2	6				
					Bottom	10.8	0.1	14	16.7	16.7	7.9	7.9	34.2	34.2	99.4	99.5	7.9	7.9	9.0	6				
						10.8	0.1	8	16.7		7.9	7.9	34.2	34.2	99.5	99.5	7.9	7.9	9.4	6				
C3	Misty	Moderate	12:45	11.0	Surface	1.0	0.2	79	16.6	16.6	8.0	8.0	32.0	32.0	96.6	96.6	7.8	7.8	1.0	1.8	8	8	822087	817789
						1.0	0.2	85	16.6		8.0	8.0	32.0	32.0	96.6	96.6	7.8		7.8		1.0			
					Middle	5.5	0.2	67	16.6	16.6	8.0	8.0	32.0	32.0	96.8	96.9	7.8	7.8	1.7	8				
						5.5	0.2	64	16.6		8.0	8.0	32.0	32.0	96.9	96.9	7.8	7.8	1.7	8				
					Bottom	10.0	0.2	78	16.6	16.7	8.0	8.0	32.0	32.0	97.2	97.3	7.8	7.8	2.6	7				
						10.0	0.2	71	16.7		8.0	8.0	32.0	32.0	97.3	97.3	7.8	7.8	2.5	6				
IM1	Cloudy	Moderate	12:15	6.5	Surface	1.0	0.0	67	16.9	16.9	8.0	8.0	33.8	33.8	101.9	101.9	8.1	8.1	6.3	7.2	8	9	818374	806454
						1.0	0.1	59	16.8		8.0	8.0	33.9	33.8	101.8	101.9	8.1		8.1		6.4			
					Middle	3.3	0.0	81	16.8	16.8	8.0	8.0	34.0	34.0	101.6	101.6	8.0	8.1	6.9	8				
						3.3	0.0	87	16.8		8.0	8.0	34.0	34.0	101.6	101.6	8.0	8.1	7.0	9				
					Bottom	5.5	0.1	45	16.8	16.8	8.0	8.0	34.0	34.0	101.9	101.9	8.1	8.1	8.7	9				
						5.5	0.0	49	16.8		8.0	8.0	34.0	34.0	101.9	101.9	8.1	8.1	7.9	10				
IM2	Cloudy	Moderate	12:09	6.8	Surface	1.0	0.1	53	16.9	16.9	7.9	7.9	33.8	33.8	102.0	102.0	8.1	8.1	6.8	8.3	11	9	819178	806249
						1.0	0.1	54	16.9		7.9	7.9	33.8	33.8	101.9	102.0	8.1		8.1		7.1			
					Middle	3.4	0.1	48	16.8	16.8	7.9	7.9	34.0	34.0	101.4	101.4	8.0	8.1	8.0	9				
						3.4	0.1	48	16.8		7.9	7.9	34.0	34.0	101.3	101.4	8.0	8.0	8.3	8				
					Bottom	5.8	0.1	34	16.8	16.9	7.9	7.9	34.0	34.0	101.2	101.2	8.0	8.0	9.7	7				
						5.8	0.1	31	16.9		7.9	7.9	34.0	34.0	101.2	101.2	8.0	8.0	10.1	7				
IM7	Cloudy	Moderate	11:44	7.8	Surface	1.0	0.2	63	16.7	16.7	7.9	7.9	34.2	34.2	100.1	100.1	7.9	7.9	3.0	4.0	8	6	821346	806833
						1.0	0.3	69	16.7		7.9	7.9	34.2	34.2	100.1	100.1	7.9		7.9		3.2			
					Middle	3.9	0.2	53	16.7	16.7	7.9	7.9	34.2	34.2	99.9	100.0	7.9	7.9	4.3	6				
						3.9	0.2	52	16.7		7.9	7.9	34.2	34.2	100.0	100.0	7.9	7.9	4.4	7				
					Bottom	6.8	0.2	38	16.7	16.7	7.9	7.9	34.2	34.2	100.9	101.0	8.0	8.0	4.6	4				
						6.8	0.2	38	16.7		7.9	7.9	34.2	34.2	101.1	101.0	8.0	8.0	4.5	4				

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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Water Quality Monitoring

Water Quality Monitoring Results on 21 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Misty	Moderate	11:19	9.2	Surface	1.0	0.1	345	16.3	16.3	7.9	7.9	31.8	31.8	98.6	98.7	8.0	8.0	8.0	8.0	3.4	7	822263	809836			
						1.0	0.1	338	16.3	7.9	7.9	31.8	31.8	98.7	98.7	8.0	8.0	8.0	8.0	3.5	7						
					Middle	4.6	0.2	334	16.3	16.3	7.9	7.9	31.8	31.8	98.7	98.8	8.0	8.0	8.0	8.0	4.5	8					
						4.6	0.2	341	16.3	16.3	7.9	7.9	31.8	31.8	98.8	98.8	8.0	8.0	8.0	8.0	4.5	7					
					Bottom	8.2	0.1	328	16.3	16.3	7.9	7.9	31.8	31.8	98.9	98.9	8.0	8.0	8.0	8.0	5.9	9					
						8.2	0.1	332	16.3	16.3	7.9	7.9	31.8	31.8	98.9	98.9	8.0	8.0	8.0	8.0	6.0	8					
IM11	Misty	Moderate	11:42	8.8	Surface	1.0	0.0	14	16.7	16.8	7.9	7.9	31.6	31.5	101.0	101.1	8.1	8.1	8.1	8.1	2.1	8	821502	810544			
						1.0	0.0	6	16.8	16.8	7.9	7.9	31.5	31.5	101.2	101.1	8.1	8.1	8.1	8.1	2.1	7					
					Middle	4.4	0.1	0	16.9	16.9	7.9	7.9	31.4	31.4	101.6	101.7	8.1	8.1	8.1	8.1	3.2	8					
						4.4	0.1	4	16.9	16.9	7.9	7.9	31.4	31.4	101.7	101.7	8.1	8.1	8.1	8.1	3.3	9					
					Bottom	7.8	0.1	11	17.0	17.1	7.9	7.9	31.2	31.2	102.0	102.1	8.2	8.2	8.2	8.2	4.0	9					
						7.8	0.1	8	17.1	17.1	7.9	7.9	31.1	31.2	102.2	102.1	8.2	8.2	8.2	8.2	4.1	9					
IM12	Misty	Moderate	11:49	8.4	Surface	1.0	0.0	3	16.7	16.8	7.8	7.8	31.7	31.6	99.0	99.0	7.9	7.9	7.9	7.9	1.6	7	821159	811523			
						1.0	0.1	3	16.8	16.8	7.8	7.8	31.6	31.6	99.0	99.0	7.9	7.9	7.9	7.9	1.5	8					
					Middle	4.2	0.1	344	16.9	17.0	7.8	7.8	31.5	31.4	99.1	99.2	7.9	7.9	7.9	7.9	2.0	8					
						4.2	0.1	343	17.0	17.0	7.8	7.8	31.4	31.4	99.2	99.2	7.9	7.9	7.9	7.9	2.1	8					
					Bottom	7.4	0.1	7	17.2	17.3	7.8	7.8	31.2	31.1	99.3	99.3	7.9	7.9	7.9	7.9	2.5	9					
						7.4	0.1	13	17.3	17.3	7.8	7.8	31.1	31.1	99.2	99.3	7.9	7.9	7.9	7.9	2.5	10					
SR1A	Misty	Moderate	12:08	5.4	Surface	1.0	0.0	15	16.6	16.6	7.9	7.9	31.9	31.9	97.8	97.9	7.9	7.9	7.9	7.9	1.9	8	819970	812659			
						1.0	0.0	21	16.6	16.6	8.0	8.0	31.9	31.9	98.0	98.0	7.9	7.9	7.9	7.9	1.8	8					
					Middle	2.7	0.0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
						2.7	0.0	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
					Bottom	4.4	0.0	4	16.6	16.6	8.0	8.0	31.9	31.9	98.7	98.8	7.9	7.9	7.9	7.9	2.9	8					
						4.4	0.0	356	16.6	16.6	8.0	8.0	31.9	31.9	98.9	98.8	7.9	7.9	7.9	7.9	2.9	7					
SR2	Misty	Moderate	12:19	4.8	Surface	1.0	0.1	114	16.6	16.6	8.0	8.0	32.0	32.0	101.1	101.2	8.1	8.1	8.1	8.1	2.8	8	821441	814163			
						1.0	0.1	118	16.6	16.6	8.0	8.0	32.0	32.0	101.2	101.2	8.1	8.1	8.1	8.1	2.9	8					
					Middle	-	0.1	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	7
						-	0.0	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	7
					Bottom	3.8	0.1	124	16.6	16.6	8.0	8.0	31.9	31.9	101.6	101.7	8.2	8.2	8.2	8.2	3.1	7					
						3.8	0.1	128	16.6	16.6	8.0	8.0	31.9	31.9	101.7	101.7	8.2	8.2	8.2	8.2	3.0	6					
SR3	Cloudy	Moderate	11:37	8.8	Surface	1.0	0.2	9	16.7	16.7	7.9	7.9	34.2	34.2	99.3	99.3	7.9	7.9	7.9	7.9	4.1	5	822154	807586			
						1.0	0.2	10	16.7	16.7	7.9	7.9	34.2	34.2	99.2	99.2	7.9	7.9	7.9	7.9	4.2	6					
					Middle	4.4	0.2	30	16.7	16.7	7.9	7.9	34.2	34.2	99.1	99.1	7.8	7.8	7.8	7.8	4.7	7					
						4.4	0.2	37	16.7	16.7	7.9	7.9	34.2	34.2	99.0	99.0	7.8	7.8	7.8	7.8	4.8	6					
					Bottom	7.8	0.2	16	16.7	16.7	7.9	7.9	34.2	34.2	99.0	99.0	7.8	7.8	7.8	7.8	5.7	7					
						7.8	0.2	18	16.7	16.7	7.9	7.9	34.2	34.2	99.0	99.0	7.8	7.8	7.8	7.8	5.7	6					
SR4A	Cloudy	Moderate	13:19	8.5	Surface	1.0	0.0	77	16.8	16.8	7.9	7.9	34.0	34.0	101.9	101.9	8.1	8.1	8.1	8.1	4.6	6	817193	807833			
						1.0	0.1	78	16.8	16.8	7.9	7.9	34.0	34.0	101.8	101.8	8.0	8.0	8.0	8.0	4.6	8					
					Middle	4.3	0.0	60	16.8	16.8	7.9	7.9	34.1	34.1	101.6	101.6	8.0	8.0	8.0	8.0	4.6	8					
						4.3	0.0	56	16.8	16.8	7.9	7.9	34.1	34.1	101.6	101.6	8.0	8.0	8.0	8.0	4.7	8					
					Bottom	7.5	0.0	77	16.8	16.8	7.9	7.9	34.1	34.1	102.0	102.1	8.1	8.1	8.1	8.1	4.6	9					
						7.5	0.0	79	16.8	16.8	7.9	7.9	34.1	34.1	102.1	102.1	8.1	8.1	8.1	8.1	4.7	10					
SR8	Misty	Moderate	11:53	5.4	Surface	1.0	-	-	16.7	16.7	7.8	7.8	31.7	31.6	101.1	101.3	8.1	8.1	8.1	8.1	1.8	9	820409	811613			
						1.0	-	-	16.7	16.7	7.8	7.8	31.6	31.6	101.4	101.4	8.1	8.1	8.1	8.1	1.7	10					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
					Bottom	4.4	-	-	17.0	17.0	7.8	7.8	31.5	31.4	102.4	102.5	8.2	8.2	8.2	8.2	2.7	8					
						4.4	-	-	17.0	17.0	7.8	7.8	31.4	31.4	102.6	102.6	8.2	8.2	8.2	8.2	2.7	6					

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value
C1	Cloudy	Moderate	08:05	8.3	Surface	1.0	0.5	35	16.7	16.7	8.0	8.0	33.4	33.4	101.2	101.2	8.0	8.0	5.3	7.2	9	10	815640	804238	
						1.0	0.4	35	16.7		8.0		33.4		101.1		8.0		5.6		8				
					Middle	4.2	0.5	42	16.7	8.0	8.0	33.6	33.6	100.6	100.6	8.0	8.0	6.8	10						
						4.2	0.5	45	16.7	8.0	8.0	33.6		100.6		8.0	8.0	6.6	9						
					Bottom	7.3	0.4	37	16.7	16.7	8.0	8.0	34.1	34.1	98.6	98.7	98.7	7.8	7.8	7.8	9.0	11			
						7.3	0.4	35	16.7		8.0		8.0		34.1		34.1	98.7	98.7	7.8	7.8	10.0			10
C2	Cloudy	Moderate	09:24	12.1	Surface	1.0	0.4	357	16.7	16.7	7.9	7.9	34.2	34.2	99.5	99.5	7.9	7.9	3.9	7.9	10	9	825675	806927	
						1.0	0.4	359	16.7		7.9		7.9		34.2		34.2		99.4		99.4				7.9
					Middle	6.1	0.4	337	16.7	7.9	7.9	34.2	34.2	99.3	99.3	7.9	7.9	8.1	8.1	8.1	9				
						6.1	0.4	341	16.7	7.9	7.9	34.2		34.2		99.3	99.3	7.9	7.9	8.3	8				
					Bottom	11.1	0.4	2	16.7	16.7	7.9	7.9	34.2	34.2	99.4	99.5	99.4	7.9	7.9	7.9	7.9	12.2			6
						11.1	0.5	2	16.7		7.9		7.9		34.2		34.2	99.5	99.5	7.9	7.9	12.4			8
C3	Misty	Moderate	08:11	11.6	Surface	1.0	0.6	258	16.6	16.6	7.9	7.9	31.0	31.0	99.4	99.5	8.0	8.1	4.9	5.8	9	10	822092	817798	
						1.0	0.6	254	16.6		7.9		7.9		31.0		31.0		99.6		99.6				8.0
					Middle	5.8	0.6	276	16.6	7.9	7.9	30.9	30.9	100.6	100.7	8.1	8.1	5.9	5.9	5.9	10				
						5.8	0.6	280	16.6	7.9	7.9	30.9		30.9		100.8	100.8	8.2	8.2	5.9	9				
					Bottom	10.6	0.6	277	16.6	16.6	7.9	7.9	30.7	30.6	101.7	101.8	101.7	8.2	8.3	8.2	8.2	6.7			11
						10.6	0.5	281	16.6		7.9		7.9		30.6		30.6	101.9	101.8	8.3	8.3	6.8			10
IM1	Cloudy	Moderate	08:28	6.5	Surface	1.0	0.3	22	16.7	16.7	7.9	7.9	34.1	34.1	100.3	100.3	7.9	7.9	9.6	10.9	12	13	818370	806454	
						1.0	0.3	22	16.7		7.9		7.9		34.1		34.1		100.3		100.3				7.9
					Middle	3.3	0.3	32	16.7	7.9	7.9	34.1	34.1	100.4	100.5	7.9	7.9	10.3	10.3	10.3	13				
						3.3	0.4	24	16.7	7.9	7.9	34.1		34.1		100.5	100.5	8.0	8.0	10.3	14				
					Bottom	5.5	0.3	14	16.7	16.7	7.8	7.8	34.2	34.2	101.9	102.1	101.9	8.1	8.1	8.1	8.1	12.7			14
						5.5	0.3	19	16.7		7.8		7.8		34.2		34.2	102.2	102.1	8.1	8.1	12.8			15
IM2	Cloudy	Moderate	08:34	6.8	Surface	1.0	0.3	27	16.7	16.7	7.9	7.9	33.9	33.9	100.6	100.6	8.0	8.0	9.0	9.0	11	12	819203	806232	
						1.0	0.3	32	16.7		7.9		7.9		33.9		33.9		100.6		100.6				8.0
					Middle	3.4	0.3	26	16.7	7.9	7.9	33.9	33.9	100.6	100.7	8.0	8.0	9.7	9.7	9.7	12				
						3.4	0.3	20	16.7	7.9	7.9	33.9		33.9		100.7	100.7	8.0	8.0	9.9	12				
					Bottom	5.8	0.3	356	16.7	16.7	7.8	7.8	33.9	33.9	101.8	101.9	101.8	8.1	8.1	8.1	8.1	8.5			12
						5.8	0.3	355	16.7		7.8		7.8		33.9		33.9	101.9	101.9	8.1	8.1	8.2			13
IM7	Cloudy	Moderate	08:54	7.6	Surface	1.0	0.3	12	16.8	16.8	8.0	8.0	34.1	34.1	100.2	100.2	7.9	7.9	2.1	1.9	7	6	821325	806831	
						1.0	0.3	4	16.7		8.0		8.0		34.1		34.1		100.1		100.1				7.9
					Middle	3.8	0.3	1	16.7	8.0	8.0	34.2	34.2	100.0	100.1	7.9	7.9	1.8	1.8	1.8	7				
						3.8	0.2	1	16.7	8.0	8.0	34.2		34.2		100.1	100.1	7.9	7.9	1.8	6				
					Bottom	6.6	0.3	6	16.7	16.7	8.0	8.0	34.2	34.2	100.7	100.8	100.7	8.0	8.0	8.0	8.0	1.6			6
						6.6	0.2	11	16.7		8.0		8.0		34.2		34.2	100.8	100.8	8.0	8.0	1.7			5

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Misty	Moderate	09:16	9.6	Surface	1.0	0.3	288	16.4	16.4	7.8	7.8	31.8	31.8	99.7	99.8	8.1	8.1	8.1	8.1	1.3	9	822251	809845			
						1.0	0.4	292	16.4	7.8	7.8	31.8	31.8	99.8	99.8	8.1	8.1	8.1	8.1	1.4	8						
					Middle	4.8	0.4	313	16.4	16.5	7.8	7.8	31.7	31.7	100.4	100.5	8.1	8.1	8.1	8.1	2.6	9					
						4.8	0.5	311	16.5	7.8	7.8	31.7	31.7	100.5	100.5	8.1	8.1	8.1	8.1	2.6	9						
					Bottom	8.6	0.4	302	16.5	16.6	7.8	7.8	31.6	31.6	101.0	101.1	8.1	8.1	8.1	8.1	4.3	10					
						8.6	0.3	309	16.6	7.8	7.8	31.6	31.6	101.1	101.1	8.1	8.1	8.1	8.1	4.3	10						
IM11	Misty	Moderate	09:11	9.0	Surface	1.0	0.5	274	16.4	16.4	7.9	7.9	31.8	31.8	99.9	100.0	8.1	8.1	8.1	8.1	3.0	7	821489	810532			
						1.0	0.5	279	16.4	7.9	7.9	31.8	31.8	100.1	100.1	8.1	8.1	8.1	8.1	3.1	8						
					Middle	4.5	0.4	268	16.5	16.5	7.9	7.9	31.7	31.7	100.6	100.7	8.1	8.1	8.1	8.1	4.1	8					
						4.5	0.4	273	16.5	7.9	7.9	31.7	31.7	100.8	100.8	8.1	8.1	8.1	8.1	4.2	7						
					Bottom	8.0	0.5	284	16.5	16.6	7.9	7.9	31.7	31.6	101.1	101.2	8.2	8.2	8.2	8.2	5.8	10					
						8.0	0.4	287	16.6	7.9	7.9	31.6	31.6	101.2	101.2	8.2	8.2	8.2	8.2	5.7	9						
IM12	Misty	Moderate	09:06	6.2	Surface	1.0	0.4	297	16.4	16.4	7.9	7.9	31.8	31.8	99.4	99.5	8.0	8.0	8.1	8.1	1.5	10	821145	811534			
						1.0	0.4	291	16.4	7.9	7.9	31.8	31.8	99.5	99.5	8.0	8.0	8.1	8.1	1.5	8						
					Middle	3.1	0.4	272	16.5	16.5	7.9	7.9	31.7	31.7	99.9	100.0	8.1	8.1	8.1	8.1	2.8	9					
						3.1	0.5	264	16.5	7.9	7.9	31.7	31.7	100.1	100.1	8.1	8.1	8.1	8.1	2.7	9						
					Bottom	5.2	0.5	298	16.5	16.5	7.9	7.9	31.6	31.6	100.4	100.5	8.1	8.1	8.1	8.1	3.4	8					
						5.2	0.5	291	16.5	7.9	7.9	31.6	31.6	100.6	100.6	8.1	8.1	8.1	8.1	3.4	8						
SR1A	Misty	Moderate	08:46	5.4	Surface	1.0	0.1	204	16.6	16.6	7.8	7.8	31.8	31.7	100.7	100.8	8.1	8.1	8.1	8.1	1.5	9	819980	812658			
						1.0	0.0	210	16.6	7.8	7.8	31.7	31.7	100.8	100.8	8.1	8.1	8.1	8.1	1.6	10						
					Middle	2.7	0.0	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
						2.7	0.0	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
					Bottom	4.4	0.1	214	16.5	16.5	7.8	7.8	31.8	31.5	101.1	101.1	8.1	8.1	8.1	8.1	2.0	8					
						4.4	0.1	219	16.5	7.8	7.8	31.2	31.5	101.1	101.1	8.2	8.2	8.2	8.2	2.1	6						
SR2	Misty	Moderate	08:34	5.0	Surface	1.0	0.1	268	16.7	16.7	7.8	7.8	31.6	31.6	101.1	101.2	8.1	8.1	8.1	8.1	3.5	7	821441	814165			
						1.0	0.2	271	16.7	7.8	7.8	31.6	31.6	101.3	101.3	8.1	8.1	8.1	8.1	3.4	8						
					Middle	-	0.1	263	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
						-	0.1	259	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	8
					Bottom	4.0	0.1	276	16.8	16.8	7.8	7.8	31.4	31.3	101.5	101.6	8.2	8.2	8.2	8.2	4.8	8					
						4.0	0.0	272	16.8	7.8	7.8	31.1	31.3	101.6	101.6	8.2	8.2	8.2	8.2	4.8	9						
SR3	Cloudy	Moderate	09:03	9.4	Surface	1.0	0.4	2	16.7	16.7	7.9	7.9	34.2	34.2	100.0	100.0	7.9	7.9	7.9	7.9	4.0	2	822146	807565			
						1.0	0.4	359	16.7	7.9	7.9	34.2	34.2	100.0	100.0	7.9	7.9	7.9	7.9	4.0	3						
					Middle	4.7	0.4	347	16.7	16.7	7.9	7.9	34.2	34.2	100.3	100.4	7.9	7.9	7.9	7.9	4.8	3					
						4.7	0.4	352	16.7	7.9	7.9	34.2	34.2	100.5	100.5	8.0	8.0	8.0	8.0	4.8	3						
					Bottom	8.4	0.4	2	16.7	16.7	7.9	7.9	34.2	34.2	101.1	101.2	8.0	8.0	8.0	8.0	5.0	5					
						8.4	0.3	0	16.7	7.9	7.9	34.2	34.2	101.3	101.3	8.0	8.0	8.0	8.0	4.8	4						
SR4A	Cloudy	Moderate	07:44	9.0	Surface	1.0	0.0	237	16.7	16.7	7.8	7.8	34.3	34.3	98.9	98.9	7.8	7.8	7.8	7.8	5.9	10	817172	807816			
						1.0	0.1	231	16.7	7.8	7.8	34.3	34.3	98.9	98.9	7.8	7.8	7.8	7.8	5.9	9						
					Middle	4.5	0.1	239	16.7	16.7	7.8	7.8	34.3	34.3	98.9	98.9	7.8	7.8	7.8	7.8	5.9	11					
						4.5	0.1	238	16.7	7.8	7.8	34.3	34.3	98.9	98.9	7.8	7.8	7.8	7.8	5.9	10						
					Bottom	8.0	0.0	261	16.7	16.7	7.8	7.8	34.3	34.3	98.8	98.9	7.8	7.8	7.8	7.8	6.4	10					
						8.0	0.0	254	16.7	7.8	7.8	34.3	34.3	98.9	98.9	7.8	7.8	7.8	7.8	6.3	11						
SR8	Misty	Moderate	09:01	4.6	Surface	1.0	-	-	16.3	16.3	7.9	7.9	31.8	31.8	100.3	100.3	8.1	8.1	8.1	8.1	1.4	8	820410	811644			
						1.0	-	-	16.3	7.9	7.9	31.9	31.9	100.3	100.3	8.1	8.1	8.1	8.1	1.5	8						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	9
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	9
					Bottom	3.6	-	-	16.4	16.4	7.9	7.9	31.8	31.8	100.7	100.8	8.1	8.1	8.1	8.1	2.3	9					
						3.6	-	-	16.4	7.9	7.9	31.7	31.8	100.8	100.8	8.1	8.1	8.1	8.1	2.3	9						

