MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No. 76 (For April 2022)

May 2022

Airport Authority Hong Kong

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

T +852 2828 5757
mottmac.hk

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

Construction Phase Monthly EM&A Report No. 76 (For April 2022)

May 2022

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

Airport Authority Hong Kong

This Monthly EM&A Report No. 76 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: 

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

Date 13 May 2022

AECOM
12/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, Hong Kong
香港新界沙田鄉事會路 138 號新城市中央廣場第 2 座 12 樓
www.aecom.com
+852 3922 9000 tel
+852 3922 9797 fax

Our Ref : 60440482/C/JCHL220513

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

13 May 2022

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 76 (April 2022)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 76 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 13 May 2022.

We write to 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 9376.

Yours faithfully,
AECOM Asia Co. Ltd.

Jackel Law
Independent Environmental Checker

Contents

Abbreviations 1
Executive summary 3

1 Introduction 8
1.1 Background 8
1.2 Scope of this Report 8
1.3 Project Organisation 8
1.4 Summary of Construction Works 12
1.5 Summary of EM&A Programme Requirements 12

2 Air Quality Monitoring 16
2.1 Action and Limit Levels 16
2.2 Monitoring Equipment 16
2.3 Monitoring Methodology 16
2.3.1 Measuring Procedure 16
2.3.2 Maintenance and Calibration 17
2.4 Summary of Monitoring Results 17
2.5 Conclusion 17

3 Noise Monitoring 18
3.1 Action and Limit Levels 18
3.2 Monitoring Equipment 18
3.3 Monitoring Methodology 19
3.3.1 Monitoring Procedure 19
3.3.2 Maintenance and Calibration 19
3.4 Summary of Monitoring Results 19
3.5 Conclusion 20

4 Water Quality Monitoring 21
4.1 Action and Limit Levels 22
4.2 Monitoring Equipment 23
4.3 Monitoring Methodology 24
4.3.1 Measuring Procedure 24
4.3.2 Maintenance and Calibration 24
4.3.3 Laboratory Measurement / Analysis 24
4.4 Summary of Monitoring Results 25
4.5 Conclusion 25

5 Waste Management 26
5.1 Action and Limit Levels 26

5.2 Waste Management Status 26
5.3 Marine Sediment Management 27

6 Chinese White Dolphin Monitoring 28
6.1 Action and Limit Levels 28
6.2 CWD Monitoring Transects and Stations 28
6.2.1 Small Vessel Line-transect Survey 28
6.2.2 Land-based Theodolite Tracking Survey 30
6.3 CWD Monitoring Methodology 30
6.3.1 Small Vessel Line-transect Survey 30
6.3.2 Photo Identification 31
6.3.3 Land-based Theodolite Tracking Survey 31
6.4 Monitoring Results and Observations 32
6.4.1 Small Vessel Line-transect Survey 32
6.4.2 Photo Identification 35
6.4.3 Land-based Theodolite Tracking Survey 35
6.5 Progress Update on Passive Acoustic Monitoring 35
6.6 Site Audit for CWD-related Mitigation Measures 36
6.7 Timing of reporting CWD Monitoring Results 36
6.8 Summary of CWD Monitoring 36

7 Environmental Site Inspection and Audit 37
7.1 Environmental Site Inspection 37
7.2 Landscape and Visual Mitigation Measures 37
7.3 Land Contamination Assessment 43
7.4 Audit of SkyPier High Speed Ferries 44
7.5 Audit of Construction and Associated Vessels 44
7.6 Implementation of Dolphin Exclusion Zone 45
7.7 Status of Submissions under Environmental Permits 45
7.8 Compliance with Other Statutory Environmental Requirements 45
7.9 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions 46
7.9.1 Complaints 46
7.9.2 Notifications of Summons or Status of Prosecution 46
7.9.3 Cumulative Statistics 46

8 Future Key Issues and Other EIA & EM&A Issues 47
8.1 Construction Programme for the Coming Reporting Period 47
8.2 Key Environmental Issues for the Coming Reporting Period 49
8.3 Monitoring Schedule for the Coming Reporting Period 49
8.4 Review of the Key Assumptions Adopted in the EIA Report 50

9 Conclusion and Recommendation 51

Tables

Table 1.1: Contact Information of Key Personnel 9
Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual 12
Table 2.1: Locations of Impact Air Quality Monitoring Stations 16
Table 2.2: Action and Limit Levels of Air Quality Monitoring 16
Table 2.3: Air Quality Monitoring Equipment 16
Table 2.4: Summary of Air Quality Monitoring Results 17
Table 3.1: Locations of Impact Noise Monitoring Stations 18
Table 3.2: Action and Limit Levels for Noise Monitoring 18
Table 3.3: Noise Monitoring Equipment 19
Table 3.4: Summary of Construction Noise Monitoring Results 20
Table 4.1: Monitoring Locations of Impact Water Quality Monitoring 21
Table 4.2: Action and Limit Levels for General Water Quality Monitoring and Regular DCM Monitoring 22
Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring and Regular DCM Monitoring 23
Table 4.4: Water Quality Monitoring Equipment 23
Table 4.5: Other Monitoring Equipment 23
Table 4.6: Laboratory Measurement/ Analysis of SS and Heavy Metals 25
Table 5.1: Action and Limit Levels for Construction Waste 26
Table 5.2: Construction Waste Statistics 26
Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring 28
Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas 29
Table 6.3: Land-based Theodolite Survey Station Details 30
Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels 34
Table 6.5: Summary of Photo Identification 35
Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking 35
Table 7.1: Landscape and Visual – Construction Phase Audit Summary 38
Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting Period 39
Table 7.3: Monitoring Programme for Landscape and Visual 40
Table 7.4: Event and Action Plan for Landscape and Visual 40
Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period 41
Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period 42
Table 7.7: Summary of Key Audit Findings against the SkyPier Plan 44
Table 7.8: Status of Submissions under Environmental Permit 45

Figures

Figure 1.1	Locations of Key Construction Activities
Figure 2.1	Locations of Air and Noise Monitoring Stations and Chek Lap Kok Wind Station
Figure 4.1	Water Quality Monitoring Stations
Figure 6.1	Vessel based Dolphin Monitoring Transects in Construction, Post-construction and Operation Phases
Figure 6.2	Land based Dolphin Monitoring in Baseline and Construction Phases
Figure 6.3	Sightings Distribution of Chinese White Dolphins
Figure 6.4	Location for Autonomous Passive Acoustic Monitoring

Appendices

Appendix A	Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase
Appendix B	Monitoring Schedule
Appendix C	Monitoring Results
Appendix D	Calibration Certificates
Appendix E	Status of Environmental Permits and Licences
Appendix F	Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions

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 76th 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 30 April 2022.

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 ground improvement works, together with runway, 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	36
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. Due to the COVID-19 pandemic, remote and physical site inspections of construction works to audit the implementation of proper environmental pollution control and mitigation measures for the Project were conducted by ET and IEC in this reporting period on a weekly and bi-weekly basis, respectively. 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

		
Vessel Line-transect Survey of CWD conducted by ET	Inspection of Contractor's Wastewater Treatment Facility by ET	Chemical Spill Drill conducted by Contractor

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

- Seawall construction; and
- Backfilling works.

Airfield Works

Contract 3301 North Runway Crossover Taxiway

- Cabling works; and
- Stockpiling.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Construction of tunnel structure;
- Pipe and drainage diversion works;
- Excavation and lateral support systems installation; and
- Stockpiling.

Contract 3303 Third Runway and Associated Works

- Architectural, Builder's and Finishing works;
- Footing and utilities work;
- Box culvert construction;
- Piling work;
- Operation of asphalt plant; and
- Cable laying and ducting works.

Contract 3305 Airfield Ground Lighting System

- Cabling works;
- Network installation; and
- Genset installation.

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

- Equipment installation; and
- Installation of temporary site accommodation.

Contract 3307 Fire Training Facility

- Architectural, Builder's and Finishing works;
- Drainage and utilities works; and
- Building construction.

Contract 3308 Foreign Object Debris Detection System

- Lightning and earthing pits installation; and
- Cable laying and connection works.

Contract 3310 North Runway Modification Works

- Excavation and footing construction;
- Seawall construction;
- Sheet piles and pipe pile installation; and
- Cutter soil mixing.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Road works;
- Drainage and ducting; and
- Installation of steel fence.

Contract 3404 Integrated Airport Control System

- Equipment installation; and
- Cable laying.

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

- Site setup works; and
- Excavation and lateral support works.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Block wall construction;
- Drainage works;
- Bridge demolition;
- Temporary road construction; 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

- Car modification;
- Erection of guide rail; and
- Concrete plinth and stitch construction.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Laying of drainage pipes and ducts;
- Paving works; and
- Road works.

Contract 3723 Construction Support Facilities

- Clearance works; and
- Internal ABWF works.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation;
- Box jacking operation; and
- Backfilling.

Contract 3802 APM and BHS Tunnels and Related Works

- Fencing erection;
- Installation of dewatering well; and
- Excavation and lateral supports.

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
- Cement tube conveyor trial.

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	√		In the previous reporting period, two complaints regarding alleged dumping of mud at 3RS construction site area were received on 22 and 24 March 2022.	ET requested the relevant contractor to provide information related to the complaint. No item related to alleged dumping of mud was recorded during regular site inspections. During an ad-hoc inspection, mud was observed at the concerned area and the contractor rectified the condition promptly. Site condition of the concerned area was observed acceptable during a subsequent ad-hoc inspection. All 3RS contractors were reminded to properly dispose mud and spoil from their wheel washing facilities in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.
			A complaint regarding alleged wastewater discharge from 3RS construction site was received on 25 April 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 3.1[1]. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

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

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

The summary of construction works programme can be referred to **Section 1.4**.

1.2 Scope of this Report

This is the 76th 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 30 April 2022.

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**.

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

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leaders	Heidi Yu	2828 5704
		Ken Wong	2828 5817
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141

Reclamation Works:

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Alan Mong	3763 1352
	Environmental Officer	Zhang Bin Wang	3763 1451

Airfield Works:

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Deputy Project Director	Kin Hang Chung	9800 0048
	Environmental Officer	Joe Wong	6182 0351
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Dickey Yau	5699 4503
	Environmental Officer	Dennis Ho	5645 0563
Contract 3303 Third Runway and Associated Works (SAPR Joint Venture)	Project Manager	Andrew Keung	6277 6628
	Environmental Officer	Gabriel Wong	6114 9590
Contract 3305 Airfield Ground Lighting System (ADB Safegate Hong Kong Limited)	Project Manager	Allam Al-Turk	2944 9725
	Environmental Officer	Calvin Sze	9205 9277
Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS (Chinney Alliance Engineering Limited)	Project Director	Dennis Yam	9551 9920
	Environmental Officer	Richard Liu	9216 8990
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Chris Wong	6110 1157
	Environmental Officer	Albert Chan	9700 1083

Party	Position	Name	Telephone
Contract 3308 Foreign Object Debris Detection System (DAS Aviation Services Group)	Project Manager	Jeffrey Yau	9873 7422
Contract 3310 North Runway Modification Works (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Federick Wong	9842 2703

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3403 New Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Project Manager	Alice Leung	9220 3162
	Environmental Officer	Ray Cheung	9785 1566
Contract 3404 Integrated Airport Control System (Shun Hing Systems Integration Co., Ltd.)	Project Manager	Andy Ng	9102 2739
	Environmental Officer	Richard Ng	9802 9577
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)	Project Manager	Hongdan Wei	158 6180 9450

Party	Position	Name	Telephone
(CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Environmental Officer	P L Wong	9143 2185
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Project Safety Manager	Jack Chow	9880 6338
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Eric Ha	9215 3432

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	Gary Yeung	9042 1720
Contract 3723 Eastern Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture.)	Deputy Project Director	Philip Kong	9337 8700
	Environmental Officer	Eddie Suen	6338 8862
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

Party	Position	Name	Telephone
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Construction Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Phoebe Ng	9869 1105

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)	Senior Project Manager	Gabriel Chan	2435 3260
	Environmental Officer	Rex Wong	2695 6319

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 ground improvement works, together with runway, 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 has been 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 has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.

Parameters	EM&A Requirements	Status
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 has been started since June 2021.
Details of the routine H_2S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The details of the routine H_2S 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 Egretry Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Monthly monitoring during the HDD construction works period from August to March.	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology		
Pre-Construction Phase Coral Dive Survey	Prior to marine construction works	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	-	The coral translocation was completed.
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;	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.

Parameters	EM&A Requirements	Status
	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.	
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 has been 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. Due to the COVID-19 pandemic, remote and physical site inspections of 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. 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:

- One skipper training session provided by ET: 6 April 2022.
- Eighteen environmental management meetings for EM&A review with works contracts: 7, 8, 11, 12, 13, 14, 20, 21, 26, 27, 28 and 29 April 2022.

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 (μg/m^3)	Limit Level (μg/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-2 (Serial No. 296098)	20 Oct 2021	Monthly EM&A Report No. 70, Appendix E
	SIBATA LD-3B-1 (Serial No. 597337)	10 May 2021	Monthly EM&A Report No. 65, 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 Construction Phase Monthly EM&A Report No. 65, 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 (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
AR1A	23 - 82	306	500
AR2	27 - 66	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

Note:
(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
	Rion NL-52 (Serial No. 01287679)	20 Jun 2021	Monthly EM&A Report No. 66, Appendix D
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	20 Jun 2021	Monthly EM&A Report No. 66, Appendix D
	Castle GA607 (Serial No. 040162)	22 Mar 2022	Monthly EM&A Report No. 75, 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:

a. The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
b. 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) $L_{eq\ (30mins)}$	Limit Level, dB(A) $L_{eq\ (30mins)}$
NM1A(1)	56 - 63	75
NM4(1)	60 - 63	70(2)
NM5(1)	53 - 58	75
NM6(1)	61 - 67	75

Notes:

(1) +3dB(A) Façade correction included;

(2) Reduced to 65dB(A) during school examination periods at NM4. No school examination took place during this reporting period.

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 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, suspended solids (SS), total alkalinity, chromium, and nickel 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.

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.

Table 4.1: Monitoring Locations of Impact Water Quality Monitoring

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals(2)
C2	Control Station	806945	825682	
C3(3)	Control Station	817803	822109	
IM1(7)	Impact Station	806458	818351	
IM2(7)	Impact Station	806236	819183	
IM7(7)	Impact Station	806835	821349	
IM10(7)	Impact Station	809838	822240	
IM11(7)	Impact Station	810545	821501	
IM12(7)	Impact Station	811519	821162	
SR1A(1)	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR2	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals(2)(4)
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	
SR8(6)	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) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (**http://env.threerunwaysystem.com/en/ep-submissions.html**). DCM specific water quality monitoring parameters (total alkalinity and heavy metals) were only conducted at C1 to C3, SR2, and IM1 to IM12.
(3) 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.
(4) Total alkalinity and heavy metals results are collected at SR2 as a control station for regular DCM monitoring.
(5) As the access to SR6 was obstructed by the construction activities and temporary structures for Tung Chung New Town Extension, the monitoring location has been relocated to SR6A starting from 8 August 2019.
(6) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.
(7) 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 and regular DCM 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 and regular DCM monitoring are presented in **Table 4.3**.

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

Parameters		Action Level (AL)		Limit Level (LL)	
Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1A & SR8)					
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle 4.5mg/l		Surface and Middle 4.1mg/l	
		Bottom 3.4mg/l		Bottom 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	
Regular DCM Monitoring	Total Alkalinity in ppm	95		99	
	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/l	0.2		0.2	
	Representative Heavy Metals for regular DCM monitoring (Nickel) in µg/l	3.2		3.6	
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.
(4) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (**http://env.threerunwaysystem.com/en/ep-submissions.html**)
(5) The Action and Limit Levels for the two representative heavy metals chosen will be the same as that for the intensive DCM monitoring.

Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring and Regular DCM 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. 21G105356)	08 Apr 2022	**Appendix D**
	YSI ProDSS (Serial No. 16H104233)	18 Mar 2022	Monthly EM&A Report No. 75, Appendix D
	YSI ProDSS (Serial No. 16H104234)	18 Mar 2022	Monthly EM&A Report No. 75, Appendix D
	YSI ProDSS (Serial No. 17E100747)	08 Apr 2022	**Appendix D**
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N60623)	25 Mar 2022	Monthly EM&A Report No. 75, Appendix D

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, alkalinity and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for heavy metals and SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4ºC 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). Accuracy check of the digital titrator was performed at least once per monitoring day.

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 and heavy metals 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 and heavy metals determination. The SS and heavy metals determination works were started within 24 hours after collection of the water samples. The analysis of SS and heavy metals have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS and heavy metals were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

Table 4.6: Laboratory Measurement/ Analysis of SS and Heavy Metals

Parameters	Instrumentation	Analytical Method	Reporting Limit
SS	Analytical Balance	APHA 2540D	2mg/l
Heavy Metals			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2µg/l
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2µg/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, SS, total alkalinity, chromium and nickel) 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 information provided by contractors, construction waste generated in the reporting period is summarised in **Table 5.2**. Dedicated areas for sorting of materials are established on site. Recyclable materials such as steel, reinforcement bar, structural steel, aluminium, copper and other metals are sorted on-site and transported off-site for recycling. ET and IEC have carried out site audits regularly and reviewed the trip ticket system.

Table 5.2: Construction Waste Statistics

	C&D[(1)] Material Stockpiled for Reuse or Recycle (m^3)	C&D Material Reused in the Project (m^3)	C&D Material Reused in other Projects (m^3)	C&D Material Transferred to Public Fill (m^3)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
April 2022[(2)(3)]	71,732	3,076	23,499	13,597	0	2,800	1,892

Notes:

(1) C&D refers to Construction and Demolition.

(2) Metals, paper and/or plastics were recycled in the reporting period.

(3) 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.

Along with the design and construction progress, further development on the treatment level/details and the re-use mode for marine sediment generated from 3RS Project has been conducted according to the EIA recommendation.

5.3 Marine Sediment Management

Marine sediment is managed according to the EIA Report, Updated EM&A Manual and Waste Management Plan 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.

Sampling works for marine sediment generated from the reclaimed land area was on-going during the reporting period. The details of the marine sediment sampling, treatment and backfilling will be reported in the Annual EM&A Reports.

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

Waypoint	Easting	Northing	Waypoint	Easting	Northing
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, 7, 11, 14, 19, 20, 22 and 27 April 2022 covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

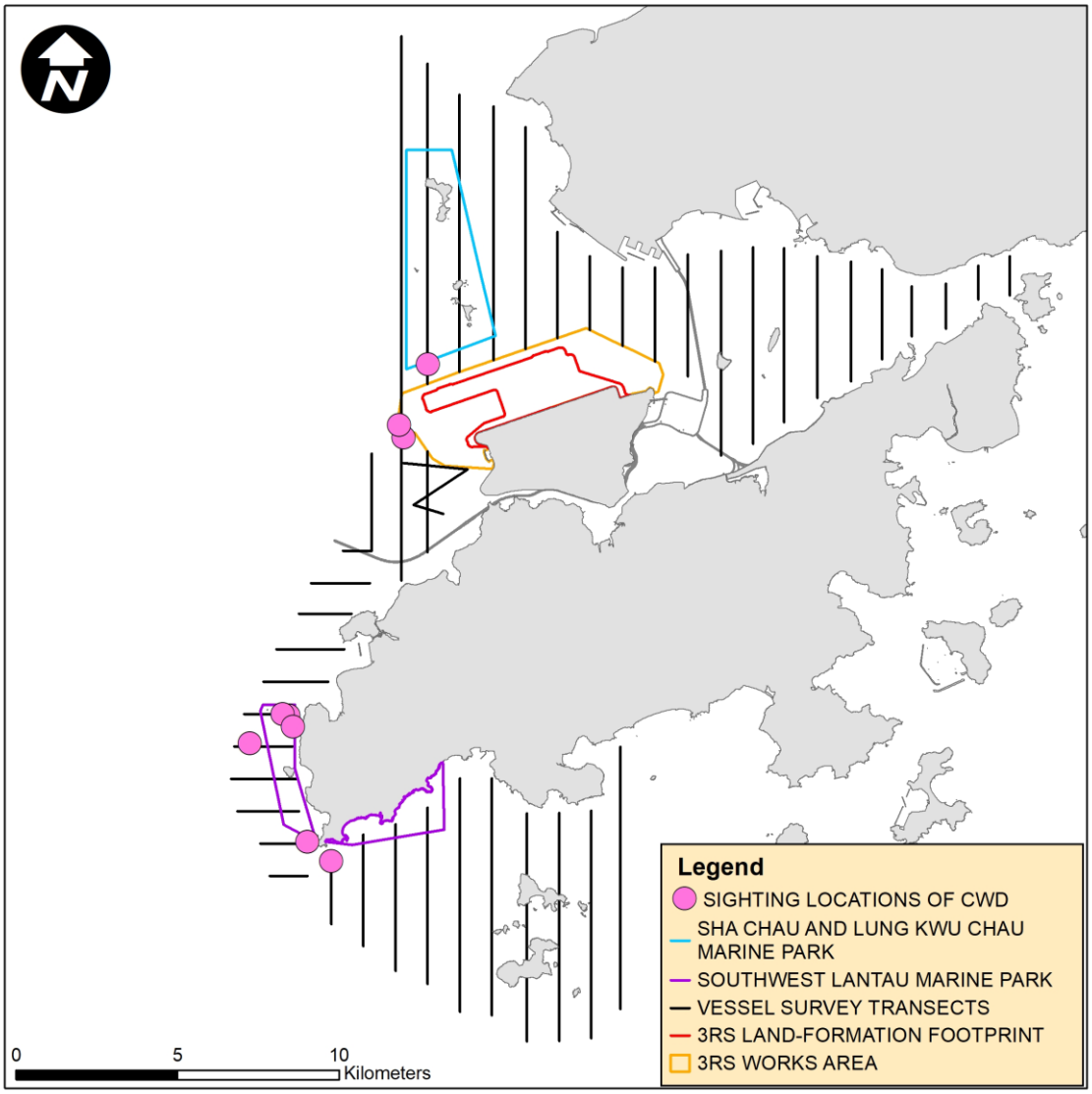
A total of around 450.47 km of survey effort was collected from these surveys and 449.47 km of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In the current reporting period, nine sightings with 22 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 WL, there was a small cluster of CWD groups at waters to the north of Peaked Hill and a CWD group spotted near Fan Lau. In SWL, there was also a CWD group recorded near Fan Lau. In NWL, CWD groups were recorded at waters to the northwest of airport area. There was no CWD sighting recorded in NEL survey area during the reporting period.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Remarks: (1) Please note that there are nine 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)

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

Encounter Rate by Number of Dolphins (ANI)

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

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

In this reporting period, a total of around 449.47 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of nine on-effort sightings with 22 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 February to April 2022), a total of around 1295.53 km of survey effort were 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 91 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)
April 2022	2.00	4.89
Running Quarter from February to April 2022(1)	1.93	7.02
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, nine groups of 22 dolphins in total were sighted, and the average group size of CWDs was 2.4 dolphins per group. Most of the CWD sightings were with small group size (i.e. 1-2 dolphins), and only two CWD sightings were with medium group size (i.e. 3-7 dolphins). There was no CWD sighting with large group size (i.e. 10 or more dolphins) recorded during this reporting period.

Activities and Association with Fishing Boats

There was a CWD sighting recorded engaging in feeding activities in the current reporting period. No association with operating fishing boat was recorded.

Mother-calf Pair

In this reporting period, no mother-calf pair was recorded.

6.4.2 Photo Identification

In the current reporting period, a total number of 11 different CWD individuals were identified for totally 11 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
NLMM052	27-Apr-22	1	NWL	SLMM060	11-Apr-22	16	SWL
NLMM055	22-Apr-22	3	WL	WLMM001	22-Apr-22	3	WL
NLMM085	27-Apr-22	1	NWL	WLMM043	7-Apr-22	1	NWL
SLMM025	22-Apr-22	3	WL	WLMM056	22-Apr-22	3	WL
SLMM037	14-Apr-22	2	WL	WLMM080	22-Apr-22	3	WL
SLMM052	22-Apr-22	3	WL				

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 20 April 2022 and at SC on 21 April 2022, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. No CWD group was tracked off LKC 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**.

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	1	6:00	0	0
Sha Chau	1	6:00	0	0
TOTAL	**2**	**12:00**	**0**	**0**

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 6.5**). The F-POD was last deployed on 8 March 2022 and the next re-deployment is scheduled in mid-May 2022 to retrieve the data for analysis. Acoustic data would be reviewed to give an indication of CWDs 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, silt curtains were provided by the contractor for DCM works, in which dolphin observers were also deployed by the contractor in accordance with the MMWP. Overall, 1 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 MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 704 individuals being trained and the training records kept by the ET. From the contractor's MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. For DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZ during this reporting month. The 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

Due to the COVID-19 pandemic, remote and physical 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

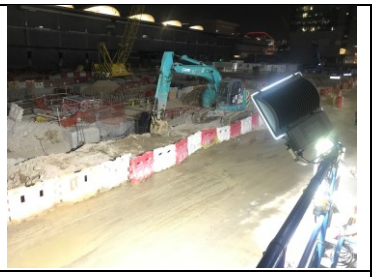
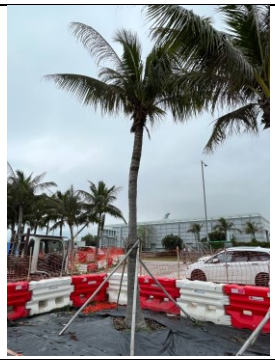
monitoring programme for detailed design, construction, establishment works and long term management (10 years) stages is presented in **Table 7.3**. Event and Action Plan for Landscape and Visual impacts is stated in **Table 7.4**.