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 24 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)										
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA												
C1	Cloudy	Moderate	15:05	8.7	Surface	1.0	0.2	192	16.9	16.9	8.0	8.0	30.8	30.8	92.9	92.9	7.5	7.5	9.6	10.6	6	6	815601	804243										
						1.0	0.2	184	16.9	8.0	8.0	30.8	30.8	92.8	92.9	7.5	9.8		7															
					Middle	4.4	0.1	189	16.9	16.9	7.9	7.9	30.9	30.9	93.1	93.2	7.5		10.1		6													
						4.4	0.2	184	16.9	16.9	7.9	7.9	30.9	30.9	93.2	93.2	7.5		10.4		6													
					Bottom	7.7	0.2	187	17.0	17.0	7.9	7.9	30.7	30.7	93.9	94.0	7.6		11.8		6													
						7.7	0.3	187	17.0	17.0	7.9	7.9	30.7	30.7	94.1	94.0	7.6		12.0		5													
					C2	Cloudy	Moderate	13:35	11.1	Surface	1.0	0.1	26	16.8	16.8	8.0	8.0		30.9		30.9				91.9	91.9	7.4	7.4	4.7	6.5	9	7	825667	806955
											1.0	0.1	30	16.8	16.8	8.0	8.0		30.9		30.9				91.8	91.9	7.4		4.8		8			
Middle	5.6	0.0	16	16.8						16.8	8.0	8.0	30.9	30.9	91.7	91.7	7.4	6.4	6															
	5.6	0.0	12	16.8						16.8	8.0	8.0	30.9	30.9	91.7	91.7	7.4	5.8	6															
Bottom	10.1	0.1	5	16.8						16.8	8.0	8.0	30.9	30.9	92.0	92.1	7.5	8.6	6															
	10.1	0.1	4	16.8						16.8	8.0	8.0	30.9	30.9	92.1	92.1	7.5	9.0	6															
C3	Fine	Calm	14:48	12.0						Surface	1.0	0.3	70	16.7	16.7	7.8	7.8	31.8	31.8	90.0	90.0	7.3	7.3	1.5	2.6	3	3		822118		817788			
											1.0	0.3	70	16.7	16.7	7.8	7.8	31.8	31.8	89.9	90.0	7.3		1.5		4								
					Middle	6.0	0.2	86	16.7	16.7	7.9	7.9	31.9	31.9	90.2	90.2	7.3	2.9	3															
						6.0	0.2	80	16.7	16.7	7.9	7.9	31.9	31.9	90.2	90.2	7.3	2.9	3															
					Bottom	11.0	0.3	93	17.1	17.2	7.9	7.9	31.6	31.6	91.3	91.5	7.3	3.3	2															
						11.0	0.3	89	17.2	17.2	7.9	7.9	31.6	31.6	91.6	91.5	7.3	3.4	3															
					IM1	Cloudy	Moderate	14:36	6.6	Surface	1.0	0.1	148	17.0	17.0	8.0	8.0	30.6	30.6	94.5	94.5	7.6		7.6		5.8		6.8		6		6	818333	806481
											1.0	0.1	143	16.9	17.0	8.0	8.0	30.6	30.6	94.4	94.5	7.6				6.0				6				
Middle	3.3	0.0	160	16.9						16.9	8.0	8.0	30.8	30.8	94.2	94.2	7.6	6.5	6															
	3.3	0.0	158	16.9						16.9	8.0	8.0	30.8	30.8	94.2	94.2	7.6	6.6	6															
Bottom	5.6	0.0	157	16.9						16.9	8.0	8.0	30.8	30.8	94.5	94.5	7.6	8.3	7															
	5.6	0.0	154	16.9						16.9	8.0	8.0	30.8	30.8	94.5	94.5	7.6	7.5	6															
IM2	Cloudy	Moderate	14:30	6.9						Surface	1.0	0.0	107	17.0	17.0	8.0	8.0	30.5	30.6	94.6	94.6	7.6	7.6		6.4	7.9	7		6	819199	806246			
											1.0	0.0	103	17.0	17.0	8.0	8.0	30.6	30.6	94.5	94.6	7.6			6.7		6							
					Middle	3.5	0.1	100	16.9	16.9	8.0	8.0	30.8	30.8	94.0	94.0	7.6	7.5	5															
						3.5	0.0	100	16.9	16.9	8.0	8.0	30.8	30.8	93.9	94.0	7.6	7.9	6															
					Bottom	5.9	0.0	80	16.9	17.0	7.9	7.9	30.8	30.8	93.8	93.8	7.6	9.3	5															
						5.9	0.0	85	17.0	17.0	7.9	7.9	30.8	30.8	93.8	93.8	7.6	9.7	5															
					IM7	Cloudy	Moderate	14:04	8.1	Surface	1.0	0.3	54	16.8	16.8	8.0	8.0	31.0	31.0	92.7	92.7	7.5		7.5	2.6		3.6	7				5	821357	806854
											1.0	0.2	47	16.8	16.8	8.0	8.0	31.0	31.0	92.7	92.7	7.5			2.7			6						
Middle	4.1	0.2	69	16.8						16.8	8.0	8.0	31.0	31.0	92.5	92.6	7.5	3.9	5															
	4.1	0.3	62	16.8						16.8	8.0	8.0	31.0	31.0	92.6	92.6	7.5	3.9	6															
Bottom	7.1	0.2	67	16.8						16.8	7.9	7.9	31.0	31.0	93.5	93.6	7.6	4.2	4															
	7.1	0.2	66	16.8						16.8	7.9	7.9	31.0	31.0	93.7	93.6	7.6	4.1	4															

DA: Depth-Averaged

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

Water Quality Monitoring

Water Quality Monitoring Results on 24 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA		
IM10	Fine	Calm	13:38	8.0	Surface	1.0	0.1	45	16.9	16.9	7.9	7.9	30.7	30.7	95.3	95.3	7.7	7.7	1.4	1.4	4	4	822236	809822				
						1.0	0.2	51	16.9	16.9	7.9	7.9	30.7	30.7	95.2	95.3	7.7	7.7	1.3	1.3	5	5						
					Middle	4.0	0.2	61	16.8	16.8	7.9	7.9	30.7	30.7	94.3	94.3	7.7	7.7	1.4	1.4	5	5						
						4.0	0.1	61	16.8	16.8	7.9	7.9	30.7	30.7	94.2	94.3	7.7	7.7	1.4	1.4	5	5						
					Bottom	7.0	0.1	66	16.8	16.8	7.9	7.9	30.8	30.8	94.4	94.4	7.7	7.7	1.5	1.5	6	6						
						7.0	0.1	71	16.8	16.8	7.9	7.9	30.8	30.8	94.4	94.4	7.7	7.7	1.5	1.5	5	5						
IM11	Fine	Calm	13:46	9.2	Surface	1.0	0.1	62	16.8	16.8	7.8	7.8	30.8	30.8	95.1	95.0	7.7	7.7	2.0	2.0	7	7	821492	810546				
						1.0	0.1	59	16.8	16.8	7.8	7.8	30.8	30.8	94.9	95.0	7.7	7.7	2.0	2.0	7	7						
					Middle	4.6	0.1	76	16.8	16.8	7.9	7.9	30.9	30.9	94.5	94.5	7.7	7.7	2.8	2.8	6	6						
						4.6	0.1	80	16.8	16.8	7.9	7.9	30.9	30.9	94.4	94.5	7.7	7.7	2.9	2.9	5	5						
					Bottom	8.2	0.1	79	16.8	16.9	7.9	7.9	30.8	30.8	95.3	95.5	7.7	7.8	4.1	4.1	4	4						
						8.2	0.1	81	16.9	16.9	7.9	7.9	30.8	30.8	95.6	95.5	7.8	7.8	4.1	4.1	3	3						
IM12	Fine	Calm	13:53	9.0	Surface	1.0	0.2	92	16.8	16.8	7.9	7.9	31.0	31.0	94.2	94.2	7.6	7.7	1.4	1.4	4	4	821176	811517				
						1.0	0.2	88	16.8	16.8	7.9	7.9	31.0	31.0	94.2	94.2	7.6	7.7	1.4	1.4	4	4						
					Middle	4.5	0.2	85	16.8	16.8	7.9	7.9	31.1	31.1	94.6	94.6	7.7	7.7	2.1	2.1	4	4						
						4.5	0.2	87	16.8	16.8	7.9	7.9	31.1	31.1	94.6	94.6	7.7	7.7	2.1	2.1	5	5						
					Bottom	8.0	0.1	71	16.8	16.8	7.9	7.9	31.1	31.1	95.2	95.3	7.7	7.7	2.6	2.6	6	6						
						8.0	0.1	63	16.8	16.8	7.9	7.9	31.1	31.1	95.3	95.3	7.7	7.7	2.6	2.6	6	6						
SR1A	Fine	Calm	14:05	5.2	Surface	1.0	0.0	3	17.0	17.0	7.9	7.9	30.7	30.7	98.7	98.7	8.0	8.0	1.4	1.4	4	4	819979	812654				
						1.0	0.0	6	17.0	17.0	7.9	7.9	30.7	30.7	98.6	98.6	8.0	8.0	1.4	1.4	4	4						
					Middle	2.6	0.0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						2.6	0.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
					Bottom	4.2	0.0	34	17.1	17.1	7.8	7.8	30.7	30.7	98.6	98.6	8.0	8.0	2.5	2.5	2	2						
						4.2	0.0	29	17.1	17.1	7.8	7.8	30.6	30.7	98.5	98.6	8.0	8.0	2.5	2.5	4	4						
SR2	Fine	Calm	14:24	5.8	Surface	1.0	0.1	77	16.9	16.9	7.9	7.9	31.3	31.3	95.8	95.9	7.7	7.7	5.6	5.6	4	4	821467	814169				
						1.0	0.1	83	16.9	16.9	7.9	7.9	31.3	31.3	95.9	95.9	7.7	7.7	5.6	5.6	4	4						
					Middle	-	0.1	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						-	0.1	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
					Bottom	4.8	0.1	72	17.1	17.1	7.9	7.9	31.2	31.2	97.2	97.4	7.8	7.8	6.3	6.3	3	3						
						4.8	0.2	70	17.1	17.1	7.9	7.9	31.2	31.2	97.5	97.4	7.8	7.8	6.3	6.3	4	4						
SR3	Cloudy	Moderate	13:57	8.9	Surface	1.0	0.1	59	16.8	16.8	8.0	8.0	31.0	31.0	91.9	91.9	7.4	7.4	3.6	3.6	6	6	822169	807558				
						1.0	0.1	65	16.8	16.8	8.0	8.0	31.0	31.0	91.8	91.9	7.4	7.4	3.8	3.8	5	5						
					Middle	4.5	0.1	58	16.8	16.8	8.0	8.0	31.0	31.0	91.7	91.7	7.4	7.4	4.4	4.4	7	7						
						4.5	0.1	50	16.8	16.8	8.0	8.0	31.0	31.0	91.6	91.6	7.4	7.4	4.4	4.4	6	6						
					Bottom	7.9	0.1	54	16.8	16.8	8.0	8.0	30.9	30.9	91.6	91.6	7.4	7.4	5.2	5.2	7	7						
						7.9	0.1	60	16.8	16.8	8.0	8.0	30.9	30.9	91.6	91.6	7.4	7.4	5.2	5.2	7	7						
SR4A	Cloudy	Moderate	15:39	8.9	Surface	1.0	0.0	46	16.9	16.9	8.0	8.0	30.8	30.8	94.5	94.5	7.6	7.6	6.7	6.7	6	6	817200	807822				
						1.0	0.0	41	16.9	16.9	8.0	8.0	30.8	30.8	94.4	94.5	7.6	7.6	6.7	6.7	5	5						
					Middle	4.5	0.0	36	16.9	16.9	8.0	8.0	30.8	30.8	94.2	94.2	7.6	7.6	6.7	6.7	6	6						
						4.5	0.0	38	16.9	16.9	8.0	8.0	30.8	30.8	94.2	94.2	7.6	7.6	6.8	6.8	6	6						
					Bottom	7.9	0.0	63	16.9	16.9	8.0	8.0	30.8	30.8	94.6	94.7	7.6	7.7	6.7	6.7	5	5						
						7.9	0.0	57	16.9	16.9	8.0	8.0	30.8	30.8	94.7	94.7	7.7	7.7	6.8	6.8	5	5						
SR8	Fine	Calm	13:59	5.2	Surface	1.0	-	-	17.0	17.0	7.9	7.9	30.8	30.8	97.2	97.2	7.9	7.9	1.3	1.3	3	3	820412	811639				
						1.0	-	-	17.0	17.0	7.9	7.9	30.8	30.8	97.1	97.2	7.9	7.9	1.3	1.3	4	4						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
					Bottom	4.2	-	-	17.1	17.1	7.9	7.9	30.7	30.7	97.3	97.3	7.9	7.9	1.7	1.7	3	3						
						4.2	-	-	17.1	17.1	7.9	7.9	30.7	30.7	97.5	97.5	7.9	7.9	1.7	1.7	3	3						

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

Water Quality Monitoring

Water Quality Monitoring Results on 24 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)										
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA												
C1	Cloudy	Moderate	09:27	8.5	Surface	1.0	0.3	29	16.8	16.8	8.0	8.0	30.1	30.1	93.8	93.8	7.6	7.6	4.9	4.9	6	6	5	815635	804265									
						1.0	0.3	33	16.8	16.8	8.0	8.0	30.1	30.1	93.7	93.8	7.6	7.6	5.1	5.1	6	6												
						Middle	4.3	0.3	47	16.8	16.8	8.0	8.0	30.4	30.3	93.2	93.2	7.6	7.6	6.4	6.4	5				5								
							4.3	0.4	51	16.8	16.8	8.0	8.0	30.3	30.3	93.2	93.2	7.6	7.6	6.2	6.2	5				5								
					Bottom	7.5	0.4	57	16.8	16.8	8.0	8.0	30.9	30.9	91.2	91.3	7.4	7.4	8.6	8.6	5	5												
						7.5	0.4	58	16.8	16.8	8.0	8.0	30.9	30.9	91.3	91.3	7.4	7.4	9.6	9.6	5	5												
						C2	Cloudy	Moderate	10:47	11.8	Surface	1.0	0.3	345	16.8	16.8	8.0	8.0	31.0	31.0	92.1	92.1				7.5	7.5	3.5	3.5	6	6	7	825703	806943
												1.0	0.3	341	16.8	16.8	8.0	8.0	31.0	31.0	92.0	92.1				7.5	7.5	3.6	3.6	5	5			
Middle	5.9	0.4	10	16.8	16.8							8.0	8.0	31.0	31.0	91.9	91.9	7.4	7.4	7.6	7.6	7	7											
	5.9	0.4	10	16.8	16.8							8.0	8.0	31.0	31.0	91.9	91.9	7.4	7.4	8.3	8.3	6	6											
Bottom	10.8	0.4	6	16.8	16.8						8.0	8.0	31.0	31.0	92.0	92.1	7.5	7.5	11.7	11.7	8	8												
	10.8	0.3	0	16.8	16.8						8.0	8.0	31.0	31.0	92.1	92.1	7.5	7.5	11.9	11.9	7	7												
	C3	Fine	Calm	08:13	11.8						Surface	1.0	0.4	276	16.7	16.7	7.9	7.9	31.6	31.6	89.7	89.7	7.3	7.3	1.1	1.1	7	7	6	822109	817800			
												1.0	0.4	283	16.7	16.7	7.9	7.9	31.6	31.6	89.7	89.7	7.3	7.3	1.1	1.1	6	6						
Middle						5.9	0.4	252	16.7	16.7		7.9	7.9	31.8	31.8	88.1	88.1	7.1	7.1	2.1	2.1	6	6											
						5.9	0.4	255	16.7	16.7		7.9	7.9	31.9	31.9	88.0	88.1	7.1	7.1	2.1	2.1	5	5											
Bottom						10.8	0.4	278	16.6	16.7	7.9	7.9	31.9	31.9	89.3	89.5	7.2	7.2	3.4	3.4	6	6												
						10.8	0.4	283	16.7	16.7	7.9	7.9	31.9	31.9	89.6	89.5	7.2	7.2	3.3	3.3	5	5												
						IM1	Cloudy	Moderate	09:51	6.2	Surface	1.0	0.3	9	16.8	16.8	8.0	8.0	30.9	30.9	92.9	92.9	7.5	7.5	9.2	9.2	6	6				6	818374	806450
												1.0	0.2	12	16.8	16.8	8.0	8.0	30.9	30.9	92.9	92.9	7.5	7.5	9.3	9.3	7	7						
Middle	3.1	0.2	32	16.8	16.8							7.9	7.9	30.9	30.9	93.0	93.1	7.5	7.5	9.8	9.8	6	6											
	3.1	0.2	30	16.8	16.8							7.9	7.9	30.9	30.9	93.1	93.1	7.6	7.6	9.8	9.8	5	5											
Bottom	5.2	0.2	355	16.8	16.8						7.9	7.9	31.0	31.0	94.5	94.7	7.7	7.7	12.2	12.2	5	5												
	5.2	0.2	358	16.8	16.8						7.9	7.9	31.0	31.0	94.8	94.7	7.7	7.7	12.4	12.4	5	5												
	IM2	Cloudy	Moderate	09:57	6.5						Surface	1.0	0.3	19	16.8	16.8	8.0	8.0	30.7	30.7	93.2	93.2	7.6	7.6	8.6	8.6	5	5	6	819201	806225			
												1.0	0.3	18	16.8	16.8	8.0	8.0	30.7	30.7	93.2	93.2	7.6	7.6	8.7	8.7	6	6						
Middle						3.3	0.3	21	16.8	16.8		7.9	7.9	30.7	30.7	93.2	93.3	7.6	7.6	9.3	9.3	6	6											
						3.3	0.3	16	16.8	16.8		7.9	7.9	30.7	30.7	93.3	93.3	7.6	7.6	9.5	9.5	6	6											
Bottom						5.5	0.3	2	16.8	16.8	7.9	7.9	30.7	30.7	94.4	94.5	7.7	7.7	8.0	8.0	6	6												
						5.5	0.3	2	16.8	16.8	7.9	7.9	30.7	30.7	94.5	94.5	7.7	7.7	7.8	7.8	7	7												
						IM7	Cloudy	Moderate	10:17	7.6	Surface	1.0	0.3	356	16.9	16.9	8.0	8.0	30.9	30.9	92.8	92.8	7.5	7.5	1.7	1.7	6	6				6	821347	806845
												1.0	0.2	349	16.8	16.8	8.0	8.0	30.9	30.9	92.7	92.7	7.5	7.5	1.7	1.7	6	6						
Middle	3.8	0.2	349	16.8	16.8							8.0	8.0	30.9	30.9	92.6	92.7	7.5	7.5	1.4	1.4	6	6											
	3.8	0.3	342	16.8	16.8							8.0	8.0	30.9	30.9	92.7	92.7	7.5	7.5	1.4	1.4	5	5											
Bottom	6.6	0.3	354	16.8	16.8						8.0	8.0	31.0	31.0	93.3	93.4	7.6	7.6	1.2	1.2	5	5												
	6.6	0.3	358	16.8	16.8						8.0	8.0	31.0	31.0	93.4	93.4	7.6	7.6	1.2	1.2	5	5												

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									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA						
IM10	Fine	Moderate	09:32	9.2	Surface	1.0	0.3	298	16.8	16.8	7.8	7.8	30.8	30.8	93.9	93.9	7.6	7.6	1.3	7.6	4	4	822218	809831								
						1.0	0.4	305	16.8	16.8	7.9	7.8	30.8	30.8	93.8	93.9	7.6	7.6	1.3	7.6	3											
					Middle	4.6	0.3	284	16.7	16.7	7.9	7.9	30.9	30.9	93.7	93.7	7.6	7.6	2.4	7.6	2.4				4							
						4.6	0.3	289	16.7	16.7	7.9	7.9	30.9	30.9	93.7	93.7	7.6	7.6	2.6	7.6	4											
					Bottom	8.2	0.4	292	16.7	16.7	7.9	7.9	30.9	30.9	95.4	95.5	7.8	7.8	3.5	7.8	3.5				4							
						8.2	0.4	297	16.7	16.7	7.9	7.9	30.9	30.9	95.6	95.5	7.8	7.8	3.5	7.8	4											
					IM11	Fine	Calm	09:24	7.8	Surface	1.0	0.5	266	16.7	16.7	7.9	7.9	30.9	30.9	94.3	94.3				7.7	7.7	1.3	7.7	3	4	821514	810561
											1.0	0.5	266	16.7	16.7	7.9	7.9	30.9	30.9	94.3	94.3				7.7	7.7	1.3	7.7	3			
Middle	3.9	0.4	275	16.7						16.7	7.9	7.9	30.9	30.9	94.4	94.4	7.7	7.7	1.8	7.7	1.8	4										
	3.9	0.4	267	16.7						16.7	7.9	7.9	30.9	30.9	94.4	94.4	7.7	7.7	1.8	7.7	5											
Bottom	6.8	0.5	286	16.5						16.5	7.9	7.9	31.1	31.1	95.2	96.7	7.8	7.9	2.0	7.8	2.0	6										
	6.8	0.5	286	16.5						16.5	7.9	7.9	31.1	31.1	98.1	96.7	8.0	7.9	2.0	8.0	4											
IM12	Fine	Calm	09:16	7.8						Surface	1.0	0.4	290	16.7	16.7	7.9	7.9	31.0	31.0	93.2	93.2	7.6	7.6	1.3	7.6	3	4	821163	811532			
											1.0	0.5	295	16.7	16.7	7.9	7.9	31.1	31.0	93.1	93.2	7.6	7.6	1.3	7.6	3						
					Middle	3.9	0.5	266	16.7	16.7	7.9	7.9	31.1	31.1	93.2	93.2	7.6	7.6	1.4	7.6	1.4	4										
						3.9	0.5	262	16.7	16.7	7.9	7.9	31.1	31.1	93.2	93.2	7.6	7.6	1.4	7.6	4											
					Bottom	6.8	0.5	261	16.7	16.7	7.9	7.8	31.1	31.1	93.7	93.8	7.6	7.6	2.0	7.6	2.0	5										
						6.8	0.5	266	16.7	16.7	7.8	7.8	31.1	31.1	93.8	93.8	7.6	7.6	2.1	7.6	5											
					SR1A	Fine	Calm	08:41	5.4	Surface	1.0	0.0	200	16.8	16.8	7.9	7.9	31.3	31.3	92.1	92.2	7.5	7.5	2.3	7.5	5				5	819974	812664
											1.0	0.1	196	16.8	16.8	7.9	7.9	31.3	31.3	92.3	92.2	7.5	7.5	2.3	7.5	6						
Middle	2.7	0.0	198	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7								
	2.7	0.0	192	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Bottom	4.4	0.0	189	16.8						16.8	7.9	7.9	31.3	31.3	93.1	93.2	7.5	7.6	3.1	7.5	3.1	3										
	4.4	0.1	194	16.7						16.8	7.9	7.9	31.3	31.3	93.2	93.2	7.6	7.6	3.1	7.6	4											
SR2	Fine	Calm	08:37	5.2						Surface	1.0	0.1	255	16.7	16.7	7.9	7.9	31.3	31.3	93.7	93.7	7.6	7.6	3.2	7.6	7	5	821474	814168			
											1.0	0.1	259	16.7	16.7	7.9	7.9	31.3	31.3	93.7	93.7	7.6	7.6	3.2	7.6	6						
					Middle	-	0.1	264	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3								
						-	0.1	268	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Bottom	4.2	0.1	241	16.5	16.5	7.9	7.9	31.5	31.5	98.2	98.3	8.0	8.0	3.4	8.0	3.4	4										
						4.2	0.1	234	16.5	16.5	7.9	7.9	31.5	31.5	98.4	98.3	8.0	8.0	3.5	8.0	4											
					SR3	Cloudy	Moderate	10:25	8.9	Surface	1.0	0.3	345	16.8	16.8	8.0	8.0	30.9	30.9	92.6	92.6	7.5	7.5	3.5	7.5	6				5	822156	807554
											1.0	0.3	339	16.8	16.8	8.0	8.0	30.9	30.9	92.6	92.6	7.5	7.5	3.6	7.5	5						
Middle	4.5	0.3	343	16.8						16.8	8.0	8.0	30.9	30.9	92.9	93.0	7.5	7.5	4.4	7.5	4.4	4										
	4.5	0.3	344	16.8						16.8	8.0	8.0	30.9	30.9	93.1	93.1	7.5	7.5	4.4	7.5	5											
Bottom	7.9	0.3	325	16.8						16.8	7.9	7.9	30.9	30.9	93.7	93.8	7.6	7.6	4.6	7.6	4.6	4										
	7.9	0.3	331	16.8						16.8	7.9	7.9	30.9	30.9	93.9	93.8	7.6	7.6	4.4	7.6	5											
SR4A	Cloudy	Moderate	09:07	8.9						Surface	1.0	0.0	174	16.8	16.8	8.0	8.0	31.1	31.1	91.5	91.5	7.4	7.4	5.5	7.4	5	5	817203	807793			
											1.0	0.0	168	16.8	16.8	8.0	8.0	31.1	31.1	91.5	91.5	7.4	7.4	5.5	7.4	5						
					Middle	4.5	0.0	174	16.8	16.8	8.0	8.0	31.1	31.1	91.5	91.5	7.4	7.4	5.5	7.4	5.5	5										
						4.5	0.0	170	16.8	16.8	8.0	8.0	31.1	31.1	91.5	91.5	7.4	7.4	5.5	7.4	5											
					Bottom	7.9	0.0	179	16.8	16.8	7.9	7.9	31.1	31.1	91.4	91.5	7.4	7.4	6.0	7.4	6.0	6										
						7.9	0.0	176	16.8	16.8	7.9	7.9	31.1	31.1	91.5	91.5	7.4	7.4	5.8	7.4	6											
					SR8	Fine	Calm	09:00	4.2	Surface	1.0	-	-	16.9	16.9	7.8	7.8	31.2	31.2	94.1	94.1	7.6	7.6	1.8	7.6	4				3	820401	811609
											1.0	-	-	16.8	16.9	7.8	7.8	31.3	31.2	94.1	94.1	7.6	7.6	1.9	7.6	3						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2								
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Bottom	3.2	-	-	16.7						16.7	7.9	7.9	31.3	31.3	94.5	94.6	7.7	7.7	2.5	7.7	2.5	3										
	3.2	-	-	16.7						16.7	7.9	7.9	31.3	31.3	94.6	94.6	7.7	7.7	2.5	7.7	3											

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 26 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Cloudy	Moderate	16:41	8.2	Surface	1.0	0.2	210	16.5	16.5	8.1	8.1	32.2	32.2	99.7	99.7	8.0	8.0	8.0	6.7	3	3	815600	804234
						1.0	0.3	202	16.5	16.5	8.1	8.1	32.2	32.2	99.7	99.7	8.0							
					Middle	4.1	0.3	212	16.4	16.4	8.1	8.1	32.2	32.2	99.3	99.3	8.0							
						4.1	0.2	216	16.4	16.4	8.1	8.1	32.2	32.2	99.3	99.3	8.0							
					Bottom	7.2	0.3	225	16.4	16.4	8.1	8.1	32.2	32.2	99.5	99.6	8.0							
						7.2	0.4	218	16.4	16.4	8.1	8.1	32.2	32.2	99.6	99.6	8.0							
C2	Cloudy	Moderate	15:11	11.4	Surface	1.0	0.1	153	16.5	16.5	7.9	7.9	31.3	31.3	98.8	98.8	8.0	8.0	8.0	3.5	3	4	825669	806940
						1.0	0.1	155	16.5	16.5	7.9	7.9	31.3	31.3	98.7	98.8	8.0							
					Middle	5.7	0.1	162	16.2	16.2	7.9	7.9	31.5	31.5	97.4	97.4	7.9							
						5.7	0.1	166	16.2	16.2	7.9	7.9	31.5	31.5	97.3	97.4	7.9							
					Bottom	10.4	0.0	163	16.2	16.2	7.9	7.9	31.5	31.5	97.1	97.1	7.9							
						10.4	0.0	166	16.2	16.2	7.9	7.9	31.5	31.5	97.1	97.1	7.9							
C3	Fine	Calm	16:20	10.2	Surface	1.0	0.3	85	16.8	16.8	8.0	8.0	33.7	33.7	101.5	101.6	8.0	8.0	8.0	1.1	4	822104	817788	
						1.0	0.3	82	16.8	16.8	8.0	8.0	33.7	33.7	101.6	101.6	8.0							
					Middle	5.1	0.3	103	16.8	16.8	8.0	8.0	33.8	33.8	101.4	101.4	8.0							
						5.1	0.4	99	16.8	16.8	8.0	8.0	33.8	33.8	101.3	101.4	8.0							
					Bottom	9.2	0.3	94	16.8	16.8	8.0	8.0	33.8	33.8	101.4	101.4	8.0							
						9.2	0.3	99	16.8	16.8	8.0	8.0	33.8	33.8	101.4	101.4	8.0							
IM1	Cloudy	Moderate	16:06	6.5	Surface	1.0	0.1	174	16.4	16.4	8.0	8.0	32.2	32.2	99.9	99.9	8.0	8.0	8.0	6.8	4	818341	806443	
						1.0	0.1	179	16.4	16.4	8.0	8.0	32.2	32.2	99.9	99.9	8.0							
					Middle	3.3	0.1	165	16.4	16.4	8.0	8.0	32.2	32.2	99.4	99.4	8.0							
						3.3	0.1	163	16.4	16.4	8.0	8.0	32.2	32.2	99.4	99.4	8.0							
					Bottom	5.5	0.1	206	16.4	16.4	8.0	8.0	32.2	32.2	99.4	99.4	8.0							
						5.5	0.1	201	16.4	16.4	8.0	8.0	32.2	32.2	99.4	99.4	8.0							
IM2	Cloudy	Moderate	16:02	7.0	Surface	1.0	0.1	160	16.4	16.4	8.0	8.0	32.2	32.2	99.9	99.9	8.0	8.0	8.0	7.2	3	3	819188	806247
						1.0	0.1	156	16.4	16.4	8.1	8.0	32.2	32.2	99.8	99.9	8.0							
					Middle	3.5	0.1	134	16.4	16.4	8.1	8.1	32.2	32.2	99.6	99.6	8.0							
						3.5	0.1	136	16.4	16.4	8.1	8.1	32.2	32.2	99.5	99.6	8.0							
					Bottom	6.0	0.1	154	16.4	16.4	8.1	8.1	32.2	32.2	99.4	99.4	8.0							
						6.0	0.0	156	16.4	16.4	8.1	8.1	32.2	32.2	99.4	99.4	8.0							
IM7	Cloudy	Moderate	15:40	8.5	Surface	1.0	0.2	80	16.3	16.3	8.0	8.0	31.6	31.6	98.4	98.4	8.0	8.0	8.0	2.3	4	821339	806853	
						1.0	0.2	80	16.3	16.3	8.0	8.0	31.6	31.6	98.4	98.4	8.0							
					Middle	4.3	0.2	81	16.2	16.2	8.0	8.0	31.7	31.7	97.9	97.9	8.0							
						4.3	0.2	79	16.2	16.2	8.0	8.0	31.7	31.7	97.9	97.9	8.0							
					Bottom	7.5	0.1	83	16.1	16.1	8.0	8.0	31.7	31.7	98.1	98.2	8.0							
						7.5	0.1	81	16.1	16.1	8.0	8.0	31.7	31.7	98.2	98.2	8.0							

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 26 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Fine	Calm	15:11	8.2	Surface	1.0	0.1	91	16.7	16.7	7.9	7.9	33.8	33.8	101.7	101.7	8.1	8.1	1.1	1.1	4	4	822221	809829				
						1.0	0.2	86	16.7	16.7	7.9	7.9	33.8	33.8	101.6	101.6	8.1	8.1	1.1	1.1	4	4						
					Middle	4.1	0.1	81	16.7	16.7	7.9	7.9	33.8	33.8	101.6	101.6	8.1	8.1	1.2	1.2	4	4						
						4.1	0.1	78	16.7	16.7	7.9	7.9	33.8	33.8	101.6	101.6	8.1	8.1	1.3	1.3	4	4						
					Bottom	7.2	0.2	97	16.7	16.7	7.9	7.9	33.6	33.6	101.7	101.8	8.1	8.1	1.3	1.3	4	4						
						7.2	0.2	92	16.7	16.7	7.9	7.9	33.5	33.6	101.8	101.8	8.1	8.1	1.3	1.3	3	3						
IM11	Fine	Calm	15:19	9.0	Surface	1.0	0.2	79	16.9	16.9	8.1	8.1	33.9	34.0	102.7	102.7	8.1	8.1	1.1	1.1	4	4	821514	810535				
						1.0	0.1	83	16.8	16.9	8.1	8.1	34.0	34.0	102.6	102.6	8.1	8.1	1.1	1.1	3	3						
					Middle	4.5	0.2	70	16.7	16.7	8.1	8.1	34.1	34.2	102.4	102.4	8.1	8.1	1.3	1.3	4	4						
						4.5	0.2	66	16.6	16.6	8.1	8.1	34.2	34.2	102.3	102.3	8.1	8.1	1.3	1.3	4	4						
					Bottom	8.0	0.2	81	16.4	16.4	8.1	8.1	34.3	34.4	102.0	102.0	8.1	8.1	1.4	1.4	4	4						
						8.0	0.2	77	16.4	16.4	8.1	8.1	34.4	34.4	101.9	101.9	8.1	8.1	1.4	1.4	4	4						
IM12	Fine	Calm	15:26	9.2	Surface	1.0	0.3	85	16.8	16.8	8.0	8.0	33.8	33.8	100.6	100.6	8.0	8.0	1.1	1.1	5	4	821180	811499				
						1.0	0.3	79	16.8	16.8	8.0	8.0	33.8	33.8	100.6	100.6	8.0	8.0	1.1	1.1	4	4						
					Middle	4.6	0.2	103	16.8	16.8	8.0	8.0	33.8	33.8	100.7	100.8	8.0	8.0	1.1	1.1	4	4						
						4.6	0.3	106	16.8	16.8	8.0	8.0	33.8	33.8	100.8	100.8	8.0	8.0	1.1	1.1	4	4						
					Bottom	8.2	0.2	100	16.8	16.8	8.0	8.0	33.7	33.7	100.9	101.0	8.0	8.0	1.1	1.1	3	3						
						8.2	0.2	92	16.8	16.8	8.0	8.0	33.7	33.7	101.0	101.0	8.0	8.0	1.1	1.1	4	4						
SR1A	Fine	Calm	15:38	4.8	Surface	1.0	0.0	33	16.8	16.8	8.0	8.0	33.7	33.7	101.8	101.8	8.1	8.1	1.2	1.2	3	2	819970	812663				
						1.0	0.0	26	16.8	16.8	8.0	8.0	33.8	33.8	101.8	101.8	8.1	8.1	1.2	1.2	2	2						
					Middle	2.4	0.1	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
						2.4	0.1	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
					Bottom	3.8	0.0	16	16.8	16.8	8.0	8.0	33.8	33.8	101.8	101.9	8.1	8.1	1.2	1.2	3	3						
						3.8	0.0	9	16.8	16.8	8.0	8.0	33.8	33.8	101.9	101.9	8.1	8.1	1.3	1.3	4	4						
SR2	Fine	Calm	15:57	5.0	Surface	1.0	0.2	59	16.7	16.7	8.0	8.0	33.8	33.8	101.6	101.6	8.1	8.1	1.1	1.1	3	3	821455	814158				
						1.0	0.2	55	16.7	16.7	8.0	8.0	33.8	33.8	101.5	101.5	8.1	8.1	1.1	1.1	3	3						
					Middle	-	0.2	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
						-	0.3	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3	3
					Bottom	4.0	0.2	58	16.7	16.7	8.0	8.0	33.8	33.7	101.5	101.5	8.1	8.1	1.2	1.2	3	3						
						4.0	0.2	51	16.7	16.7	8.0	8.0	33.7	33.7	101.5	101.5	8.1	8.1	1.2	1.2	3	3						
SR3	Cloudy	Moderate	15:33	9.0	Surface	1.0	0.1	101	16.4	16.4	7.9	7.9	31.3	31.3	99.8	99.8	8.1	8.1	13.9	13.9	4	4	822159	807551				
						1.0	0.1	96	16.4	16.4	7.9	7.9	31.3	31.3	99.8	99.8	8.1	8.1	14.0	14.0	4	4						
					Middle	4.5	0.1	102	16.3	16.3	7.9	7.9	31.6	31.6	99.5	99.5	8.1	8.1	5.1	5.1	4	4						
						4.5	0.1	105	16.3	16.3	7.9	7.9	31.6	31.6	99.5	99.5	8.1	8.1	5.2	5.2	4	4						
					Bottom	8.0	0.1	91	16.3	16.3	7.9	7.9	31.8	31.8	99.4	99.5	8.0	8.1	7.8	7.8	4	4						
						8.0	0.1	96	16.3	16.3	7.9	7.9	31.8	31.8	99.5	99.5	8.1	8.1	8.3	8.3	3	3						
SR4A	Cloudy	Moderate	17:09	9.2	Surface	1.0	0.0	52	16.3	16.3	8.1	8.1	31.9	31.9	98.8	98.8	8.0	8.0	4.7	4.7	3	3	817210	807796				
						1.0	0.0	49	16.3	16.3	8.1	8.1	31.9	31.9	98.8	98.8	8.0	8.0	4.7	4.7	3	3						
					Middle	4.6	0.1	42	16.3	16.3	8.1	8.1	31.9	31.9	98.6	98.6	8.0	8.0	4.7	4.7	4	4						
						4.6	0.1	48	16.3	16.3	8.1	8.1	31.9	31.9	98.6	98.6	8.0	8.0	4.7	4.7	4	4						
					Bottom	8.2	0.0	44	16.2	16.2	8.1	8.1	31.9	31.9	98.7	98.7	8.0	8.0	4.7	4.7	5	4						
						8.2	0.0	46	16.2	16.2	8.1	8.1	31.9	31.9	98.7	98.7	8.0	8.0	4.7	4.7	4	4						
SR8	Fine	Calm	15:32	5.0	Surface	1.0	-	-	16.7	16.7	8.0	8.0	34.0	34.0	101.5	101.5	8.0	8.0	1.1	1.1	3	4	820382	811623				
						1.0	-	-	16.7	16.7	8.0	8.0	34.0	34.0	101.5	101.5	8.0	8.0	1.1	1.1	4	4						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
					Bottom	4.0	-	-	16.7	16.7	8.0	8.0	34.0	33.9	101.4	101.5	8.0	8.1	1.2	1.2	4	4						
						4.0	-	-	16.6	16.7	8.0	8.0	33.8	33.8	101.5	101.5	8.1	8.1	1.2	1.2	5	5						

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 26 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	10:51	8.2	Surface	1.0	0.4	30	16.3	8.0	8.0	32.0	32.0	98.3	98.3	8.0	8.0	10.6	10.6	4	3	815637	804228	
						1.0	0.4	23	16.3	8.0	8.0	32.0	32.0	98.3	98.3	8.0	8.0	10.6	10.6	4				
					Middle	4.1	0.4	34	16.3	8.0	8.0	32.0	32.0	98.3	98.4	8.0	8.0	10.7	10.7	3				
						4.1	0.4	29	16.3	8.0	8.0	32.0	32.0	98.4	98.4	8.0	8.0	11.0	11.0	4				
					Bottom	7.2	0.3	36	16.3	8.0	8.0	32.0	32.0	98.5	98.6	8.0	8.0	9.7	9.7	3				
						7.2	0.3	29	16.3	8.0	8.0	32.0	32.0	98.6	98.6	8.0	8.0	10.1	10.1	2				
C2	Cloudy	Moderate	12:11	11.0	Surface	1.0	0.4	5	16.4	8.2	8.2	31.1	31.1	99.1	99.1	8.0	8.1	2.2	2.2	3	3	825675	806923	
						1.0	0.4	3	16.4	8.2	8.2	31.1	31.1	99.1	99.1	8.0	8.1	2.2	2.2	4				
					Middle	5.5	0.4	334	16.3	8.2	8.2	31.1	31.1	99.2	99.2	8.1	8.1	2.9	2.9	3				
						5.5	0.3	327	16.3	8.2	8.2	31.1	31.1	99.2	99.2	8.1	8.1	2.9	2.9	3				
					Bottom	10.0	0.4	336	16.3	8.3	8.3	31.2	31.2	99.7	99.7	8.1	8.1	2.9	2.9	3				
						10.0	0.3	328	16.3	8.3	8.3	31.2	31.2	99.7	99.7	8.1	8.1	3.0	3.0	3				
C3	Fine	Calm	11:19	12.0	Surface	1.0	0.4	260	17.0	8.0	8.0	33.8	33.8	98.8	98.8	7.8	7.8	1.1	1.1	3	3	822121	817815	
						1.0	0.4	261	17.0	8.0	8.0	33.8	33.8	98.7	98.8	7.8	7.8	1.1	1.1	4				
					Middle	6.0	0.4	256	17.0	8.0	8.0	33.8	33.8	98.6	98.6	7.8	7.8	1.1	1.1	3				
						6.0	0.5	263	17.0	8.0	8.0	33.8	33.8	98.5	98.6	7.8	7.8	1.1	1.1	3				
					Bottom	11.0	0.5	248	17.0	8.0	8.0	33.9	34.0	98.2	98.0	7.7	7.8	1.3	1.3	2				
						11.0	0.5	246	16.9	8.0	8.0	34.1	34.0	97.8	98.0	7.8	7.8	1.2	1.2	3				
IM1	Cloudy	Moderate	11:14	6.3	Surface	1.0	0.2	19	16.2	8.1	8.1	31.8	31.8	98.3	98.3	8.0	8.0	6.2	6.2	4	4	818336	806434	
						1.0	0.2	17	16.2	8.1	8.1	31.8	31.8	98.3	98.3	8.0	8.0	6.2	6.2	4				
					Middle	3.2	0.3	27	16.2	8.1	8.1	31.8	31.8	98.2	98.2	8.0	8.0	9.1	9.1	4				
						3.2	0.3	21	16.2	8.1	8.1	31.8	31.8	98.2	98.2	8.0	8.0	9.1	9.1	4				
					Bottom	5.3	0.3	29	16.1	8.1	8.1	31.8	31.8	98.2	98.2	8.0	8.0	10.4	10.4	4				
						5.3	0.3	35	16.1	8.1	8.1	31.9	31.8	98.2	98.2	8.0	8.0	10.9	10.9	4				
IM2	Cloudy	Moderate	11:19	7.0	Surface	1.0	0.2	27	16.2	8.0	8.0	31.7	31.7	98.7	98.7	8.0	8.0	3.8	3.8	3	4	819171	806244	
						1.0	0.2	33	16.2	8.0	8.0	31.7	31.7	98.7	98.7	8.0	8.0	3.8	3.8	3				
					Middle	3.5	0.2	13	16.1	8.1	8.1	31.8	31.8	98.3	98.3	8.0	8.0	4.4	4.4	4				
						3.5	0.2	5	16.1	8.1	8.1	31.8	31.8	98.3	98.3	8.0	8.0	4.5	4.5	3				
					Bottom	6.0	0.2	11	16.1	8.1	8.1	31.7	31.7	98.4	98.5	8.0	8.0	4.7	4.7	4				
						6.0	0.3	13	16.1	8.1	8.1	31.7	31.7	98.5	98.5	8.0	8.0	4.7	4.7	4				
IM7	Cloudy	Moderate	11:37	8.1	Surface	1.0	0.2	17	16.4	8.0	8.0	31.3	31.3	98.0	98.0	7.9	7.9	3.4	3.4	4	4	821334	806858	
						1.0	0.2	16	16.4	8.0	8.0	31.3	31.3	98.0	98.0	7.9	7.9	3.4	3.4	5				
					Middle	4.1	0.3	6	16.4	8.1	8.1	31.2	31.2	97.7	97.7	7.9	7.9	3.4	3.4	5				
						4.1	0.3	0	16.4	8.1	8.1	31.2	31.2	97.6	97.7	7.9	7.9	3.4	3.4	4				
					Bottom	7.1	0.3	14	16.4	8.1	8.1	31.3	31.3	97.5	97.5	7.9	7.9	3.4	3.4	3				
						7.1	0.2	11	16.4	8.1	8.1	31.3	31.3	97.5	97.5	7.9	7.9	3.4	3.4	3				

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring Results on 26 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA									
IM10	Fine	Moderate	12:24	9.2	Surface	1.0	0.3	315	16.7	16.7	7.9	7.9	33.9	33.9	103.4	103.5	8.2	8.3	1.0	1.2	2	3	822243	809860					
						1.0	0.3	313	16.7	16.7	7.9	7.9	33.9	33.9	103.5	103.5	8.2		1.0	3									
					Middle	4.6	0.3	295	16.7	16.7	7.9	7.9	33.9	33.9	104.0	104.1	8.3		1.2	3									
						4.6	0.3	296	16.6	16.7	7.9	7.9	33.9	33.9	104.1	104.1	8.3		1.2	3									
					Bottom	8.2	0.3	291	16.6	16.7	7.9	7.9	33.7	33.7	104.2	104.4	8.3		1.3	4									
						8.2	0.3	294	16.7	16.7	7.9	7.9	33.8	33.7	104.5	104.4	8.3		1.4	4									
IM11	Fine	Calm	12:16	8.0	Surface	1.0	0.3	274	16.7	16.7	8.0	8.0	33.8	33.8	102.8	102.8	8.2	8.2	1.1	1.3	4	4	821482	810543					
						1.0	0.3	269	16.7	16.7	8.0	8.0	33.8	33.8	102.8	102.8	8.2		1.1	5									
					Middle	4.0	0.4	290	16.7	16.7	8.0	8.0	33.8	33.8	102.9	103.0	8.2		1.3	5									
						4.0	0.3	296	16.7	16.7	8.0	8.0	33.8	33.8	103.1	103.0	8.2		1.3	4									
					Bottom	7.0	0.4	299	16.7	16.7	8.0	8.0	33.8	33.8	103.2	103.5	8.2		1.5	3									
						7.0	0.4	302	16.7	16.7	8.0	8.0	33.8	33.8	103.7	103.5	8.2		1.4	4									
IM12	Fine	Calm	12:11	6.6	Surface	1.0	0.3	296	16.8	16.8	8.0	8.0	33.9	33.9	102.6	102.7	8.1	8.1	1.1	1.2	3	4	821170	811517					
						1.0	0.3	297	16.8	16.8	8.0	8.0	33.9	33.9	102.7	102.7	8.1		1.1	4									
					Middle	3.3	0.3	281	16.8	16.8	8.0	8.0	33.9	33.9	103.0	103.1	8.1		1.1	4									
						3.3	0.3	280	16.8	16.8	8.0	8.0	33.9	33.9	103.1	103.1	8.2		1.1	5									
					Bottom	5.6	0.3	261	16.8	16.8	8.0	8.0	33.9	33.9	103.5	103.7	8.2		1.3	4									
						5.6	0.4	254	16.8	16.8	8.0	8.0	33.9	33.9	103.9	103.7	8.2		1.3	5									
SR1A	Fine	Calm	11:50	5.2	Surface	1.0	0.0	191	16.3	16.3	7.9	7.9	33.9	33.9	103.5	103.6	8.3	8.3	1.1	1.1	3	3	819981	812653					
						1.0	0.1	198	16.2	16.3	7.9	7.9	34.0	33.9	103.6	103.6	8.3		1.1	4									
					Middle	2.6	0.1	212	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	-
						2.6	0.0	216	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	-
					Bottom	4.2	0.0	187	16.1	16.1	7.9	7.9	34.0	32.4	103.9	104.0	8.4		1.1	2									
						4.2	0.0	191	16.1	16.1	7.9	7.9	30.9	32.4	104.1	104.0	8.4		1.1	3									
SR2	Fine	Calm	11:39	5.4	Surface	1.0	0.1	257	16.9	16.9	7.9	7.9	33.9	33.9	99.8	99.8	7.9	7.9	1.0	1.0	3	3	821464	814159					
						1.0	0.1	262	16.9	16.9	7.9	7.9	33.9	33.9	99.7	99.7	7.9		1.0	3									
					Middle	-	0.1	243	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	-
						-	0.1	247	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	-
					Bottom	4.4	0.1	254	17.0	17.0	8.0	8.0	33.8	33.8	99.1	99.1	7.8		1.0	4									
						4.4	0.1	257	17.0	17.0	8.0	8.0	33.8	33.8	99.1	99.1	7.8		1.0	3									
SR3	Cloudy	Moderate	11:44	9.2	Surface	1.0	0.4	338	16.4	16.4	8.0	8.0	31.2	31.2	97.5	97.5	7.9	7.9	2.8	2.5	3	3	822160	807569					
						1.0	0.3	336	16.4	16.4	8.0	8.0	31.2	31.2	97.5	97.5	7.9		2.7	3									
					Middle	4.6	0.3	333	16.3	16.3	8.1	8.1	31.3	31.3	97.4	97.4	7.9		2.5	2									
						4.6	0.3	332	16.3	16.3	8.1	8.1	31.3	31.3	97.4	97.4	7.9		2.5	3									
					Bottom	8.2	0.3	345	16.1	16.1	8.1	8.1	31.4	31.4	97.7	97.7	8.0		2.3	4									
						8.2	0.3	337	16.1	16.1	8.1	8.1	31.4	31.4	97.7	97.7	8.0		2.4	3									
SR4A	Cloudy	Moderate	10:34	9.3	Surface	1.0	0.0	229	15.9	15.9	8.0	8.0	31.1	31.1	97.4	97.4	8.0	8.0	2.3	2.4	6	4	817165	807814					
						1.0	0.0	231	15.9	15.9	8.0	8.0	31.1	31.1	97.4	97.4	8.0		2.4	4									
					Middle	4.7	0.0	237	15.9	15.9	7.9	7.9	31.1	31.1	97.1	97.1	8.0		2.8	4									
						4.7	0.1	240	15.9	15.9	7.9	7.9	31.1	31.1	97.0	97.0	8.0		2.8	4									
					Bottom	8.3	0.1	221	15.9	15.9	7.9	7.9	31.1	31.1	96.9	97.0	7.9		2.9	3									
						8.3	0.1	214	15.9	15.9	7.9	7.9	31.1	31.1	97.0	97.0	7.9		2.9	4									
SR8	Fine	Calm	12:07	4.0	Surface	1.0	-	-	16.9	16.9	8.0	8.0	33.9	33.9	104.7	104.8	8.3	8.3	1.1	1.3	4	3	820393	811634					
						1.0	-	-	16.9	16.9	8.0	8.0	33.9	33.9	104.8	104.8	8.3		1.1	3									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-	-	-	
					Bottom	3.0	-	-	16.8	16.8	8.0	8.0	33.9	33.7	104.4	104.5	8.3		1.4	3									
						3.0	-	-	16.8	16.8	8.0	8.0	33.4	33.7	104.6	104.5	8.3		1.5	3									