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
CM1- The construction area and contractor's temporary works areas shall be minimised to avoid impacts on adjacent landscape.	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.	All works contracts
CM2 – Reduction of construction period to practical minimum		
CM3 – Phasing of the construction stage to reduce visual impacts during the construction phase.		
CM4 – Construction traffic (land and sea) including construction plants, construction vessels and barges shall be kept to a practical minimum.		
CM5 – Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.		
CM6 – Avoidance of excessive height and bulk of site buildings and structures		
CM7 – Control of night-time lighting by hooding all lights and through minimisation of night working periods		
CM8 – All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas	Tree Protection Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project. The Contractors' performance on the implementation of the tree maintenance and protection measures were observed and checked by the ET weekly during construction period.	3302, 3508, 3602, 3801

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
CM9 – Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme	Tree Transplanting Specifications were provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees would unavoidably be affected by the construction works. The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site. The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works. Long term management of the transplanted trees was currently monitored by ET annually.	3508, 3801
CM10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical	To be implemented around taxiways and runways as soon as practicable.	3303

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

		
Erection of site hoardings around works area in unobtrusive colours (CM5)	Avoidance of excessive height and bulk of site buildings (CM6)	Control of night-time lighting using light hooding and minimisation of night working period (CM7)
		
General view of tree protection zone for retained tree (CM8)	General view of a transplanted tree (CM9)	General view of advanced hydroseeding around taxiways and runways (CM10)

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 and transplanted trees under the Project remained unchanged (i.e. 52 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.	Check report.	Notify Contractor.	Amend working methods to prevent

Event Action Level	Action			
	Inform IEC and AAHK / PM. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed.	Check Contractor's working method. 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)	24	12	0	0
3602	2	0	0	0
3801	17	0	5(2)	0
Sub-total	52	12	14	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508(1)	50	0		10
Sub-total	50	0		10
Grand Total	**102**	**26**		**10**

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	Long Term Management period 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	Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. 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	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T838	22 Jan 2020	Long Term Management period Feb 2021 – Jan 2030	AAHK	
T812	21 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	Establishment Period was completed. Next inspection will be conducted in December 2022. Photos of the last inspection in December 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.72.
T814	20 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T815	15 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T829	18 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T830	14 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T831	19 Dec 2020	Long Term Management period Jan 2022 – Dec 2031	AAHK	
T1493	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	Next inspection will be conducted in May 2022. Photos of the last inspection in March 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.75.
T1494	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	
T1495	10 Jul 2021	Establishment period 11 Jul 2021 – Jul 2022	Contract 3508	
T1496	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	
T1497	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	
T1498	29 Jun 2021	Establishment period 30 Jun 2021 – Jul 2022	Contract 3508	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
T1499	29 Jun 2021	Establishment period 30 Jun 2021 – Jul 2022	Contract 3508	
T1500	30 Jun 2021	Establishment period 1 Jul 2021 – Jul 2022	Contract 3508	
T1501	30 Jun 2021	Establishment period 1 Jul 2021 – Jul 2022	Contract 3508	
T1502	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	
T1503	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	
T1504	24 Jun 2021	Establishment period 25 Jun 2021 – Jul 2022	Contract 3508	
CT1194	4 May 2018	Long Term Management period 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	Long Term Management period 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	Long Term Management period 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.

Due to the COVID-19 pandemic, all SkyPier HSF services to/from Zhuhai and Macau have been suspended from 25 March 2020 until further notice. No ferry movement between HKIA SkyPier and Zhuhai and Macau was recorded in April 2022. Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and 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., 2 to 3 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.

As updated by CLP Power, the construction works of the Hong Kong Offshore LNG Terminal Project may affect the route diversion operation of the SkyPier HSFs from Q1 to Q2 2022. The captains were informed on the issue and ET will continue to closely monitor the implementation of the SkyPier Plan in the period.

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

Requirements in the SkyPier Plan	1 to 30 April 2022
Total number of ferry movements recorded and audited for HSF to/from Zhuhai and Macau	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
A maximum daily cap of 125 movements for all SkyPier HSFs including those not using diverted route	2 to 3 daily movement

7.5 Audit of Construction and Associated Vessels

The updated Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV) was revised and submitted to EPD in April 2022 under EP Condition 2.9.

ET carried out the following actions during the reporting period:

- One skipper training session was held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 6 skippers were trained by ET. In total, 1859 skippers were trained from August 2016 to April 2022.
- 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 were 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	Accepted / approved by EPD
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	Submitted to EPD
2.10	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier	Accepted / approved by EPD
2.11	Marine Mammal Watching Plan	
2.12	Coral Translocation Plan	
2.13	Fisheries Management Plan	
2.14	Egretry 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 environmental licenses and permits which are valid in the reporting period are presented in **Appendix E**.

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

7.9.1 Complaints

Complaints received in the previous reporting period

Two complaints regarding alleged dumping of mud into the sea at 3RS construction site were received on 22 and 24 March 2022. The cases were investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. From the video provided by the complainant, ET recognized the location, identified a related contractor and requested them to provide information. According to the reply from related contractor, maintenance of site equipment and site area were being carried out by their worker on the alleged dates. The maintenance work included the removal of mud generated from the automatic wheel washing facilities to the adjacent stockpile area on a daily basis. Based on the ET's weekly site inspections, no item related to alleged dumping of mud at the concerned area was recorded. Having said that, during an ad-hoc inspection by ET, IEC, and AAHK, mud was observed at the concerned area and the contractor rectified the condition promptly. During a subsequent ad-hoc inspection by EPD, ET, IEC and AAHK, it was noted that mud at the concerned area was cleaned. ET would continue to monitor the related contractor's performance on the disposal of mud and spoil and their housekeeping at the concerned area and also remind all contractors to properly dispose their mud and spoil as generated from the respective wheel washing facilities in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.

Complaint received in this reporting period

A complaint regarding alleged wastewater discharge from 3RS construction site into storm drain was received on 25 April 2022. The case is under investigation and findings of the investigation 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 F**.

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

- Seawall construction; and
- Backfilling works.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cabling works; and
- Stockpiling.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Construction of tunnel structure;
- Pipe and drainage diversion works;
- Excavation and lateral support systems installation; and
- Stockpiling.

Contract 3303 Third Runway and Associated Works

- Architectural, Builder's and Finishing works;
- Footing and utilities work;
- Box culvert construction;
- Piling work;
- Operation of asphalt plant; and
- Cable laying and ducting works.

Contract 3305 Airfield Ground Lighting System

- Cabling works;
- Network installation; and
- Genset installation.

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

- Equipment installation; and
- Installation of temporary site accommodation.

Contract 3307 Fire Training Facility

- Architectural, Builder's and Finishing works;
- Drainage and utilities works; and
- Building construction.

Contract 3308 Foreign Object Debris Detection System

- Lightning and earthing pits installation; and
- Cable laying and connection works.

Contract 3310 North Runway Modification Works

- Excavation and footing construction;
- Seawall construction;
- Sheet piles and pipe pile installation; and
- Cutter soil mixing.

Third Runway Concourse

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Road works;
- Drainage and ducting; and
- Installation of steel fence.

Contract 3404 Integrated Airport Control System

- Equipment installation; and
- Cable laying.

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

- Site setup works; and
- Excavation and lateral support works.

Terminal 2 Expansion:

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Block wall construction;
- Drainage works;
- Bridge demolition;
- Temporary road construction; 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

- Car modification;
- Erection of guide rail; and
- Concrete plinth and stitch construction.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Laying of drainage pipes and ducts;
- Paving works; and
- Road works.

Contract 3723 Construction Support Facilities

- Clearance works; and
- RC works.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation;
- Box jacking operation; and
- Backfilling.

Contract 3802 APM and BHS Tunnels and Related Works

- Fencing erection;
- Installation of dewatering well; and
- Excavation and lateral supports.

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
- Cement tube conveyor trial.

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 ground improvement works, together with runway, 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.

Due to the COVID-19 pandemic, remote and physical site inspections of the construction works to audit the implementation of proper environmental pollution control and mitigation measures for the Project were conducted by ET and IEC on a weekly and bi-weekly basis, respectively. Site inspection findings were recorded in the site inspection checklists and provided to the contractors to follow up.

On the implementation of the SkyPier Plan, due to the COVID-19 pandemic, all SkyPier HSF services to/from Zhuhai and Macau have been suspended from 25 March 2020 until further notice. No HSF movement between HKIA SkyPier and Zhuhai and Macau was recorded during the reporting period. Therefore, no deviation was recorded in the HSF monitoring in the reporting period. The daily movements of all SkyPier HSFs in the reporting period, including those not using the diverted route, were in the range of 2 to 3 daily movements, which are within the maximum daily cap of 125 daily movements.

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. Trainings have been provided for the concerned skippers to facilitate them in familiarising with the requirements of the MTRMP-CAV. 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

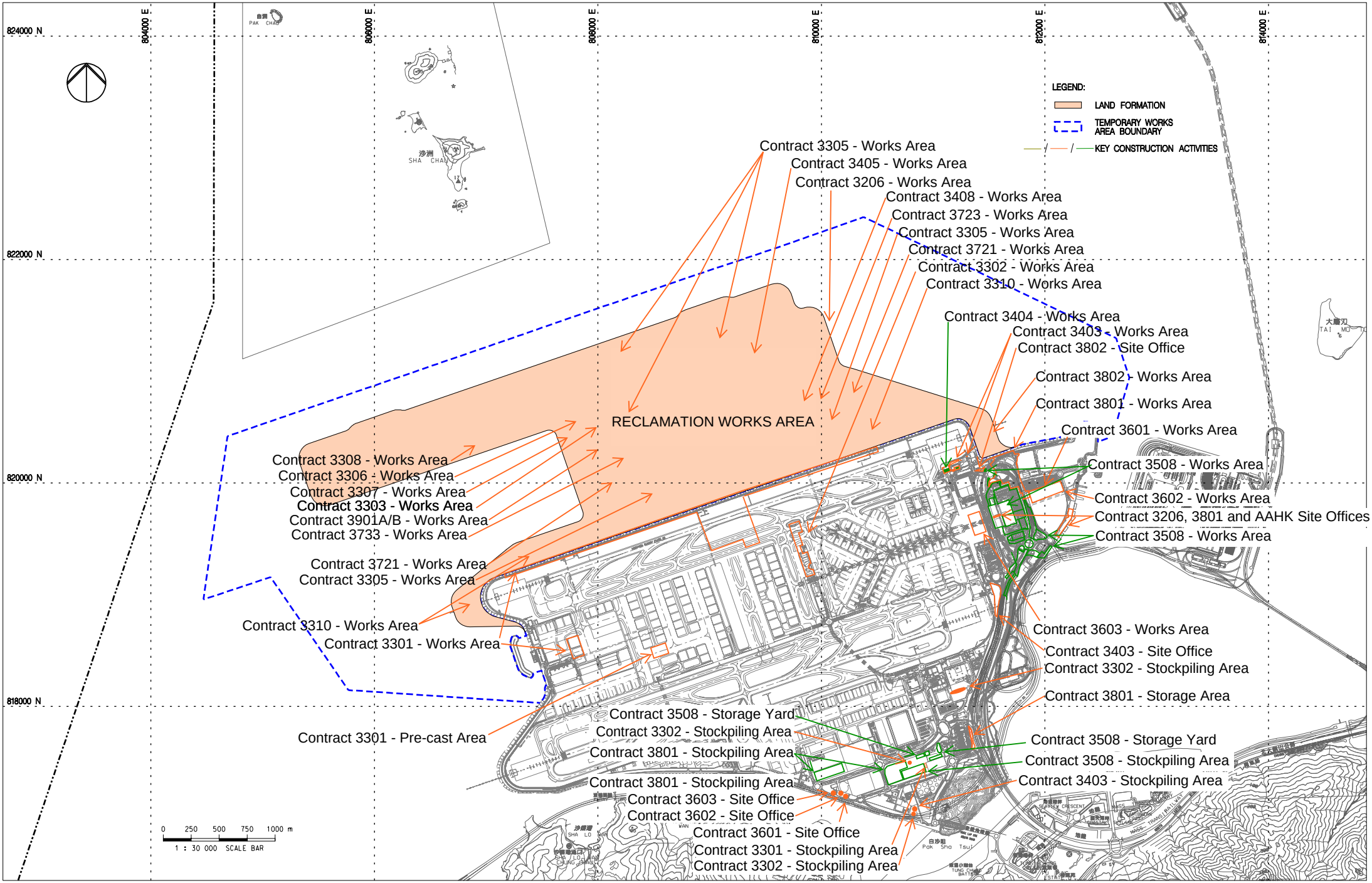
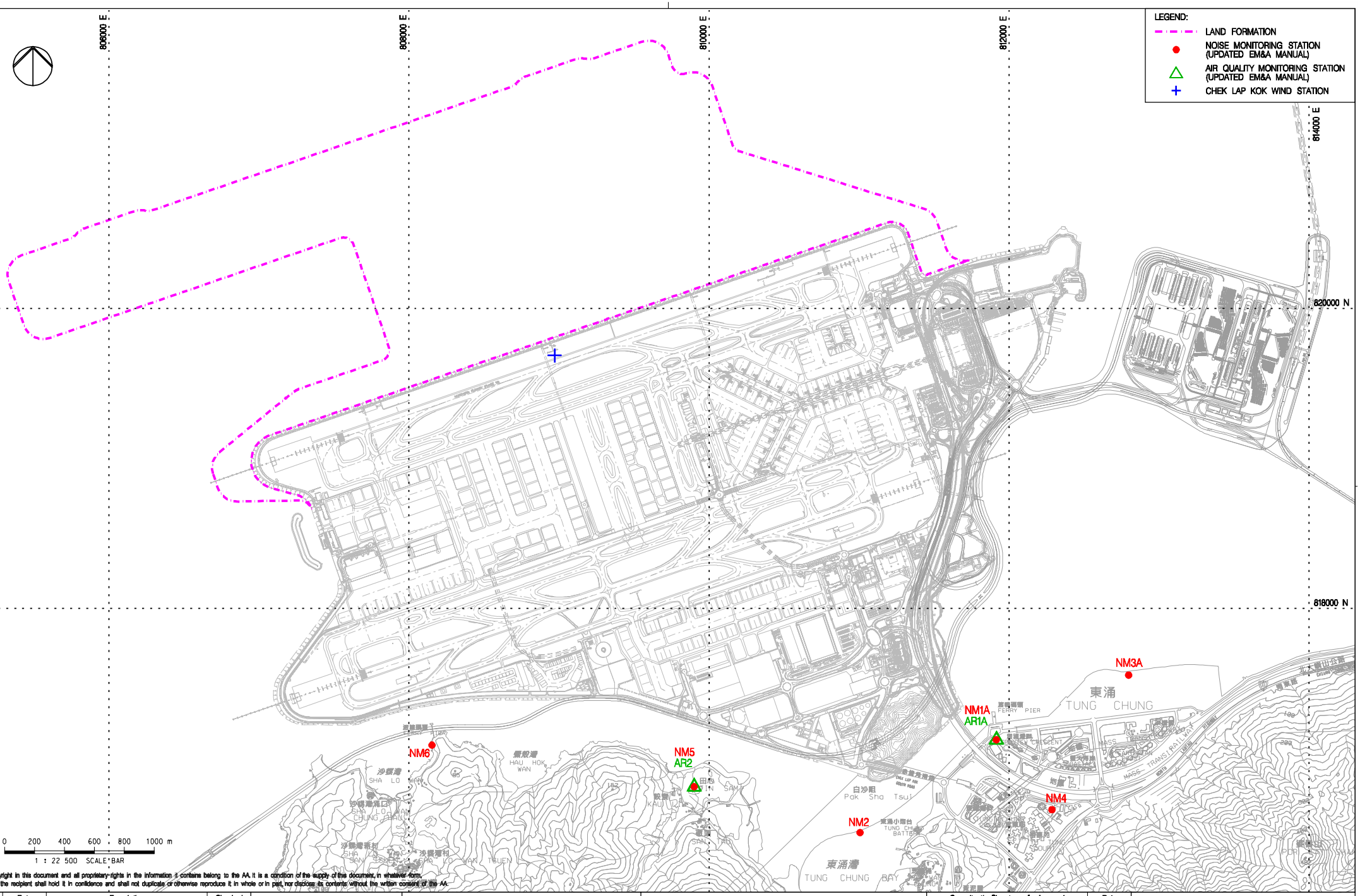


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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



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

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

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

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

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

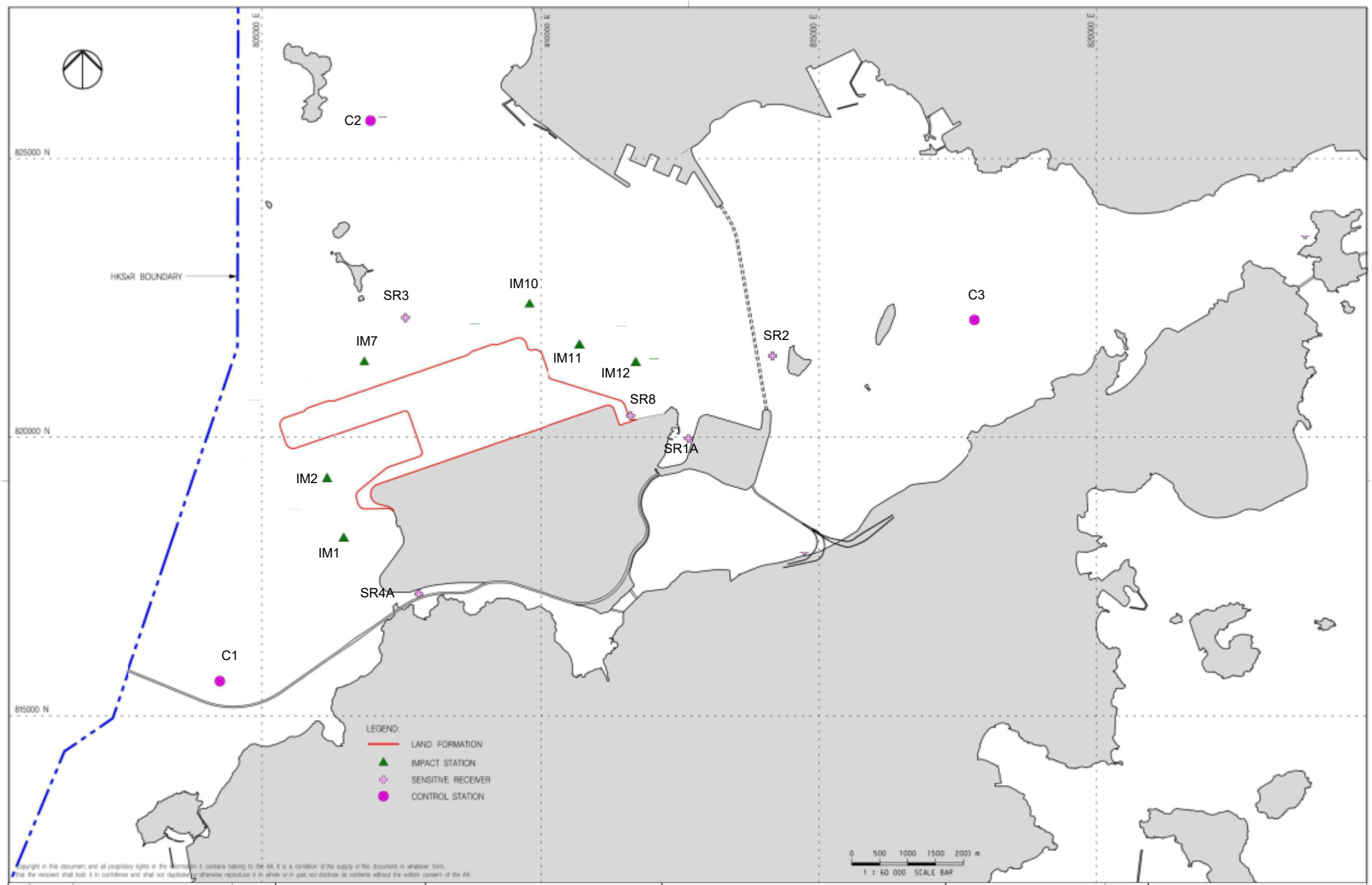
Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. D

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



Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title: WATER QUALITY MONITORING STATIONS

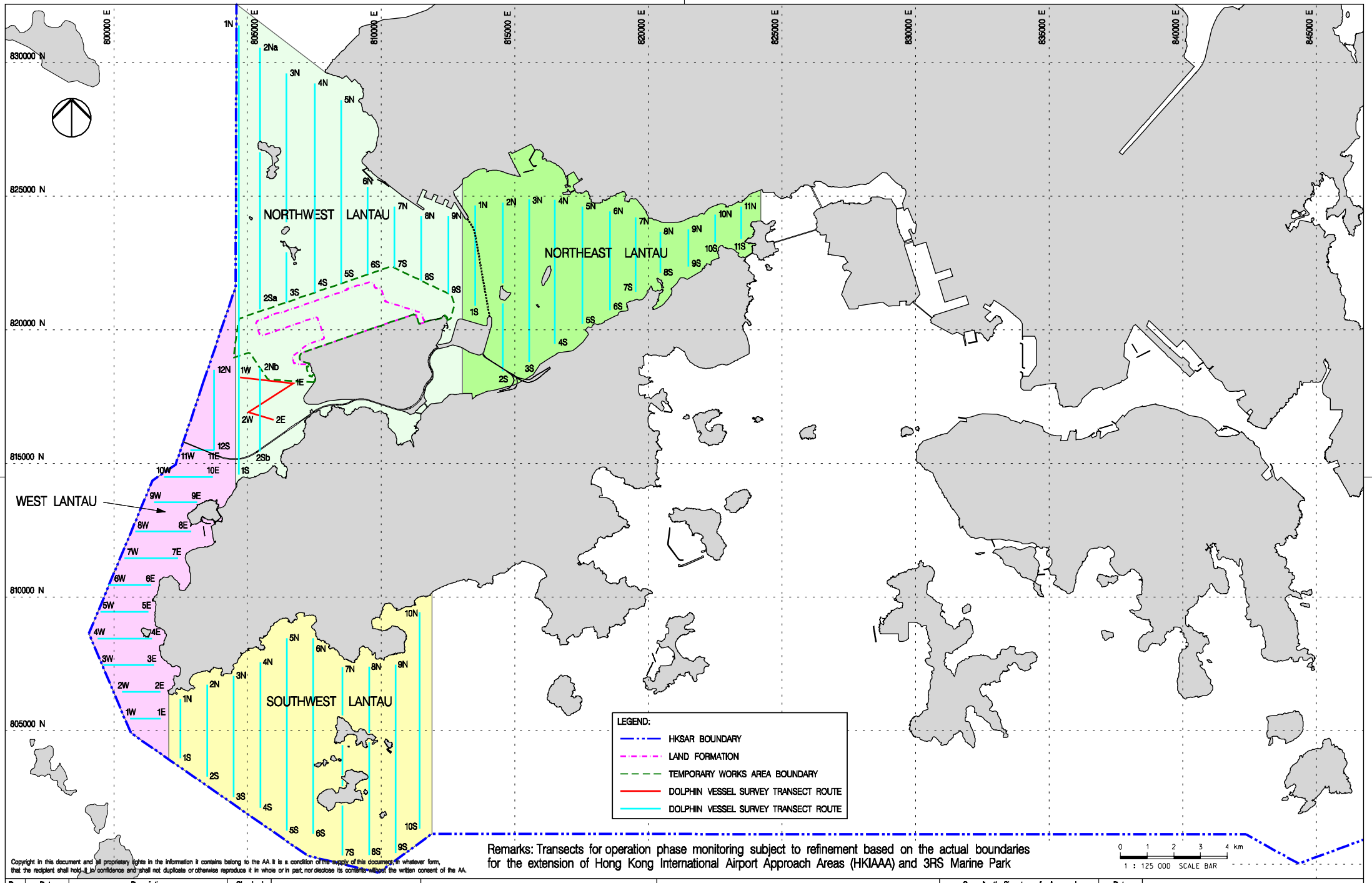
Consultant's Signatures for Approval		Date
Design	DC	21AUG19
Checkers	DC / TK	21AUG19
Approver	EC	21AUG19

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

Drawing No. FIGURE 4.1

Scale at A3 1 : 60000

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

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

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Airport Authority Hong Kong, Tower 1 Sky Plaza Road, Hong Kong International Airport, Lantau, Hong Kong
Tel : (852) 2188 7111 Fax : (852) 2824 9797

MOTT MACDONALD

Title

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

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

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

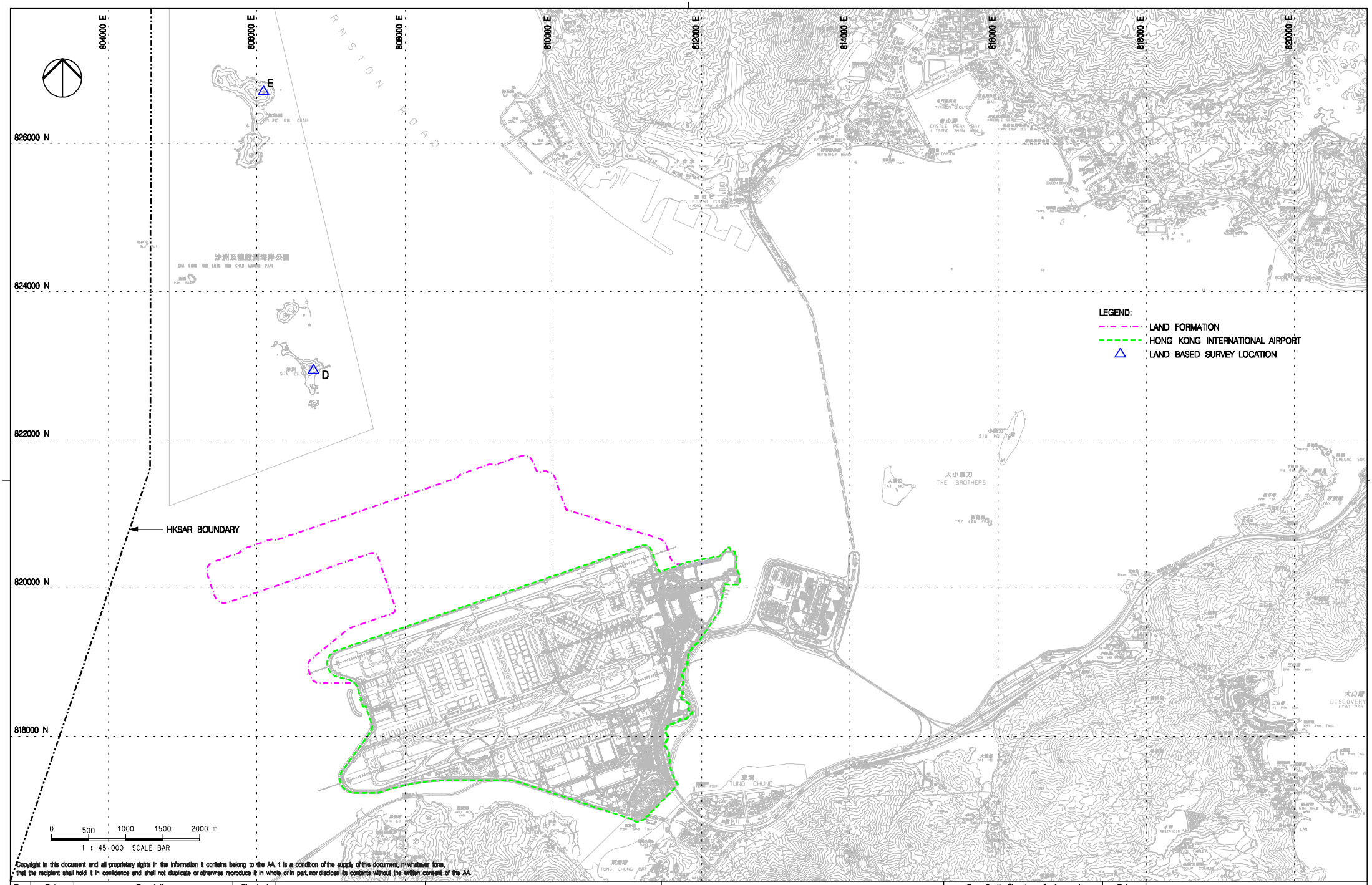
Drawing No.