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA		
C1	Cloudy	Moderate	18:57	8.8	Surface	1.0	0.4	216	16.2	8.0	8.0	31.5	31.5	103.3	103.3	8.4	8.4	8.4	8.4	10.3	7	7	815640	804229				
						1.0	0.3	221	16.2	8.0	8.0	31.5	31.5	103.3	103.3	8.4									6.9	9		
					Middle	4.4	0.4	198	16.1	8.1	8.1	31.5	31.5	102.1	102.1	8.3									8.3	8.3	7.1	8
						4.4	0.3	190	16.1	8.1	8.1	31.5	31.5	102.0	102.0	8.3									8.3	8.3	10.3	8
					Bottom	7.8	0.3	192	16.1	8.1	8.1	31.5	31.5	100.4	100.3	8.2									8.2	8.2	13.7	6
						7.8	0.3	197	16.1	8.1	8.1	31.5	31.5	100.1	100.3	8.1									8.2	8.1	13.2	6
C2	Cloudy	Moderate	17:28	11.8	Surface	1.0	0.3	187	16.1	7.9	7.9	30.9	30.9	103.1	103.1	8.4	8.4	8.4	8.4	6.7	5	5	825682	806923				
						1.0	0.3	182	16.1	7.9	7.9	30.9	30.9	103.0	103.1	8.4									4.4	4		
					Middle	5.9	0.3	178	16.0	7.9	7.9	30.9	30.8	102.6	102.6	8.4									8.4	8.4	6.8	5
						5.9	0.3	179	16.0	7.9	7.9	30.8	30.8	102.6	102.6	8.4									8.4	8.4	7.1	4
					Bottom	10.8	0.3	164	16.0	7.9	7.9	30.8	30.8	102.9	103.0	8.4									8.4	8.4	8.9	5
						10.8	0.3	165	16.1	7.9	7.9	30.8	30.8	103.1	103.0	8.4									8.4	8.4	8.5	6
C3	Fine	Rough	18:19	10.2	Surface	1.0	0.2	75	16.4	8.0	8.0	32.1	32.1	98.7	99.1	8.0	8.3	8.3	8.3	1.4	5	5	822097	817819				
						1.0	0.3	74	16.4	8.0	8.0	32.1	32.1	99.4	99.1	8.0									1.0	4		
					Middle	5.1	0.3	80	16.4	8.0	8.0	32.1	32.1	104.9	105.0	8.5									8.5	8.5	1.1	6
						5.1	0.3	85	16.4	8.0	8.0	32.1	32.1	105.0	105.0	8.5									8.5	8.5	1.4	5
					Bottom	9.2	0.2	58	16.4	8.0	8.0	32.0	32.0	105.6	106.0	8.5									8.6	8.5	1.6	4
						9.2	0.3	50	16.4	8.0	8.0	32.1	32.0	106.4	106.0	8.6									8.6	8.6	1.5	4
IM1	Cloudy	Moderate	18:32	6.4	Surface	1.0	0.2	201	16.1	8.1	8.1	31.4	31.4	102.5	102.5	8.3	8.4	8.4	8.4	6.1	7	7	818371	806440				
						1.0	0.2	207	16.1	8.1	8.1	31.4	31.4	102.5	102.5	8.4									5.5	8		
					Middle	3.2	0.2	199	16.1	8.1	8.1	31.4	31.4	102.6	102.6	8.4									8.4	8.4	5.6	7
						3.2	0.3	198	16.1	8.1	8.1	31.4	31.4	102.6	102.6	8.4									8.4	8.4	5.9	7
					Bottom	5.4	0.2	201	16.1	8.1	8.1	31.4	31.4	103.1	103.2	8.4									8.4	8.4	6.0	6
						5.4	0.2	203	16.1	8.1	8.1	31.4	31.4	103.2	103.2	8.4									8.4	8.4	6.5	6
IM2	Cloudy	Moderate	18:26	6.8	Surface	1.0	0.3	185	16.1	8.0	8.0	31.4	31.4	102.5	102.5	8.3	8.3	8.3	8.3	5.4	7	7	819165	806229				
						1.0	0.3	180	16.1	8.0	8.0	31.4	31.4	102.5	102.5	8.3									5.3	5		
					Middle	3.4	0.3	215	16.1	8.0	8.0	31.4	31.4	102.5	102.6	8.3									8.3	8.3	5.4	6
						3.4	0.3	214	16.1	8.0	8.0	31.4	31.4	102.6	102.6	8.4									8.4	8.4	5.3	8
					Bottom	5.8	0.3	179	16.1	8.0	8.0	31.4	31.4	103.5	103.6	8.4									8.4	8.4	5.5	7
						5.8	0.3	173	16.1	8.0	8.0	31.4	31.4	103.6	103.6	8.4									8.4	8.4	5.6	9
IM7	Cloudy	Moderate	18:01	8.4	Surface	1.0	0.2	162	16.0	8.0	8.0	31.2	31.2	102.3	102.3	8.4	8.4	8.4	8.4	4.2	7	7	821344	806821				
						1.0	0.3	164	16.0	8.0	8.0	31.2	31.2	102.3	102.3	8.4									4.5	6		
					Middle	4.2	0.2	141	15.9	8.0	8.0	31.3	31.3	102.6	102.7	8.4									8.4	8.4	4.6	7
						4.2	0.2	146	15.9	8.0	8.0	31.3	31.3	102.7	102.7	8.4									8.4	8.4	4.3	7
					Bottom	7.4	0.2	134	15.9	8.0	8.0	31.2	31.2	103.0	103.1	8.4									8.4	8.4	3.9	7
						7.4	0.1	139	15.9	8.0	8.0	31.2	31.2	103.1	103.1	8.4									8.4	8.4	3.8	7

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Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
IM10	Fine	Rough	17:12	8.6	Surface	1.0	0.3	101	15.9	15.9	8.0	8.0	31.9	31.9	100.7	100.7	8.2	8.2	1.0	1.3	6	7	822220	809852					
						1.0	0.3	101	15.9		8.0	8.0	31.9	31.9	100.6	100.7	8.2		1.1										
					Middle	4.3	0.3	82	15.8	15.8	8.0	8.0	32.0	32.0	100.3	100.3	8.2	8.2	1.1	6									
						4.3	0.3	79	15.8		8.0	8.0	32.0	32.0	100.2	100.3	8.2	1.1	7										
					Bottom	7.6	0.2	70	15.7	15.7	8.0	8.0	32.0	32.2	100.0	100.2	8.2	8.2	1.8	8									
						7.6	0.3	70	15.6		8.0	8.0	32.2	32.2	100.3	100.2	8.2	8.2	1.9	8									
IM11	Fine	Rough	17:19	9.2	Surface	1.0	0.3	104	16.0	16.0	7.9	7.9	31.9	31.9	104.8	104.9	8.5	8.6	1.0	1.3	5	5	821494	810556					
						1.0	0.3	99	16.0		7.9	7.9	31.9	31.9	105.0	104.9	8.5		1.1										
					Middle	4.6	0.3	92	16.0	16.0	8.0	8.0	31.9	31.9	105.4	105.5	8.6	8.6	1.2	5									
						4.6	0.3	93	16.0		8.0	8.0	31.9	31.9	105.5	105.5	8.6	8.6	1.2	4									
					Bottom	8.2	0.3	66	16.0	16.0	8.0	8.0	31.9	31.9	106.1	106.2	8.6	8.6	1.7	4									
						8.2	0.3	66	16.0		8.0	8.0	31.9	31.9	106.3	106.2	8.6	8.6	1.7	4									
IM12	Fine	Rough	17:25	9.0	Surface	1.0	0.3	91	15.9	15.9	8.0	8.0	31.8	31.8	108.3	108.4	8.8	8.9	1.6	1.8	3	5	821148	811529					
						1.0	0.3	84	15.9		8.0	8.0	31.8	31.8	108.5	108.4	8.9		1.5										
					Middle	4.5	0.3	110	15.8	15.8	8.0	8.0	31.8	31.8	109.3	109.4	8.9	8.9	1.8	6									
						4.5	0.3	109	15.8		8.1	8.0	31.8	31.8	109.4	109.4	8.9	8.9	1.9	5									
					Bottom	8.0	0.3	108	15.9	15.9	8.0	8.0	31.7	31.7	110.1	110.2	9.0	9.0	2.0	6									
						8.0	0.3	110	15.9		8.0	8.0	31.7	31.7	110.3	110.2	9.0	9.0	2.1	5									
SR1A	Fine	Rough	17:42	5.6	Surface	1.0	0.0	27	15.7	15.7	8.0	8.0	31.5	31.5	105.2	105.3	8.6	8.7	1.9	2.0	7	6	819973	812654					
						1.0	0.1	30	15.6		8.0	8.0	31.5	31.5	105.4	105.3	8.7		2.0										
					Middle	2.8	-	44	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						2.8	0.0	44	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	4.6	0.0	62	15.6	15.6	8.0	8.0	31.5	31.5	105.8	105.9	8.7	8.7	2.0	6									
						4.6	0.1	64	15.6		8.0	8.0	31.5	31.5	105.9	105.9	8.7	8.7	2.0	4									
SR2	Fine	Rough	17:54	5.8	Surface	1.0	0.2	38	16.2	16.2	8.0	8.0	31.9	31.9	106.4	106.6	8.6	8.6	1.8	1.9	6	5	821469	814145					
						1.0	0.2	44	16.2		8.0	8.0	31.9	31.9	106.7	106.6	8.6		1.7										
					Middle	-	0.3	71	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						-	0.3	64	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	4.8	0.3	57	16.2	16.2	8.0	8.0	31.8	31.8	109.0	109.4	8.8	8.9	2.0	4									
						4.8	0.2	50	16.2		8.0	8.0	31.9	31.8	109.8	109.4	8.9	8.9	2.0	4									
SR3	Cloudy	Moderate	17:54	8.4	Surface	1.0	0.3	167	16.2	16.2	8.0	8.0	30.8	30.8	104.6	104.6	8.5	8.5	2.5	2.7	4	5	822130	807571					
						1.0	0.3	167	16.2		8.0	8.0	30.8	30.8	104.5	104.6	8.5		2.5										
					Middle	4.2	0.3	134	16.1	16.1	8.0	8.0	30.8	30.8	103.3	103.3	8.5	8.5	2.8	4									
						4.2	0.4	131	16.1		8.0	8.0	30.8	30.8	103.3	103.3	8.4	8.4	2.8	6									
					Bottom	7.4	0.3	146	16.0	16.0	8.1	8.1	30.8	30.8	102.7	102.7	8.4	8.4	2.8	6									
						7.4	0.3	144	16.0		8.1	8.1	30.8	30.8	102.7	102.7	8.4	8.4	2.8	5									
SR4A	Cloudy	Moderate	19:26	8.5	Surface	1.0	0.0	4	16.0	16.0	8.0	8.0	31.5	31.4	106.1	106.2	8.7	8.7	6.5	6.6	8	8	817211	807792					
						1.0	0.0	358	16.0		8.0	8.0	31.4	31.4	106.2	106.2	8.7		6.5										
					Middle	4.3	0.1	0	15.9	15.9	8.0	8.0	31.4	31.4	106.8	106.9	8.7	8.7	6.6	8									
						4.3	0.1	4	15.9		8.0	8.0	31.4	31.4	106.9	106.9	8.7	8.7	6.7	8									
					Bottom	7.5	0.0	337	15.9	15.9	8.0	8.0	31.4	31.4	107.2	107.3	8.8	8.8	6.7	7									
						7.5	0.0	334	15.9		8.0	8.0	31.4	31.4	107.4	107.3	8.8	8.8	6.7	7									
SR8	Fine	Rough	17:29	5.0	Surface	1.0	-	-	15.9	15.9	8.0	8.0	31.7	31.7	106.6	106.7	8.7	8.7	2.3	2.6	6	5	820391	811644					
						1.0	-	-	15.9		8.0	8.0	31.7	31.7	106.8	106.7	8.7		2.2										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	4.0	-	-	15.9	15.9	8.0	8.0	31.7	31.7	108.1	108.3	8.8	8.9	3.0	5									
						4.0	-	-	15.9		8.0	8.0	31.7	31.7	108.5	108.3	8.9	8.9	3.1	4									

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 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA		
C1	Cloudy	Moderate	11:24	8.3	Surface	1.0	0.3	36	15.8	15.8	7.9	7.9	31.5	31.5	102.5	102.5	8.4	8.4	9.6	9.8	14	12	815621	804266				
						1.0	0.3	29	15.8	7.9	7.9	31.5	31.5	102.5	102.5	8.4	8.4	9.7	9.8	13	12							
					Middle	4.2	0.2	10	15.8	15.8	7.9	7.9	31.5	31.5	102.6	102.6	8.4	8.4	9.3	9.8	12	12			815621	804266		
						4.2	0.2	15	15.8	15.8	7.9	7.9	31.5	31.5	102.6	102.6	8.4	8.4	9.4	9.8	10	12						
					Bottom	7.3	0.3	36	15.8	15.8	7.9	7.9	31.5	31.5	102.8	102.8	8.4	8.4	10.6	9.8	11	12					815621	804266
						7.3	0.3	30	15.8	15.8	7.9	7.9	31.5	31.5	102.8	102.8	8.4	8.4	10.3	9.8	12	12						
C2	Cloudy	Moderate	12:42	11.6	Surface	1.0	0.4	1	16.1	16.1	7.9	7.9	30.8	30.8	104.0	104.0	8.5	8.5	2.5	5.3	6	5	825667	806927				
						1.0	0.4	355	16.1	16.1	7.9	7.9	30.9	30.9	104.0	104.0	8.5	8.5	2.5	5.3	5	5						
					Middle	5.8	0.4	348	16.0	16.0	7.9	7.9	30.9	30.9	104.1	104.2	8.5	8.5	2.7	5.3	5	5			825667	806927		
						5.8	0.3	346	16.0	16.0	7.9	7.9	30.9	30.9	104.2	104.2	8.5	8.5	2.7	5.3	4	5						
					Bottom	10.6	0.3	356	16.0	16.0	7.9	7.9	30.9	30.9	104.8	104.9	8.6	8.6	10.8	5.3	3	5					825667	806927
						10.6	0.4	353	16.0	16.0	7.9	7.9	30.9	30.9	104.9	104.9	8.6	8.6	10.5	5.3	4	5						
C3	Fine	Rough	11:32	11.2	Surface	1.0	0.4	271	16.5	16.5	8.0	8.0	31.3	31.3	95.4	95.4	7.7	7.8	1.0	1.7	4	5	822102	817816				
						1.0	0.4	271	16.5	16.5	8.0	8.0	31.3	31.3	95.4	95.4	7.7	7.8	1.1	1.7	5	5						
					Middle	5.6	0.4	273	16.5	16.5	8.0	8.0	31.1	31.1	95.8	95.8	7.8	7.8	1.7	1.7	4	5			822102	817816		
						5.6	0.4	265	16.5	16.5	8.0	8.0	31.1	31.1	95.8	95.8	7.8	7.8	1.7	1.7	5	5						
					Bottom	10.2	0.5	264	16.5	16.5	8.0	8.0	31.0	30.9	96.3	96.4	7.8	7.8	2.5	1.7	6	5					822102	817816
						10.2	0.5	267	16.5	16.5	8.0	8.0	30.9	30.9	96.4	96.4	7.8	7.8	2.4	1.7	5	5						
IM1	Cloudy	Moderate	11:38	6.4	Surface	1.0	0.1	5	16.0	16.0	7.9	7.9	31.3	31.3	102.9	102.9	8.4	8.4	4.5	4.9	7	6	818349	806453				
						1.0	0.1	11	16.0	16.0	7.9	7.9	31.3	31.3	102.9	102.9	8.4	8.4	4.5	4.9	7	6						
					Middle	3.2	0.1	16	16.0	16.0	7.9	7.9	31.3	31.3	103.0	103.0	8.4	8.4	5.0	4.9	7	6			818349	806453		
						3.2	0.1	13	16.0	16.0	7.9	7.9	31.3	31.3	103.0	103.0	8.4	8.4	5.0	4.9	6	6						
					Bottom	5.4	0.2	18	16.0	16.0	8.0	8.0	31.3	31.3	103.1	103.2	8.4	8.4	5.2	4.9	5	6					818349	806453
						5.4	0.2	23	16.0	16.0	8.0	8.0	31.3	31.3	103.2	103.2	8.4	8.4	5.2	4.9	6	6						
IM2	Cloudy	Moderate	11:46	7.1	Surface	1.0	0.2	352	16.0	16.0	8.0	8.0	31.2	31.2	103.8	103.8	8.5	8.5	6.2	6.9	4	6	819202	806249				
						1.0	0.2	346	16.0	16.0	8.0	8.0	31.2	31.2	103.8	103.8	8.5	8.5	6.4	6.9	5	6						
					Middle	3.6	0.2	13	16.0	16.0	8.0	8.0	31.3	31.3	103.7	103.7	8.5	8.5	7.3	6.9	6	6			819202	806249		
						3.6	0.1	6	16.0	16.0	8.0	8.0	31.3	31.3	103.7	103.7	8.5	8.5	7.1	6.9	6	6						
					Bottom	6.1	0.1	338	15.9	15.9	8.0	8.0	31.3	31.3	103.5	103.5	8.5	8.5	7.4	6.9	7	6					819202	806249
						6.1	0.2	343	15.9	15.9	8.0	8.0	31.3	31.3	103.5	103.5	8.5	8.5	6.8	6.9	8	6						
IM7	Cloudy	Moderate	12:08	8.9	Surface	1.0	0.2	321	15.9	15.9	7.9	7.9	30.9	30.9	103.2	103.2	8.5	8.5	2.5	2.5	5	5	821368	806812				
						1.0	0.2	320	15.9	15.9	7.9	7.9	30.9	30.9	103.2	103.2	8.5	8.5	2.5	2.5	5	5						
					Middle	4.5	0.2	314	15.9	15.9	7.9	7.9	30.9	30.9	103.3	103.3	8.5	8.5	2.5	2.5	5	5			821368	806812		
						4.5	0.2	313	15.9	15.9	7.9	7.9	30.9	30.9	103.3	103.3	8.5	8.5	2.5	2.5	4	5						
					Bottom	7.9	0.2	319	15.9	15.9	7.9	7.9	30.9	30.9	103.2	103.2	8.5	8.5	2.6	2.5	5	5					821368	806812
						7.9	0.2	323	15.9	15.9	7.9	7.9	30.9	30.9	103.2	103.2	8.5	8.5	2.6	2.5	4	5						

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Water Quality Monitoring

Water Quality Monitoring Results on 28 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Fine	Rough	12:35	9.4	Surface	1.0	0.4	289	15.7	15.7	8.0	8.0	31.6	31.6	103.7	103.8	8.5	8.6	1.1	1.8	5	5	822229	809838
						1.0	0.4	296	15.7		8.0	8.0	31.6	31.6	103.9	103.8	8.5		1.1					
					Middle	4.7	0.3	293	15.7	15.7	8.0	8.0	31.6	31.6	104.5	104.7	8.6	9.0	1.7	5				
						4.7	0.3	294	15.7		8.0	8.0	31.6	31.6	104.8	104.7	8.6		1.6	5				
					Bottom	8.4	0.4	307	15.7	15.7	8.0	8.0	31.6	31.6	109.2	109.6	9.0	9.0	2.7	5				
						8.4	0.4	305	15.7		8.0	8.0	31.6	31.6	110.0	109.6	9.0		2.7	6				
IM11	Fine	Rough	12:31	8.0	Surface	1.0	0.4	268	15.9	15.9	7.9	7.9	31.7	31.7	102.5	102.6	8.4	8.5	1.1	1.8	5	5	821495	810545
						1.0	0.4	268	15.9		7.9	7.9	31.7	31.7	102.7	102.6	8.4		1.1					
					Middle	4.0	0.4	263	15.9	15.9	8.0	8.0	31.7	31.7	105.8	106.0	8.6	8.8	1.7	5				
						4.0	0.4	265	15.9		8.0	8.0	31.7	31.7	106.2	106.0	8.7		1.6	5				
					Bottom	7.0	0.5	254	15.9	15.9	8.1	8.1	31.7	31.7	107.6	107.9	8.8	8.8	2.7	5				
						7.0	0.5	254	15.9		8.1	8.1	31.7	31.7	108.1	107.9	8.8		2.6	4				
IM12	Fine	Rough	12:26	7.0	Surface	1.0	0.4	280	15.9	15.9	8.0	8.0	31.7	31.7	102.7	102.8	8.4	8.6	1.1	1.4	6	5	821159	811497
						1.0	0.4	281	15.9		8.0	8.0	31.7	31.7	102.9	102.8	8.4		1.2		5			
					Middle	3.5	0.4	271	15.9	15.9	8.0	8.0	31.7	31.7	106.4	106.5	8.7	8.8	1.4	4				
						3.5	0.4	269	15.9		8.0	8.0	31.7	31.7	106.6	106.5	8.7		1.4	5				
					Bottom	6.0	0.4	289	15.9	15.9	8.0	8.1	31.7	31.7	107.9	108.2	8.8	8.8	1.6	5				
						6.0	0.4	283	15.9		8.1	8.1	31.7	31.7	108.4	108.2	8.8		1.6	4				
SR1A	Fine	Rough	12:05	4.4	Surface	1.0	0.1	185	15.5	15.5	8.0	7.9	31.5	31.5	102.1	102.2	8.4	8.4	3.2	3.9	4	4	819983	812660
						1.0	0.1	189	15.5		7.9	7.9	31.5	31.5	102.2	102.2	8.4		3.2		6			
					Middle	2.2	0.0	193	-	-	-	-	-	-	-	-	-	8.5	-	-				
						2.2	0.0	196	-		-	-	-	-	-	-	-		-	-				
					Bottom	3.4	0.0	178	15.5	15.5	7.9	7.9	31.4	31.5	102.7	102.8	8.5	8.5	4.6	3				
						3.4	-	173	15.5		8.0	7.9	31.5	31.5	102.8	102.8	8.5		4.6	4				
SR2	Fine	Rough	11:49	5.2	Surface	1.0	0.1	244	15.9	15.9	8.0	8.0	31.7	31.7	109.4	109.6	8.9	9.0	1.9	2.5	4	5	821466	814157
						1.0	0.1	247	15.9		8.0	8.0	31.7	31.7	109.8	109.6	8.9		1.8		5			
					Middle	-	0.1	257	-	-	-	-	-	-	-	-	-	9.1	-	-				
						-	0.1	250	-		-	-	-	-	-	-	-		-	-				
					Bottom	4.2	0.1	265	15.9	15.9	8.0	8.0	31.5	31.6	110.9	111.1	9.1	9.1	3.2	6				
						4.2	0.1	271	15.9		8.0	8.0	31.6	31.6	111.2	111.1	9.1		3.2	5				
SR3	Cloudy	Moderate	12:16	8.9	Surface	1.0	0.3	325	16.1	16.1	8.0	8.0	30.8	30.8	105.5	105.5	8.6	8.7	2.4	2.8	8	6	822137	807563
						1.0	0.2	320	16.1		8.0	8.0	30.8	30.8	105.5	105.5	8.6		2.4		9			
					Middle	4.5	0.3	350	16.0	16.0	8.0	8.0	30.8	30.8	105.8	105.8	8.7	8.8	2.8	6				
						4.5	0.3	353	16.0		8.0	8.0	30.8	30.8	105.8	105.8	8.7		2.8	5				
					Bottom	7.9	0.3	332	15.9	15.9	8.0	8.0	30.9	30.9	107.6	107.8	8.8	8.9	3.1	5				
						7.9	0.3	329	15.9		8.0	8.0	30.9	30.9	108.0	107.8	8.9		3.1	4				
SR4A	Cloudy	Moderate	11:03	8.2	Surface	1.0	0.0	274	16.0	16.0	7.9	7.9	31.2	31.2	101.0	101.0	8.2	8.2	4.0	4.6	7	9	817180	807790
						1.0	0.0	273	16.0		7.9	7.9	31.2	31.2	101.0	101.0	8.2		4.1		8			
					Middle	4.1	-	296	15.8	15.8	7.9	7.9	31.2	31.2	100.4	100.4	8.2	8.2	4.8	8				
						4.1	0.0	292	15.8		7.9	7.9	31.2	31.2	100.4	100.4	8.2		4.8	9				
					Bottom	7.2	0.0	266	15.8	15.8	7.9	7.9	31.2	31.2	100.1	100.1	8.2	8.2	4.9	11				
						7.2	0.0	268	15.8		7.9	7.9	31.2	31.2	100.1	100.1	8.2		4.9	10				
SR8	Fine	Rough	12:21	4.2	Surface	1.0	-	-	16.1	16.1	7.9	7.9	31.5	31.6	107.9	108.0	8.8	8.8	1.8	2.1	6	7	820409	811646
						1.0	-	-	16.0		7.9	7.9	31.6	31.6	108.0	108.0	8.8		1.9		7			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	9.0	-	-				
						-	-	-	-		-	-	-	-	-	-	-		-	-				
					Bottom	3.2	-	-	15.9	15.9	7.9	7.9	31.4	31.4	109.3	109.1	8.9	9.0	2.3	7				
						3.2	-	-	15.8		7.9	7.9	31.5	31.5	108.9	108.9	8.9		2.2	8				

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 31 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
C1	Fine	Moderate	22:02	8.3	Surface	1.0	0.4	205	15.8	15.8	7.9	7.9	32.5	32.5	119.0	118.9	9.7	9.6	2.8	3.0	4	3	815619	804236		
						1.0	0.4	212	15.8	7.9	7.9	32.5	32.5	118.7	118.9	9.7	9.6	2.8	3.0	4						
					Middle	4.2	0.4	217	15.6	15.6	7.9	7.9	32.5	32.5	116.8	116.8	9.5	9.2	3.1	3.0	3				3	
						4.2	0.4	216	15.6	15.6	7.9	7.9	32.5	32.5	116.8	116.8	9.5	9.2	3.1	3.0	3					
					Bottom	7.3	0.4	209	15.6	15.6	7.9	7.9	32.5	32.5	112.8	112.7	9.2	9.2	3.1	3.0	3					3
						7.3	0.5	210	15.6	15.6	7.9	7.9	32.5	32.5	112.6	112.7	9.2	9.2	3.2	3.0	3					
C2	Fine	Moderate	20:39	11.0	Surface	1.0	0.4	176	15.9	15.9	7.9	7.9	32.1	32.1	117.9	118.0	9.6	9.5	1.8	2.0	5	4	825678	806951		
						1.0	0.4	170	15.9	15.9	7.9	7.9	32.1	32.1	118.0	118.0	9.6	9.5	1.9	2.0	4					
					Middle	5.5	0.4	152	15.7	15.7	8.0	8.0	32.2	32.2	114.3	114.2	9.3	9.3	2.0	2.0	3				4	
						5.5	0.5	155	15.7	15.7	8.0	8.0	32.2	32.2	114.1	114.2	9.3	9.3	2.0	2.0	4					
					Bottom	10.0	0.4	176	15.7	15.7	8.0	8.0	32.2	32.2	113.9	113.9	9.3	9.3	2.1	2.0	2					4
						10.0	0.4	169	15.7	15.7	8.0	8.0	32.2	32.2	113.8	113.9	9.3	9.3	2.1	2.0	4					
C3	Fine	Moderate	22:04	10.2	Surface	1.0	0.3	85	16.7	16.7	8.0	8.0	31.3	31.3	104.1	103.9	8.4	8.4	1.7	2.2	4	4	822116	817802		
						1.0	0.3	84	16.7	16.7	8.0	8.0	31.3	31.3	103.7	103.9	8.4	8.4	1.6	2.2	5					
					Middle	5.1	0.3	76	16.7	16.7	8.0	8.0	31.3	31.3	102.7	102.7	8.3	8.2	2.3	2.2	3				4	
						5.1	0.3	69	16.7	16.7	8.0	8.0	31.3	31.3	102.6	102.7	8.3	8.2	2.2	2.2	4					
					Bottom	9.2	0.3	55	16.7	16.8	8.0	8.0	31.2	31.2	102.2	102.2	8.2	8.2	2.7	2.2	3					4
						9.2	0.4	59	16.8	16.8	8.0	8.0	31.2	31.2	102.1	102.2	8.2	8.2	2.6	2.2	3					
IM1	Fine	Moderate	21:39	6.4	Surface	1.0	0.3	177	16.0	16.0	7.9	7.9	32.5	32.5	112.8	112.8	9.1	9.1	2.7	3.1	4	4	818337	806445		
						1.0	0.3	181	16.0	16.0	7.9	7.9	32.5	32.5	112.7	112.8	9.1	9.1	2.8	3.1	5					
					Middle	3.2	0.3	172	15.7	15.7	7.9	7.8	32.5	32.5	111.4	111.4	9.1	9.1	3.2	3.1	4				4	
						3.2	0.3	166	15.7	15.7	7.8	7.8	32.5	32.5	111.3	111.4	9.1	9.1	3.2	3.1	4					
					Bottom	5.4	0.3	176	15.7	15.7	7.8	7.8	32.5	32.5	110.1	110.0	9.0	9.0	3.4	3.1	4					4
						5.4	0.3	181	15.7	15.7	7.8	7.8	32.5	32.5	109.9	110.0	9.0	9.0	3.3	3.1	3					
IM2	Fine	Moderate	21:35	7.2	Surface	1.0	0.4	188	16.3	16.3	7.9	7.9	32.5	32.5	112.5	112.6	9.1	9.1	2.2	3.1	3	4	819182	806220		
						1.0	0.4	188	16.3	16.3	7.9	7.9	32.5	32.5	112.7	112.6	9.1	9.1	2.2	3.1	4					
					Middle	3.6	0.3	194	15.6	15.6	7.9	7.9	32.5	32.5	110.8	110.8	9.1	9.1	3.5	3.1	4				4	
						3.6	0.3	200	15.6	15.6	7.9	7.9	32.5	32.5	110.7	110.8	9.0	9.0	3.5	3.1	4					
					Bottom	6.2	0.3	190	15.6	15.6	7.9	7.9	32.5	32.5	110.0	110.0	9.0	9.0	3.5	3.1	4					4
						6.2	0.4	185	15.6	15.6	7.9	7.9	32.5	32.5	109.9	110.0	9.0	9.0	3.5	3.1	5					
IM7	Fine	Moderate	21:14	8.9	Surface	1.0	0.2	173	15.9	15.9	7.9	7.9	32.2	32.2	116.4	116.3	9.5	9.4	1.8	2.0	4	4	821353	806823		
						1.0	0.3	172	15.9	15.9	7.9	7.9	32.2	32.2	116.2	116.3	9.5	9.4	1.8	2.0	4					
					Middle	4.5	0.2	169	15.5	15.5	7.9	7.9	32.4	32.4	112.7	112.6	9.2	9.2	2.1	2.0	3				4	
						4.5	0.1	173	15.5	15.5	7.9	7.9	32.4	32.4	112.5	112.6	9.2	9.2	2.1	2.0	4					
					Bottom	7.9	0.2	160	15.4	15.4	7.9	7.9	32.5	32.5	111.0	111.0	9.1	9.1	2.1	2.0	3					4
						7.9	0.2	158	15.4	15.4	7.9	7.9	32.5	32.5	110.9	111.0	9.1	9.1	2.1	2.0	3					

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 31 January 23 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA								
IM10	Fine	Moderate	20:41	8.6	Surface	1.0	0.4	110	16.3	16.3	8.0	8.0	31.3	31.3	116.0	115.9	9.4	9.4	1.1	1.1	4	4	822240	809817				
						1.0	0.4	108	16.3	8.0	8.0	31.3	31.3	115.7	115.9	9.4	9.4	1.1	1.1	4	4							
					Middle	4.3	0.4	116	16.3	16.3	8.0	8.0	31.3	31.3	115.2	115.0	9.3	9.3	1.2	1.2	4	4						
						4.3	0.5	117	16.3	16.3	8.0	8.0	31.3	31.3	114.8	115.0	9.3	9.3	1.1	1.1	3	3						
					Bottom	7.6	0.4	97	16.3	16.3	8.0	8.0	31.3	31.3	113.9	113.7	9.2	9.2	1.2	1.2	3	3						
						7.6	0.4	98	16.3	16.3	8.0	8.0	31.3	31.3	113.4	113.7	9.2	9.2	1.3	1.3	3	3						
IM11	Fine	Moderate	21:03	9.0	Surface	1.0	0.5	91	16.3	16.3	8.1	8.1	31.3	31.3	113.7	113.4	9.2	9.2	1.0	1.0	5	5	821510	810541				
						1.0	0.5	88	16.3	16.3	8.1	8.1	31.3	31.3	113.1	113.4	9.2	9.2	1.1	1.1	5	5						
					Middle	4.5	0.5	92	16.3	16.3	8.1	8.1	31.3	31.3	111.3	109.3	9.0	9.0	1.3	1.3	4	4						
						4.5	0.5	87	16.3	16.3	8.1	8.1	31.3	31.3	107.2	109.3	8.7	8.7	1.3	1.3	4	4						
					Bottom	8.0	0.5	98	16.3	16.4	8.1	8.1	31.3	31.3	105.6	104.9	8.6	8.6	2.0	2.0	4	4						
						8.0	0.4	92	16.4	16.4	8.2	8.1	31.3	31.3	104.2	104.9	8.6	8.6	1.9	1.9	3	3						
IM12	Fine	Moderate	21:08	9.2	Surface	1.0	0.6	92	16.3	16.3	8.1	8.1	31.3	31.3	113.3	113.1	9.2	9.2	1.0	1.0	3	3	821149	811536				
						1.0	0.5	90	16.3	16.3	8.1	8.1	31.3	31.3	112.8	113.1	9.2	9.2	1.1	1.1	3	3						
					Middle	4.6	0.5	85	16.3	16.3	8.1	8.1	31.3	31.3	112.0	110.1	9.1	9.1	1.5	1.5	4	4						
						4.6	0.5	81	16.2	16.3	8.1	8.1	31.3	31.3	108.2	110.1	8.8	8.8	1.4	1.4	3	3						
					Bottom	8.2	0.5	125	16.2	16.2	8.1	8.1	31.3	31.2	106.6	106.2	8.7	8.7	2.0	2.0	3	3						
						8.2	0.6	132	16.2	16.2	8.1	8.1	31.2	31.2	105.8	106.2	8.6	8.6	1.9	1.9	4	4						
SR1A	Fine	Moderate	21:29	5.0	Surface	1.0	0.0	65	15.9	15.9	8.0	8.0	31.1	31.1	106.9	106.8	8.8	8.8	1.4	1.4	<2	<2	819975	812660				
						1.0	0.1	59	15.8	15.9	8.0	8.0	31.1	31.1	106.6	106.8	8.7	8.7	1.5	1.5	<2	<2						
					Middle	2.5	0.0	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2	2
						2.5	0.0	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2	2
					Bottom	4.0	0.0	59	15.7	15.7	8.0	8.0	31.2	30.8	104.6	103.0	8.6	8.6	2.1	2.1	2	2						
						4.0	0.0	61	15.7	15.7	8.0	8.0	30.3	30.8	101.3	103.0	8.4	8.5	2.0	2.0	3	3						
SR2	Fine	Moderate	21:42	5.8	Surface	1.0	0.4	46	16.7	16.7	8.0	8.0	31.3	31.3	113.2	112.9	9.1	9.1	1.0	1.0	2	2	821453	814150				
						1.0	0.4	47	16.7	16.7	8.0	8.0	31.3	31.3	112.5	112.9	9.1	9.1	1.1	1.1	3	3						
					Middle	-	0.4	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2	2
						-	0.5	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2	2
					Bottom	4.8	0.5	54	16.6	16.6	8.0	8.0	31.2	31.2	106.0	105.9	8.6	8.6	1.2	1.2	<2	<2						
						4.8	0.4	59	16.6	16.6	8.0	8.0	31.2	31.2	105.7	105.9	8.5	8.6	1.2	1.2	<2	<2						
SR3	Fine	Moderate	21:07	8.8	Surface	1.0	0.5	147	15.9	15.9	8.0	8.0	32.2	32.2	118.6	118.7	9.7	9.7	1.7	1.7	3	3	822133	807589				
						1.0	0.5	145	15.8	15.9	8.0	8.0	32.2	32.2	118.7	118.7	9.7	9.7	1.7	1.7	3	3						
					Middle	4.4	0.4	161	15.5	15.5	8.0	8.0	32.2	32.2	112.6	112.5	9.2	9.2	2.1	2.1	3	3						
						4.4	0.5	153	15.5	15.5	8.0	8.0	32.2	32.2	112.3	112.5	9.2	9.2	2.2	2.2	3	3						
					Bottom	7.8	0.5	157	15.4	15.4	8.0	8.0	32.2	32.2	109.2	109.2	9.0	9.0	10.5	10.5	4	4						
						7.8	0.5	154	15.4	15.4	8.0	8.0	32.2	32.2	109.1	109.2	9.0	9.0	10.2	10.2	3	3						
SR4A	Fine	Moderate	22:29	9.0	Surface	1.0	0.0	357	15.5	15.5	8.1	8.1	32.5	32.5	119.3	119.3	9.8	9.8	2.8	2.8	5	5	817182	807833				
						1.0	0.0	3	15.5	15.5	8.1	8.1	32.5	32.5	119.2	119.3	9.8	9.8	2.8	2.8	5	5						
					Middle	4.5	0.0	6	15.3	15.3	8.1	8.1	32.5	32.5	114.6	114.6	9.4	9.4	2.7	2.7	5	5						
						4.5	0.0	6	15.3	15.3	8.1	8.1	32.5	32.5	114.5	114.6	9.4	9.4	2.7	2.7	6	6						
					Bottom	8.0	0.0	24	15.4	15.4	8.2	8.2	32.5	32.5	113.7	113.7	9.3	9.3	2.7	2.7	6	6						
						8.0	0.0	17	15.4	15.4	8.2	8.2	32.5	32.5	113.7	113.7	9.3	9.3	2.7	2.7	6	6						
SR8	Fine	Moderate	21:13	5.2	Surface	1.0	-	-	16.4	16.4	8.1	8.1	31.2	31.2	110.7	110.5	9.0	9.0	1.2	1.2	3	3	820369	811629				
						1.0	-	-	16.4	16.4	8.1	8.1	31.2	31.2	110.2	110.5	8.9	8.9	1.3	1.3	3	3						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
					Bottom	4.2	-	-	16.4	16.4	8.1	8.1	31.2	31.1	106.7	105.8	8.6	8.6	1.7	1.7	5	5						
						4.2	-	-	16.4	16.4	8.1	8.1	31.1	31.1	104.8	105.8	8.5	8.5	1.6	1.6	4	4						

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

Water Quality Monitoring Results on 31 January 23 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
C1	Fine	Moderate	09:50	8.0	Surface	1.0	0.1	210	15.7	15.7	8.1	8.1	32.5	32.5	113.0	113.0	9.2	9.2	8.3	8.4	3	2	815642	804231		
						1.0	0.1	211	15.7		8.1		32.5		113.0		9.2		8.5		2					
					Middle	4.0	0.1	213	15.6	15.6	8.1	8.1	32.5	32.5	112.0	112.0	9.1	9.1	7.3	9.0	2	2				
						4.0	0.1	218	15.6		8.1		32.5		112.0		9.1		7.4		2					
					Bottom	7.0	0.1	208	15.6	15.6	8.2	8.2	32.4	32.4	109.6	109.6	9.0	9.0	9.0	9.0	9.6	9.0			2	2
						7.0	0.1	212	15.6		8.2		32.4		109.6		9.0		9.2		2					
C2	Fine	Moderate	11:10	11.2	Surface	1.0	0.1	190	15.8	15.8	8.0	8.0	32.0	32.1	114.1	113.9	9.3	9.3	1.8	4.0	3	3	825662	806958		
						1.0	0.2	184	15.8		8.0		32.1		113.7		9.3		1.9		3					
					Middle	5.6	0.2	182	15.6	15.6	8.0	8.0	32.1	32.1	112.5	112.5	9.2	9.2	1.9	9.1	2	3				
						5.6	0.2	187	15.6		8.0		32.1		112.4		9.2		2.0		2					
					Bottom	10.2	0.1	197	15.6	15.6	8.0	8.0	32.0	32.0	111.4	111.4	9.1	9.1	8.5	9.1	8.2	9.1			2	3
						10.2	0.1	201	15.6		8.0		32.0		111.4		9.1		8.2		3					
C3	Fine	Moderate	10:30	12.0	Surface	1.0	0.1	108	16.3	16.3	8.0	8.0	31.2	31.2	112.2	112.1	9.1	8.9	1.0	1.1	4	4	822132	817790		
						1.0	0.1	106	16.3		8.1		31.2		111.9		9.1		1.0		2					
					Middle	6.0	0.1	117	16.3	16.3	8.1	8.1	31.1	31.1	107.3	107.2	8.7	8.7	1.0	8.6	3	4				
						6.0	0.0	113	16.3		8.1		31.1		107.1		8.7		1.1		4					
					Bottom	11.0	0.0	103	16.4	16.4	8.1	8.1	31.0	31.0	106.5	106.4	8.6	8.6	1.2	8.6	4	8.6				
						11.0	0.0	97	16.4		8.1		30.9		106.2		8.6		1.2		4					
IM1	Fine	Moderate	10:15	6.3	Surface	1.0	0.1	176	15.7	15.7	8.1	8.1	32.5	32.5	109.7	109.7	8.9	8.9	2.6	2.9	3	3	818334	806464		
						1.0	0.1	181	15.7		8.1		32.5		109.7		8.9		2.6		3					
					Middle	3.2	0.1	191	15.5	15.5	8.1	8.1	32.5	32.5	108.3	108.3	8.9	8.9	3.0	8.8	3	8.8				
						3.2	0.1	188	15.5		8.1		32.5		108.3		8.9		3.0		3					
					Bottom	5.3	0.2	176	15.5	15.5	8.1	8.1	32.5	32.5	107.5	107.5	8.8	8.8	3.1	8.8	3	8.8				
						5.3	0.2	174	15.5		8.1		32.5		107.5		8.8		3.1		4					
IM2	Fine	Moderate	10:18	6.8	Surface	1.0	0.1	216	15.5	15.5	8.1	8.1	32.5	32.5	110.1	109.9	9.0	9.0	9.3	10.0	3	3	819182	806241		
						1.0	0.2	208	15.5		8.1		32.5		109.7		9.0		9.8		2					
					Middle	3.4	0.1	200	15.4	15.4	8.1	8.1	32.5	32.5	108.5	108.5	8.9	8.9	10.9	8.9	3	8.9				
						3.4	0.2	204	15.4		8.1		32.5		108.4		8.9		10.9		3					
					Bottom	5.8	0.2	231	15.3	15.3	8.1	8.1	32.5	32.5	108.2	108.2	8.9	8.9	9.3	8.9	4	8.9				
						5.8	0.1	230	15.3		8.1		32.5		108.2		8.9		9.9		3					
IM7	Fine	Moderate	10:40	8.6	Surface	1.0	0.1	214	15.8	15.8	8.1	8.1	32.2	32.2	114.4	114.4	9.3	9.1	1.6	1.9	3	4	821372	806842		
						1.0	0.2	220	15.8		8.1		32.2		114.4		9.3		1.6		3					
					Middle	4.3	0.1	192	15.4	15.4	8.1	8.1	32.3	32.3	108.9	108.9	9.0	8.9	1.6	8.9	3	8.9				
						4.3	0.1	187	15.4		8.1		32.3		108.8		8.9		1.6		4					
					Bottom	7.6	0.1	225	15.3	15.3	8.1	8.1	32.3	32.3	108.4	108.4	8.9	8.9	2.5	8.9	4	8.9				
						7.6	0.2	224	15.3		8.1		32.3		108.3		8.9		2.5		4					

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

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

Water Quality Monitoring

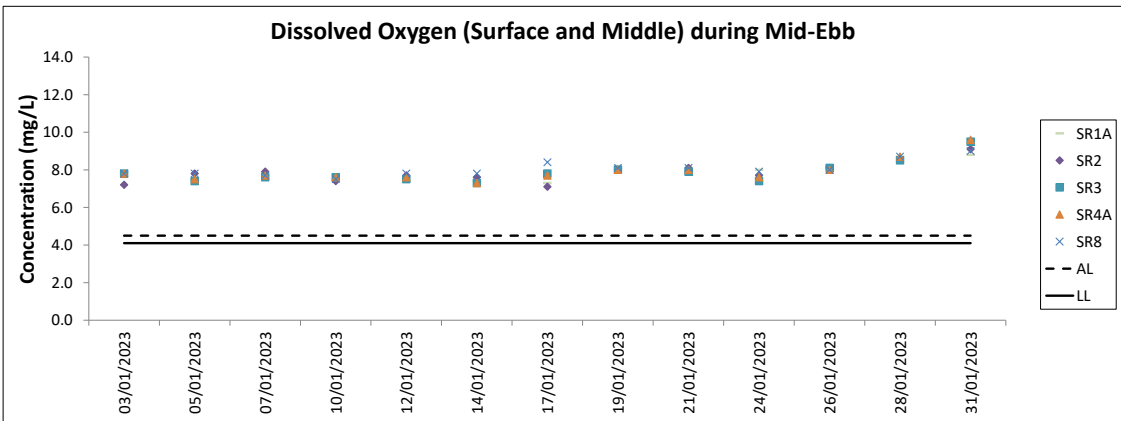
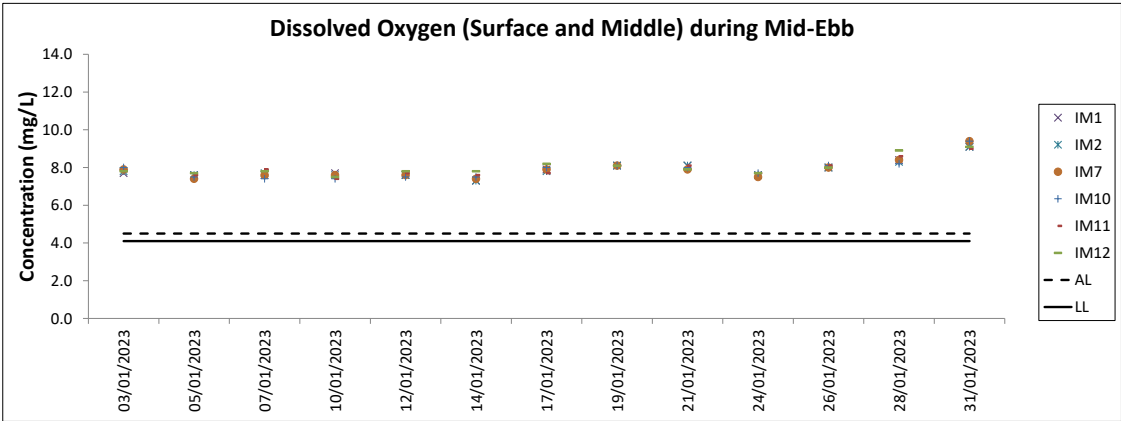
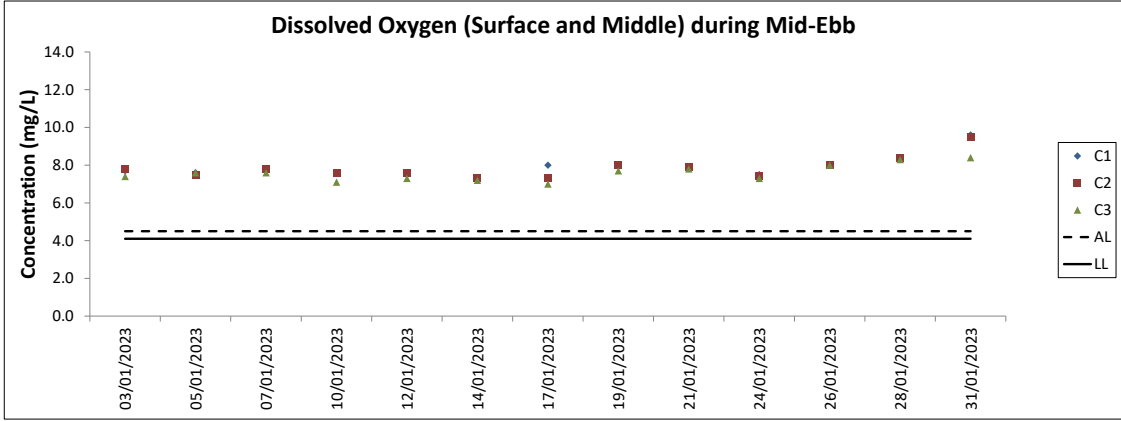
Water Quality Monitoring Results on 31 January 23 during Mid-Flood Tide