FIGURE 6.1

Scale at A3 1 : 125000

Rev. F

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



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

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

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

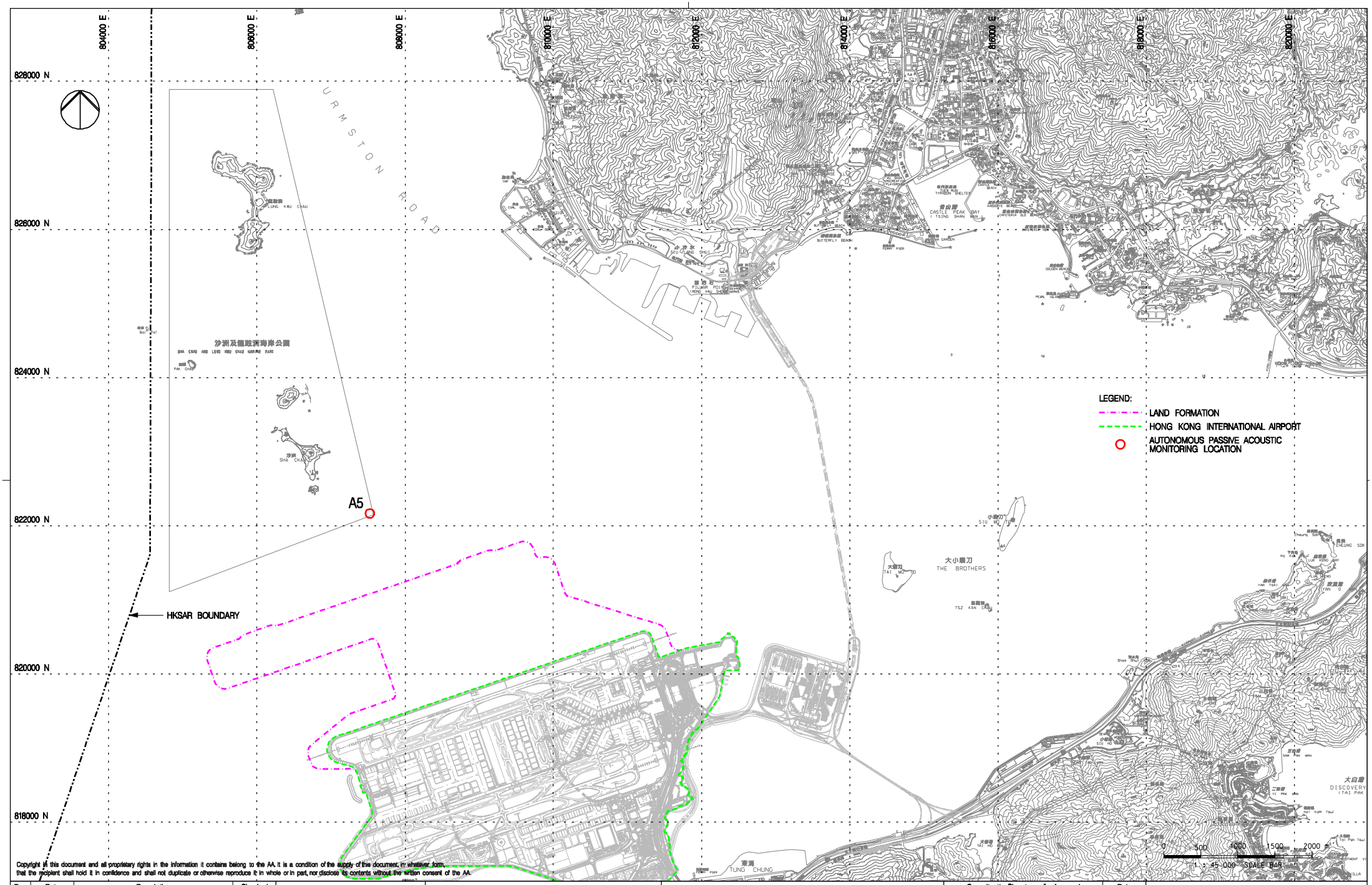
Drawing No.

FIGURE 6.2

Scale at A3 1 : 45000

Rev. C

Filename: J:\355482\REPORT\ENV\EMA\181029\FIG 2.5.dgn



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

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

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.

FIGURE 6.4

Scale at A3 1 : 45000

Rev. C

Filename: J:\355482\REPORT\EN\EMA\181029\FIG 2.11.dgn

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

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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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.		
			Other raw materials ▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions; ▪ The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stockpiles and material discharge points; ▪ All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices; ▪ The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; ▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; ▪ Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; ▪ Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used;	Within Concrete Batching Plant / Duration of the construction phase	I

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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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.		
			Cold feed side ▪ The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area; ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	I
			Hot feed side ▪ The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values; ▪ The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value; ▪ All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings; ▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages; ▪ All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and	Within Concrete Batching Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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).		
			Material transportation ▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions; ▪ 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	I
			Control of emissions from bitumen decanting ▪ The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note; ▪ Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached; ▪ Proper chimney for the discharge of bitumen fumes shall be provided at high level; ▪ The emission of bitumen fumes shall not exceed the required emission limit; and ▪ The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.	Within Concrete Batching Plant / Duration of the construction phase	I
			Liquid fuel ▪ The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air.	Within Concrete Batching Plant / Duration of the construction phase	I
			Housekeeping ▪ A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis.	Within Concrete Batching Plant / Duration of the construction phase	I
5.2.6.7	2.1	-	**Best Practices for Rock Crushing Plants** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include: Crushers	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?^
			▪ 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.		
			Vibratory screens and grizzlies ▪ All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and ▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.	Within Concrete Batching Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			Belt conveyors ▪ Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides; ▪ Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.	Within Concrete Batching Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
			Storage piles and bins ▪ Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required.	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?^
			▪ 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.		
			Rock drilling equipment ▪ 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	-	▪ Precautionary measures should be established to request barges to move away during typhoons.	Construction Site / Construction Period	I
Table 6.40	3.2	-	▪ An appropriate marine traffic management system should be established to minimize risk of ship collision.	Construction Site / Construction Period	I
Table 6.40	3.2	-	▪ Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	I
			Noise Impact – Construction Phase		
7.5.6	4.3	-	**Good Site Practice** Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: ▪ only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; ▪ machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; ▪ plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; ▪ mobile plant should be sited as far away from NSRs as possible; and ▪ material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	Within the Project site / During construction phase / Prior to commencement of operation	I

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** ▪ QPME should be adopted as far as applicable.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Use of Movable Noise Barriers** ▪ Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	**Use of Noise Enclosure/ Acoustic Shed** ▪ Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.	Within the Project site / During construction phase / Prior to commencement of operation	I
			Water Quality Impact – Construction Phase		
8.8.1.2 and 8.8.1.3	5.1	2.26	**Marine Construction Activities** <u>General Measures to be Applied to All Works Areas</u> ▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; ▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited; ▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; ▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; ▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; ▪ All vessels shall be sized such that adequate clearance is maintained between vessels and the seabed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; ▪ The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and ▪ For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the wastewater meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Specific Measures to be Applied to All Works Areas ▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; ▪ A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document;	Within construction site / Duration of the construction phase	I – For marine filling C – Completed in Nov 2020 for sand blanket
			▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities;		C – Completed in May 2018
			▪ 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		I (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The Silt Curtain Deployment Plan shall be implemented.		I
			Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works ▪ Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains;	Within construction site / Duration of the construction phase	N/A (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and		I – For C7a C – Completed in Dec 2021 for C8 *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Specific Measures to be Applied to Land Formation Activities during Marine Filling Works ▪ 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)
			▪ 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)
			▪ Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and		I – For C7a C – Completed in Dec 2021 for C8 (The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The silt curtains and silt screens should be regularly checked and maintained.		I
			Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion ▪ 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	-	**Modification of the Existing Seawall** ▪ Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works.	At the existing northern seawall / Duration of the construction phase	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	-	**Construction of New Stormwater Outfalls and Modifications to Existing Outfalls** ▪ During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations.	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	**Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons** Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment.	Within construction site / Duration of the construction phase	C – For approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			<u>For construction of the eastern approach lights at the CMPs</u> ▪ Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; ▪ Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; ▪ The excavated materials shall be removed using a closed grab within the steel casings; ▪ No discharge of the cement mixed materials into the marine environment will be allowed; and ▪ Excavated materials shall be treated and reused on-site.		C – Completed in Oct 2021
8.8.1.8	5.1	-	**Construction of Site Runoff and Drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:	Within construction site / Duration of the construction phase	
			▪ Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sandbag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform);		I
			▪ 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?^
			▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly;		I
			▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities;		I
			▪ In the event that contaminated groundwater is identified at excavation areas, this should be treated on-site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and		I
			▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge.		I
			▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the construction materials, soil, silt or debris from washing away into the drainage system;		I
			▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and to prevent stormwater runoff being directed into foul sewers; and		I
			▪ Precautionary measures should be taken at any time of the year when rainstorms are likely. Actions to be taken when a rainstorm is imminent or forecasted are summarized in Appendix A2 of ProPECC Note PN 1/94. This includes actions to be taken during and/or after rainstorms. Particular attention should be paid to the control of silty surface runoff during storm events.		I
8.8.1.9	5.1	-	**Sewage Effluent from Construction Workforce** ▪ Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Within construction site / During construction phase	I

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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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;		I
			▪ 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		I
			▪ For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development.		I
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include: ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; ▪ Training of site personnel in proper waste management and chemical waste handling procedures; ▪ Provision of sufficient waste disposal points and regular collection for disposal; ▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/ similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards; ▪ Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; ▪ All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas; ▪ C&D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust; ▪ The speed of the trucks including dump trucks carrying C&D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and ▪ 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	I
10.5.1.3	7.1	-	The following practices should be performed to achieve waste reduction include: ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable;	Project Site Area / Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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	-	The following mitigation measures are recommended during excavation and treatment of the sediments: ▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;	Project Site Area / Construction Phase	I
			▪ The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions;		I
			▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;		I
			▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;		I
			▪ Treated and untreated sediment should be clearly separated and stored separately; and		I
			▪ Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge.		I

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	-	The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal: ▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; ▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by EPD; and ▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	Project Site Area / Construction Phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
10.5.1.19	7.1	-	Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented: ▪ Good quality containers compatible with the chemical wastes should be used; ▪ Incompatible chemicals should be stored separately; ▪ Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and ▪ The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.	Project Site Area / Construction Phase	I
			Land Contamination – Construction Phase		
11.10.1.2 to 11.10.1.3	8.1	2.32	For areas inaccessible during site reconnaissance survey ▪ Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.	Project Site Area inaccessible during site reconnaissance / 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?^
			▪ Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas.		C – Completed in Jan 2018
			▪ After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room.		I *(CAR for golf course and Terminal 2 emergency power supply system nos.1, 2, 3, 4 and 5 were submitted to EPD)
			▪ Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively.		N/A as no remediation was required.
11.8.1.2	8.1	-	If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any): ▪ To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; ▪ Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; ▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible; ▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; ▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; ▪ Truck bodies and tailgates should be sealed to prevent any discharge; ▪ Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; ▪ 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 Egretry Survey** ▪ Conduct ecological survey for Sha Chau egretry to update the latest boundary of the egretry.	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	C – Completed in Jan 2019
12.7.2.3 and 12.7.2.6	9.1	2.30	**Avoidance and Minimisation of Direct Impact to Egretry** ▪ The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretry. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretry; ▪ In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and ▪ The containment pit at the daylighting location shall be covered or camouflaged.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.5	9.1	2.30	**Preservation of Nesting Vegetation** ▪ The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.4 and 12.7.2.6	9.1	2.30	**Timing the Pipe Connection Works outside Ardeid's Breeding Season** ▪ All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons.	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.10.1.1	9.3	-	**Ecological Monitoring** ▪ During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found.	at Sheung Sha Chau Island	C – Completed in Jan 2019
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	▪ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	C – Completed in Jan 2016
			Marine Ecological Impact – Construction Phase		
13.11.1.3 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.	Land formation footprint / during detailed design phase to completion of construction	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	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline
			▪ Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment;		I
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; ▪ Avoid bored piling during CWD peak calving season (Mar to Jun);		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys
			▪ Prohibition of underwater percussive piling; and		I
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		C – Completed in Jan 2019 for HDD works
13.11.2.1 to 13.11.2.7	-	-	**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			▪ Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);		I
			▪ 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
			▪ Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		C – Completed in Jan 2019 for HDD works
13.11.1.12	-	-	**Strict Enforcement of No-Dumping Policy**	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?^
			▪ A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; ▪ Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; ▪ Fines for infractions should be implemented; and ▪ Unscheduled, on-site audits shall be implemented.		
13.11.1.13	-	-	**Good Construction Site Practices** ▪ Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; ▪ Keep the number of working or stationary vessels present on-site to the minimum anytime; and ▪ Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I
13.11.1.3 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.	Land formation footprint / during detailed design phase to completion of construction	I
13.11.5.4 to 13.11.5.13	10.3.1	-	**SkyPier High Speed Ferries' Speed Restrictions and Route Diversions** ▪ SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in **Drawing No. MCL/P132/EIA/13-023** of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier HSF numbers; and ▪ A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.	Area between the footprint and SCLKC Marine Park during construction phase	I
			Other mitigation measures ▪ The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and ▪ The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.	Area between the footprint and SCLKC Marine Park during construction phase	I C – Completed in Sep 2016
13.11.5.14 to 13.11.5.18	10.3.1	2.31	**Dolphin Exclusion Zone** ▪ Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;	Marine waters around land formation works area during construction phase	I

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

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

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

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

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

Notes:

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

" I " Implemented and on-going where applicable.

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

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

Appendix B. Monitoring Schedule

Apr-22

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Site Inspection	**2** WQ General & Regular DCM mid-ebb: 13:56 mid-flood: 07:51
3	**4** Site Inspection AR1A, AR2 NM1A, NM5	**5** WQ General & Regular DCM mid-ebb: 15:29 mid-flood: 08:49	**6** Site Inspection CWD Survey (Vessel)	**7** Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 16:47 mid-flood: 09:24	**8** Site Inspection	**9** AR1A, AR2 WQ General & Regular DCM mid-ebb: 18:43 mid-flood: 05:59
10	**11** Site Inspection CWD Survey (Vessel) NM4, NM6	**12** Site Inspection WQ General & Regular DCM mid-ebb: 10:58 mid-flood: 15:45	**13** Site Inspection	**14** Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 11:51 mid-flood: 17:32	**15**	**16** WQ General & Regular DCM mid-ebb: 12:51 mid-flood: 06:47
17	**18**	**19** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 14:42 mid-flood: 08:09	**20** Site Inspection CWD Survey (Vessel, Land-based) AR1A, AR2 NM1A, NM5	**21** Site Inspection CWD Survey (Land-based) NM4, NM6 WQ General & Regular DCM mid-ebb: 16:19 mid-flood: 09:15	**22** Site Inspection CWD Survey (Vessel)	**23** WQ General & Regular DCM mid-ebb: 18:25 mid-flood: 05:47
24	**25** Site Inspection NM4, NM6	**26** Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 10:46 mid-flood: 15:48	**27** Site Inspection CWD Survey (Vessel)	**28** Site Inspection WQ General mid-ebb: 12:00 mid-flood: 17:41	**29** Site Inspection	**30** AR1A, AR2 WQ General mid-ebb: 12:57 mid-flood: 19:14
		Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality DCM - Deep Cement Mixing 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				

Monitoring Schedule of This Reporting Period

May-22

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	**2**	**3** NM4, NM6 WQ General mid-ebb: 14:32 mid-flood: 07:43	**4** Site Inspection CWD Survey (Land-based)	**5** Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 15:40 mid-flood: 08:25	**6** Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	**7** WQ General mid-ebb: 17:05 mid-flood: 04:37
8	**9**	**10** Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General mid-ebb: 20:33 mid-flood: 08:06	**11** Site Inspection	**12** Site Inspection AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 10:42 mid-flood: 16:17	**13** Site Inspection CWD Survey (Vessel)	**14** WQ General mid-ebb: 11:47 mid-flood: 18:07
15	**16** Site Inspection NM4, NM6	**17** Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 13:45 mid-flood: 07:01	**18** Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	**19** Site Inspection CWD Survey (Land-based) WQ General mid-ebb: 15:21 mid-flood: 08:15	**20** Site Inspection	**21** WQ General mid-ebb: 17:09 mid-flood: 09:45
22	**23** Site Inspection CWD Survey (Vessel)	**24** Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 09:20 mid-flood: 14:17	**25** Site Inspection	**26** Site Inspection NM4, NM6 WQ General mid-ebb: 10:54 mid-flood: 16:36	**27** Site Inspection	**28** WQ General mid-ebb: 12:00 mid-flood: 18:25
29	**30** Site Inspection AR1A, AR2 NM1A, NM5	**31** Site Inspection NM4, NM6 WQ General mid-ebb: 13:39 mid-flood: 20:43				

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

Tentative Monitoring Schedule of Next Reporting Period

Appendix C. Monitoring Results

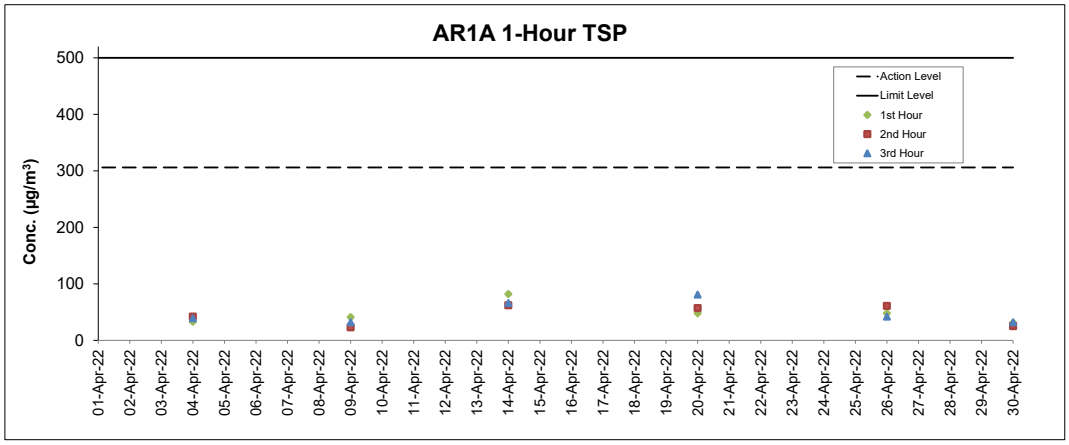
Air Quality Monitoring Results

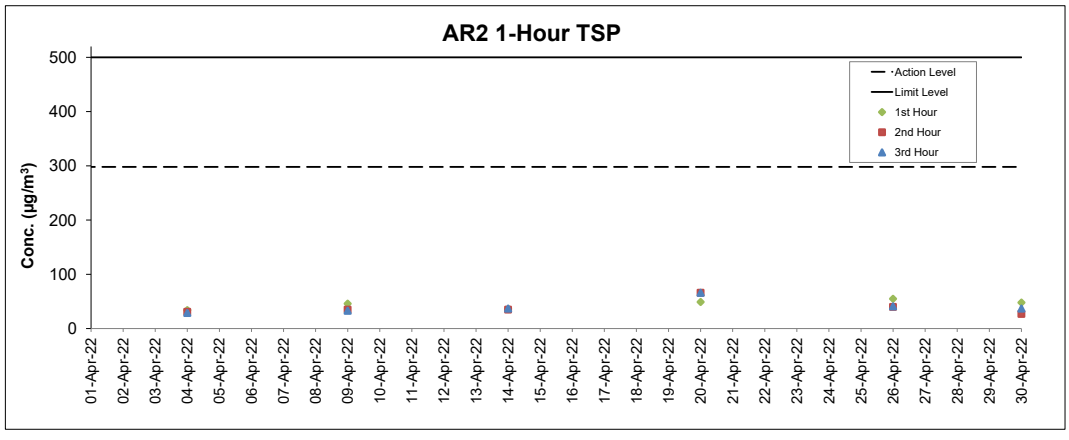
1-hour TSP Results
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
04-Apr-22	11:54	Sunny	2.2	42	33	306	500
04-Apr-22	12:54	Sunny	5.0	258	42	306	500
04-Apr-22	13:54	Sunny	4.7	260	39	306	500
09-Apr-22	10:13	Sunny	3.3	112	41	306	500
09-Apr-22	11:13	Sunny	4.2	247	23	306	500
09-Apr-22	12:13	Sunny	4.7	275	32	306	500
14-Apr-22	13:36	Sunny	4.4	286	82	306	500
14-Apr-22	14:36	Sunny	5.0	305	62	306	500
14-Apr-22	15:36	Sunny	3.6	305	66	306	500
20-Apr-22	11:39	Fine	3.3	56	48	306	500
20-Apr-22	12:39	Fine	4.2	36	57	306	500
20-Apr-22	13:39	Fine	3.3	257	81	306	500
26-Apr-22	9:17	Sunny	2.8	166	48	306	500
26-Apr-22	10:17	Sunny	3.3	183	61	306	500
26-Apr-22	11:17	Sunny	3.9	162	42	306	500
30-Apr-22	8:51	Fine	7.2	101	31	306	500
30-Apr-22	9:51	Fine	7.8	100	25	306	500
30-Apr-22	10:51	Fine	8.3	101	32	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 (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
04-Apr-22	8:15	Sunny	4.2	93	34	298	500
04-Apr-22	9:15	Sunny	4.2	43	31	298	500
04-Apr-22	10:15	Sunny	3.1	326	29	298	500
09-Apr-22	14:10	Sunny	4.4	262	46	298	500
09-Apr-22	15:10	Sunny	4.2	250	35	298	500
09-Apr-22	16:10	Sunny	2.2	257	33	298	500
14-Apr-22	7:55	Sunny	3.3	318	36	298	500
14-Apr-22	8:55	Sunny	3.3	330	35	298	500
14-Apr-22	9:55	Sunny	4.2	304	37	298	500
20-Apr-22	8:05	Fine	1.7	3	49	298	500
20-Apr-22	9:05	Fine	1.7	38	66	298	500
20-Apr-22	10:05	Fine	2.5	109	66	298	500
26-Apr-22	13:37	Sunny	4.7	191	55	298	500
26-Apr-22	14:37	Sunny	5.0	209	40	298	500
26-Apr-22	15:37	Sunny	4.4	185	41	298	500
30-Apr-22	13:22	Sunny	7.8	98	48	298	500
30-Apr-22	14:22	Sunny	8.3	85	27	298	500
30-Apr-22	15:22	Sunny	8.9	90	37	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_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
04-Apr-22	Sunny	11:56	55.8	47.6	56
04-Apr-22	Sunny	12:01	54.2	47.6	
04-Apr-22	Sunny	12:06	54.4	47.6	
04-Apr-22	Sunny	12:11	56.2	48.1	
04-Apr-22	Sunny	12:16	58.0	47.9	
04-Apr-22	Sunny	12:21	56.6	48.0	
14-Apr-22	Sunny	13:42	57.7	52.5	59
14-Apr-22	Sunny	13:47	56.6	51.8	
14-Apr-22	Sunny	13:52	60.2	51.8	
14-Apr-22	Sunny	13:57	56.5	50.8	
14-Apr-22	Sunny	14:02	58.5	50.3	
14-Apr-22	Sunny	14:07	57.4	51.3	
20-Apr-22	Fine	11:41	57.2	49.7	59
20-Apr-22	Fine	11:46	57.7	51.7	
20-Apr-22	Fine	11:51	63.7	50.3	
20-Apr-22	Fine	11:56	56.7	50.6	
20-Apr-22	Fine	12:01	57.2	50.4	
20-Apr-22	Fine	12:06	58.1	51.2	
26-Apr-22	Sunny	11:54	67.3	54.5	63
26-Apr-22	Sunny	11:59	57.3	51.5	
26-Apr-22	Sunny	12:04	59.7	52.3	
26-Apr-22	Sunny	12:09	58.0	51.5	
26-Apr-22	Sunny	12:14	56.9	50.7	
26-Apr-22	Sunny	12:19	62.7	52.3	

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_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
07-Apr-22	Sunny	11:00	64.8	55.2	63
07-Apr-22	Sunny	11:05	61.8	54.7	
07-Apr-22	Sunny	11:10	61.0	54.4	
07-Apr-22	Sunny	11:15	60.8	54.1	
07-Apr-22	Sunny	11:20	60.7	54.8	
07-Apr-22	Sunny	11:25	61.9	54.4	
11-Apr-22	Sunny	13:56	60.3	55.1	62
11-Apr-22	Sunny	14:01	59.1	54.8	
11-Apr-22	Sunny	14:06	58.6	54.8	
11-Apr-22	Sunny	14:11	63.8	54.6	
11-Apr-22	Sunny	14:16	64.4	55.0	
11-Apr-22	Sunny	14:21	62.6	54.3	
21-Apr-22	Sunny	13:33	60.0	54.6	61
21-Apr-22	Sunny	13:38	61.2	54.6	
21-Apr-22	Sunny	13:43	59.1	53.9	
21-Apr-22	Sunny	13:48	60.0	55.4	
21-Apr-22	Sunny	13:53	60.2	55.6	
21-Apr-22	Sunny	13:58	60.3	54.8	
25-Apr-22	Sunny	13:33	59.0	54.1	60
25-Apr-22	Sunny	13:38	58.2	54.0	
25-Apr-22	Sunny	13:43	58.5	53.7	
25-Apr-22	Sunny	13:48	60.4	53.3	
25-Apr-22	Sunny	13:53	59.3	56.7	
25-Apr-22	Sunny	13:58	60.2	56.2	

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
04-Apr-22	Sunny	08:29	61.7	46.2	58
04-Apr-22	Sunny	08:34	52.7	46.2	
04-Apr-22	Sunny	08:39	52.6	47.2	
04-Apr-22	Sunny	08:44	52.8	47.3	
04-Apr-22	Sunny	08:49	54.0	46.9	
04-Apr-22	Sunny	08:54	54.8	45.8	
14-Apr-22	Sunny	07:58	56.0	44.7	54
14-Apr-22	Sunny	08:03	55.0	45.6	
14-Apr-22	Sunny	08:08	50.0	45.9	
14-Apr-22	Sunny	08:13	53.5	47.2	
14-Apr-22	Sunny	08:18	52.3	46.1	
14-Apr-22	Sunny	08:23	50.4	46.8	
20-Apr-22	Fine	08:08	53.3	43.6	53
20-Apr-22	Fine	08:13	51.9	44.5	
20-Apr-22	Fine	08:18	49.0	43.3	
20-Apr-22	Fine	08:23	53.5	45.4	
20-Apr-22	Fine	08:28	54.8	45.1	
20-Apr-22	Fine	08:33	54.2	45.3	
26-Apr-22	Sunny	14:35	47.5	43.5	55
26-Apr-22	Sunny	14:40	50.7	44.3	
26-Apr-22	Sunny	14:45	50.1	45.3	
26-Apr-22	Sunny	14:50	49.9	44.4	
26-Apr-22	Sunny	14:55	63.6	44.2	
26-Apr-22	Sunny	15:00	49.3	44.1	

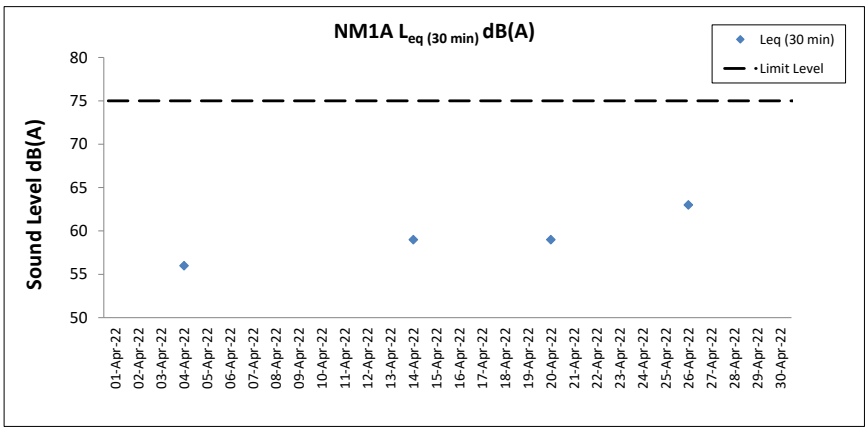
Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

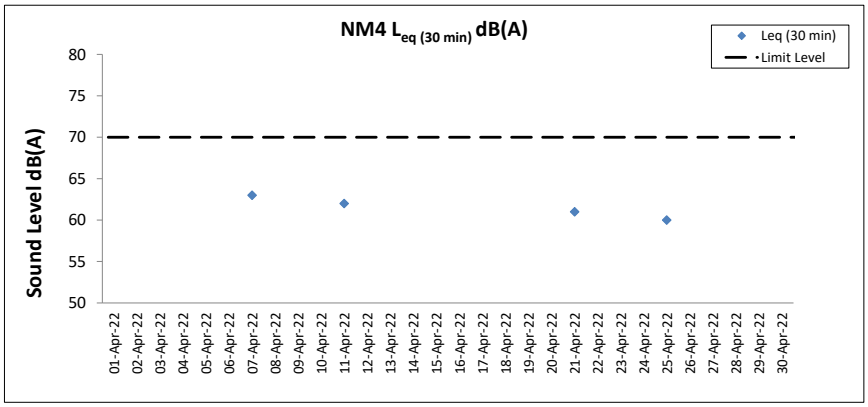
Noise Measurement Results

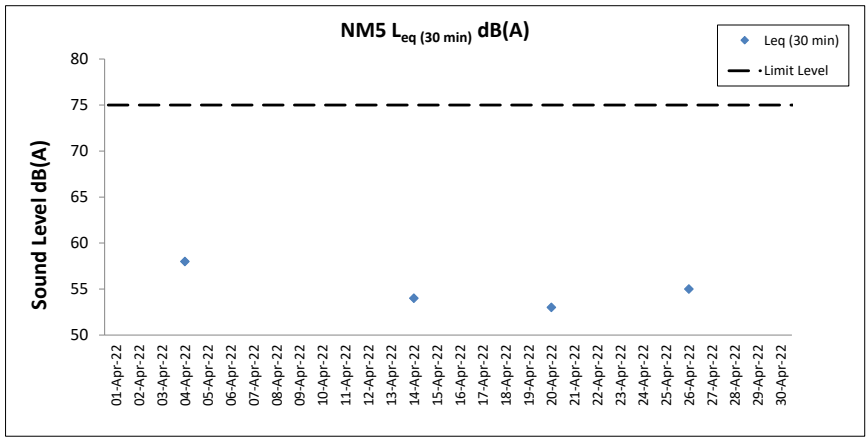
Station: NM6- House No.1 Sha Lo Wan

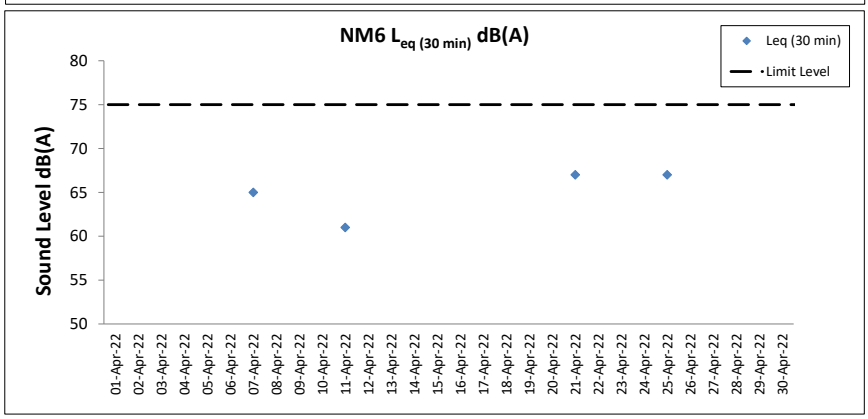
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A) ^
07-Apr-22	Sunny	09:42	65.8	55.4	65
07-Apr-22	Sunny	09:47	65.2	53.0	
07-Apr-22	Sunny	09:52	59.7	54.2	
07-Apr-22	Sunny	09:57	60.6	53.2	
07-Apr-22	Sunny	10:02	61.7	53.3	
07-Apr-22	Sunny	10:07	69.8	56.4	
11-Apr-22	Sunny	15:40	53.8	46.7	61
11-Apr-22	Sunny	15:45	52.6	44.3	
11-Apr-22	Sunny	15:50	54.2	45.2	
11-Apr-22	Sunny	15:55	54.5	46.0	
11-Apr-22	Sunny	16:00	56.3	45.6	
11-Apr-22	Sunny	16:05	58.8	48.2	
21-Apr-22	Sunny	15:40	51.8	45.6	67
21-Apr-22	Sunny	15:45	57.2	44.9	
21-Apr-22	Sunny	15:50	55.4	44.4	
21-Apr-22	Sunny	15:55	74.7	46.2	
21-Apr-22	Sunny	16:00	62.1	47.3	
21-Apr-22	Sunny	16:05	55.5	45.6	
25-Apr-22	Sunny	15:41	61.7	48.4	67
25-Apr-22	Sunny	15:46	49.9	44.1	
25-Apr-22	Sunny	15:51	52.7	45.3	
25-Apr-22	Sunny	15:56	71.4	47.1	
25-Apr-22	Sunny	16:01	60.9	49.7	
25-Apr-22	Sunny	16:06	71.6	48.4	

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









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 02 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	13:06	8.5	Surface	1.0	0.1	188	20.0	20.0	8.1	8.1	28.5	28.5	87.3	87.3	6.7	6.7	7.5	8.7	8	8	46	48	815608	804246	<0.2	<0.2	0.7	0.8
						1.0	0.1	186	20.0		8.1		28.6		87.2		6.7		7.5		8		46				<0.2		0.7	
					Middle	4.3	0.1	190	19.9	19.9	8.1	8.1	29.4	29.4	86.2	86.2	6.6		9.1		8		49				<0.2		0.8	
						4.3	0.0	194	19.9		8.1		29.4		86.2		6.6		9.4		8		48				<0.2		0.7	
					Bottom	7.5	0.1	192	20.0	20.0	8.1	8.1	29.8	29.8	86.7	86.8	6.6	6.6	9.4		8		50				<0.2		0.8	
						7.5	0.1	197	20.0		8.1		29.8		86.8		6.6		9.4		9		51				<0.2		0.8	
C2	Cloudy	Moderate	12:17	11.8	Surface	1.0	0.0	32	20.2	20.2	8.0	8.0	27.7	27.7	82.6	82.6	6.4	6.4	9.7	8.2	9	9	43	47	825687	806942	<0.2	<0.2	0.7	0.7
						1.0	0.1	30	20.2		8.0		27.7		82.6		6.4		10.0		10		43				<0.2		0.7	
					Middle	5.9	0.0	29	20.1	20.1	8.1	8.1	28.4	28.5	83.2	83.2	6.4		11.0		8		48				<0.2		0.7	
						5.9	0.1	26	20.1		8.1		28.5		83.2		6.4		11.6		9		48				<0.2		0.7	
					Bottom	10.8	0.1	21	20.1	20.1	8.1	8.1	28.5	28.5	83.5	83.6	6.4	6.4	3.6		8		51				<0.2		0.8	
						10.8	0.1	16	20.1		8.1		28.5		83.6		6.4		3.5		9		51				<0.2		0.7	
C3	Cloudy	Rough	13:36	12.1	Surface	1.0	0.4	67	19.6	19.6	8.0	8.0	29.6	29.6	88.8	88.8	6.8	6.7	1.8	4.0	8	8	43	47	822127	817786	<0.2	<0.2	0.7	0.8
						1.0	0.4	71	19.6		8.0		29.6		88.8		6.8		1.8		8		44				<0.2		0.7	
					Middle	6.1	0.4	60	19.8	19.8	8.0	8.0	30.4	30.4	86.4	86.4	6.6		4.5		9		47				<0.2		0.8	
						6.1	0.4	55	19.8		8.0		30.4		86.4		6.6		4.4		8		47				<0.2		0.8	
					Bottom	11.1	0.4	77	19.7	19.7	8.0	8.0	30.5	30.5	86.9	87.0	6.6	6.6	5.7		8		51				<0.2		0.8	
						11.1	0.4	71	19.7		8.0		30.5		87.0		6.6		5.7		9		51				<0.2		0.8	
IM1	Cloudy	Moderate	12:56	6.6	Surface	1.0	0.1	149	20.0	20.0	8.0	8.0	29.0	29.0	89.1	89.1	6.9	6.7	9.4	9.4	9	9	45	48	818367	806455	<0.2	<0.2	0.8	0.8
						1.0	0.0	148	20.0		8.0		29.1		89.0		6.8		10.0		8		46				<0.2		0.7	
					Middle	3.3	0.1	139	19.8	19.8	8.0	8.0	29.3	29.3	85.4	85.5	6.6		9.9		8		47				<0.2		0.7	
						3.3	0.1	145	19.8		8.0		29.3		85.5		6.6		10.0		9		48				<0.2		0.7	
					Bottom	5.6	0.0	158	19.8	19.8	8.0	8.0	29.4	29.3	86.6	86.7	6.7	6.7	8.6		8		49				<0.2		0.8	
						5.6	0.0	157	19.8		8.0		29.3		86.7		6.7		8.6		9		50				<0.2		0.8	
IM2	Cloudy	Moderate	12:51	7.2	Surface	1.0	0.0	76	20.0	20.0	8.0	8.0	29.0	29.0	85.6	85.5	6.6	6.6	8.6	8.9	9	8	46	48	819164	806218	<0.2	<0.2	0.7	0.7
						1.0	0.0	82	20.0		8.0		29.1		85.4		6.6		8.5		10		46				<0.2		0.6	
					Middle	3.6	0.0	82	19.9	19.9	8.0	8.0	29.3	29.3	84.9	84.9	6.5		10.6		8		48				<0.2		0.7	
						3.6	0.0	79	19.9		8.0		29.3		84.9		6.5		10.6		7		49				<0.2		0.7	
					Bottom	6.2	0.1	88	19.8	19.8	8.1	8.1	29.6	29.7	85.6	85.7	6.6	6.6	7.6		7		50				<0.2		0.8	
						6.2	0.1	90	19.8		8.1		29.7		85.7		6.6		7.5		7		51				<0.2		0.7	
IM7	Cloudy	Moderate	12:34	7.8	Surface	1.0	0.2	79	20.3	20.3	8.0	8.0	26.5	26.5	84.1	84.1	6.5	6.5	7.6	7.9	8	8	46	48	821337	806819	<0.2	<0.2	0.8	0.8
						1.0	0.2	73	20.2		8.0		26.5		84.1		6.5		7.6		8		47				<0.2		0.8	
					Middle	3.9	0.2	74	20.0	20.0	8.0	8.0	28.8	28.8	85.0	85.0	6.5		8.7		9		47				<0.2		0.8	
						3.9	0.2	75	20.0		8.0		28.8		85.0		6.5		8.3		8		48				<0.2		0.8	
					Bottom	6.8	0.2	85	20.0	20.0	8.0	8.0	28.8	28.8	85.5	85.6	6.6	6.6	7.3		9		50				<0.2		0.7	
						6.8	0.2	77	20.0		8.0		28.8		85.7		6.6		7.9		8		50				<0.2		0.7	

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 02 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Rainy	Rough	12:16	9.8	Surface	1.0	0.1	55	20.0	20.0	8.0	8.0	28.2	28.2	88.1	88.2	6.8	6.8	5.8	6.4	8	8	40	46	822241	809836	<0.2	<0.2	0.8	0.8
						1.0	0.1	56	20.0		8.0		28.2		88.2		6.8		5.8		8		40				<0.2		0.8	
					Middle	4.9	0.1	60	20.0	20.0	8.0	8.0	28.2	28.2	87.5	87.5	6.7		6.2		8		47				<0.2		0.8	
						4.9	0.0	61	20.0		8.0		28.2		87.5		6.7		6.2		8		48				<0.2		0.7	
					Bottom	8.8	0.1	60	20.0	20.0	8.0	8.0	28.2	28.2	87.4	87.4	6.7	6.7	7.0		9		51				<0.2		0.8	
						8.8	0.0	59	20.0		8.0		28.2		87.4		6.7		7.1		9		51				<0.2		0.8	
IM11	Rainy	Rough	12:21	9.4	Surface	1.0	0.2	78	20.0	20.0	8.0	8.0	28.3	28.3	88.2	88.2	6.8	6.8	9.3	8.1	10	9	43	48	821483	810564	<0.2	<0.2	0.8	0.8
						1.0	0.2	82	20.0		8.0		28.3		88.2		6.8		9.4		11		44				<0.2		0.8	
					Middle	4.7	0.1	78	20.0	20.0	8.0	8.0	28.3	28.3	87.2	87.2	6.7		7.0		8		47				<0.2		0.8	
						4.7	0.1	82	20.0		8.0		28.3		87.2		6.7		7.0		9		47				<0.2		0.8	
					Bottom	8.4	0.1	82	20.0	20.0	8.0	8.0	28.3	28.3	87.4	87.4	6.7	6.7	8.0		7		52				<0.2		0.9	
						8.4	0.1	79	20.0		8.0		28.3		87.4		6.7		8.0		7		52				<0.2		0.8	
IM12	Rainy	Rough	12:28	9.5	Surface	1.0	0.2	88	20.0	20.0	8.0	8.0	28.2	28.2	87.5	87.5	6.7	6.7	5.3	7.0	9	9	44	48	821175	811521	<0.2	<0.2	0.8	0.8
						1.0	0.2	90	20.0		8.0		28.2		87.4		6.7		5.2		10		44				<0.2		0.8	
					Middle	4.8	0.2	85	20.0	20.0	8.0	8.0	28.3	28.3	86.7	86.7	6.7		6.1		9		47				<0.2		0.9	
						4.8	0.2	91	20.0		8.0		28.3		86.7		6.7		6.1		8		47				<0.2		0.9	
					Bottom	8.5	0.2	72	20.0	20.0	8.0	8.0	28.5	28.5	86.1	86.1	6.6	6.6	9.7		7		52				<0.2		0.8	
						8.5	0.1	76	20.0		8.0		28.5		86.1		6.6		9.7		8		52				<0.2		0.8	
SR1A	Cloudy	Rough	13:03	5.6	Surface	1.0	-	41	19.9	19.9	7.9	7.9	27.7	27.7	86.6	86.6	6.7	6.7	3.7	4.0	9	9	-	-	819974	812659	-	-	-	-
						1.0	0.0	45	19.9		7.9		27.7		86.6		6.7		3.6		8		-				-		-	
					Middle	2.8	0.0	42	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	41	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.0	21	19.9	19.9	8.0	8.0	27.8	27.8	86.9	86.9	6.7	6.7	4.3		9		-				-		-	
						4.6	0.1	14	19.9		8.0		27.8		86.9		6.7		4.3		8		-				-		-	
SR2	Cloudy	Rough	13:17	5.3	Surface	1.0	0.2	65	20.0	20.0	8.0	8.0	28.3	28.3	87.8	87.8	6.8	6.8	3.2	3.8	9	9	47	49	821450	814148	<0.2	<0.2	0.8	0.8
						1.0	0.2	67	20.0		8.0		28.3		87.8		6.8		3.3		8		47				<0.2		0.9	
					Middle	-	0.2	72	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.2	70	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	43	19.9	19.9	8.0	8.0	28.5	28.5	88.2	88.2	6.8	6.8	4.3		10		51				<0.2		0.8	
						4.3	0.3	37	19.9		8.0		28.5		88.2		6.8		4.4		10		51				<0.2		0.7	
SR3	Cloudy	Moderate	12:28	8.7	Surface	1.0	0.1	71	20.1	20.1	8.0	8.0	27.4	27.5	80.1	80.2	6.2	6.3	7.8	9.0	8	9	-	-	822128	807559	-	-	-	-
						1.0	0.1	77	20.1		8.0		27.6		80.3		6.2		8.6		9		-				-		-	
					Middle	4.4	0.2	62	20.0	20.0	8.0	8.0	28.1	28.1	81.1	81.2	6.3		8.6		9		-				-		-	
						4.4	0.2	61	20.0		8.0		28.1		81.2		6.3		9.6		9		-				-		-	
					Bottom	7.7	0.1	68	20.0	20.0	8.0	8.0	28.3	28.3	82.2	82.3	6.3	6.4	9.7		10		-				-		-	
						7.7	0.1	63	20.0		8.0		28.3		82.3		6.4		9.6		9		-				-		-	
SR4A	Cloudy	Moderate	13:22	8.4	Surface	1.0	0.1	97	20.2	20.2	8.0	8.0	28.5	28.5	85.5	85.4	6.6	6.6	9.4	9.5	7	8	-	-	817179	807817	-	-	-	-
						1.0	0.1	99	20.2		8.0		28.5		85.3		6.6		9.8		8		-				-		-	
					Middle	4.2	0.0	91	20.1	20.1	8.0	8.0	28.6	28.6	84.9	85.0	6.5		10.8		8		-				-		-	
						4.2	-	85	20.1		8.0		28.6		85.0		6.5		11.8		8		-				-		-	
					Bottom	7.4	0.1	78	20.1	20.1	8.0	8.0	28.6	28.6	86.2	86.3	6.6	6.7	7.8		9		-				-		-	
						7.4	0.1	71	20.1		8.0		28.6		86.4		6.7		7.5		10		-				-		-	
SR8	Rainy	Rough	12:35	5.9	Surface	1.0	-	-	20.0	20.0	8.0	8.0	28.1	28.1	87.7	87.7	6.8	6.8	5.1	7.0	8	8	-	-	820407	811616	-	-	-	-
						1.0	-	-	20.0		8.0		28.1		87.7		6.8		5.1		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.9	-	-	20.0	20.0	8.0	8.0	28.3	28.3	87.3	87.4	6.7	6.7	8.8		9		-				-		-	
						4.9	-	-	20.0		8.0		28.3		87.4		6.7		8.9		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 02 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Rainy	Moderate	07:07	8.1	Surface	1.0	0.1	20	20.7	20.7	8.0	8.0	29.1	29.1	88.2	88.2	6.7	6.7	8.7	8.8	8	8	46	49	815598	804229	<0.2	<0.2	0.7	0.8
						1.0	0.1	12	20.7		8.0		29.1		88.2		6.7		8.2		7		47				<0.2		0.8	
					Middle	4.1	0.2	34	20.7	20.7	8.0	8.0	30.0	30.0	88.4	88.5	6.7		10.2		8		48				<0.2		0.7	
						4.1	0.2	38	20.7		8.0		30.0		88.5		6.7		10.6		8		49				<0.2		0.8	
					Bottom	7.1	0.1	30	20.6	20.6	8.0	8.0	30.5	30.5	89.3	89.4	6.7	6.7	7.6		9		51				<0.2		0.8	
						7.1	0.2	22	20.6		8.0		30.5		89.4		6.7		7.6		8		51				<0.2		0.8	
C2	Rainy	Moderate	08:10	11.2	Surface	1.0	0.3	343	21.2	21.2	7.9	7.9	27.7	27.7	85.8	85.9	6.5	6.6	6.9	7.8	8	9	43	47	825701	806958	<0.2	<0.2	0.8	0.8
						1.0	0.4	337	21.2		7.9		27.8		86.0		6.5		7.6		9		43				<0.2		0.8	
					Middle	5.6	0.3	338	21.1	21.1	8.0	8.0	28.2	28.2	86.7	86.8	6.6		7.7		8		48				<0.2		0.8	
						5.6	0.3	336	21.1		8.0		28.2		86.9		6.6		8.6		9		48				<0.2		0.8	
					Bottom	10.2	0.3	352	21.0	21.0	8.0	8.0	28.5	28.5	87.7	87.7	6.6	6.6	8.6		9		51				<0.2		0.7	
						10.2	0.3	354	21.0		8.0		28.5		87.6		6.6		7.6		9		51				<0.2		0.7	
C3	Cloudy	Rough	08:10	9.4	Surface	1.0	0.5	276	19.9	19.9	7.8	7.8	28.4	28.4	86.9	86.9	6.7	6.6	2.5	4.8	7	8	45	48	822090	817786	<0.2	<0.2	0.8	0.8
						1.0	0.5	279	19.9		7.8		28.4		86.8		6.7		2.5		8		45				<0.2		0.7	
					Middle	4.7	0.6	274	19.9	19.9	7.8	7.8	29.5	29.5	85.3	85.3	6.5		5.3		8		49				<0.2		0.8	
						4.7	0.6	280	19.9		7.8		29.5		85.3		6.5		5.4		7		49				<0.2		0.8	
					Bottom	8.4	0.5	260	19.9	19.9	7.8	7.8	29.5	29.5	85.5	85.5	6.6	6.6	6.4		8		51				<0.2		0.8	
						8.4	0.5	254	19.9		7.8		29.5		85.5		6.6		6.5		8		51				<0.2		0.7	
IM1	Rainy	Moderate	07:24	6.7	Surface	1.0	0.2	31	20.8	20.8	8.0	8.0	28.9	28.9	88.8	88.9	6.7	6.8	7.2	8.1	10	9	46	49	818337	806451	<0.2	<0.2	0.8	0.8
						1.0	0.1	29	20.8		8.0		28.9		88.9		6.7		7.5		11		47				<0.2		0.7	
					Middle	3.4	0.1	10	20.8	20.9	8.0	8.0	29.1	29.1	89.3	89.4	6.8		7.6		9		48				<0.2		0.7	
						3.4	0.1	4	20.9		8.0		29.1		89.4		6.8		8.9		9		49				<0.2		0.8	
					Bottom	5.7	0.1	39	21.0	21.0	8.0	8.0	29.0	29.0	90.0	90.1	6.8	6.8	8.9		8		50				<0.2		0.9	
						5.7	0.1	37	21.0		8.0		29.0		90.2		6.8		8.6		8		51				<0.2		0.8	
IM2	Rainy	Moderate	07:28	6.9	Surface	1.0	0.1	294	20.9	20.9	8.0	8.0	28.9	28.9	88.3	88.3	6.7	6.7	8.6	8.8	8	8	47	49	819179	806215	<0.2	<0.2	0.8	0.8
						1.0	0.1	292	20.9		8.0		28.9		88.3		6.7		9.6		7		47				<0.2		0.8	
					Middle	3.5	0.1	317	20.8	20.8	8.0	8.0	29.1	29.1	88.5	88.6	6.7		9.7		7		49				<0.2		0.8	
						3.5	0.1	316	20.8		8.0		29.1		88.6		6.7		10.9		8		48				<0.2		0.8	
					Bottom	5.9	0.1	315	20.9	20.9	8.0	8.0	29.2	29.2	88.9	89.0	6.7	6.7	6.9		8		50				<0.2		0.7	
						5.9	0.0	317	20.9		8.0		29.2		89.1		6.7		7.1		9		51				<0.2		0.8	
IM7	Rainy	Moderate	07:46	7.5	Surface	1.0	0.2	301	20.9	20.9	8.0	8.0	26.6	26.6	85.8	85.9	6.6	6.6	7.8	8.9	10	9	47	48	821368	806828	<0.2	<0.2	0.8	0.8
						1.0	0.2	304	20.9		8.0		26.6		85.9		6.6		9.0		10		46				<0.2		0.7	
					Middle	3.8	0.2	290	20.9	20.9	8.0	8.0	28.9	28.9	86.1	86.2	6.5		9.0		9		48				<0.2		0.7	
						3.8	0.2	290	20.9		8.0		28.9		86.2		6.5		9.7		10		49				<0.2		0.8	
					Bottom	6.5	0.2	277	20.9	20.9	8.0	8.0	28.9	28.9	87.2	87.3	6.6	6.6	9.6		8		50				<0.2		0.8	
						6.5	0.1	276	20.9		8.0		28.9		87.3		6.6		8.6		8		50				<0.2		0.8	