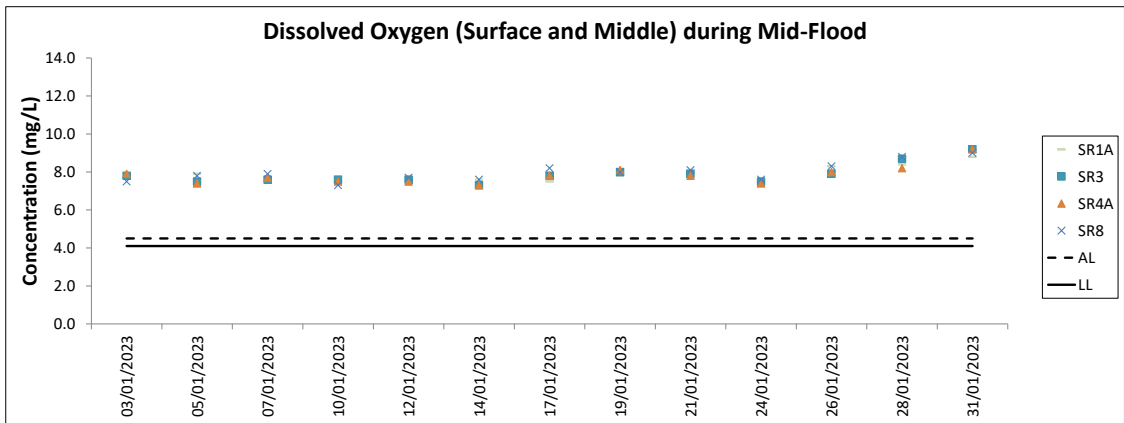
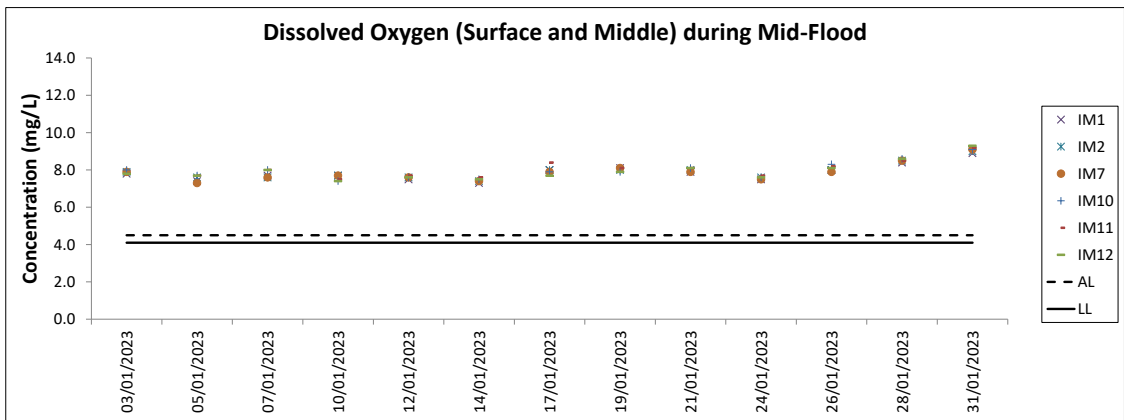
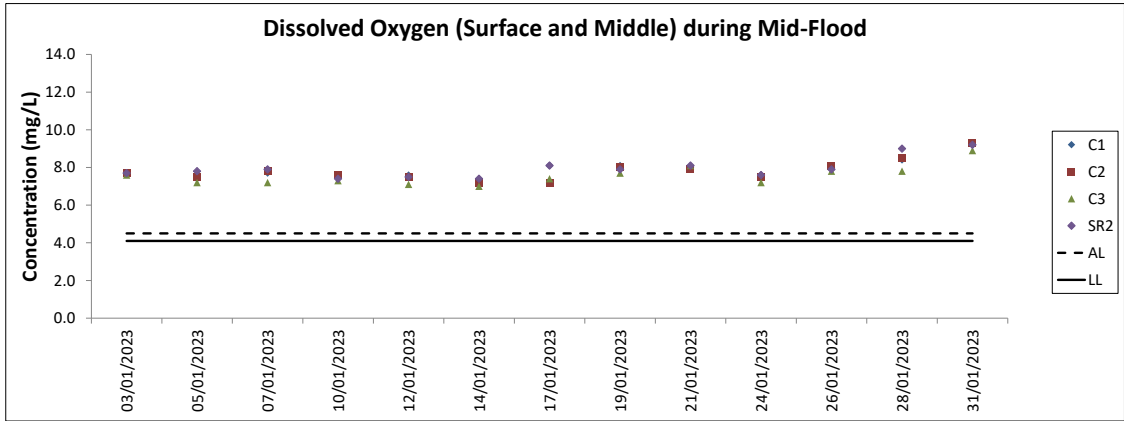
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Fine	Moderate	11:26	9.0	Surface	1.0	0.0	185	16.3	16.3	8.0	8.0	31.3	31.3	112.8	112.6	9.1	9.1	1.0	1.0	3	4	822253	809861		
						1.0	0.1	180	16.3	8.0	8.0	31.3	31.3	112.4	112.6	9.1	9.1	1.1	1.1	4						
					Middle	4.5	0.0	188	16.3	16.3	8.0	8.0	31.3	31.3	111.7	111.5	9.1	9.1	1.4	1.4	2					
						4.5	0.1	181	16.3	16.3	8.0	8.0	31.3	31.3	111.3	111.5	9.0	9.0	1.3	1.3	4					
					Bottom	8.0	0.0	164	16.3	16.3	8.1	8.1	31.3	31.3	110.4	110.2	9.0	9.0	2.0	2.0	4					
						8.0	0.0	170	16.3	16.3	8.1	8.1	31.3	31.3	110.0	110.2	8.9	8.9	2.0	2.0	5					
IM11	Fine	Moderate	11:18	8.2	Surface	1.0	0.1	117	16.3	16.3	8.0	8.0	31.3	31.2	116.0	115.6	9.4	9.4	1.0	1.0	3	3	821513	810535		
						1.0	0.1	124	16.2	16.2	8.0	8.0	31.2	31.2	115.1	115.6	9.4	9.4	1.1	1.1	3					
					Middle	4.1	0.0	104	16.2	16.2	8.0	8.0	31.2	31.2	109.7	109.4	8.9	8.9	1.6	1.6	4					
						4.1	-	110	16.2	16.2	8.1	8.1	31.2	31.2	109.0	109.4	8.9	8.9	1.5	1.5	3					
					Bottom	7.2	0.1	102	16.2	16.2	8.1	8.1	31.2	31.2	107.6	107.5	8.8	8.8	1.7	1.7	4					
						7.2	0.1	107	16.2	16.2	8.1	8.1	31.2	31.2	107.4	107.5	8.7	8.7	1.7	1.7	3					
IM12	Fine	Moderate	11:13	7.2	Surface	1.0	0.0	77	16.5	16.5	8.0	8.0	31.3	31.3	117.2	117.3	9.5	9.5	1.0	1.0	<2	3	821143	811540		
						1.0	0.1	76	16.5	16.5	8.0	8.0	31.3	31.3	117.3	117.3	9.5	9.5	1.1	1.1	<2					
					Middle	3.6	0.0	93	16.2	16.2	8.0	8.0	31.3	31.3	111.1	111.0	9.0	9.0	1.2	1.2	3					
						3.6	0.1	87	16.2	16.2	8.0	8.0	31.3	31.3	110.8	111.0	9.0	9.0	1.2	1.2	2					
					Bottom	6.2	0.0	101	16.1	16.1	8.1	8.1	31.3	31.1	109.5	107.2	8.9	8.9	1.4	1.4	3					
						6.2	0.1	103	16.4	16.4	8.2	8.1	31.0	31.1	104.9	107.2	8.5	8.5	1.5	1.5	4					
SR1A	Fine	Moderate	10:52	4.6	Surface	1.0	0.0	183	16.0	16.0	8.0	8.0	31.1	31.1	107.3	107.2	8.8	8.8	1.1	1.1	2	3	819974	812657		
						1.0	0.0	189	16.0	16.0	8.0	8.0	31.1	31.1	107.1	107.2	8.8	8.8	1.1	1.1	2					
					Middle	2.3	0.0	154	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						2.3	0.1	157	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
					Bottom	3.6	0.0	153	16.0	16.0	8.0	8.1	31.1	31.1	106.3	106.0	8.7	8.7	2.0	2.0	3					
						3.6	0.0	158	16.0	16.0	8.1	8.1	31.1	31.1	105.6	106.0	8.7	8.7	2.0	2.0	4					
SR2	Fine	Moderate	10:41	5.4	Surface	1.0	0.1	43	16.5	16.5	8.0	8.0	31.2	31.2	113.5	113.5	9.2	9.2	1.2	1.2	3	3	821445	814147		
						1.0	0.2	41	16.5	16.5	8.0	8.0	31.2	31.2	113.4	113.5	9.2	9.2	1.3	1.3	3					
					Middle	-	0.0	44	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						-	0.0	39	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
					Bottom	4.4	0.1	27	16.5	16.5	8.0	8.0	31.2	31.2	113.2	113.2	9.1	9.1	2.3	2.3	2					
						4.4	0.0	26	16.5	16.5	8.0	8.0	31.2	31.2	113.2	113.2	9.1	9.1	2.2	2.2	3					
SR3	Fine	Moderate	10:46	8.8	Surface	1.0	0.2	174	15.5	15.5	8.0	8.0	32.2	32.2	112.2	112.1	9.2	9.2	1.6	1.6	2	2	822166	807574		
						1.0	0.2	169	15.5	15.5	8.0	8.0	32.2	32.2	111.9	112.1	9.2	9.2	1.6	1.6	2					
					Middle	4.4	0.2	156	15.3	15.3	8.0	8.0	32.2	32.2	110.2	110.2	9.1	9.1	3.1	3.1	2					
						4.4	0.2	160	15.3	15.3	8.0	8.0	32.2	32.2	110.1	110.2	9.1	9.1	3.2	3.2	2					
					Bottom	7.8	0.2	187	15.3	15.3	8.0	8.0	32.2	32.2	109.4	109.3	9.0	9.0	2.8	2.8	2					
						7.8	0.2	184	15.3	15.3	8.0	8.0	32.2	32.2	109.2	109.3	9.0	9.0	2.9	2.9	3					
SR4A	Fine	Moderate	09:22	8.7	Surface	1.0	0.0	284	15.2	15.2	8.0	8.0	32.2	32.2	111.8	111.8	9.2	9.2	2.6	2.6	2	3	817194	807800		
						1.0	0.0	285	15.2	15.2	8.0	8.0	32.2	32.2	111.8	111.8	9.2	9.2	2.7	2.7	2					
					Middle	4.4	0.0	277	15.2	15.2	8.0	8.0	32.2	32.2	110.9	110.9	9.1	9.1	3.0	3.0	4					
						4.4	0.1	275	15.2	15.2	8.0	8.0	32.2	32.2	110.8	110.9	9.1	9.1	3.0	3.0	3					
					Bottom	7.7	0.1	270	15.2	15.2	8.0	7.9	32.3	32.3	110.4	110.4	9.1	9.1	3.2	3.2	5					
						7.7	0.0	277	15.2	15.2	7.9	7.9	32.3	32.3	110.3	110.3	9.1	9.1	3.3	3.3	4					
SR8	Fine	Moderate	11:08	5.0	Surface	1.0	-	-	16.4	16.4	8.0	8.0	31.2	31.2	110.6	110.3	9.0	9.0	1.2	1.2	4	3	820400	811626		
						1.0	-	-	16.3	16.3	8.0	8.0	31.2	31.2	110.0	110.3	8.9	8.9	1.3	1.3	3					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	
					Bottom	4.0	-	-	16.3	16.4	8.0	8.0	31.1	30.9	107.8	107.2	8.8	8.8	1.9	1.9	2					
						4.0	-	-	16.4	16.4	8.1	8.0	30.8	30.9	106.5	107.2	8.6	8.6	1.8	1.8	3					

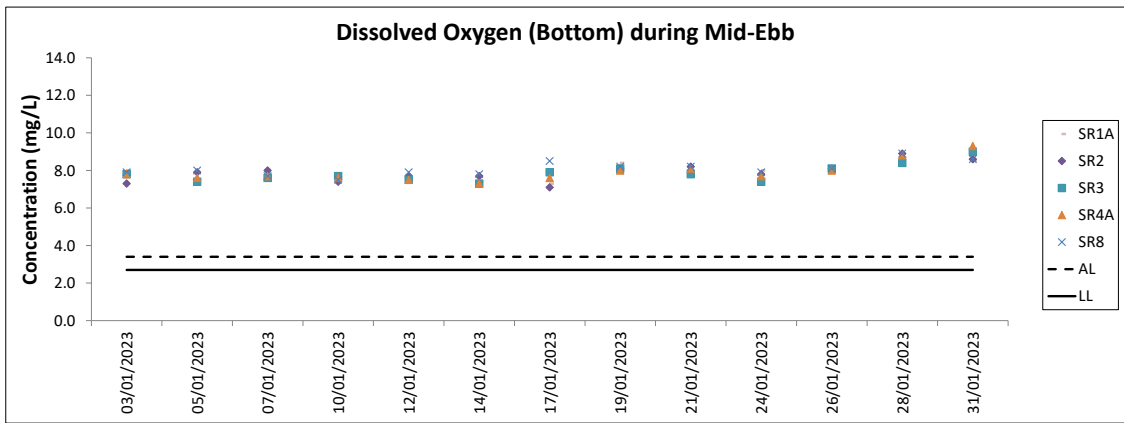
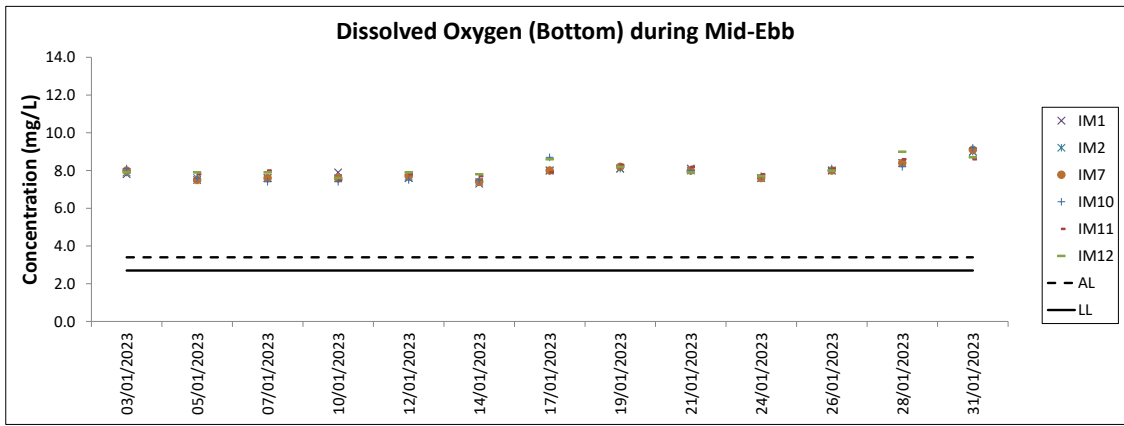
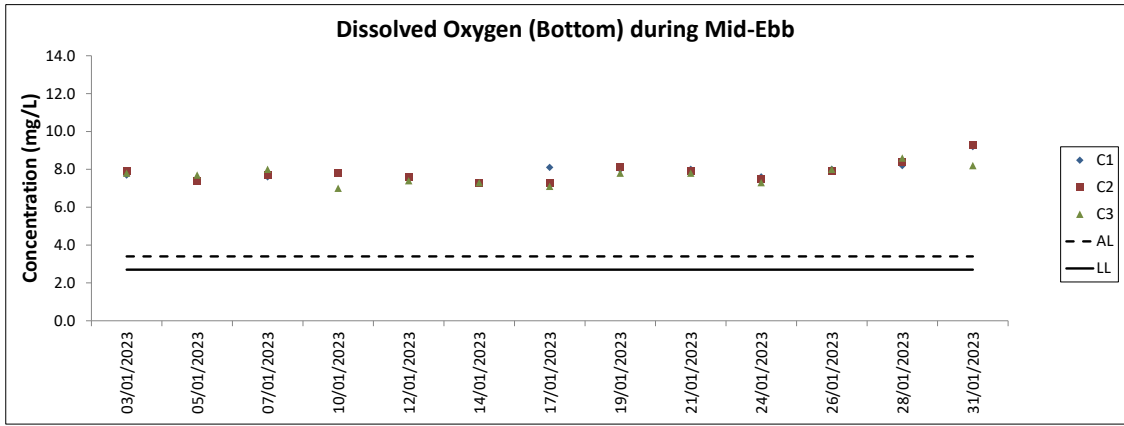
DA: Depth-Averaged

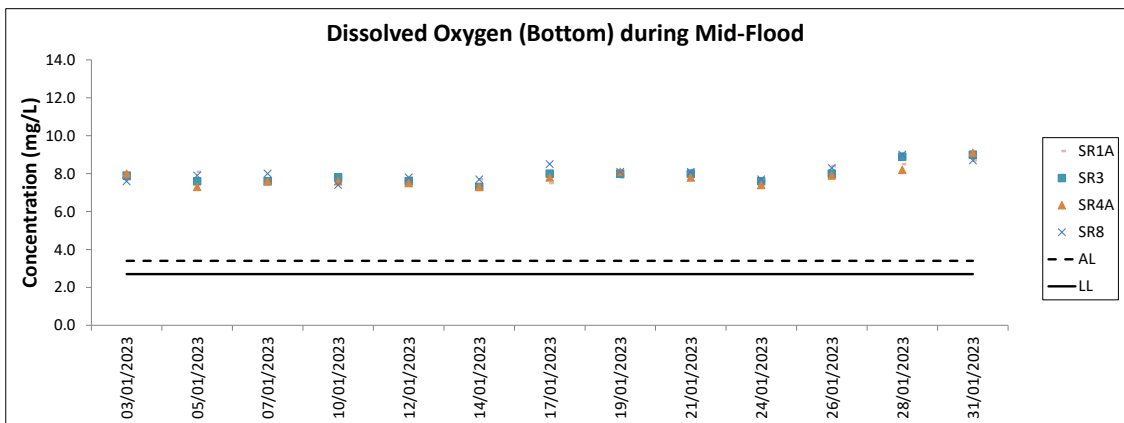
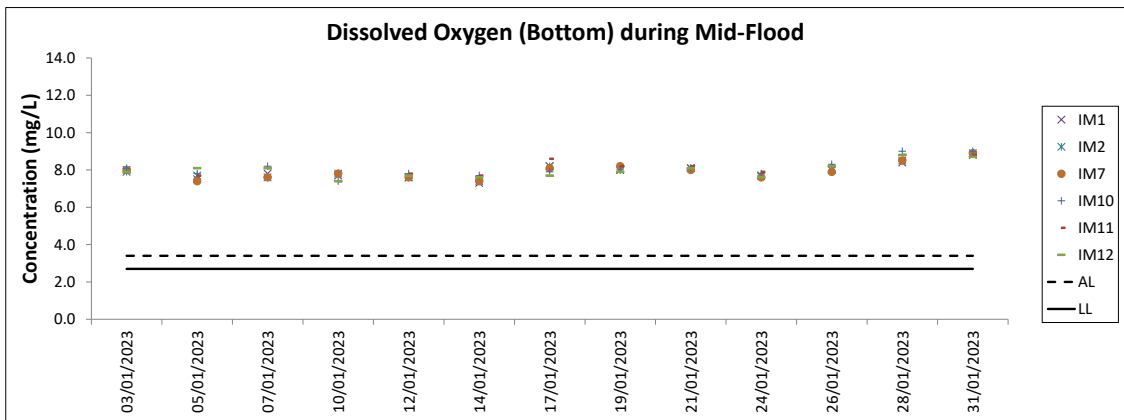
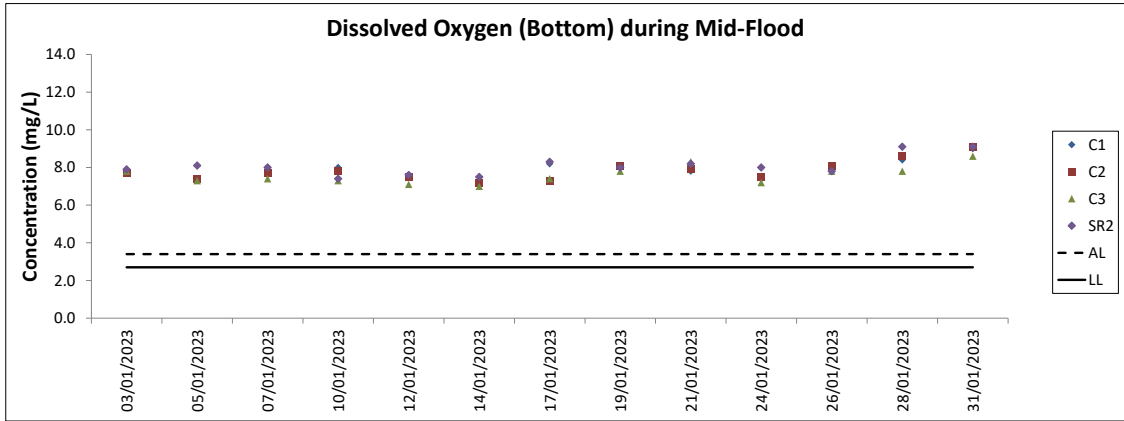
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