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 02 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Cloudy	Rough	09:22	8.2	Surface	1.0	0.4	290	20.0	20.0	8.0	8.0	28.2	28.2	87.5	87.5	6.7	6.8	7.7	9.6	9	8	42	47	822223	809835	<0.2	<0.2	0.8	0.8
						1.0	0.4	290	20.0		8.0		28.2		87.5		6.7		7.7		8		42				<0.2		0.8	
					Middle	4.1	0.3	283	20.0	20.0	8.0	8.0	28.2	28.2	87.6	87.6	6.8		9.4		7		47				<0.2		0.8	
						4.1	0.4	285	20.0		8.0		28.2		87.6		6.8		9.5		8		47				<0.2		0.7	
					Bottom	7.2	0.3	295	20.0	20.0	8.0	8.0	28.2	28.2	88.3	88.4	6.8	6.8	11.6		8		51				<0.2		0.7	
						7.2	0.3	288	20.0		8.0		28.2		88.4		6.8		11.7		7		51				<0.2		0.8	
IM11	Cloudy	Rough	09:16	7.4	Surface	1.0	0.4	281	20.0	20.0	8.0	8.0	28.2	28.2	87.3	87.3	6.7	6.7	4.5	5.5	9	9	43	48	821485	810560	<0.2	<0.2	0.8	0.8
						1.0	0.5	276	20.0		8.0		28.2		87.3		6.7		4.5		8		43				<0.2		0.8	
					Middle	3.7	0.5	297	20.0	20.0	8.0	7.9	28.2	28.2	87.6	87.6	6.7		5.9		9		47				<0.2		0.8	
						3.7	0.5	289	20.0		7.9		28.2		87.6		6.7		6.0		9		48				<0.2		0.8	
					Bottom	6.4	0.5	288	20.0	20.0	7.9	7.9	28.2	28.2	88.2	88.3	6.8	6.8	6.0		9		52				<0.2		0.7	
						6.4	0.5	287	20.0		7.9		28.2		88.4		6.8		6.1		9		52				<0.2		0.9	
IM12	Cloudy	Rough	09:10	7.9	Surface	1.0	0.5	293	20.0	20.0	8.0	8.0	28.1	28.1	87.3	87.3	6.7	6.7	6.9	8.0	8	9	44	48	821177	811534	<0.2	<0.2	0.8	0.8
						1.0	0.4	294	20.0		8.0		28.1		87.3		6.7		6.9		7		43				<0.2		0.8	
					Middle	4.0	0.4	285	20.0	20.0	8.0	8.0	28.2	28.2	86.8	86.9	6.7		7.4		8		48				<0.2		0.8	
						4.0	0.4	287	20.0		8.0		28.2		86.9		6.7		7.5		9		48				<0.2		0.7	
					Bottom	6.9	0.4	305	20.0	20.0	7.9	7.9	28.2	28.2	87.0	87.1	6.7	6.7	9.6		10		51				<0.2		0.8	
						6.9	0.4	303	20.0		7.9		28.2		87.1		6.7		9.7		10		51				<0.2		0.8	
SR1A	Cloudy	Moderate	08:40	4.3	Surface	1.0	-	194	19.9	19.9	7.9	7.9	27.6	27.6	86.7	86.7	6.7	6.7	3.4	3.7	10	10	-	-	819973	812661	-	-	-	-
						1.0	-	196	19.9		7.9		27.6		86.7		6.7		3.4		11		-				-		-	
					Middle	2.2	0.0	190	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	0.0	192	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	219	20.0	20.0	7.9	7.9	27.6	27.6	87.3	87.3	6.8	6.8	3.9		10		-				-		-	
						3.3	0.0	219	20.0		7.9		27.6		87.3		6.8		3.9		9		-				-		-	
SR2	Cloudy	Rough	08:28	4.9	Surface	1.0	0.1	242	20.1	20.1	7.9	7.9	28.2	28.2	86.4	86.4	6.6	6.6	5.7	7.3	8	10	48	50	821457	814189	<0.2	<0.2	0.8	0.8
						1.0	0.1	235	20.1		7.9		28.2		86.4		6.6		5.7		8		48				<0.2		0.8	
					Middle	-	0.1	246	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	240	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	226	20.1	20.1	7.9	7.9	28.4	28.4	86.3	86.3	6.6	6.6	9.0		11		51				<0.2		0.8	
						3.9	0.1	233	20.1		7.9		28.4		86.3		6.6		9.0		12		51				<0.2		0.8	
SR3	Rainy	Moderate	07:52	8.6	Surface	1.0	0.2	311	21.2	21.2	7.9	7.9	25.6	25.6	84.6	84.7	6.5	6.5	7.7	8.4	9	9	-	-	822152	807583	-	-	-	-
						1.0	0.2	304	21.1		7.9		25.6		84.7		6.5		8.0		8		-				-		-	
					Middle	4.3	0.2	299	21.0	21.0	7.9	7.9	28.3	28.4	85.4	85.5	6.5		9.1		8		-				-		-	
						4.3	0.2	304	21.0		8.0		28.4		85.5		6.5		10.0		9		-				-		-	
					Bottom	7.6	0.2	320	21.3	21.4	8.0	8.0	28.6	28.6	85.4	85.4	6.4	6.4	8.0		10		-				-		-	
						7.6	0.2	320	21.4		8.0		28.5		85.4		6.4		7.8		9		-				-		-	
SR4A	Rainy	Moderate	06:45	8.5	Surface	1.0	0.0	205	20.9	20.9	8.0	8.0	28.6	28.6	86.0	86.0	6.5	6.5	7.6	8.4	8	8	-	-	817179	807814	-	-	-	-
						1.0	0.1	208	20.9		8.0		28.6		86.0		6.5		8.6		8		-				-		-	
					Middle	4.3	0.0	207	20.9	20.9	7.9	7.9	28.7	28.7	85.9	85.9	6.5		8.6		9		-				-		-	
						4.3	0.0	201	20.9		7.9		28.8		85.9		6.5		9.6		8		-				-		-	
					Bottom	7.5	0.0	190	20.9	20.9	7.9	7.9	28.7	28.7	86.3	86.4	6.5	6.5	8.0		8		-				-		-	
						7.5	0.0	184	20.9		7.9		28.7		86.4		6.5		7.9		9		-				-		-	
SR8	Cloudy	Moderate	09:04	4.8	Surface	1.0	-	-	20.1	20.1	7.9	7.9	28.0	28.0	87.6	87.6	6.7	6.7	8.3	9.0	10	10	-	-	820407	811607	-	-	-	-
						1.0	-	-	20.1		7.9		28.0		87.6		6.7		8.4		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	20.1	20.1	8.0	8.0	28.1	28.1	88.2	88.3	6.8	6.8	9.6		10		-				-		-	
						3.8	-	-	20.1		8.0		28.1		88.3		6.8		9.7		11		-				-		-	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Sunny	Moderate	15:15	7.5	Surface	1.0	0.4	197	21.1	21.1	8.0	8.0	29.6	29.6	100.7	100.7	7.5	7.5	1.6	5.4	3	4	43	47	815631	804241	<0.2	<0.2	1.5	2.2
						1.0	0.5	192	21.1		8.0		29.6		100.7		7.5		1.6		4		43				<0.2		1.6	
					Middle	3.8	0.4	201	20.9	20.9	8.0	8.0	29.9	29.9	98.5	98.5	7.4		3.2		3		47				<0.2		2.5	
						3.8	0.4	203	20.9		8.0		29.9		98.5		7.4		3.2		4		47				<0.2		2.5	
					Bottom	6.5	0.4	194	20.5	20.5	8.0	8.0	30.3	30.3	93.5	93.5	7.1	7.1	11.2		5		52				<0.2		2.4	
						6.5	0.5	190	20.5		8.0		30.3		93.5		7.1		11.3		5		52				<0.2		2.5	
C2	Sunny	Moderate	13:52	10.1	Surface	1.0	0.2	153	20.7	20.7	7.9	7.9	27.7	27.7	89.6	89.6	6.8	6.8	4.2	5.3	7	6	41	47	825702	806928	<0.2	<0.2	1.1	1.2
						1.0	0.2	158	20.7		7.9		27.7		89.6		6.8		4.2		8		41				<0.2		1.1	
					Middle	5.1	0.2	182	20.6	20.6	7.9	7.9	27.9	27.9	89.5	89.5	6.8		5.6		6		48				<0.2		1.1	
						5.1	0.2	175	20.6		7.9		27.9		89.5		6.8		5.7		6		48				<0.2		1.2	
					Bottom	9.1	0.2	185	20.6	20.6	7.9	7.9	28.1	28.1	89.3	89.3	6.8	6.8	6.0		6		51				<0.2		1.2	
						9.1	0.2	186	20.6		7.9		28.1		89.3		6.8		6.0		5		51				<0.2		1.2	
C3	Sunny	Moderate	15:31	11.5	Surface	1.0	0.5	86	20.1	20.1	8.0	8.0	30.1	30.1	89.0	89.0	6.8	6.8	2.1	2.1	9	7	48	50	822105	817806	<0.2	<0.2	3.1	3.1
						1.0	0.5	93	20.1		8.0		30.1		89.0		6.8		2.1		8		47				<0.2		3.0	
					Middle	5.8	0.5	87	20.0	20.0	8.0	8.0	30.2	30.2	88.1	88.1	6.7		2.0		7		50				<0.2		3.0	
						5.8	0.4	82	20.0		8.0		30.2		88.0		6.7		2.0		6		50				<0.2		3.1	
					Bottom	10.5	0.5	65	19.8	19.8	8.0	8.0	30.2	30.2	87.7	87.8	6.7	6.7	2.3		7		53				<0.2		3.2	
						10.5	0.5	69	19.8		8.0		30.2		87.8		6.7		2.2		6		51				<0.2		3.1	
IM1	Sunny	Calm	14:49	7.6	Surface	1.0	0.2	173	21.0	21.0	8.0	8.0	29.7	29.7	100.2	100.2	7.5	7.4	1.9	4.5	3	5	44	48	818370	806457	<0.2	<0.2	1.4	1.5
						1.0	0.2	165	21.0		8.0		29.7		100.1		7.5		1.9		4		44				<0.2		1.4	
					Middle	3.8	0.2	201	20.8	20.8	8.0	8.0	30.0	30.0	97.6	97.7	7.3		4.9		5		48				<0.2		1.5	
						3.8	0.2	203	20.8		8.0		30.0		97.7		7.3		4.8		4		48				<0.2		1.5	
					Bottom	6.6	0.2	192	20.6	20.6	8.0	8.0	30.3	30.3	94.4	94.5	7.1	7.1	6.8		5		51				<0.2		1.5	
						6.6	0.1	191	20.6		8.0		30.3		94.5		7.1		6.8		6		51				<0.2		1.4	
IM2	Sunny	Calm	14:43	7.9	Surface	1.0	0.2	189	20.9	20.9	7.9	7.9	29.2	29.2	98.7	98.7	7.4	7.4	2.3	5.3	5	5	41	47	819164	806249	<0.2	<0.2	1.1	1.3
						1.0	0.3	186	20.9		7.9		29.2		98.7		7.4		2.3		5		41				<0.2		1.2	
					Middle	4.0	0.2	189	20.6	20.7	7.9	7.9	29.7	29.7	96.7	96.9	7.3		6.8		5		48				<0.2		1.3	
						4.0	0.2	192	20.7		7.9		29.7		97.0		7.3		6.8		5		48				<0.2		1.4	
					Bottom	6.9	0.2	188	20.5	20.5	8.0	8.0	30.0	30.0	94.9	94.9	7.2	7.2	6.8		5		51				<0.2		1.4	
						6.9	0.2	180	20.5		8.0		30.0		94.8		7.2		6.8		6		51				<0.2		1.3	
IM7	Sunny	Calm	14:24	9.1	Surface	1.0	0.2	115	20.7	20.7	7.9	7.9	27.1	27.1	90.7	90.7	6.9	7.0	3.2	4.9	4	5	44	48	821351	806830	<0.2	<0.2	3.0	1.9
						1.0	0.2	120	20.7		7.9		27.1		90.7		6.9		3.2		5		44				<0.2		3.0	
					Middle	4.6	0.2	108	20.6	20.6	7.9	7.9	29.0	28.9	93.3	93.3	7.1		4.5		5		48				<0.2		1.3	
						4.6	0.2	105	20.6		7.9		28.9		93.3		7.1		4.5		5		48				<0.2		1.4	
					Bottom	8.1	0.2	126	20.5	20.5	7.9	7.9	29.2	29.2	93.5	93.5	7.1	7.1	7.1		5		51				<0.2		1.4	
						8.1	0.2	131	20.5		7.9		29.2		93.5		7.1		6.9		5		51				<0.2		1.2	

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 05 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Sunny	Moderate	14:00	8.4	Surface	1.0	0.3	83	20.2	20.2	8.0	8.0	27.9	28.0	91.6	91.6	7.0	7.0	3.6	6.0	5	5	46	49	822232	809825	<0.2	<0.2	1.1	1.0
						1.0	0.3	77	20.1		8.0		28.1		91.5		7.0		3.8		6		47				<0.2		0.9	
					Middle	4.2	0.3	78	20.0	20.0	8.0	8.0	28.8	28.8	91.0	91.0	7.0		5.4		5		49				<0.2		1.1	
						4.2	0.4	80	20.0		8.0		28.8		91.0		7.0		5.8		5		48				<0.2		1.0	
					Bottom	7.4	0.3	113	19.8	19.8	8.0	8.0	29.0	29.0	92.2	92.3	7.1	7.1	8.8		4		52				<0.2		1.0	
						7.4	0.3	107	19.8		8.0		29.0		92.3		7.1		8.8		5		52				<0.2		1.0	
IM11	Sunny	Moderate	14:25	8.8	Surface	1.0	0.5	105	20.4	20.4	8.0	8.0	28.4	28.4	92.0	92.0	7.0	7.0	3.4	4.9	6	7	46	49	821499	810548	<0.2	<0.2	1.0	1.1
						1.0	0.5	108	20.4		8.0		28.4		91.9		7.0		3.4		5		47				<0.2		1.0	
					Middle	4.4	0.5	97	20.1	20.1	8.0	8.0	28.7	28.7	90.4	90.4	6.9		4.2		6		48				<0.2		1.1	
						4.4	0.5	90	20.1		8.0		28.7		90.3		6.9		4.3		8		49				<0.2		1.3	
					Bottom	7.8	0.5	117	19.9	19.9	8.0	8.0	29.0	29.0	90.1	90.2	6.9	6.9	7.0		8		51				<0.2		1.2	
						7.8	0.5	115	19.9		8.0		29.0		90.3		6.9		7.0		8		51				<0.2		1.1	
IM12	Sunny	Moderate	14:31	9.2	Surface	1.0	0.5	90	20.1	20.1	8.0	8.0	28.7	28.7	90.0	90.0	6.9	6.9	4.5	5.8	7	9	46	50	821165	811506	<0.2	<0.2	1.1	1.1
						1.0	0.5	84	20.0		8.0		28.7		89.9		6.9		4.6		8		47				<0.2		1.1	
					Middle	4.6	0.5	100	20.0	20.0	8.0	8.0	28.8	28.8	89.4	89.3	6.9		5.0		10		49				<0.2		1.0	
						4.6	0.5	95	20.0		8.0		28.8		89.2		6.9		5.3		9		50				<0.2		1.0	
					Bottom	8.2	0.5	97	19.8	19.8	8.0	8.0	29.1	29.1	88.5	88.6	6.8	6.8	7.7		9		52				<0.2		1.3	
						8.2	0.6	90	19.8		8.0		29.1		88.6		6.8		7.7		10		53				<0.2		1.2	
SR1A	Sunny	Moderate	14:58	5.5	Surface	1.0	0.1	47	20.3	20.3	7.9	7.9	28.3	28.3	91.1	91.0	7.0	7.0	2.5	3.3	8	9	-	-	819981	812658	-	-	-	-
						1.0	0.1	39	20.3		7.9		28.3		90.8		7.0		2.7		9		-				-		-	
					Middle	2.8	0.0	56	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	0.0	49	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.0	35	19.7	19.7	7.9	7.9	28.8	28.8	88.8	88.9	6.9	6.9	4.0		9		-				-		-	
						4.5	0.0	38	19.7		7.9		28.8		88.9		6.9		3.9		8		-				-		-	
SR2	Sunny	Moderate	15:11	4.7	Surface	1.0	0.4	44	20.1	20.1	8.0	8.0	28.7	28.7	91.3	91.4	7.0	7.0	4.2	4.3	8	7	47	49	821454	814184	<0.2	<0.2	1.1	1.0
						1.0	0.5	45	20.1		8.0		28.7		91.4		7.0		4.2		7		48				<0.2		1.1	
					Middle	-	0.4	58	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.4	55	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.5	38	20.1	20.1	7.9	7.9	28.8	28.8	92.8	92.9	7.1	7.1	4.4		6		50				<0.2		0.9	
						3.7	0.5	37	20.1		7.9		28.8		92.9		7.1		4.3		6		50				<0.2		0.9	
SR3	Sunny	Moderate	14:17	8.8	Surface	1.0	0.2	150	21.0	21.0	7.9	7.9	27.3	27.2	92.0	92.1	7.0	7.0	4.6	6.5	5	5	-	-	822132	807553	-	-	-	-
						1.0	0.3	151	21.0		7.9		27.2		92.1		7.0		4.6		5		-				-		-	
					Middle	4.4	0.2	153	20.8	20.8	7.9	7.9	27.5	27.5	91.5	91.5	7.0		4.8		6		-				-		-	
						4.4	0.2	153	20.8		7.9		27.5		91.5		7.0		4.8		5		-				-		-	
					Bottom	7.8	0.2	154	20.7	20.7	7.9	7.9	29.0	29.0	92.4	92.4	7.0	7.0	10.1		5		-				-		-	
						7.8	0.2	154	20.7		7.9		29.0		92.4		7.0		10.1		6		-				-		-	
SR4A	Sunny	Moderate	15:39	10.4	Surface	1.0	0.0	89	20.9	20.9	7.9	7.9	29.6	29.6	97.8	97.8	7.4	7.4	4.4	6.6	6	8	-	-	817192	807830	-	-	-	-
						1.0	0.0	90	20.9		7.9		29.6		97.8		7.4		4.4		6		-				-		-	
					Middle	5.2	0.1	79	20.7	20.7	8.0	8.0	29.7	29.7	96.5	96.5	7.3		6.3		9		-				-		-	
						5.2	0.1	82	20.7		8.0		29.7		96.5		7.3		6.3		8		-				-		-	
					Bottom	9.4	0.0	86	20.7	20.7	8.0	8.0	29.8	29.8	95.8	95.8	7.2	7.2	9.1		9		-				-		-	
						9.4	0.0	85	20.7		8.0		29.8		95.8		7.2		9.1		8		-				-		-	
SR8	Sunny	Moderate	14:36	4.7	Surface	1.0	-	-	20.1	20.1	8.0	8.0	28.8	28.8	91.0	91.0	7.0	7.0	4.8	4.9	8	7	-	-	820387	811632	-	-	-	-
						1.0	-	-	20.1		8.0		28.8		91.0		7.0		4.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	20.0	20.0	8.0	8.0	28.8	28.8	91.5	91.7	7.0	7.0	5.0		7		-				-		-	
						3.7	-	-	20.0		8.0		28.8		91.8		7.0		5.0		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 05 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	08:01	6.2	Surface	1.0	0.2	31	20.5	20.5	7.9	7.9	29.6	29.6	95.7	95.7	7.2	7.2	9.0	7.9	6	6	43	48	815613	804235	<0.2	<0.2	1.5	2.2
						1.0	0.2	24	20.5		7.9		29.6		95.7		7.2		9.0		5		44				<0.2		1.5	
					Middle	3.1	0.2	19	20.3	20.3	8.0	8.0	30.7	30.7	93.9	93.9	7.1		7.7		5		48				<0.2		2.7	
						3.1	0.2	24	20.3		8.0		30.7		93.9		7.1		7.7		6		48				<0.2		2.6	
					Bottom	5.2	0.2	20	20.3	20.3	7.9	7.9	31.0	31.0	93.6	93.6	7.1	7.1	6.8		7		51				<0.2		2.4	
						5.2	0.2	17	20.3		7.9		31.0		93.6		7.1		6.9		7		51				<0.2		2.5	
C2	Fine	Moderate	09:39	9.4	Surface	1.0	0.3	336	20.9	20.9	7.9	7.9	27.6	27.6	91.8	91.8	7.0	6.9	3.0	6.0	5	5	43	47	825678	806967	<0.2	<0.2	1.1	1.1
						1.0	0.3	334	20.9		7.9		27.6		91.8		7.0		3.0		4		43				<0.2		1.1	
					Middle	4.7	0.4	349	20.6	20.6	7.9	7.9	28.2	28.2	89.4	89.4	6.8		6.0		5		47				<0.2		1.0	
						4.7	0.3	352	20.6		7.9		28.2		89.4		6.8		5.9		6		47				<0.2		1.0	
					Bottom	8.4	0.4	13	20.5	20.5	7.9	7.9	29.2	29.2	92.1	92.1	7.0	7.0	9.1		5		51				<0.2		1.1	
						8.4	0.4	17	20.5		7.9		29.2		92.1		7.0		9.1		6		51				<0.2		1.1	
C3	Fine	Moderate	08:49	11.4	Surface	1.0	0.4	266	19.8	19.8	8.0	8.0	29.3	29.3	88.5	88.5	6.8	6.7	2.3	8.3	7	8	46	73	822112	817806	<0.2	<0.2	1.4	1.8
						1.0	0.5	268	19.8		8.0		29.3		88.4		6.8		2.3		7		46				<0.2		1.5	
					Middle	5.7	0.5	269	19.7	19.7	8.0	8.0	30.0	30.0	86.3	86.3	6.6		10.8		7		86				<0.2		1.3	
						5.7	0.5	270	19.7		8.0		30.0		86.3		6.6		11.7		8		86				<0.2		1.5	
					Bottom	10.4	0.4	260	19.7	19.7	8.0	8.0	30.0	30.0	85.9	85.9	6.6	6.6	11.4		8		86				<0.2		2.4	
						10.4	0.4	264	19.7		8.0		30.0		85.9		6.6		11.4		9		87				<0.2		2.4	
IM1	Fine	Calm	08:27	7.3	Surface	1.0	0.2	12	20.7	20.7	7.9	7.9	29.1	29.1	96.7	96.7	7.3	7.3	2.6	6.0	6	5	45	48	818336	806463	<0.2	<0.2	2.8	3.0
						1.0	0.2	8	20.7		7.9		29.1		96.7		7.3		2.6		5		45				<0.2		2.8	
					Middle	3.7	0.2	40	20.5	20.5	7.9	7.9	29.8	29.8	94.7	94.7	7.2		5.6		5		47				<0.2		3.0	
						3.7	0.2	43	20.5		7.9		29.8		94.6		7.2		5.6		5		47				<0.2		3.1	
					Bottom	6.3	0.2	6	20.5	20.5	7.9	7.9	30.2	30.2	93.3	93.3	7.0	7.0	9.7		5		51				<0.2		3.2	
						6.3	0.2	5	20.5		7.9		30.2		93.3		7.0		9.7		4		51				<0.2		3.0	
IM2	Fine	Calm	08:34	7.4	Surface	1.0	0.1	350	20.6	20.6	7.9	7.9	29.1	29.1	97.2	97.2	7.4	7.3	2.5	7.0	7	6	44	47	819178	806213	<0.2	<0.2	3.5	1.9
						1.0	0.2	343	20.6		7.9		29.1		97.2		7.4		2.5		8		44				<0.2		3.4	
					Middle	3.7	0.1	3	20.4	20.4	7.9	7.9	29.7	29.7	93.2	93.2	7.1		8.3		6		47				<0.2		1.2	
						3.7	0.1	6	20.4		7.9		29.7		93.1		7.1		8.2		6		47				<0.2		1.2	
					Bottom	6.4	0.1	333	20.5	20.5	7.9	7.9	29.8	29.8	92.9	92.9	7.0	7.0	10.2		5		51				<0.2		1.1	
						6.4	0.1	329	20.5		7.9		29.8		92.9		7.0		10.2		6		51				<0.2		1.1	
IM7	Fine	Calm	09:01	8.2	Surface	1.0	0.2	332	20.9	20.9	7.8	7.8	26.5	26.5	92.0	92.0	7.0	7.1	3.2	5.4	4	5	44	48	821357	806832	<0.2	<0.2	1.2	1.2
						1.0	0.2	326	20.9		7.8		26.5		92.0		7.0		3.1		5		44				<0.2		1.1	
					Middle	4.1	0.2	343	20.6	20.6	7.9	7.9	27.8	27.8	92.5	92.6	7.1		4.4		6		48				<0.2		1.2	
						4.1	0.2	342	20.6		7.9		27.9		92.6		7.1		4.4		5		48				<0.2		1.3	
					Bottom	7.2	0.1	326	20.4	20.4	7.9	7.9	29.1	29.1	93.2	93.2	7.1	7.1	8.7		6		52				<0.2		1.3	
						7.2	0.2	331	20.4		7.9		29.1		93.2		7.1		8.7		6		52				<0.2		1.3	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	10:03	8.7	Surface	1.0	0.3	302	20.0	20.0	7.9	7.9	28.0	28.1	90.6	90.5	7.0	7.0	4.8	10.4	7	5	47	49	822219	809822	<0.2	<0.2	1.1	1.0
						1.0	0.3	307	19.9		7.9		28.1		90.3		7.0		5.5		6		46				<0.2		1.1	
					Middle	4.4	0.4	295	19.8	19.8	7.9	7.9	28.6	28.6	89.3	89.3	6.9		12.0		5		47				<0.2		0.9	
						4.4	0.4	301	19.8		7.9		28.6		89.3		6.9		12.4		4		48				<0.2		0.9	
					Bottom	7.7	0.3	293	19.8	19.8	7.9	7.9	28.6	28.6	89.6	89.7	6.9	6.9	13.8		2		51				<0.2		1.0	
						7.7	0.4	289	19.8		7.9		28.6		89.7		6.9		13.8		3		52				<0.2		1.0	
IM11	Fine	Moderate	09:56	8.5	Surface	1.0	0.4	283	20.0	20.0	7.9	7.9	27.9	28.0	91.3	91.2	7.0	7.0	3.5	8.0	6	6	47	49	821479	810526	<0.2	<0.2	1.0	1.0
						1.0	0.4	276	20.0		7.9		28.0		91.1		7.0		4.0		7		46				<0.2		1.1	
					Middle	4.3	0.4	274	19.8	19.8	7.9	7.9	28.7	28.7	90.0	90.0	6.9		8.8		6		48				<0.2		0.8	
						4.3	0.5	276	19.8		7.9		28.7		90.0		6.9		9.1		6		49				<0.2		0.9	
					Bottom	7.5	0.4	288	19.7	19.7	8.0	8.0	28.7	28.7	90.9	91.0	7.0	7.0	11.4		5		52				<0.2		0.9	
						7.5	0.5	294	19.7		8.0		28.7		91.1		7.0		11.5		5		52				<0.2		1.0	
IM12	Fine	Moderate	09:50	9.1	Surface	1.0	0.4	292	20.0	20.0	7.9	7.9	28.6	28.6	90.7	90.7	7.0	7.0	4.4	4.6	5	6	47	49	821154	811515	<0.2	<0.2	0.9	0.9
						1.0	0.4	289	20.0		7.9		28.7		90.6		7.0		4.6		6		46				<0.2		0.9	
					Middle	4.6	0.5	278	19.8	19.8	8.0	8.0	29.0	29.0	89.9	90.0	6.9		7.1		4		49				<0.2		0.9	
						4.6	0.5	283	19.8		8.0		29.0		90.0		6.9		7.1		6		48				<0.2		0.8	
					Bottom	8.1	0.5	274	19.7	19.8	8.0	8.0	29.0	29.0	94.5	94.9	7.3	7.3	2.1		6		52				<0.2		1.0	
						8.1	0.5	280	19.8		8.0		29.0		95.2		7.3		2.2		6		53				<0.2		1.1	
SR1A	Fine	Moderate	09:26	5.7	Surface	1.0	0.0	203	19.9	19.9	7.9	7.9	28.2	28.2	89.0	89.2	6.9	6.9	2.7	3.4	13	15	-	-	819975	812662	-	-	-	-
						1.0	0.1	204	19.8		7.9		28.2		89.4		6.9		2.7		14		-				-		-	
					Middle	2.9	0.0	189	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	188	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	213	19.7	19.7	7.9	7.9	28.7	28.7	93.5	93.7	7.2	7.3	4.1		16		-				-		-	
						4.7	-	208	19.7		7.9		28.7		93.9		7.3		4.1		17		-				-		-	
SR2	Fine	Moderate	09:08	4.8	Surface	1.0	0.0	232	19.8	19.8	7.9	7.9	28.9	28.9	88.6	88.6	6.8	6.8	7.5	7.8	7	9	46	48	821445	814176	<0.2	<0.2	0.9	0.9
						1.0	0.1	230	19.8		7.9		28.9		88.6		6.8		7.6		7		47				<0.2		1.0	
					Middle	-	0.1	240	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	239	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	245	19.8	19.8	7.9	7.9	28.9	28.9	89.3	89.4	6.9	6.9	8.1		10		49				<0.2		0.9	
						3.8	0.0	248	19.8		7.9		28.9		89.4		6.9		8.2		11		50				<0.2		0.9	
SR3	Fine	Moderate	09:09	7.3	Surface	1.0	0.3	339	20.8	20.8	7.8	7.8	27.1	27.1	90.2	90.2	6.9	6.9	5.4	6.6	5	5	-	-	822148	807556	-	-	-	-
						1.0	0.2	338	20.8		7.8		27.1		90.2		6.9		5.4		5		-				-		-	
					Middle	3.7	0.2	356	20.6	20.6	7.9	7.9	27.8	27.8	89.7	89.7	6.9		7.7		5		-				-		-	
						3.7	0.3	354	20.6		7.9		27.8		89.7		6.9		7.7		4		-				-		-	
					Bottom	6.3	0.2	352	20.6	20.6	7.9	7.9	27.9	27.9	90.5	90.5	6.9	6.9	6.7		5		-				-		-	
						6.3	0.2	351	20.6		7.9		27.9		90.5		6.9		6.7		4		-				-		-	
SR4A	Fine	Calm	07:28	9.5	Surface	1.0	0.1	163	20.3	20.3	7.9	7.9	29.3	29.3	91.1	91.1	6.9	6.9	5.1	6.9	11	9	-	-	817185	807812	-	-	-	-
						1.0	0.1	159	20.3		7.9		29.3		91.1		6.9		5.1		12		-				-		-	
					Middle	4.8	0.1	177	20.3	20.3	7.9	7.9	29.4	29.4	91.1	91.1	6.9		6.0		9		-				-		-	
						4.8	0.1	178	20.3		7.9		29.4		91.1		6.9		6.1		8		-				-		-	
					Bottom	8.5	0.1	155	20.6	20.6	7.9	7.9	30.2	30.2	92.2	92.2	7.0	7.0	9.5		8		-				-		-	
						8.5	0.1	152	20.6		7.9		30.2		92.2		7.0		9.6		8		-				-		-	
SR8	Fine	Moderate	09:45	5.1	Surface	1.0	-	-	19.9	19.9	8.0	8.0	28.1	28.1	90.7	90.8	7.0	7.0	4.8	7.2	14	12	-	-	820371	811632	-	-	-	-
						1.0	-	-	19.9		8.0		28.1		90.8		7.0		5.1		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	19.8	19.8	8.0	8.0	28.4	28.5	91.1	91.2	7.0	7.1	9.2		11		-				-		-	
						4.1	-	-	19.8		8.0		28.5		91.3		7.1		9.6		10		-				-		-	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	16:14	8.0	Surface	1.0	0.4	205	20.6	20.6	8.0	8.0	30.3	30.4	96.9	96.9	7.3	7.3	5.0	6.1	3	3	52	75	815598	804267	<0.2	<0.2	1.7	1.6
						1.0	0.3	200	20.6		8.0		30.4		96.8		7.3		5.1		3		52				<0.2		1.6	
					Middle	4.0	0.4	192	20.5	20.5	8.0	8.0	30.8	30.8	97.0	97.0	7.3		6.1		2		86				<0.2		1.5	
						4.0	0.4	193	20.5		8.0		30.8		97.0		7.3		6.2		3		86				<0.2		1.6	
					Bottom	7.0	0.4	192	20.6	20.6	7.9	7.9	30.9	30.9	97.6	97.7	7.3	7.3	7.0		2		88				<0.2		1.7	
						7.0	0.4	193	20.5		7.9		30.9		97.7		7.3		7.1		2		88				<0.2		1.6	
C2	Fine	Calm	15:06	10.0	Surface	1.0	0.3	172	21.6	21.6	7.9	7.9	25.5	25.5	92.7	92.6	7.0	7.0	1.9	3.1	2	2	45	74	825668	806924	<0.2	<0.2	1.6	1.7
						1.0	0.3	177	21.6		7.9		25.5		92.5		7.0		1.8		3		45				<0.2		1.7	
					Middle	5.0	0.2	183	21.4	21.4	7.9	7.9	26.6	26.6	91.7	91.8	6.9		3.3		2		86				<0.2		1.7	
						5.0	0.2	185	21.4		7.9		26.6		91.9		7.0		3.2		3		86				<0.2		1.8	
					Bottom	9.0	0.2	171	21.5	21.5	7.9	7.9	26.5	26.4	93.4	93.6	7.1	7.1	4.3		2		90				<0.2		1.7	
						9.0	0.2	166	21.5		7.9		26.4		93.7		7.1		4.4		2		90				<0.2		1.8	
C3	Fine	Moderate	16:28	11.7	Surface	1.0	0.4	90	20.8	20.8	7.9	7.9	27.8	27.8	94.2	94.2	7.2	7.0	0.8	1.4	2	3	46	49	822099	817787	<0.2	<0.2	1.8	1.7
						1.0	0.4	96	20.8		7.9		27.9		94.1		7.2		0.8		3		47				<0.2		1.7	
					Middle	5.9	0.5	93	20.2	20.2	7.9	7.9	29.5	29.5	88.2	88.2	6.7		1.1		3		48				<0.2		1.6	
						5.9	0.5	97	20.2		7.9		29.5		88.1		6.7		1.2		4		48				<0.2		1.6	
					Bottom	10.7	0.4	72	20.1	20.1	7.9	7.9	29.6	29.7	87.9	88.0	6.7	6.7	2.2		2		51				<0.2		1.9	
						10.7	0.4	76	20.1		7.9		29.7		88.0		6.7		2.3		4		51				<0.2		1.8	
IM1	Fine	Calm	15:57	6.6	Surface	1.0	0.2	174	21.7	21.7	7.9	7.9	25.5	25.4	101.7	101.6	7.7	7.5	2.1	4.7	2	3	48	75	818350	806461	<0.2	<0.2	1.5	1.5
						1.0	0.3	177	21.7		7.9		25.3		101.5		7.7		2.4		3		48				<0.2		1.5	
					Middle	3.3	0.2	205	20.8	20.8	7.9	7.9	29.3	29.3	96.2	96.3	7.2		5.6		3		86				<0.2		1.6	
						3.3	0.1	198	20.8		7.9		29.3		96.3		7.3		5.6		4		86				<0.2		1.5	
					Bottom	5.6	0.2	197	20.8	20.8	7.9	7.9	29.5	29.5	96.9	97.0	7.3	7.3	6.1		3		92				<0.2		1.5	
						5.6	0.2	197	20.8		7.9		29.5		97.0		7.3		6.2		4		91				<0.2		1.5	
IM2	Fine	Calm	15:53	7.2	Surface	1.0	0.2	188	21.6	21.6	8.0	8.0	25.3	25.2	103.5	103.4	7.9	7.6	2.7	5.4	2	3	49	72	819197	806212	<0.2	<0.2	1.5	1.5
						1.0	0.2	190	21.5		8.0		25.2		103.2		7.9		2.8		3		49				<0.2		1.5	
					Middle	3.6	0.2	170	21.0	21.0	8.0	7.9	28.1	28.1	96.9	96.9	7.3		6.3		3		79				<0.2		1.5	
						3.6	0.2	170	21.0		7.9		28.1		96.9		7.3		6.3		3		79				<0.2		1.6	
					Bottom	6.2	0.2	192	20.8	20.8	7.9	7.9	29.6	29.6	96.8	96.9	7.3	7.3	7.0		3		88				<0.2		1.5	
						6.2	0.2	193	20.8		7.9		29.6		97.0		7.3		7.0		4		88				<0.2		1.5	
IM7	Fine	Calm	15:34	7.0	Surface	1.0	0.2	114	21.9	21.9	7.9	7.9	25.2	25.2	95.5	95.4	7.2	7.2	2.0	3.9	3	3	52	76	821361	806822	<0.2	<0.2	1.3	1.3
						1.0	0.2	121	21.8		7.9		25.2		95.3		7.2		2.2		4		52				<0.2		1.3	
					Middle	3.5	0.1	123	21.3	21.3	7.9	7.9	27.2	27.3	93.7	93.7	7.1		4.3		3		87				<0.2		1.4	
						3.5	0.1	126	21.3		7.9		27.3		93.7		7.1		4.5		4		87				<0.2		1.3	
					Bottom	6.0	0.2	137	21.2	21.2	7.9	7.9	27.5	27.5	94.5	94.6	7.1	7.2	5.1		2		90				<0.2		1.4	
						6.0	0.2	131	21.2		7.9		27.4		94.7		7.2		5.2		3		90				<0.2		1.3	

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 07 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	15:06	8.0	Surface	1.0	0.3	112	21.4	21.4	7.9	7.9	25.1	25.1	94.3	94.3	7.2	7.1	1.5	2.9	<2	3	46	49	822248	809857	<0.2	<0.2	1.4	1.7
						1.0	0.3	117	21.4		7.9		25.1		94.3		7.2		1.5		<2		47				<0.2		1.4	
					Middle	4.0	0.3	119	20.7	20.7	7.9	7.9	26.9	26.9	89.5	89.5	6.9		3.6		2		48				<0.2		1.8	
						4.0	0.3	118	20.7		7.9		27.0		89.4		6.9		3.5		3		49				<0.2		1.8	
					Bottom	7.0	0.3	112	20.5	20.5	7.9	7.9	27.6	27.6	88.5	88.6	6.8	6.8	3.6		3		51				<0.2		1.8	
						7.0	0.3	116	20.5		7.9		27.6		88.7		6.8		3.6		3		52				<0.2		1.8	
IM11	Fine	Moderate	15:23	8.2	Surface	1.0	0.5	98	21.2	21.2	7.9	7.9	25.8	25.9	94.2	94.2	7.2	7.1	1.5	5.4	3	2	47	49	821499	810528	<0.2	<0.2	1.7	1.5
						1.0	0.5	93	21.2		7.9		25.9		94.2		7.2		1.6		2		47				<0.2		1.6	
					Middle	4.1	0.5	82	20.7	20.7	7.9	7.9	27.2	27.2	90.1	90.0	6.9		2.6		2		49				<0.2		1.5	
						4.1	0.5	80	20.7		7.9		27.2		89.8		6.9		2.8		3		48				<0.2		1.4	
					Bottom	7.2	0.5	104	20.5	20.5	7.9	7.9	27.9	27.9	87.5	87.6	6.7	6.7	12.0		2		50				<0.2		1.6	
						7.2	0.5	97	20.5		7.9		27.9		87.6		6.7		12.1		2		51				<0.2		1.4	
IM12	Fine	Moderate	15:29	9.3	Surface	1.0	0.4	110	21.4	21.4	7.9	7.9	26.0	26.0	95.0	95.0	7.2	7.0	1.3	3.7	2	3	46	49	821149	811502	<0.2	<0.2	1.3	1.5
						1.0	0.4	115	21.3		7.9		26.0		95.0		7.2		1.4		3		47				<0.2		1.3	
					Middle	4.7	0.5	80	20.6	20.6	7.9	7.9	27.5	27.5	89.1	89.1	6.8		2.2		3		49				<0.2		1.5	
						4.7	0.5	74	20.6		7.9		27.5		89.1		6.8		2.2		2		48				<0.2		1.5	
					Bottom	8.3	0.4	106	20.4	20.4	7.9	7.9	28.2	28.2	85.8	85.9	6.6	6.6	7.5		4		51				<0.2		1.8	
						8.3	0.4	109	20.4		7.9		28.2		86.0		6.6		7.6		3		52				<0.2		1.6	
SR1A	Fine	Moderate	15:56	4.7	Surface	1.0	0.0	100	21.1	21.1	7.9	7.9	25.6	25.6	94.5	94.5	7.3	7.3	2.8	3.7	3	3	-	-	819976	812653	-	-	-	-
						1.0	0.0	106	21.0		7.9		25.6		94.4		7.3		2.9		2		-				-		-	
					Middle	2.4	0.0	80	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	0.1	82	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.0	76	20.4	20.4	7.9	7.9	28.2	28.2	89.5	89.6	6.8	6.9	4.4		3		-				-		-	
						3.7	0.0	75	20.4		7.9		28.2		89.7		6.9		4.5		2		-				-		-	
SR2	Fine	Moderate	16:10	3.9	Surface	1.0	0.4	64	20.6	20.6	7.9	7.9	27.7	27.7	90.3	90.4	6.9	6.9	2.8	4.0	4	4	48	49	821451	814150	<0.2	<0.2	1.6	1.7
						1.0	0.4	67	20.6		7.9		27.7		90.4		6.9		2.9		3		47				<0.2		1.7	
					Middle	-	0.4	76	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.3	71	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	0.3	58	20.3	20.3	7.9	7.9	28.8	28.8	89.8	89.8	6.9	6.9	5.2		4		51				<0.2		1.6	
						2.9	0.4	51	20.3		7.9		28.8		89.8		6.9		5.3		5		50				<0.2		1.7	
SR3	Fine	Calm	15:27	8.2	Surface	1.0	0.3	140	21.9	21.9	7.9	7.9	25.2	25.3	96.5	96.4	7.3	7.3	2.4	4.9	3	2	-	-	822123	807559	-	-	-	-
						1.0	0.3	146	21.8		7.9		25.4		96.2		7.3		2.6		3		-				-		-	
					Middle	4.1	0.3	160	21.6	21.6	7.9	7.9	26.3	26.4	94.9	94.9	7.2		5.8		2		-				-		-	
						4.1	0.3	157	21.6		7.9		26.5		94.8		7.2		5.7		2		-				-		-	
					Bottom	7.2	0.2	143	21.4	21.4	7.9	7.9	27.2	27.2	94.7	94.8	7.2	7.2	6.4		2		-				-		-	
						7.2	0.3	144	21.4		7.9		27.2		94.8		7.2		6.5		2		-				-		-	
SR4A	Fine	Calm	16:33	9.0	Surface	1.0	0.1	80	21.0	21.0	8.0	8.0	27.0	27.0	99.1	98.8	7.6	7.3	7.1	8.1	3	3	-	-	817209	807789	-	-	-	-
						1.0	0.1	80	20.9		8.0		27.0		98.4		7.5		7.0		3		-				-		-	
					Middle	4.5	0.0	91	20.9	20.9	8.0	8.0	29.2	29.2	94.7	94.8	7.1		8.1		3		-				-		-	
						4.5	-	87	20.9		8.0		29.2		94.8		7.1		8.2		4		-				-		-	
					Bottom	8.0	0.1	107	20.9	20.9	8.0	8.0	29.2	29.2	96.2	96.3	7.2	7.3	9.0		3		-				-		-	
						8.0	0.1	109	20.9		8.0		29.2		96.3		7.3		9.0		4		-				-		-	
SR8	Fine	Moderate	15:34	4.8	Surface	1.0	-	-	21.3	21.3	7.9	7.9	26.1	26.1	93.7	93.8	7.1	7.1	1.6	4.2	2	3	-	-	820408	811634	-	-	-	-
						1.0	-	-	21.3		7.9		26.1		93.8		7.1		1.6		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	20.7	20.7	7.9	7.9	27.2	27.2	90.7	90.7	6.9	6.9	7.0		3		-				-		-	
						3.8	-	-	20.7		7.9		27.2		90.7		6.9		6.7		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 07 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	09:25	8.6	Surface	1.0	0.2	26	20.6	20.6	8.0	8.0	25.7	25.7	96.4	96.3	7.5	7.3	4.1	5.2	2	3	46	73	815607	804245	<0.2	<0.2	1.5	1.5
						1.0	0.2	19	20.6		8.0		25.7		96.2		7.4		4.1		2		46				<0.2		1.3	
					Middle	4.3	0.3	35	20.5	20.5	8.0	8.0	30.8	30.8	95.6	95.6	7.2		5.1		4		87				<0.2		1.6	
						4.3	0.2	33	20.5		8.0		30.8		95.6		7.2		5.0		3		87				<0.2		1.7	
					Bottom	7.6	0.2	54	20.6	20.7	8.0	8.0	30.6	30.6	95.7	95.8	7.2	7.2	6.4		4		87				<0.2		1.6	
						7.6	0.2	48	20.7		8.0		30.6		95.8		7.2		6.4		5		87				<0.2		1.5	
C2	Fine	Calm	10:29	9.8	Surface	1.0	0.3	352	21.6	21.6	7.9	7.9	24.3	24.3	92.8	92.7	7.1	7.0	2.6	4.1	3	3	45	73	825684	806933	<0.2	<0.2	1.4	1.4
						1.0	0.3	347	21.5		7.9		24.3		92.6		7.1		2.7		4		45				<0.2		1.5	
					Middle	4.9	0.3	332	21.3	21.3	7.9	7.9	26.5	26.5	90.5	90.5	6.9		4.6		4		86				<0.2		1.4	
						4.9	0.3	328	21.3		7.9		26.6		90.4		6.9		4.8		3		86				<0.2		1.4	
					Bottom	8.8	0.3	323	21.3	21.4	7.9	7.9	26.7	26.6	89.4	89.7	6.8	6.8	5.0		3		86				<0.2		1.4	
						8.8	0.3	320	21.4		7.9		26.6		89.9		6.8		5.1		3		87				<0.2		1.4	
C3	Sunny	Moderate	09:16	12.0	Surface	1.0	0.3	273	20.6	20.6	7.8	7.8	26.4	26.4	92.0	92.0	7.1	6.8	1.4	2.7	3	4	46	49	822126	817813	<0.2	<0.2	1.4	1.5
						1.0	0.2	272	20.6		7.8		26.4		91.9		7.1		1.4		3		47				<0.2		1.5	
					Middle	6.0	0.3	271	20.2	20.2	7.8	7.8	28.9	29.0	85.2	85.1	6.5		1.9		3		50				<0.2		1.6	
						6.0	0.3	266	20.2		7.8		29.0		85.0		6.5		2.1		4		49				<0.2		1.5	
					Bottom	11.0	0.3	269	20.1	20.1	7.8	7.8	29.7	29.7	84.4	84.5	6.4	6.4	4.8		4		52				<0.2		1.6	
						11.0	0.3	264	20.1		7.8		29.7		84.5		6.4		4.7		4		51				<0.2		1.5	
IM1	Fine	Calm	09:42	6.0	Surface	1.0	0.2	16	21.4	21.4	8.0	8.0	26.4	26.4	98.6	98.8	7.5	7.4	4.6	6.1	3	3	52	76	818329	806457	<0.2	<0.2	1.6	1.6
						1.0	0.2	19	21.4		8.0		26.4		98.9		7.5		4.5		3		52				<0.2		1.6	
					Middle	3.0	0.2	29	21.0	21.0	7.9	7.9	28.4	28.5	95.7	95.8	7.2		6.7		3		86				<0.2		1.5	
						3.0	0.3	25	21.0		7.9		28.5		95.8		7.2		6.7		4		86				<0.2		1.6	
					Bottom	5.0	0.2	39	20.9	20.9	7.9	7.9	28.7	28.7	96.0	96.0	7.2	7.2	7.0		4		89				<0.2		1.6	
						5.0	0.2	34	20.9		7.9		28.7		96.0		7.2		7.1		3		89				<0.2		1.4	
IM2	Fine	Calm	09:47	7.2	Surface	1.0	0.2	12	21.2	21.2	7.9	7.9	26.7	26.6	96.6	96.5	7.4	7.3	4.1	5.2	3	3	48	74	819205	806247	<0.2	<0.2	1.6	1.6
						1.0	0.1	19	21.1		7.9		26.5		96.4		7.3		4.1		3		48				<0.2		1.6	
					Middle	3.6	0.2	17	21.0	21.0	7.9	7.9	28.3	28.3	95.8	95.8	7.2		5.3		3		86				<0.2		1.5	
						3.6	0.2	11	21.0		7.9		28.3		95.8		7.2		5.3		4		86				<0.2		1.6	
					Bottom	6.2	0.1	32	20.9	21.0	7.9	7.9	28.5	28.5	96.1	96.2	7.3	7.3	6.1		4		87				<0.2		1.7	
						6.2	0.2	25	21.0		7.9		28.5		96.3		7.3		6.2		3		87				<0.2		1.6	
IM7	Fine	Calm	10:05	8.4	Surface	1.0	0.2	338	21.7	21.7	7.9	7.9	25.2	25.3	93.6	93.6	7.1	7.1	2.1	4.5	2	3	49	76	821358	806845	<0.2	<0.2	1.4	1.3
						1.0	0.1	337	21.7		7.9		25.3		93.5		7.1		2.3		2		49				<0.2		1.3	
					Middle	4.2	0.1	339	21.2	21.2	7.9	7.9	27.4	27.4	91.9	92.0	7.0		5.2		2		88				<0.2		1.3	
						4.2	0.1	342	21.2		7.9		27.4		92.1		7.0		5.3		4		88				<0.2		1.2	
					Bottom	7.4	0.2	353	21.2	21.2	7.9	7.9	27.8	27.8	93.5	93.6	7.1	7.1	6.1		4		91				<0.2		1.2	
						7.4	0.2	357	21.2		7.9		27.8		93.6		7.1		6.1		4		91				<0.2		1.3	