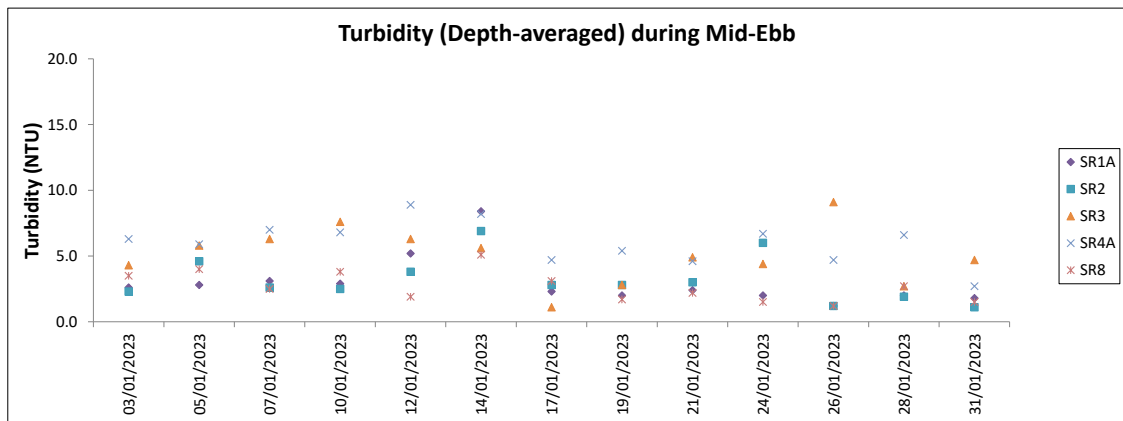
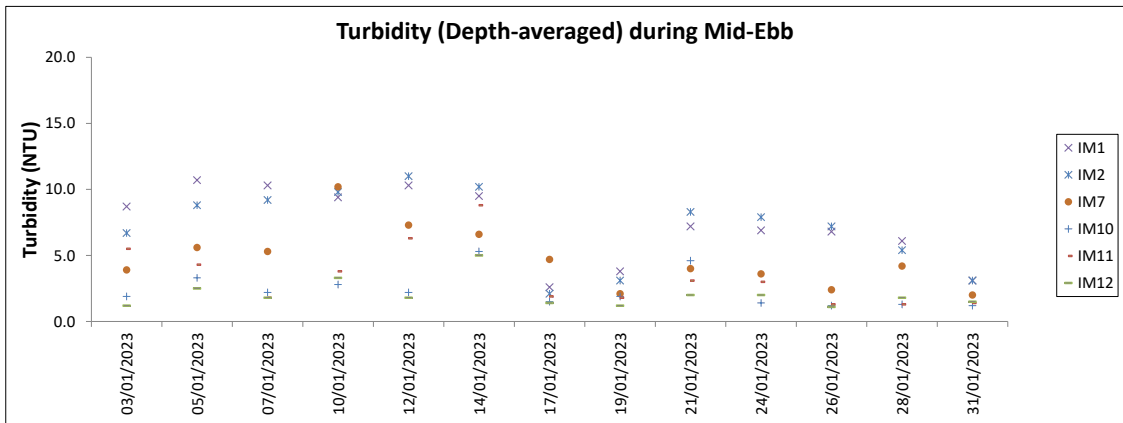
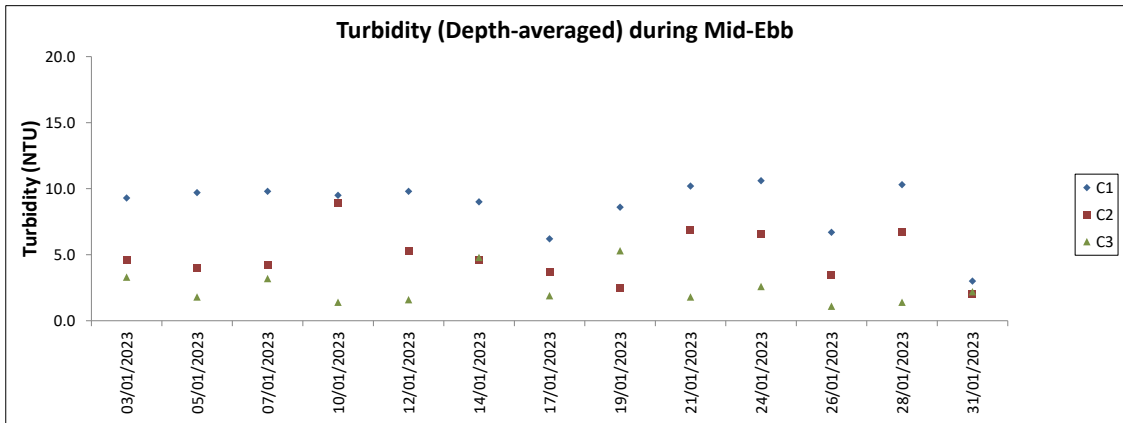
Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined



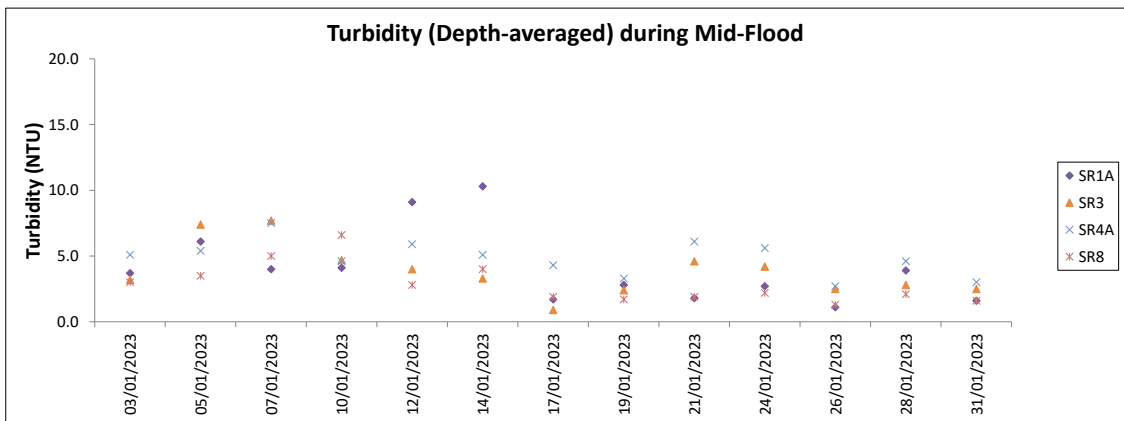
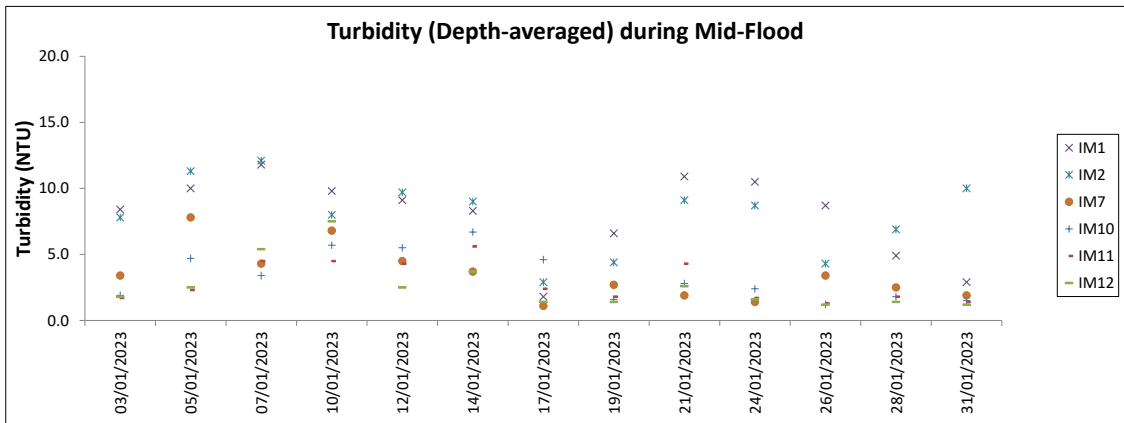
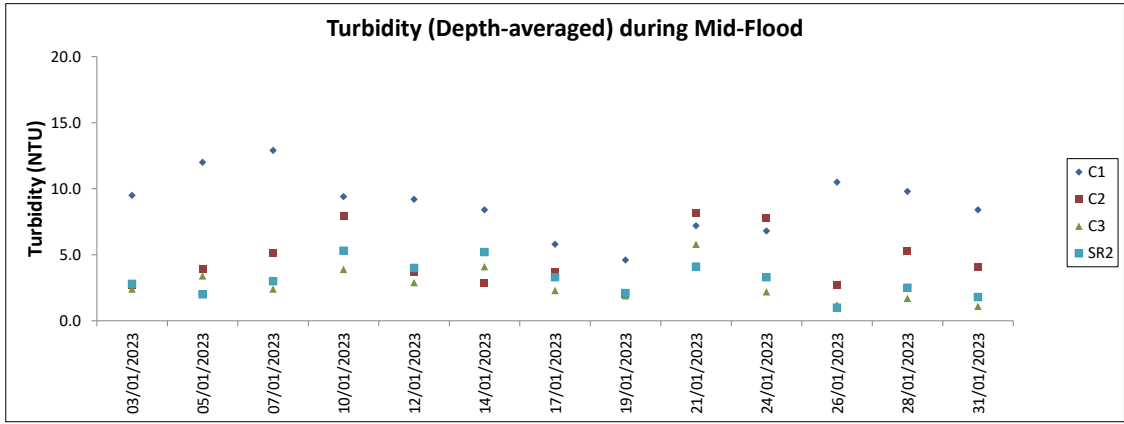




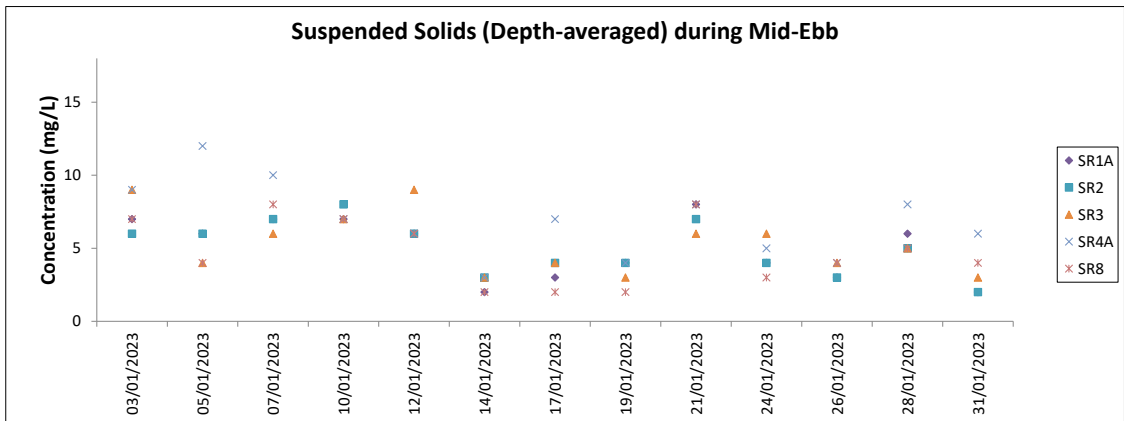
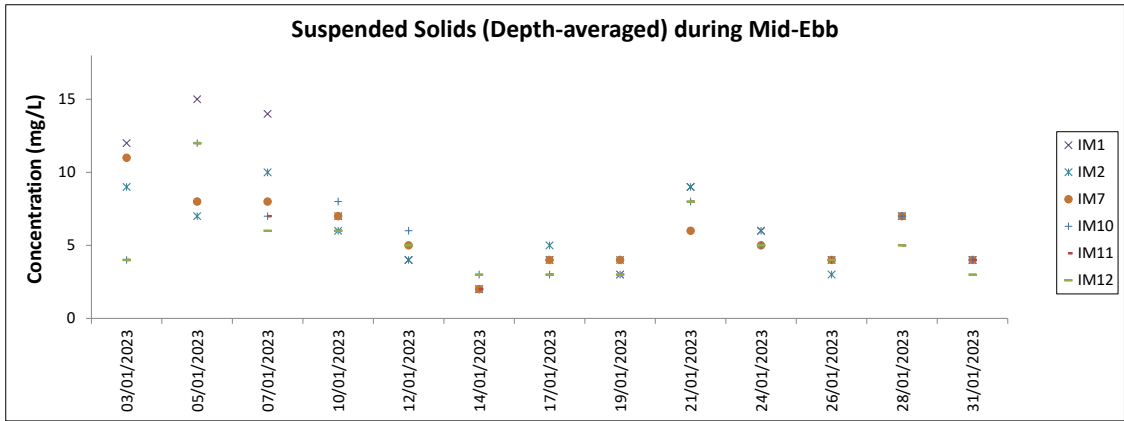
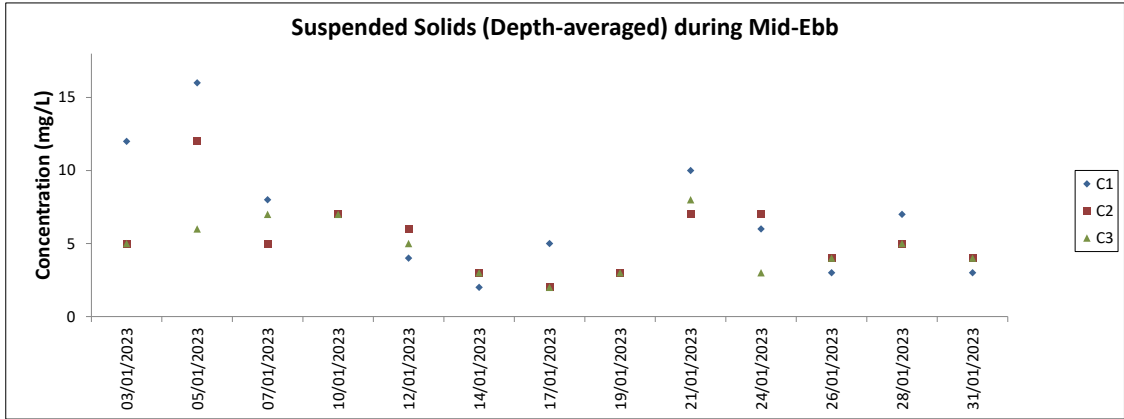




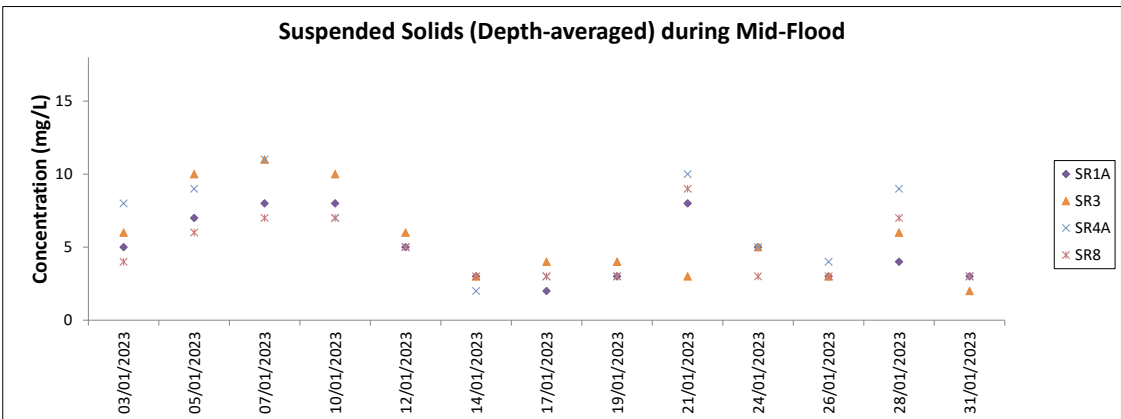
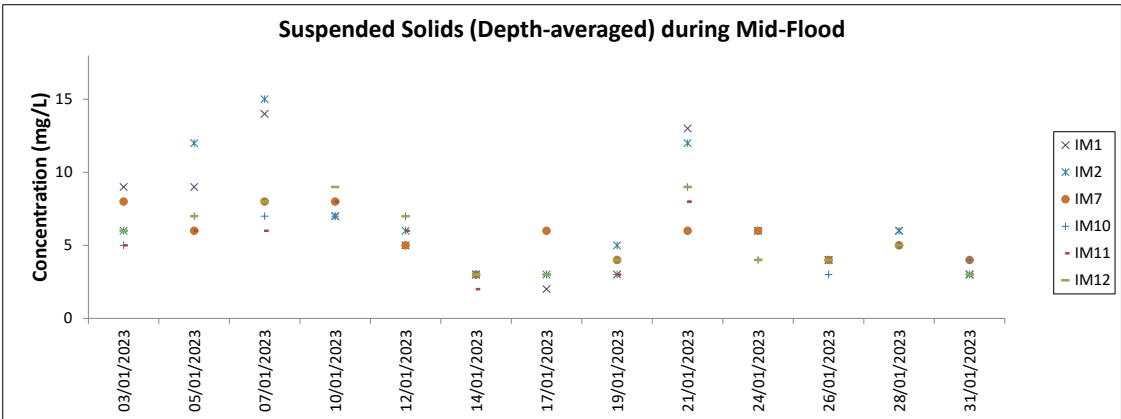
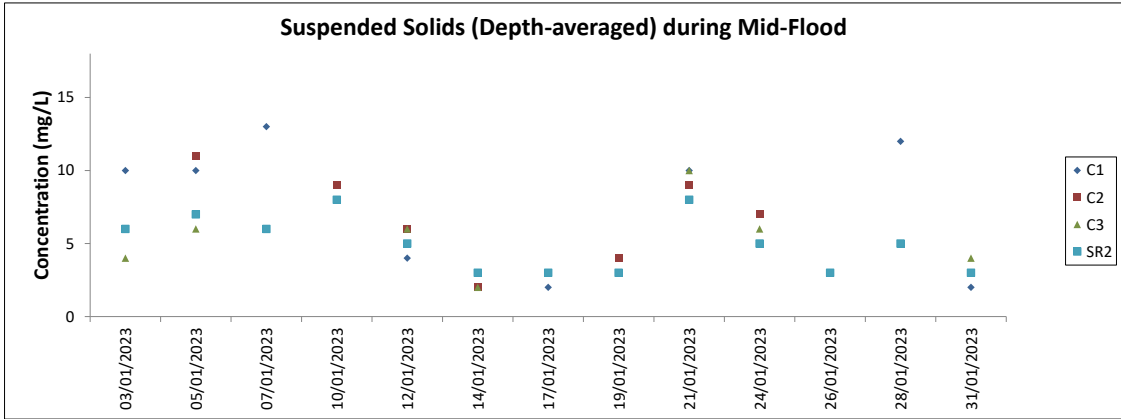
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.
 Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
 Weather conditions during monitoring are presented in the data tables above.
 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
07-Nov-22	NEL	2	37.270	AUTUMN	32166	3RS ET	P
07-Nov-22	NEL	2	9.330	AUTUMN	32166	3RS ET	S
09-Nov-22	AW	2	4.83	AUTUMN	32166	3RS ET	P
09-Nov-22	WL	2	19.620	AUTUMN	32166	3RS ET	P
09-Nov-22	WL	2	9.450	AUTUMN	32166	3RS ET	S
10-Nov-22	SWL	2	53.970	AUTUMN	32166	3RS ET	P
10-Nov-22	SWL	2	16.030	AUTUMN	32166	3RS ET	S
11-Nov-22	NWL	2	57.080	AUTUMN	32166	3RS ET	P
11-Nov-22	NWL	3	1.800	AUTUMN	32166	3RS ET	P
11-Nov-22	NWL	2	16.600	AUTUMN	32166	3RS ET	S
14-Nov-22	NEL	2	37.010	AUTUMN	32166	3RS ET	P
14-Nov-22	NEL	2	9.400	AUTUMN	32166	3RS ET	S
17-Nov-22	AW	2	4.870	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	2	16.517	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	3	2.199	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	2	9.653	AUTUMN	32166	3RS ET	S
17-Nov-22	WL	3	1.121	AUTUMN	32166	3RS ET	S
18-Nov-22	SWL	2	34.800	AUTUMN	32166	3RS ET	P
18-Nov-22	SWL	3	18.740	AUTUMN	32166	3RS ET	P
18-Nov-22	SWL	2	8.780	AUTUMN	32166	3RS ET	S
18-Nov-22	SWL	3	7.120	AUTUMN	32166	3RS ET	S
21-Nov-22	NWL	2	36.350	AUTUMN	32166	3RS ET	P
21-Nov-22	NWL	3	27.650	AUTUMN	32166	3RS ET	P
21-Nov-22	NWL	2	2.100	AUTUMN	32166	3RS ET	S
21-Nov-22	NWL	3	9.500	AUTUMN	32166	3RS ET	S
16-Dec-22	NEL	2	32.000	WINTER	32166	3RS ET	P
16-Dec-22	NEL	3	5.130	WINTER	32166	3RS ET	P
16-Dec-22	NEL	2	10.070	WINTER	32166	3RS ET	S
19-Dec-22	NEL	2	21.500	WINTER	32166	3RS ET	P
19-Dec-22	NEL	3	16.020	WINTER	32166	3RS ET	P
19-Dec-22	NEL	2	5.070	WINTER	32166	3RS ET	S
19-Dec-22	NEL	3	5.110	WINTER	32166	3RS ET	S
20-Dec-22	NWL	2	5.240	WINTER	32166	3RS ET	P
20-Dec-22	NWL	3	57.300	WINTER	32166	3RS ET	P
20-Dec-22	NWL	2	1.100	WINTER	32166	3RS ET	S
20-Dec-22	NWL	3	10.600	WINTER	32166	3RS ET	S
21-Dec-22	AW	3	5.010	WINTER	32166	3RS ET	P
21-Dec-22	WL	3	8.326	WINTER	32166	3RS ET	P
21-Dec-22	WL	4	9.037	WINTER	32166	3RS ET	P
21-Dec-22	WL	5	1.900	WINTER	32166	3RS ET	P
21-Dec-22	WL	3	3.640	WINTER	32166	3RS ET	S
21-Dec-22	WL	4	7.527	WINTER	32166	3RS ET	S
22-Dec-22	SWL	3	52.578	WINTER	32166	3RS ET	P
22-Dec-22	SWL	4	1.400	WINTER	32166	3RS ET	P
22-Dec-22	SWL	2	0.850	WINTER	32166	3RS ET	S
22-Dec-22	SWL	3	14.360	WINTER	32166	3RS ET	S
22-Dec-22	SWL	4	1.200	WINTER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
28-Dec-22	SWL	2	30.360	WINTER	32166	3RS ET	P
28-Dec-22	SWL	3	22.450	WINTER	32166	3RS ET	P
28-Dec-22	SWL	2	12.320	WINTER	32166	3RS ET	S
28-Dec-22	SWL	3	2.700	WINTER	32166	3RS ET	S
29-Dec-22	AW	3	4.860	WINTER	32166	3RS ET	P
29-Dec-22	WL	3	14.870	WINTER	32166	3RS ET	P
29-Dec-22	WL	4	5.880	WINTER	32166	3RS ET	P
29-Dec-22	WL	3	9.380	WINTER	32166	3RS ET	S
29-Dec-22	WL	4	0.870	WINTER	32166	3RS ET	S
30-Dec-22	NWL	3	49.500	WINTER	32166	3RS ET	P
30-Dec-22	NWL	4	14.100	WINTER	32166	3RS ET	P
30-Dec-22	NWL	3	8.500	WINTER	32166	3RS ET	S
30-Dec-22	NWL	4	3.200	WINTER	32166	3RS ET	S
06-Jan-23	NWL	2	27.910	WINTER	32166	3RS ET	P
06-Jan-23	NWL	3	34.020	WINTER	32166	3RS ET	P
06-Jan-23	NWL	2	5.290	WINTER	32166	3RS ET	S
06-Jan-23	NWL	3	6.780	WINTER	32166	3RS ET	S
09-Jan-23	NWL	2	22.370	WINTER	32166	3RS ET	P
09-Jan-23	NWL	3	39.710	WINTER	32166	3RS ET	P
09-Jan-23	NWL	2	3.350	WINTER	32166	3RS ET	S
09-Jan-23	NWL	3	8.820	WINTER	32166	3RS ET	S
10-Jan-23	SWL	2	56.930	WINTER	32166	3RS ET	P
10-Jan-23	SWL	2	13.570	WINTER	32166	3RS ET	S
12-Jan-23	AW	2	2.890	WINTER	32166	3RS ET	P
12-Jan-23	AW	3	1.690	WINTER	32166	3RS ET	P
12-Jan-23	WL	2	17.170	WINTER	32166	3RS ET	P
12-Jan-23	WL	3	2.500	WINTER	32166	3RS ET	P
12-Jan-23	WL	2	9.830	WINTER	32166	3RS ET	S
12-Jan-23	WL	3	1.100	WINTER	32166	3RS ET	S
13-Jan-23	SWL	1	3.380	WINTER	32166	3RS ET	P
13-Jan-23	SWL	2	50.173	WINTER	32166	3RS ET	P
13-Jan-23	SWL	1	2.050	WINTER	32166	3RS ET	S
13-Jan-23	SWL	2	16.697	WINTER	32166	3RS ET	S
16-Jan-23	NEL	2	8.200	WINTER	32166	3RS ET	P
16-Jan-23	NEL	3	28.750	WINTER	32166	3RS ET	P
16-Jan-23	NEL	2	4.200	WINTER	32166	3RS ET	S
16-Jan-23	NEL	3	6.150	WINTER	32166	3RS ET	S
17-Jan-23	NEL	2	28.590	WINTER	32166	3RS ET	P
17-Jan-23	NEL	3	8.380	WINTER	32166	3RS ET	P
17-Jan-23	NEL	2	10.130	WINTER	32166	3RS ET	S
18-Jan-23	WL	3	15.140	WINTER	32166	3RS ET	P
18-Jan-23	WL	4	5.200	WINTER	32166	3RS ET	P
18-Jan-23	WL	3	7.360	WINTER	32166	3RS ET	S
18-Jan-23	WL	4	3.200	WINTER	32166	3RS ET	S
18-Jan-23	AW	2	4.760	WINTER	32166	3RS ET	P

Notes: CWD monitoring survey data of the two preceding survey months are presented for reference only.