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 07 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Sunny	Moderate	10:31	7.7	Surface	1.0	0.3	285	20.8	20.8	7.9	7.9	25.2	25.2	88.2	88.1	6.8	6.7	2.2	5.8	2	3	46	49	822235	809819	<0.2	<0.2	1.4	1.6
						1.0	0.3	288	20.8		7.9		25.3		87.9		6.8		2.5		2		47				<0.2		1.4	
					Middle	3.9	0.4	300	20.5	20.5	7.9	7.9	27.5	27.5	84.8	84.8	6.5		6.5		3		49				<0.2		1.6	
						3.9	0.4	305	20.5		7.9		27.5		84.8		6.5		6.7		3		50				<0.2		1.6	
					Bottom	6.7	0.4	313	20.5	20.5	7.9	7.9	27.6	27.6	85.4	85.5	6.5	6.6	8.4		2		51				<0.2		1.6	
						6.7	0.4	309	20.5		7.9		27.6		85.6		6.6		8.4		3		52				<0.2		1.7	
IM11	Sunny	Moderate	10:23	8.5	Surface	1.0	0.4	288	21.1	21.1	7.9	7.9	24.8	24.8	91.0	91.0	7.0	6.8	1.9	6.0	3	4	47	49	821506	810547	<0.2	<0.2	1.5	1.5
						1.0	0.4	290	21.1		7.9		24.8		91.0		7.0		1.9		3		47				<0.2		1.4	
					Middle	4.3	0.4	269	20.4	20.4	7.9	7.9	27.9	27.9	84.7	84.7	6.5		6.7		5		49				<0.2		1.5	
						4.3	0.4	268	20.4		7.9		27.9		84.7		6.5		6.7		4		48				<0.2		1.7	
					Bottom	7.5	0.4	274	20.3	20.3	7.9	7.9	28.1	28.1	84.5	84.5	6.5	6.5	9.3		5		51				<0.2		1.5	
						7.5	0.5	274	20.3		7.9		28.1		84.5		6.5		9.3		4		52				<0.2		1.5	
IM12	Sunny	Moderate	10:17	9.7	Surface	1.0	0.5	284	21.1	21.1	7.9	7.9	24.5	24.6	91.6	91.6	7.1	6.9	1.8	5.9	2	2	46	49	821143	811525	<0.2	<0.2	1.3	1.3
						1.0	0.5	289	21.1		7.9		24.6		91.5		7.1		1.8		2		47				<0.2		1.2	
					Middle	4.9	0.4	296	20.6	20.6	7.9	7.9	26.8	26.8	87.1	87.1	6.7		2.9		2		48				<0.2		1.2	
						4.9	0.4	295	20.6		7.9		26.8		87.1		6.7		3.0		2		49				<0.2		1.3	
					Bottom	8.7	0.4	260	20.3	20.3	7.9	7.9	28.3	28.3	82.8	82.8	6.3	6.3	12.8		<2		50				<0.2		1.3	
						8.7	0.4	254	20.3		7.9		28.3		82.8		6.3		12.9		<2		51				<0.2		1.3	
SR1A	Sunny	Moderate	09:51	5.8	Surface	1.0	0.0	198	21.0	21.0	7.9	7.9	24.1	24.1	92.8	92.8	7.2	7.2	1.7	4.0	2	2	-	-	819981	812661	-	-	-	-
						1.0	0.0	200	21.0		7.9		24.1		92.7		7.2		1.8		2		-				-		-	
					Middle	2.9	0.0	177	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	-	183	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.1	178	20.9	20.9	7.9	7.8	25.6	25.6	88.5	88.4	6.8	6.8	6.2		3		-				-		-	
						4.8	0.0	174	20.9		7.8		25.6		88.3		6.8		6.2		2		-				-		-	
SR2	Sunny	Moderate	09:36	5.0	Surface	1.0	0.1	234	20.7	20.7	7.9	7.9	25.8	25.8	88.1	87.9	6.8	6.8	2.7	3.6	3	3	47	49	821461	814170	<0.2	<0.2	1.7	1.7
						1.0	0.1	239	20.6		7.9		25.8		87.6		6.8		2.9		2		47				<0.2		1.8	
					Middle	-	0.1	211	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	204	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	203	20.4	20.4	7.8	7.8	27.9	27.9	85.9	85.9	6.6	6.6	4.3		2		49				<0.2		1.6	
						4.0	0.2	206	20.4		7.8		27.9		85.9		6.6		4.4		3		51				<0.2		1.6	
SR3	Fine	Calm	10:12	8.2	Surface	1.0	0.3	344	21.5	21.5	7.9	7.9	26.5	26.5	92.0	92.0	7.0	7.0	2.8	3.4	4	3	-	-	822160	807557	-	-	-	-
						1.0	0.3	342	21.5		7.9		26.5		92.0		7.0		2.9		3		-				-		-	
					Middle	4.1	0.3	357	21.5	21.5	7.9	7.9	26.7	26.7	92.4	92.5	7.0		3.4		3		-				-		-	
						4.1	0.3	356	21.5		7.9		26.7		92.5		7.0		3.3		3		-				-		-	
					Bottom	7.2	0.3	341	21.5	21.5	7.9	7.9	26.7	26.7	93.8	93.9	7.1	7.1	4.1		3		-				-		-	
						7.2	0.3	346	21.5		7.9		26.7		94.0		7.1		4.2		2		-				-		-	
SR4A	Fine	Calm	09:04	9.4	Surface	1.0	0.0	169	21.1	21.1	7.9	7.9	27.8	27.8	93.2	93.2	7.1	7.0	5.6	7.2	5	5	-	-	817196	807812	-	-	-	-
						1.0	0.1	167	21.1		7.9		27.9		93.1		7.0		5.6		4		-				-		-	
					Middle	4.7	0.0	184	20.9	20.9	7.9	7.9	28.5	28.5	93.0	93.0	7.0		7.0		4		-				-		-	
						4.7	0.0	188	20.9		7.9		28.5		93.0		7.0		7.1		5		-				-		-	
					Bottom	8.4	0.0	164	20.9	20.9	7.8	7.8	28.6	28.6	93.3	93.3	7.0	7.1	8.8		5		-				-		-	
						8.4	0.0	166	20.9		7.8		28.6		93.3		7.1		8.9		5		-				-		-	
SR8	Sunny	Moderate	10:14	4.6	Surface	1.0	-	-	21.1	21.1	8.0	8.0	24.5	24.5	91.0	91.0	7.0	7.0	5.4	9.3	3	3	-	-	820382	811636	-	-	-	-
						1.0	-	-	21.1		8.0		24.6		90.9		7.0		5.8		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	20.7	20.7	8.0	8.0	27.2	27.2	83.9	83.8	6.4	6.4	12.3		3		-				-		-	
						3.6	-	-	20.6		8.0		27.2		83.6		6.4		13.7		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 09 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	18:47	8.5	Surface	1.0	0.4	226	21.5	21.5	8.1	8.1	28.9	29.0	104.2	104.2	7.8	7.6	4.6	5.8	5	4	47	50	815618	804230	<0.2	<0.2	1.2	1.2
						1.0	0.4	225	21.5		8.1		29.0		104.1		7.8		4.7		4		48				<0.2		1.3	
					Middle	4.3	0.4	203	21.4	21.4	8.1	8.1	29.9	29.9	99.9	99.9	7.4		6.3		5		48				<0.2		1.2	
						4.3	0.4	204	21.4		8.1		29.9		99.9		7.4		6.3		4		50				<0.2		1.2	
					Bottom	7.5	0.4	210	21.5	21.5	8.2	8.2	30.3	30.3	100.4	100.5	7.5	7.5	6.5		4		53				<0.2		1.2	
						7.5	0.4	206	21.5		8.2		30.3		100.5		7.5		6.6		4		51				<0.2		1.2	
C2	Fine	Moderate	17:58	11.8	Surface	1.0	0.4	186	21.7	21.7	8.1	8.1	28.1	28.1	100.4	100.5	7.5	7.4	8.5	9.6	3	4	47	50	825680	806932	<0.2	<0.2	1.2	1.2
						1.0	0.4	184	21.7		8.1		28.2		100.5		7.5		8.6		2		48				<0.2		1.2	
					Middle	5.9	0.4	186	21.6	21.6	8.1	8.1	28.9	28.9	96.9	96.9	7.2		9.9		4		48				<0.2		1.2	
						5.9	0.4	191	21.6		8.1		28.9		96.9		7.2		9.9		4		50				<0.2		1.2	
					Bottom	10.8	0.4	179	21.6	21.6	8.1	8.1	28.9	28.9	97.2	97.3	7.3	7.3	10.5		4		52				<0.2		1.1	
						10.8	0.4	179	21.6		8.1		28.9		97.3		7.3		10.5		5		53				<0.2		1.1	
C3	Fine	Moderate	18:22	11.4	Surface	1.0	0.3	79	21.2	21.2	8.0	8.0	30.8	30.8	105.1	105.1	7.8	7.5	1.5	2.1	5	5	46	49	822104	817779	<0.2	<0.2	1.2	1.2
						1.0	0.3	77	21.2		8.0		30.8		105.0		7.8		1.5		6		47				<0.2		1.3	
					Middle	5.7	0.3	54	20.7	20.7	8.0	8.0	31.9	32.0	97.3	97.3	7.2		2.0		6		49				<0.2		1.1	
						5.7	0.4	48	20.7		8.0		32.0		97.2		7.2		2.2		5		48				<0.2		1.2	
					Bottom	10.4	0.3	54	20.6	20.6	8.0	8.0	32.3	32.3	92.4	92.4	6.9	6.9	2.8		3		51				<0.2		1.1	
						10.4	0.3	49	20.6		8.0		32.3		92.4		6.9		2.9		4		52				<0.2		1.1	
IM1	Fine	Moderate	18:37	6.8	Surface	1.0	0.3	181	21.5	21.5	8.0	8.0	29.5	29.5	105.6	105.7	7.9	7.7	6.5	8.3	4	4	47	49	818362	806450	<0.2	<0.2	1.2	1.2
						1.0	0.2	174	21.5		8.0		29.5		105.8		7.9		6.5		3		47				<0.2		1.2	
					Middle	3.4	0.3	174	21.3	21.3	8.0	8.0	29.8	29.8	99.1	99.2	7.4		8.9		3		48				<0.2		1.2	
						3.4	0.3	177	21.3		8.0		29.8		99.2		7.4		8.8		4		48				<0.2		1.2	
					Bottom	5.8	0.3	216	21.3	21.3	8.0	8.0	29.8	29.8	100.3	100.4	7.5	7.5	9.4		4		50				<0.2		1.2	
						5.8	0.3	215	21.3		8.0		29.8		100.4		7.5		9.5		5		51				<0.2		1.1	
IM2	Fine	Moderate	18:32	7.2	Surface	1.0	0.3	183	21.5	21.5	8.1	8.1	29.5	29.5	102.4	102.5	7.6	7.5	7.5	9.2	4	4	48	49	819178	806228	<0.2	<0.2	1.2	1.2
						1.0	0.3	179	21.5		8.1		29.5		102.6		7.6		7.5		3		46				<0.2		1.2	
					Middle	3.6	0.3	204	21.4	21.4	8.1	8.1	29.7	29.7	98.6	98.6	7.4		9.4		3		49				<0.2		1.2	
						3.6	0.2	208	21.4		8.1		29.8		98.6		7.4		9.5		4		49				<0.2		1.2	
					Bottom	6.2	0.3	188	21.3	21.3	8.1	8.1	30.1	30.1	99.3	99.4	7.4	7.4	10.5		4		51				<0.2		1.1	
						6.2	0.3	188	21.3		8.1		30.1		99.4		7.4		10.5		4		52				<0.2		1.2	
IM7	Fine	Moderate	18:15	8.1	Surface	1.0	0.3	181	21.8	21.8	8.0	8.0	26.9	26.9	106.8	106.9	8.0	7.7	6.4	7.7	5	4	47	49	821370	806840	<0.2	<0.2	1.3	1.2
						1.0	0.3	175	21.7		8.0		26.9		106.9		8.1		6.5		4		46				<0.2		1.3	
					Middle	4.1	0.2	180	21.5	21.5	8.0	8.0	29.3	29.3	98.7	98.7	7.4		7.5		4		49				<0.2		1.2	
						4.1	0.2	174	21.5		8.0		29.3		98.7		7.4		7.6		3		50				<0.2		1.2	
					Bottom	7.1	0.2	185	21.5	21.5	8.0	8.0	29.3	29.3	99.2	99.3	7.4	7.4	9.2		3		51				<0.2		1.2	
						7.1	0.1	180	21.5		8.0		29.3		99.4		7.4		9.2		3		51				<0.2		1.2	

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 09 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	17:00	8.5	Surface	1.0	0.3	92	21.7	21.7	8.1	8.1	28.4	28.4	104.9	104.9	7.8	7.7	1.8	3.6	2	3	47	49	822257	809836	<0.2	<0.2	1.2	1.1
						1.0	0.3	97	21.7		8.1		28.4		104.8		7.8		1.9		3		48				<0.2		1.2	
					Middle	4.3	0.3	102	21.2	21.2	8.0	8.0	29.1	29.1	100.0	100.0	7.5		2.9		2		48				<0.2		1.0	
						4.3	0.3	109	21.2		8.0		29.1		100.0		7.5		3.3		3		49				<0.2		1.1	
					Bottom	7.5	0.3	116	21.1	21.1	8.0	8.0	29.5	29.5	90.6	90.7	6.8	6.8	6.0		3		52				<0.2		1.2	
						7.5	0.3	113	21.1		8.0		29.5		90.7		6.8		5.9		4		52				<0.2		1.1	
IM11	Fine	Moderate	17:08	8.0	Surface	1.0	0.4	100	21.3	21.4	8.0	8.0	28.8	28.8	103.5	103.5	7.8	7.3	2.3	3.9	3	3	47	49	821490	810553	<0.2	<0.2	1.2	1.2
						1.0	0.3	107	21.4		8.0		28.8		103.4		7.7		2.3		2		47				<0.2		1.2	
					Middle	4.0	0.3	80	21.1	21.1	8.0	8.0	29.3	29.4	90.0	90.1	6.7		4.2		4		49				<0.2		1.2	
						4.0	0.3	84	21.1		8.0		29.4		90.2		6.8		4.4		3		49				<0.2		1.2	
					Bottom	7.0	0.3	81	21.1	21.1	8.0	8.0	29.5	29.5	92.0	92.1	6.9	6.9	5.1		3		51				<0.2		1.2	
						7.0	0.4	78	21.1		8.0		29.5		92.1		6.9		5.1		4		52				<0.2		1.0	
IM12	Fine	Moderate	17:19	8.8	Surface	1.0	0.3	98	21.4	21.4	8.0	8.0	29.0	29.0	104.4	104.4	7.8	7.3	2.7	7.1	2	2	47	49	821152	811531	<0.2	<0.2	1.2	1.2
						1.0	0.3	90	21.4		8.0		29.0		104.4		7.8		2.6		2		48				<0.2		1.2	
					Middle	4.4	0.4	118	21.0	21.0	8.0	8.0	30.0	30.0	89.9	89.9	6.7		7.7		2		49				<0.2		1.1	
						4.4	0.4	121	21.0		8.0		30.0		89.9		6.7		8.3		3		48				<0.2		1.0	
					Bottom	7.8	0.3	97	21.0	21.0	8.0	8.0	30.1	30.1	90.6	90.7	6.8	6.8	10.8		2		51				<0.2		1.2	
						7.8	0.3	93	21.0		8.0		30.1		90.8		6.8		10.9		2		53				<0.2		1.2	
SR1A	Fine	Moderate	17:48	5.7	Surface	1.0	0.0	99	21.6	21.6	8.0	8.0	28.7	28.7	102.5	102.5	7.6	7.6	3.4	4.6	2	3	-	-	819971	812654	-	-	-	-
						1.0	0.1	103	21.6		8.0		28.7		102.5		7.6		3.5		3		-				-		-	
					Middle	2.9	0.0	102	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	106	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	98	21.0	21.0	8.0	8.0	30.0	30.0	91.8	91.9	6.9	6.9	5.8		3		-				-		-	
						4.7	0.0	96	21.0		8.0		30.0		91.9		6.9		5.6		2		-				-		-	
SR2	Fine	Moderate	18:01	4.2	Surface	1.0	0.3	59	21.4	21.4	8.0	8.0	29.3	29.3	112.7	112.7	8.4	8.4	2.1	2.4	2	3	49	50	821439	814181	<0.2	<0.2	1.0	1.1
						1.0	0.3	53	21.4		8.0		29.3		112.6		8.4		2.1		2		48				<0.2		1.1	
					Middle	-	0.3	47	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.3	43	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	48	21.1	21.1	8.0	8.0	30.0	30.0	104.8	104.6	7.8	7.8	2.6		3		51				<0.2		1.1	
						3.2	0.4	54	21.1		8.0		30.1		104.4		7.8		2.8		3		50				<0.2		1.0	
SR3	Fine	Moderate	18:09	8.9	Surface	1.0	0.3	172	21.6	21.6	8.0	8.0	27.9	27.9	103.6	103.7	7.8	7.5	6.8	7.6	2	2	-	-	822133	807582	-	-	-	-
						1.0	0.3	173	21.6		8.0		28.0		103.7		7.8		6.7		3		-				-		-	
					Middle	4.5	0.4	164	21.5	21.5	8.0	8.0	28.5	28.5	94.8	94.9	7.1		7.5		2		-				-		-	
						4.5	0.4	167	21.5		8.0		28.6		94.9		7.1		7.5		2		-				-		-	
					Bottom	7.9	0.4	170	21.5	21.5	8.0	8.0	28.8	28.8	95.9	96.0	7.2	7.2	8.5		<2		-				-		-	
						7.9	0.4	168	21.5		8.0		28.8		96.0		7.2		8.6		<2		-				-		-	
SR4A	Fine	Moderate	19:03	8.8	Surface	1.0	0.0	40	21.7	21.7	8.1	8.1	28.9	28.9	108.8	108.9	8.1	7.8	6.4	7.8	2	2	-	-	817181	807824	-	-	-	-
						1.0	0.0	45	21.7		8.1		28.9		109.0		8.1		6.5		3		-				-		-	
					Middle	4.4	0.1	64	21.6	21.6	8.1	8.1	29.0	29.0	98.6	98.7	7.4		8.0		3		-				-		-	
						4.4	0.1	60	21.6		8.1		29.0		98.7		7.4		7.9		2		-				-		-	
					Bottom	7.8	0.0	47	21.6	21.6	8.1	8.1	29.0	29.0	99.9	100.0	7.5	7.5	9.0		2		-				-		-	
						7.8	0.0	52	21.6		8.1		29.0		100.1		7.5		9.0		2		-				-		-	
SR8	Fine	Moderate	17:25	5.4	Surface	1.0	-	-	21.5	21.5	8.0	8.0	29.5	29.5	97.1	97.4	7.2	7.3	3.7	4.0	4	4	-	-	820384	811612	-	-	-	-
						1.0	-	-	21.5		8.0		29.4		97.6		7.3		3.7		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	21.2	21.2	8.0	8.0	29.7	29.7	93.9	93.9	7.0	7.0	4.3		4		-				-		-	
						4.4	-	-	21.2		8.0		29.7		93.9		7.0		4.3		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 09 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	06:20	8.5	Surface	1.0	0.0	81	21.4	21.4	8.0	8.0	29.5	29.5	100.5	100.6	7.5	7.5	7.5	8.7	3	3	48	50	815633	804235	<0.2	<0.2	1.2	1.2
						1.0	0.0	77	21.4		8.0		29.6		100.6		7.5		7.6		4		47				<0.2		1.2	
					Middle	4.3	0.0	84	21.4	21.2	8.0	8.0	30.4	30.4	101.2	101.3	7.5		9.1		3		49				<0.2		1.1	
						4.3	0.1	80	20.9		8.0		30.5		101.4		7.6		9.1		3		50				<0.2		1.3	
					Bottom	7.5	0.0	90	20.9	21.1	8.0	8.0	30.9	30.9	97.3	97.4	7.3	7.3	9.5		2		52				<0.2		1.2	
						7.5	0.0	97	21.3		8.0		30.9		97.4		7.2		9.5		3		51				<0.2		1.2	
C2	Fine	Moderate	07:23	11.6	Surface	1.0	0.0	192	21.9	21.9	8.0	8.0	28.1	28.2	106.6	106.7	8.0	7.7	5.9	6.6	3	3	45	73	825671	806944	<0.2	<0.2	1.1	1.2
						1.0	0.0	195	21.9		8.0		28.2		106.7		8.0		5.8		2		45				<0.2		1.2	
					Middle	5.8	0.0	213	21.8	21.8	8.0	8.0	28.6	28.6	97.9	98.0	7.3		6.5		3		86				<0.2		1.2	
						5.8	-	208	21.8		8.0		28.6		98.1		7.3		6.6		3		86				<0.2		1.3	
					Bottom	10.6	0.1	173	21.7	21.7	8.0	8.0	28.9	28.9	98.9	98.9	7.4	7.4	7.5		4		87				<0.2		1.1	
						10.6	0.1	178	21.7		8.0		28.9		98.8		7.4		7.5		4		87				<0.2		1.2	
C3	Fine	Moderate	05:58	12.0	Surface	1.0	0.1	263	20.9	20.9	8.0	8.0	30.4	30.4	101.4	101.4	7.6	7.4	1.1	1.5	3	4	47	50	822099	817800	<0.2	<0.2	1.2	1.2
						1.0	0.1	269	20.9		8.0		30.4		101.3		7.6		1.0		3		48				<0.2		1.2	
					Middle	6.0	0.1	253	20.8	20.8	8.0	7.9	31.3	31.3	95.9	95.8	7.2		1.2		4		50				<0.2		1.2	
						6.0	0.1	254	20.8		7.9		31.3		95.7		7.1		1.3		4		49				<0.2		1.1	
					Bottom	11.0	0.1	270	20.6	20.6	7.9	7.9	31.9	31.9	94.4	94.5	7.0	7.1	2.1		4		52				<0.2		1.1	
						11.0	0.1	264	20.6		7.9		31.9		94.6		7.1		2.1		4		51				<0.2		1.2	
IM1	Fine	Moderate	06:37	6.4	Surface	1.0	0.0	105	21.5	21.5	8.0	8.0	29.3	29.3	103.7	103.8	7.7	7.5	6.0	6.8	3	4	46	48	818350	806468	<0.2	<0.2	1.2	1.3
						1.0	0.1	106	21.5		8.0		29.4		103.8		7.8		6.1		3		46				<0.2		1.2	
					Middle	3.2	0.0	118	21.5	21.6	8.0	8.0	29.5	29.5	97.3	97.4	7.3		6.4		4		48				<0.2		1.3	
						3.2	0.1	125	21.6		8.0		29.5		97.4		7.3		6.5		3		47				<0.2		1.2	
					Bottom	5.4	0.0	106	21.7	21.7	8.0	8.0	29.4	29.4	98.0	99.1	7.3	7.4	7.8		6		51				<0.2		1.3	
						5.4	0.0	110	21.7		8.0		29.4		100.1		7.4		7.8		6		52				<0.2		1.3	
IM2	Fine	Moderate	06:41	6.7	Surface	1.0	0.0	219	21.6	21.6	8.0	8.0	29.4	29.4	106.9	107.0	8.0	7.6	7.5	8.6	3	3	47	48	819194	806246	<0.2	<0.2	1.3	1.2
						1.0	0.0	219	21.6		8.0		29.4		107.0		8.0		7.5		3		46				<0.2		1.2	
					Middle	3.4	0.0	216	21.5	21.5	8.0	8.0	29.6	29.6	96.5	96.6	7.2		8.5		3		47				<0.2		1.2	
						3.4	0.1	222	21.5		8.0		29.6		96.6		7.2		8.6		2		48				<0.2		1.2	
					Bottom	5.7	0.1	218	21.6	21.6	8.0	8.0	29.6	29.6	96.9	97.0	7.2	7.2	9.8		2		50				<0.2		1.2	
						5.7	0.1	215	21.6		8.0		29.6		97.1		7.2		9.8		3		51				<0.2		1.2	
IM7	Fine	Moderate	06:59	7.6	Surface	1.0	0.1	253	21.6	21.6	8.0	8.0	27.1	27.1	100.2	100.3	7.6	7.5	6.7	7.7	4	5	47	49	821336	806828	<0.2	<0.2	1.3	1.3
						1.0	0.0	256	21.6		8.0		27.1		100.3		7.6		6.7		5		46				<0.2		1.2	
					Middle	3.8	0.0	253	21.6	21.6	8.0	8.0	29.3	29.3	97.3	97.4	7.3		7.9		4		49				<0.2		1.2	
						3.8	0.0	247	21.6		8.0		29.3		97.4		7.3		7.9		5		50				<0.2		1.4	
					Bottom	6.6	0.0	228	21.6	21.6	8.0	8.0	29.3	29.3	98.4	98.5	7.3	7.3	8.6		5		51				<0.2		1.2	
						6.6	0.0	224	21.6		8.0		29.3		98.5		7.3		8.5		5		51				<0.2		1.2	