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-Nov-22	1	1001	CWD	2	WL	2	189	ON	3RS ET	22.2992	113.8612	AUTUMN	NONE	P
09-Nov-22	2	1138	CWD	1	WL	2	139	ON	3RS ET	22.2239	113.8248	AUTUMN	NONE	P
09-Nov-22	3	1209	CWD	3	WL	2	84	ON	3RS ET	22.2026	113.8231	AUTUMN	NONE	S
09-Nov-22	4	1235	CWD	1	WL	2	760	ON	3RS ET	22.1873	113.8394	AUTUMN	NONE	P
10-Nov-22	1	1338	FP	1	SWL	2	2	ON	3RS ET	22.1833	113.8877	AUTUMN	NONE	P
11-Nov-22	1	0947	CWD	1	NWL	2	222	ON	3RS ET	22.3847	113.8707	AUTUMN	NONE	P
17-Nov-22	1	1031	CWD	7	WL	2	188	ON	3RS ET	22.2612	113.8457	AUTUMN	NONE	P
17-Nov-22	2	1119	CWD	2	WL	2	18	ON	3RS ET	22.2318	113.8288	AUTUMN	NONE	P
17-Nov-22	3	1141	CWD	1	WL	2	50	ON	3RS ET	22.2235	113.8297	AUTUMN	NONE	P
17-Nov-22	4	1202	CWD	2	WL	2	110	ON	3RS ET	22.2147	113.8255	AUTUMN	NONE	P
17-Nov-22	5	1234	CWD	1	WL	2	83	ON	3RS ET	22.2048	113.8332	AUTUMN	NONE	P
17-Nov-22	6	1300	CWD	2	WL	3	145	ON	3RS ET	22.1960	113.8392	AUTUMN	NONE	P
18-Nov-22	1	1034	FP	1	SWL	2	66	ON	3RS ET	22.1727	113.9360	AUTUMN	NONE	P
18-Nov-22	2	1100	FP	1	SWL	2	43	ON	3RS ET	22.1705	113.9277	AUTUMN	NONE	P
18-Nov-22	3	1159	FP	4	SWL	3	13	ON	3RS ET	22.1544	113.9048	AUTUMN	NONE	S
18-Nov-22	4	1451	CWD	2	SWL	3	665	ON	3RS ET	22.1914	113.8488	AUTUMN	NONE	P
20-Dec-22	1	0949	CWD	2	NWL	2	31	ON	3RS ET	22.3730	113.8705	WINTER	NONE	P
21-Dec-22	1	1136	CWD	2	WL	4	405	ON	3RS ET	22.2053	113.8389	WINTER	NONE	P
21-Dec-22	2	1205	CWD	7	WL	4	53	ON	3RS ET	22.1961	113.8409	WINTER	NONE	P
21-Dec-22	3	1218	CWD	1	WL	3	45	ON	3RS ET	22.1873	113.8408	WINTER	NONE	P
22-Dec-22	1	1038	FP	2	SWL	3	34	ON	3RS ET	22.1817	113.9362	WINTER	NONE	P
22-Dec-22	2	1042	FP	1	SWL	3	307	ON	3RS ET	22.1775	113.9358	WINTER	NONE	P
22-Dec-22	3	1116	FP	2	SWL	3	68	ON	3RS ET	22.1798	113.9280	WINTER	NONE	P
22-Dec-22	4	1152	FP	1	SWL	3	75	ON	3RS ET	22.1596	113.9180	WINTER	NONE	P
22-Dec-22	5	1231	FP	1	SWL	3	361	ON	3RS ET	22.1901	113.9062	WINTER	NONE	S
28-Dec-22	1	1314	CWD	3	SWL	2	707	ON	3RS ET	22.1687	113.8874	WINTER	GILLNETTER	P
28-Dec-22	2	1355	CWD	5	SWL	2	235	ON	3RS ET	22.1818	113.8788	WINTER	GILLNETTER	P
28-Dec-22	3	1501	CWD	2	SWL	3	137	ON	3RS ET	22.1716	113.8534	WINTER	NONE	S
29-Dec-22	1	1051	CWD	6	WL	3	11	ON	3RS ET	22.2417	113.8427	WINTER	NONE	P
06-Jan-23	1	1048	CWD	5	NWL	3	98	ON	3RS ET	22.2845	113.8776	WINTER	NONE	P
06-Jan-23	2	1303	CWD	3	NWL	3	399	ON	3RS ET	22.3944	113.8973	WINTER	PAIR TRAWLER	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
09-Jan-23	1	1013	CWD	2	NWL	2	51	ON	3RS ET	22.3058	113.8700	WINTER	NONE	P
09-Jan-23	2	1056	CWD	2	NWL	2	19	ON	3RS ET	22.2958	113.8777	WINTER	NONE	P
09-Jan-23	3	1144	CWD	4	NWL	3	351	ON	3RS ET	22.3661	113.8778	WINTER	NONE	P
13-Jan-23	1	1106	FP	2	SWL	2	7	ON	3RS ET	22.1527	113.9276	WINTER	NONE	P
13-Jan-23	2	1220	FP	1	SWL	2	64	ON	3RS ET	22.1579	113.8989	WINTER	NONE	S
13-Jan-23	3	1228	CWD	1	SWL	2	57	ON	3RS ET	22.1703	113.9076	WINTER	NONE	P
13-Jan-23	4	1327	FP	2	SWL	2	60	ON	3RS ET	22.1494	113.8887	WINTER	NONE	S
13-Jan-23	5	1516	CWD	2	SWL	2	56	ON	3RS ET	22.1940	113.8498	WINTER	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

Notes:

CWD monitoring survey data of the two preceding survey months are presented for reference only. No relevant figure or text will be mentioned in this monthly EM&A report.

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

Calculation of the encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 447.890 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 7 on-effort sightings and total number of 19 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in January 2023 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in January 2023

$$STG = \frac{7}{447.890} \times 100 = 1.56$$

Encounter Rate by Number of Dolphins (ANI) in January 2023

$$ANI = \frac{19}{447.890} \times 100 = 4.24$$

Calculation of the running quarterly STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 1303.694 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 25 on-effort sightings and total number of 63 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

Running Quarterly Encounter Rate by Number of Dolphin Sightings (STG)









$$STG = \frac{25}{1303.694} \times 100 = 1.92$$









Running Quarterly Encounter Rate by Number of Dolphins (ANI)

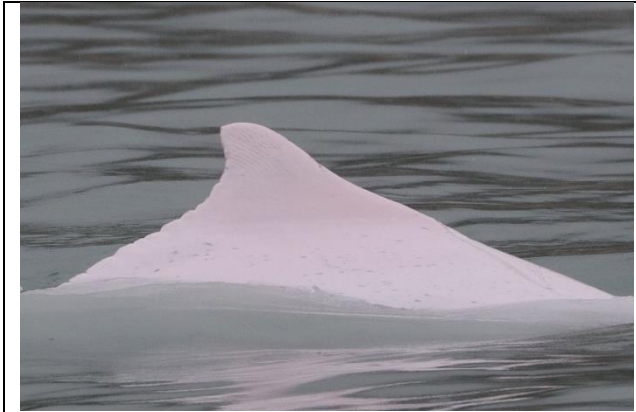
$$ANI = \frac{63}{1303.694} \times 100 = 4.83$$

CWD Small Vessel Line-transect Survey

Photo Identification

	
NLMM086_20230106_1_3	NLMM087_20230106_1_8
	
WLMM043_20230106_1_6	WLMM071_20230106_1_5
	
NLMM021_20230106_2_2	NLMM028_20230106_2_9
	
NLMM085_20230106_2_3	NLMM040_20230109_1_1

	
NLMM041_20230109_1_1	NLMM040_20230109_2_1
	
NLMM041_20230109_2_1	WLMM019_20230109_3_5
	
WLMM043_20230109_3_4	WLMM067_20230109_3_5
	
WLMM122_20230109_3_8	SLMM014_20230113_3_5



SLMM031_20230113_5_4



SLMM035_20230113_5_1

CWD Land-based Theodolite Tracking Survey**CWD Groups by Survey Date**

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility	No. of Focal Follow Dolphin Groups Tracked	Dolphin Group Size Range
17/Jan/23	Sha Chau	10:42	16:42	6:00	2	3	0	NA
19/Jan/23	Lung Kwu Chau	8:42	14:42	6:00	2-3	3	2	3-4

Visibility: 1=Excellent, 2=Good, 3=Fair, 4=Poor

Appendix D. Status of Environmental Permits and Licenses

	Description	Permit/ Reference No.	Status
EIAO	Environmental Permit	EP-489/2014	Approved on 7 Nov 2014

Contract No.	Description	Location	Permit/ Reference No.	Status
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016
	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951-Z4035-01	Completion of Registration on 18 Nov 2016
		Works area of 3206	WPN 5213-951-Z4035-02	Completion of Registration on 18 Nov 2016
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0683-22	Valid from 13 Aug 2022 to 30 Jan 2023
			GW-RS0045-23	Valid from 30 Jan 2023 to 20 Jul 2023
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3302	Notification of Construction Work under APCO	Works area of 3302	484487	Receipt acknowledged by EPD on 20 Sep 2022
		Staging area of 3302	479482	Receipt acknowledged by EPD on 6 May 2022
			485105	Receipt acknowledged by EPD on 7 Oct 2022
			479481	Receipt acknowledged by EPD on 6 May 2022
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541-2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0841-22	Valid from 20 Oct 2022 to 19 Apr 2023
			GW-RS0887-22	Valid from 3 Nov 2022 to 2 May 2023
3305	Notification of Construction Work under APCO	Works area of 3305	460857	Receipt acknowledged by EPD on 12 Oct 2020
	Registration as Chemical Waste Producer	Works area of 3305	5213-951-A3024-01	Completion of Registration on 13 Nov 2020
	Bill Account for disposal	Works area of 3305	A/C 7035360	Approval granted from EPD on 9 Oct 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3305	GW-RS0965-22	Valid from 1 Dec 2022 to 31 May 2023
3306	Registration as Chemical Waste Producer	Works area of 3306	8335-951-C4434-01	Completion of Registration on 1 Apr 2020
	Bill Account for disposal	Works area of 3306	A/C 7035868	Approval granted from EPD on 27 Nov 2019
3307	Notification of Construction Work under APCO	Works area of 3307	487904	Receipt acknowledged by EPD on 30 Dec 2022
	Registration as Chemical Waste Producer	Works area of 3307	5211-951-P3379-01	Completion of Registration on 8 Jun 2020
	Discharge License under WPCO	Works area of 3307	WT00036926-2020	Valid from 31 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3307	A/C 7037129	Approval granted from EPD on 5 May 2020
	Construction Noise Permit (General Works)	Works area of 3307	GW-RS0586-22	Valid from 6 Aug 2022 to 5 Feb 2023
3308	Bill Account for disposal	Works area of 3308	A/C 7038988	Approval granted from EPD on 24 Nov 2020
3310	Notification of Construction Work under APCO	Works area of 3310	485057	Receipt acknowledged by EPD on 10 Dec 2021
	Registration as Chemical Waste Producer	Works area of 3310	5213-951-C4682-01	Completion of Registration on 21 Dec 2021
	Discharge License under WPCO	Works area of 3310	WT00039654-2021	Valid from 31 Dec 2021 to 31 Dec 2026
	Bill Account for disposal	Works area of 3310	A/C 7042793	Approval granted from EPD on 4 Jan 2022
	Construction Noise Permit (General Works)	Works area of 3310 (Existing airport)	GW-RS0997-22	Valid from 17 Nov 2022 to 14 May 2023
		Works area of 3310 (Reclamation area)	GW-RS1088-22	Valid from 15 Dec 2022 to 12 Jun 2023
	Construction Noise Permit (Percussive Piling)	Works area of 3310 (Reclamation area)	PP-RS0017-22	Valid from 1 Oct 2022 to 31 Mar 2023
3402	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
3403	Notification of Construction Work under APCO	Works area of 3403	485039	Receipt acknowledged by EPD on 06 Oct 2022
		Works area of 3403 (with Area 17 and Area 15)	475369	Receipt acknowledged by EPD on 28 Dec 2021
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951-S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841-2020	Valid from 5 Jun 2020 to 30 Jun 2025 Approved variation on 9 Jun 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0655-22	Valid from 1 Sep 2022 to 28 Feb 2023
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0979-22	Valid from 1 Dec 2022 to 28 Feb 2023
3404	Bill Account for disposal	Works area of 3404	A/C 7035158	Approval granted from EPD on 12 Sep 2019
3405	Notification of Construction Work under APCO	Works area of 3405	484926	Receipt acknowledged by EPD on 30 Sep 2022
	Registration as Chemical Waste Producer	Works area of 3405	WPN 5218-951-C4431-01	Completion of Registration on 12 Mar 2020
	Discharge License under WPCO	Works area of 3405	WT00037084-2020	Valid from 17 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3405	A/C 7036796	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3405	GW-RS0788-22	Valid from 24 Sep 2022 to 19 Mar 2023
3408	Notification of Construction Work under APCO	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020
	Registration as Chemical Waste Producer	Works area of 3408	WPN 5218-951-B2621-01	Completion of Registration on 16 Jul 2021
	Discharge License under WPCO	Works area of 3408	WT00038836-2021	Valid from 27 Sep 2021 to 30 Sep 2026
	Bill Account for disposal	Works area of 3408	A/C 7039063	Approval granted from EPD on 2 Dec 2020
	Construction Noise Permit (General Works)	Works area of 3408	GW-RS1015-22	Valid from 25 Nov 2022 to 30 Apr 2023
3508	Notification of Construction Work under APCO	Works area of 3508	459017	Receipt acknowledged by EPD on 19 Aug 2020
			459469	Receipt acknowledged by EPD on 4 Sep 2020
		Works area of 3508 (Area J)	467132	Receipt acknowledged by EPD on 3 May 2021
	Registration as Chemical Waste Producer	Works area of 3508	WPN-5218-951-G2898-01	Completion of Registration on 28 Sep 2020
	Discharge License under WPCO	Works area of 3508	WT00037209-2020	Valid from 28 Jan 2022 to 31 Mar 2026
			WT00037523-2021	Valid from 24 Aug 2022 to 30 Apr 2026
			WT00037225-2020	Valid from 11 Jan 2022 to 30 Apr 2026
			WT00037549-2021	Valid from 1 Apr 2021 to 30 Apr 2026

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3508	7038224	Approval granted from EPD on 8 Sep 2020
	Construction Noise Permit (General Works)	Works area of 3508	GW-RS1127-22	Valid from 2 Jan 2023 to 27 Jun 2023
		Works area of 3508	GW-RS1138-22	Valid from 30 Dec 2022 to 27 Jun 2023
		Works area of 3508	GW-RS1133-22	Valid from 6 Jan 2023 to 5 Jun 2023
	Construction Noise Permit (Special Case)	Works area of 3508	GW-RS1099-22	Valid from 1 Jan 2023 to 15 Feb 2023
		Works area of 3508	GW-RS0034-23	Valid from 22 Jan 2023 to 20 Apr 2023
		Works area of 3508	GW-RS0831-22	Valid from 12 Oct 2022 to 9 Apr 2023
		Works area of 3508	GW-RS0844-22	Valid from 14 Oct 2022 to 31 Mar 2023
		Works area of 3508	GW-RS1075-22	Valid from 9 Dec 2022 to 15 Jan 2023
3601	Notification of Construction Work under APCO	Works area of 3601	451762	Receipt acknowledged by EPD on 10 Dec 2019
	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951-C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 7029991	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3601	GW-RS1059-22	Valid from 8 Dec 2022 to 7 May 2023
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951-N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
	Construction Noise Permit (General Works)	Works area of 3602	GW-RS0766-22	Valid from 28 Sep 2022 to 27 Mar 2023
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069-01	Completion of Registration on 22 Jan 2018
		Test Loop Site of 3603	8334-512-S4273-01	Completion of Registration on 17 Sep 2020
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0335-22	Valid from 24 May 2022 to 23 Nov 2022
			GW-RS0922-22	Valid from 24 Nov 2022 to 23 May 2023

Contract No.	Description	Location	Permit/ Reference No.	Status
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
	Registration as Chemical Waste Producer	Works area of 3721	WPN 5218-951-C4412-01	Completion of Registration on 9 Dec 2019
	Bill Account for disposal	Works area of 3721	A/C 7035234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0877-22	Valid from 23 Oct 2022 to 21 Feb 2023
GW-RS0048-23			Valid from 30 Jan 2023 to 30 Jun 2023	
3728	Registration as Chemical Waste Producer	Works area of 3728	WPN 5111-951-S3467-03	Completion of Registration on 7 May 2021
	Discharge License under WPCO	Works area of 3728	WT00037809-2021	Valid from 27 Jul 2021 to 31 Jul 2026
	Bill Account for disposal	Works area of 3728	A/C 7039409	Approval granted from EPD on 22 Jan 2021
3733	Notification of Construction Work under APCO	Works area of 3733	472772	Receipt acknowledged by EPD on 18 Oct 2021
	Registration as Chemical Waste Producer	Works area of 3733	474728	Receipt acknowledged by EPD on 9 Dec 2021
	Bill Account for disposal	Works area of 3733	7041945	Approval granted from EPD on 21 Oct 2021
	Construction Noise Permit (General Works)	Works area of 3733	GW-RS1028-22	Valid from 25 Nov 2022 to 22 May 2023
3801	Notification of Construction Work under APCO	Works area of 3801	451991	Receipt acknowledged by EPD on 18 Dec 2019
			477839	Receipt acknowledged by EPD on 21 Mar 2022
		Stockpiling area of 3801	454269	Receipt acknowledged by EPD on 12 Mar 2020
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works area of 3801	WT00041429-2022	Valid from 16 Aug 2022 to 31 Aug 2027
		Stockpiling area of 3801	WT00037354-2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-RS0744-22	Valid from 4 Sep 2022 to 28 Feb 2023
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
		Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3802 (Existing airport)	WPN 5218-951-G2945-01	Completion of Registration on 29 Sep 2020
	Discharge License under WPCO	Works area of 3802	WT00037032-2020	Valid from 25 May 2021 to 31 May 2026
Works area of 3802 (Existing airport)		WT00039092-2021	Valid from 30 Nov 2021 to 31 Nov 2026	
		WT00041807-2022	Valid from 3 Oct 2022 to 31 Oct 2027	
	Bill Account for disposal	Works area of 3802	A/C 7037575	Approval granted from EPD on 15 Jun 2020
	Construction Noise Permit (General Works)	Works area of 3802	GW-RS0778-22	Superseded by GW-RS0053-23
			GW-RS0053-23	Valid from 30 Jan 2023 to 29 Jul 2023
		Works area of 3802 (Existing airport)	GW-RS1061-22	Valid from 5 Dec 2022 to 4 Jun 2023
		Works area of 3802 (Ventilation building)	GW-RS0587-22	Valid from 18 Jul 2022 to 17 Jan 2023
3804	Notification of Construction Work under APCO	Works area of 3804	487452	Receipt acknowledged by EPD on 14 Dec 2022
	Registration as Chemical Waste Producer	Works area of 3804	487453	Receipt acknowledged by EPD on 14 Dec 2022
	Discharge License under WPCO	Works area of 3804	487903	Receipt acknowledged by EPD on 30 Dec 2022
	Bill Account for disposal	Works area of 3804	RW02507	Receipt acknowledged by EPD on 14 Dec 2022
3901A	Notification of Construction Work under APCO	Works area of 3901A	466883	Receipt acknowledged by EPD on 26 Apr 2021
	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901A	EP/RS/0000443 053	Approval granted on 11 Dec 2020
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Landfill Disposal of Waste Concrete from Batching Plant	Works area of 3901A	EP195/01/18	Valid from 20 June 2022 to 19 March 2023
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Bill Account for disposal	Works area of 3901A	A/C 7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0517-22	Valid from 5 Aug 2022 to 4 Feb 2023

Contract No.	Description	Location	Permit/ Reference No.	Status
3901B	Notification of Construction Work under APCO	Works area of 3901B	466885	Receipt acknowledged by EPD on 26 Apr 2021
	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901B	EP/RS/0000438 488	Approval granted on 26 Jun 2020
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951-G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0552-22	Valid from 5 Aug 2022 to 4 Feb 2023
3913	Specified Process license under APCO	Works area of 3913	L-15-040 (1)	Valid from 29 Mar 2021 to 28 Mar 2025
	Registration as Chemical Waste Producer	Works area of 3913	5213-951-S4405-01	Completion of Registration on 22 Jul 2022
	Bill Account for disposal	Works area of 3913	A/C 7044632	Approval granted from EPD on 18 Aug 2022
	Construction Noise Permit (General Works)	Works area of 3913	GW-RS0799-22	Valid from 24 Sep 2022 to 19 Mar 2023

Appendix E. Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions

Statistics for Exceedances for 1-hour TSP, Noise, Water, Waste, CWD Monitoring

		Total no. recorded in the reporting period	Total no. recorded since the project commenced
1-hr TSP	Action	0	0
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water	Action	0	0
	Limit	0	0
Waste	Action	0	1
	Limit	0	0
CWD	Action	0	0
	Limit	0	0

Remark: Exceedances, which are not project related, are not shown in this table.

Statistics for Complaints, Notifications of Summons and Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Prosecutions
This reporting period	0	0	0
From 28 December 2015 to end of the reporting period	58	2	2

Appendix F. Data of SkyPier HSF Movements to/ from Macau (between 1 and 31 January 2023)

Data of SkyPier HSF Movements to/from Macau (between 1 and 31 January 2023)

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [YFT – Macao (Taipa)]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
01-Jan	15:46	8S913	YFT	Arrival	11	-	-
06-Jan	09:49	8S192	YFT	Departure	12.2	-	-
06-Jan	15:32	8S913	YFT	Arrival	13.6	-	-
08-Jan	09:52	8S192	YFT	Departure	13.5	-	-
08-Jan	15:33	8S913	YFT	Arrival	13	-	-
13-Jan	09:49	8S192	YFT	Departure	10.9	-	-
13-Jan	16:02	8S913	YFT	Arrival	11.8	-	-
15-Jan	09:43	8S192	YFT	Departure	11.2	-	-
15-Jan	15:45	8S913	YFT	Arrival	11.8	-	-
20-Jan	09:48	8S192	YFT	Departure	13.6	-	-
20-Jan	15:34	8S913	YFT	Arrival	13.4	<= 5	< 1min
22-Jan	09:48	8S192	YFT	Departure	10.9	-	-
22-Jan	15:41	8S913	YFT	Arrival	13.1	-	-
27-Jan	09:56	8S192	YFT	Departure	11.6	-	-
27-Jan	15:34	8S913	YFT	Arrival	12.3	-	-
29-Jan	09:42	8S192	YFT	Departure	12.2	-	-
29-Jan	15:36	8S913	YFT	Arrival	12.3	-	-

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in January 2023, instantaneous speeding (i.e. a sudden change in speed at over 15 knots for a short period of time) within the SCZ was recorded from 1 HSF movement of which the duration of the instantaneous speeding case was less than 1 minute. Notice was sent to the ferry operator and the case is under investigation by ET.