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 09 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	07:30	7.8	Surface	1.0	0.1	280	21.4	21.4	8.0	8.0	28.8	28.8	105.6	105.6	7.9	7.8	2.4	2.8	4	5	46	49	822260	809838	<0.2	<0.2	1.4	1.3
						1.0	0.1	273	21.4		8.0		28.8		105.6		7.9		2.3		4		47				<0.2		1.3	
					Middle	3.9	0.0	281	21.2	21.2	8.0	8.0	29.1	29.2	102.0	101.9	7.6		2.6		4		49				<0.2		1.1	
						3.9	0.0	277	21.2		8.0		29.2		101.7		7.6		2.8		5		51				<0.2		1.2	
					Bottom	6.8	0.1	276	21.1	21.1	8.0	8.0	29.5	29.5	98.3	98.4	7.4	7.4	3.3		7		51				<0.2		1.3	
						6.8	0.1	280	21.1		8.0		29.5		98.4		7.4		3.4		6		52				<0.2		1.3	
IM11	Fine	Moderate	07:25	7.4	Surface	1.0	0.1	289	21.3	21.3	8.0	8.0	29.0	29.0	103.7	103.6	7.8	7.7	2.8	2.6	4	4	47	49	821511	810562	<0.2	<0.2	1.2	1.2
						1.0	0.0	291	21.3		8.0		29.0		103.4		7.7		2.8		3		47				<0.2		1.2	
					Middle	3.7	0.0	275	21.2	21.2	8.0	8.0	29.2	29.2	101.2	101.1	7.6		2.6		4		50				<0.2		1.2	
						3.7	0.1	277	21.2		8.0		29.2		101.0		7.6		2.6		3		49				<0.2		1.1	
					Bottom	6.4	0.1	279	21.2	21.2	8.0	8.0	29.4	29.4	100.2	100.2	7.5	7.5	2.4		4		51				<0.2		1.3	
						6.4	0.1	273	21.2		8.0		29.4		100.2		7.5		2.5		4		52				<0.2		1.2	
IM12	Fine	Moderate	06:59	8.6	Surface	1.0	0.1	280	21.2	21.2	8.0	8.0	29.1	29.1	101.1	101.0	7.6	7.4	2.9	4.9	3	3	47	49	821140	811523	<0.2	<0.2	1.3	1.3
						1.0	0.1	285	21.2		8.0		29.2		100.9		7.6		2.9		2		48				<0.2		1.2	
					Middle	4.3	0.1	297	21.1	21.1	8.0	8.0	29.7	29.7	94.7	94.7	7.1		2.9		2		49				<0.2		1.2	
						4.3	0.1	296	21.1		8.0		29.7		94.6		7.1		2.9		2		49				<0.2		1.4	
					Bottom	7.6	0.0	304	21.0	21.0	7.9	7.9	29.9	29.9	88.9	89.0	6.7	6.7	8.7		4		51				<0.2		1.4	
						7.6	0.1	300	21.0		7.9		29.9		89.1		6.7		9.2		4		51				<0.2		1.3	
SR1A	Fine	Moderate	06:31	5.6	Surface	1.0	0.0	271	21.3	21.3	8.0	8.0	28.4	28.4	101.9	101.9	7.7	7.7	2.5	4.6	4	4	-	-	819976	812665	-	-	-	-
						1.0	0.0	272	21.3		8.0		28.4		101.9		7.7		2.8		3		-				-		-	
					Middle	2.8	0.0	266	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	0.0	264	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.0	266	21.0	21.0	8.0	8.0	29.9	29.9	95.5	95.7	7.2	7.2	6.6		4		-				-		-	
						4.6	0.0	260	21.0		8.0		29.9		95.8		7.2		6.4		4		-				-		-	
SR2	Fine	Moderate	06:18	4.7	Surface	1.0	0.0	23	21.0	21.0	8.0	8.0	29.3	29.3	103.3	103.3	7.8	7.8	1.6	1.9	2	2	47	49	821454	814167	<0.2	<0.2	1.1	1.2
						1.0	0.0	27	21.0		8.0		29.3		103.2		7.8		1.6		2		48				<0.2		1.1	
					Middle	-	0.0	45	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	42	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	46	20.9	20.9	8.0	8.0	30.1	30.1	97.3	97.5	7.3	7.3	2.2		2		50				<0.2		1.3	
						3.7	0.1	40	20.9		8.0		30.1		97.6		7.3		2.3		3		51				<0.2		1.2	
SR3	Fine	Moderate	07:05	8.7	Surface	1.0	0.1	154	21.9	21.9	8.0	8.0	26.0	26.0	103.4	103.5	7.8	7.5	6.5	7.8	5	5	-	-	822168	807587	-	-	-	-
						1.0	0.1	160	21.8		8.0		26.1		103.5		7.8		6.6		5		-				-		-	
					Middle	4.4	0.0	160	21.7	21.7	8.0	8.0	28.7	28.8	96.6	96.7	7.2		7.9		5		-				-		-	
						4.4	0.0	163	21.7		8.0		28.8		96.7		7.2		8.0		6		-				-		-	
					Bottom	7.7	0.1	184	22.0	22.1	8.0	8.0	29.1	29.0	96.6	96.6	7.2	7.2	8.9		5		-				-		-	
						7.7	0.0	176	22.1		8.0		29.0		96.6		7.2		8.9		6		-				-		-	
SR4A	Fine	Moderate	05:58	8.9	Surface	1.0	0.0	280	21.5	21.5	8.0	8.0	29.0	29.0	100.4	100.4	7.5	7.3	6.5	7.5	4	4	-	-	817210	807797	-	-	-	-
						1.0	0.0	274	21.5		8.0		29.0		100.4		7.5		6.5		4		-				-		-	
					Middle	4.5	0.0	276	21.2	21.2	8.0	8.0	29.2	29.2	93.9	93.9	7.1		7.5		3		-				-		-	
						4.5	0.1	282	21.2		8.0		29.2		93.9		7.1		7.5		4		-				-		-	
					Bottom	7.9	0.0	310	21.1	21.1	7.9	7.9	29.2	29.1	94.3	94.4	7.1	7.1	8.5		4		-				-		-	
						7.9	0.0	313	21.1		7.9		29.1		94.4		7.1		8.6		3		-				-		-	
SR8	Fine	Moderate	06:55	5.3	Surface	1.0	-	-	21.4	21.4	8.0	8.0	29.0	29.1	100.1	100.0	7.5	7.5	3.8	4.8	6	5	-	-	820372	811626	-	-	-	-
						1.0	-	-	21.4		8.0		29.1		99.9		7.5		3.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	21.0	21.0	8.0	8.0	29.8	29.8	91.6	91.7	6.9	6.9	5.8		4		-				-		-	
						4.3	-	-	21.0		8.0		29.8		91.8		6.9		5.8		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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	10:59	9.0	Surface	1.0	0.2	199	23.8	23.8	8.1	8.1	24.5	24.5	152.7	151.1	11.2	10.5	1.1	1.7	8	9	46	73	815624	804226	<0.2	<0.2	1.8	1.8
						1.0	0.1	194	23.7		8.1		24.6		149.5		11.0		1.0		8		46				<0.2		1.8	
					Middle	4.5	0.1	213	22.2	22.2	8.1	8.1	27.7	27.7	134.5	134.2	10.0		1.2		9		86				<0.2		1.8	
						4.5	0.1	209	22.2		8.1		27.8		133.9		9.9		1.2		8		86				<0.2		1.9	
					Bottom	8.0	0.2	183	22.0	22.0	8.1	8.1	28.9	28.7	137.7	141.6	10.2	10.5	2.9		9		87				<0.2		1.9	
						8.0	0.2	180	22.0		8.2		28.5		145.4		10.8		2.8		9		87				<0.2		1.8	
C2	Fine	Calm	12:04	10.2	Surface	1.0	0.3	164	23.5	23.5	8.1	8.1	23.7	23.7	146.0	140.6	10.8	9.1	1.7	2.7	7	9	44	74	825672	806955	<0.2	<0.2	1.8	1.8
						1.0	0.3	156	23.5		8.1		23.8		135.2		10.0		1.7		8		44				<0.2		1.7	
					Middle	5.1	0.3	197	21.4	21.4	8.0	8.0	30.1	30.2	104.3	104.5	7.8		2.9		8		87				<0.2		1.7	
						5.1	0.3	193	21.3		8.0		30.2		104.6		7.8		2.8		7		87				<0.2		1.7	
					Bottom	9.2	0.3	165	21.3	21.3	8.0	8.0	30.3	30.3	109.0	110.4	8.1	8.2	3.5		11		90				<0.2		1.8	
						9.2	0.2	168	21.3		8.0		30.3		111.8		8.3		3.5		10		90				<0.2		1.8	
C3	Fine	Calm	10:34	9.0	Surface	1.0	0.2	79	23.0	23.0	8.1	8.1	26.9	26.9	143.4	142.8	10.5	9.7	1.1	1.6	6	7	44	72	822122	817812	<0.2	<0.2	1.4	1.4
						1.0	0.2	77	23.0		8.1		26.9		142.1		10.5		1.1		5		44				<0.2		1.4	
					Middle	4.5	0.2	93	21.3	21.3	8.1	8.1	31.3	31.4	122.5	121.5	9.0		1.1		7		86				<0.2		1.3	
						4.5	0.2	90	21.3		8.1		31.4		120.5		8.9		1.1		7		86				<0.2		1.3	
					Bottom	8.0	0.2	109	21.2	21.2	8.1	8.1	31.7	31.6	112.4	112.3	8.3	8.3	2.6		8		87				<0.2		1.3	
						8.0	0.1	114	21.2		8.1		31.6		112.2		8.3		2.6		7		87				<0.2		1.4	
IM1	Fine	Calm	11:16	6.4	Surface	1.0	0.1	176	22.3	22.3	8.1	8.1	25.9	26.0	145.8	144.9	10.9	9.9	1.2	2.2	9	7	52	76	818338	806449	<0.2	<0.2	1.8	1.7
						1.0	0.1	180	22.2		8.1		26.0		144.0		10.8		1.2		9		52				<0.2		1.7	
					Middle	3.2	0.1	177	21.8	21.7	8.2	8.2	27.7	27.7	121.1	119.2	9.1		2.2		5		87				<0.2		1.6	
						3.2	0.1	179	21.6		8.1		27.8		117.2		8.8		2.3		6		87				<0.2		1.7	
					Bottom	5.4	0.1	175	21.4	21.4	8.0	8.0	30.3	30.2	121.9	126.3	9.0	9.4	3.2		5		90				<0.2		1.7	
						5.4	0.1	176	21.4		8.0		30.2		130.7		9.7		3.2		6		90				<0.2		1.7	
IM2	Fine	Calm	11:21	7.2	Surface	1.0	0.2	220	22.4	22.4	8.1	8.1	25.6	25.6	144.8	144.1	10.8	9.9	3.1	4.3	10	9	48	74	819163	806248	<0.2	<0.2	1.7	1.7
						1.0	0.2	221	22.4		8.1		25.7		143.3		10.7		3.1		10		49				<0.2		1.7	
					Middle	3.6	0.2	194	22.1	22.0	8.2	8.2	28.2	28.4	124.1	122.3	9.2		4.2		10		86				<0.2		1.8	
						3.6	0.1	191	21.9		8.2		28.5		120.4		8.9		4.3		9		86				<0.2		1.7	
					Bottom	6.2	0.2	221	21.8	21.8	8.0	8.0	29.0	29.0	112.9	113.0	8.4	8.4	5.4		8		87				<0.2		1.7	
						6.2	0.2	226	21.7		8.0		29.1		113.0		8.4		5.4		8		87				<0.2		1.8	
IM7	Fine	Calm	11:40	8.2	Surface	1.0	0.1	191	22.3	22.3	8.1	8.1	27.6	27.7	130.5	128.9	9.7	9.1	2.0	2.8	8	9	49	76	821326	806820	<0.2	<0.2	1.6	1.7
						1.0	0.0	195	22.3		8.1		27.8		127.3		9.4		2.0		8		49				<0.2		1.7	
					Middle	4.1	0.1	194	22.1	22.1	8.1	8.1	28.1	28.2	117.0	116.8	8.7		2.7		9		89				<0.2		1.7	
						4.1	0.0	189	22.1		8.1		28.3		116.5		8.6		2.8		8		89				<0.2		1.8	
					Bottom	7.2	0.1	166	21.6	22.2	8.1	8.1	29.5	29.0	120.0	122.7	8.9	9.1	3.7		9		90				<0.2		1.7	
						7.2	0.0	163	22.8		8.1		28.5		125.3		9.2		3.6		10		90				<0.2		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 12 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Calm	11:48	8.2	Surface	1.0	0.2	118	23.7	23.7	8.0	8.0	21.2	21.2	169.4	161.5	12.7	10.2	1.1	2.1	8	8	49	73	822236	809819	<0.2	<0.2	1.3	1.4
						1.0	0.2	112	23.6		8.0		21.2		153.6		11.5		1.0		9		48				<0.2		1.3	
					Middle	4.1	0.3	118	21.9	21.9	8.0	8.0	27.5	27.5	110.9	110.8	8.3		2.1		7		83				<0.2		1.4	
						4.1	0.3	110	21.9		8.0		27.5		110.7		8.3		2.1		8		83				<0.2		1.4	
					Bottom	7.2	0.2	91	21.8	21.8	8.0	8.0	27.9	27.8	108.2	108.9	8.1	8.2	3.0		6		86				<0.2		1.4	
						7.2	0.3	89	21.8		8.0		27.8		109.5		8.2		3.1		7		86				<0.2		1.4	
IM11	Fine	Calm	11:41	8.0	Surface	1.0	0.2	94	24.0	24.0	8.0	8.0	18.9	19.0	175.8	171.1	13.3	10.3	3.1	4.1	9	8	48	75	821486	810552	<0.2	<0.2	1.4	1.4
						1.0	0.2	94	24.0		8.0		19.0		166.3		12.6		3.1		9		48				<0.2		1.4	
					Middle	4.0	0.2	83	21.7	21.7	8.0	8.0	28.5	28.6	101.4	101.3	7.6		4.1		8		86				<0.2		1.4	
						4.0	0.2	83	21.7		8.0		28.6		101.2		7.5		4.1		8		86				<0.2		1.4	
					Bottom	7.0	0.2	89	21.7	21.7	8.0	8.0	29.1	29.1	100.2	100.5	7.4	7.5	5.1		7		90				<0.2		1.3	
						7.0	0.2	81	21.7		8.0		29.1		100.7		7.5		5.1		6		90				<0.2		1.4	
IM12	Fine	Calm	11:34	8.8	Surface	1.0	0.2	91	22.0	22.0	8.0	8.0	27.7	27.8	117.2	116.6	8.7	8.4	1.2	2.4	8	9	45	73	821185	811535	<0.2	<0.2	1.5	1.6
						1.0	0.3	94	21.9		8.0		27.9		116.0		8.6		1.2		8		45				<0.2		1.7	
					Middle	4.4	0.2	105	21.6	21.6	8.0	8.0	28.9	29.0	108.5	108.5	8.1		2.8		8		86				<0.2		1.6	
						4.4	0.2	109	21.6		8.0		29.1		108.4		8.1		2.8		9		86				<0.2		1.5	
					Bottom	7.8	0.3	96	21.6	21.7	8.0	8.0	29.4	29.3	102.4	102.7	7.6	7.6	3.2		10		87				<0.2		1.6	
						7.8	0.3	93	21.8		8.0		29.3		103.0		7.6		3.3		9		87				<0.2		1.8	
SR1A	Fine	Calm	11:13	5.0	Surface	1.0	-	142	22.2	22.3	8.1	8.1	28.1	28.2	117.4	116.2	8.7	8.6	4.8	5.1	9	9	-	-	819972	812662	-	-	-	-
						1.0	0.0	145	22.3		8.1		28.3		115.0		8.5		4.9		8		-				-		-	
					Middle	2.5	0.0	134	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	0.0	137	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.0	173	22.5	22.6	8.1	8.1	28.9	28.8	109.4	110.5	8.0	8.1	5.2		10		-				-		-	
						4.0	0.1	175	22.6		8.0		28.8		111.6		8.2		5.4		10		-				-		-	
SR2	Fine	Calm	10:56	4.8	Surface	1.0	0.1	57	23.0	23.0	8.1	8.1	25.2	25.2	155.9	155.6	11.6	11.6	1.9	2.3	9	9	43	65	821484	814185	<0.2	<0.2	1.3	1.4
						1.0	0.1	60	22.9		8.1		25.2		155.2		11.5		1.9		8		43				<0.2		1.3	
					Middle	-	0.1	76	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	71	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	63	22.9	22.9	8.1	8.1	26.8	26.8	134.3	134.2	9.9	9.9	2.8		9		87				<0.2		1.4	
						3.8	0.1	70	22.9		8.1		26.8		134.0		9.9		2.6		9		87				<0.2		1.4	
SR3	Fine	Calm	11:46	9.0	Surface	1.0	0.3	152	22.9	22.9	8.1	8.1	25.0	25.0	137.3	136.0	10.2	9.1	1.2	2.4	8	9	-	-	822143	807552	-	-	-	-
						1.0	0.3	158	22.9		8.1		25.0		134.7		10.0		1.3		7		-				-		-	
					Middle	4.5	0.3	139	21.5	21.5	8.0	8.0	29.6	29.8	108.3	108.7	8.0		2.2		7		-				-		-	
						4.5	0.3	132	21.4		8.0		30.0		109.1		8.1		2.2		8		-				-		-	
					Bottom	8.0	0.3	161	21.4	21.4	8.0	8.0	30.3	30.2	118.7	123.1	8.8	9.2	3.8		10		-				-		-	
						8.0	0.3	167	21.4		8.0		30.2		127.5		9.5		3.6		11		-				-		-	
SR4A	Fine	Calm	10:38	9.4	Surface	1.0	0.0	312	23.0	23.0	8.1	8.1	27.2	27.2	145.1	144.5	10.6	10.2	1.0	2.2	10	8	-	-	817189	807824	-	-	-	-
						1.0	0.1	317	22.9		8.1		27.2		143.8		10.6		1.1		9		-				-		-	
					Middle	4.7	0.0	327	22.1	22.2	8.2	8.2	30.1	30.1	132.7	132.9	9.7		1.8		9		-				-		-	
						4.7	0.1	320	22.2		8.2		30.1		133.1		9.7		1.8		8		-				-		-	
					Bottom	8.4	0.0	326	22.4	22.5	8.2	8.2	30.0	29.9	135.8	136.5	9.9	10.0	3.9		5		-				-		-	
						8.4	0.0	333	22.6		8.2		29.8		137.1		10.0		3.7		6		-				-		-	
SR8	Fine	Calm	11:29	5.2	Surface	1.0	-	-	22.5	22.5	8.1	8.1	24.7	24.7	145.6	144.5	10.9	10.9	2.0	3.0	9	10	-	-	820387	811616	-	-	-	-
						1.0	-	-	22.5		8.1		24.7		143.3		10.8		2.0		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	22.4	22.5	8.1	8.1	28.5	28.4	109.0	111.9	8.0	8.2	4.0		10		-				-		-	
						4.2	-	-	22.6		8.1		28.3		114.8		8.4		3.9		11		-				-		-	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	15:13	8.6	Surface	1.0	0.2	41	23.5	23.5	8.1	8.1	23.3	23.3	143.9	138.2	10.7	8.9	2.3	3.7	8	8	51	75	815610	804242	<0.2	<0.2	1.8	1.7
						1.0	0.2	43	23.4		8.1		23.3		132.4		9.9		2.4		7		52				<0.2		1.7	
					Middle	4.3	0.1	17	21.5	21.5	8.0	8.0	29.4	29.4	101.7	100.9	7.6		3.7		7		86				<0.2		1.7	
						4.3	0.1	18	21.5		8.0		29.5		100.1		7.4		3.8		8		86				<0.2		1.7	
					Bottom	7.6	0.2	42	22.0	22.1	8.0	8.0	29.4	29.3	97.6	102.5	7.2	7.6	5.1		8		88				<0.2		1.7	
						7.6	0.1	42	22.2		8.0		29.2		107.3		7.9		5.1		9		88				<0.2		1.8	
C2	Fine	Calm	14:04	10.0	Surface	1.0	0.2	203	22.8	22.8	8.1	8.1	24.5	24.5	151.6	150.3	11.3	10.4	1.6	2.4	15	12	44	73	825666	806924	<0.2	<0.2	1.7	1.8
						1.0	0.2	205	22.7		8.1		24.5		148.9		11.2		1.6		14		44				<0.2		1.8	
					Middle	5.0	0.1	190	22.3	22.2	8.2	8.1	27.3	27.5	131.9	129.1	9.8		2.2		12		86				<0.2		1.6	
						5.0	0.1	185	22.1		8.1		27.8		126.2		9.4		2.1		11		86				<0.2		1.8	
					Bottom	9.0	0.1	174	21.7	21.8	8.1	8.1	29.2	28.9	129.9	133.7	9.6	9.8	3.4		10		90				<0.2		1.9	
						9.0	0.1	181	21.9		8.1		28.7		137.4		10.0		3.5		10		90				<0.2		1.8	
C3	Fine	Calm	15:09	12.0	Surface	1.0	0.3	269	23.9	23.9	8.2	8.2	26.3	26.3	154.6	154.0	11.2	9.9	1.1	1.5	6	7	52	74	822100	817819	<0.2	<0.2	1.5	1.5
						1.0	0.3	265	23.9		8.2		26.3		153.3		11.1		1.1		6		52				<0.2		1.5	
					Middle	6.0	0.3	255	21.2	21.2	8.2	8.2	31.7	31.7	116.3	115.6	8.6		1.1		7		82				<0.2		1.4	
						6.0	0.3	258	21.2		8.2		31.7		114.9		8.5		1.2		6		82				<0.2		1.4	
					Bottom	11.0	0.3	284	21.0	21.0	8.1	8.1	32.1	32.1	102.0	102.2	7.5	7.6	2.3		8		87				<0.2		1.6	
						11.0	0.3	286	21.0		8.1		32.1		102.4		7.6		2.4		9		87				<0.2		1.5	
IM1	Fine	Calm	14:54	7.8	Surface	1.0	0.0	7	21.9	21.9	8.1	8.1	27.8	27.8	113.9	113.9	8.5	8.5	2.1	3.2	6	7	48	74	818336	806465	<0.2	<0.2	1.9	1.8
						1.0	0.0	359	21.9		8.1		27.9		113.8		8.5		2.1		6		48				<0.2		1.8	
					Middle	3.9	0.1	359	21.9	21.9	8.1	8.1	28.0	28.0	114.6	114.9	8.5		3.0		6		86				<0.2		1.7	
						3.9	0.1	358	21.9		8.1		28.0		115.2		8.6		3.1		6		86				<0.2		1.8	
					Bottom	6.8	0.1	353	21.9	21.9	8.1	8.1	28.2	28.1	120.3	123.1	9.0	9.2	4.4		7		89				<0.2		1.6	
						6.8	0.1	346	21.9		8.1		28.0		125.9		9.4		4.4		8		89				<0.2		1.7	
IM2	Fine	Calm	14:48	7.2	Surface	1.0	0.1	275	23.3	23.3	8.0	8.0	22.4	22.5	154.6	147.5	11.6	9.7	2.4	3.2	9	10	49	71	819179	806246	<0.2	<0.2	1.8	1.8
						1.0	0.1	273	23.3		8.0		22.6		140.4		10.5		2.3		9		49				<0.2		1.8	
					Middle	3.6	0.1	261	21.8	21.8	8.0	8.0	27.8	27.8	111.6	112.3	8.3		3.2		10		79				<0.2		1.8	
						3.6	0.0	262	21.8		8.0		27.8		113.0		8.4		3.1		9		79				<0.2		1.8	
					Bottom	6.2	0.1	276	21.8	21.8	8.0	8.0	27.8	27.8	122.6	125.7	9.2	9.4	4.3		11		85				<0.2		1.7	
						6.2	0.1	278	21.8		8.0		27.8		128.8		9.6		4.1		10		85				<0.2		1.7	
IM7	Fine	Calm	14:28	7.6	Surface	1.0	0.2	251	21.9	21.9	8.1	8.1	25.6	25.5	126.7	124.4	9.6	9.1	2.9	3.9	13	12	52	77	821360	806830	<0.2	<0.2	1.7	1.8
						1.0	0.2	254	21.9		8.1		25.4		122.0		9.2		3.0		12		52				<0.2		1.6	
					Middle	3.8	0.1	260	21.7	21.7	8.0	8.0	28.9	28.9	117.7	118.5	8.8		3.8		11		88				<0.2		1.8	
						3.8	0.1	261	21.7		8.0		28.9		119.2		8.9		3.9		12		88				<0.2		1.8	
					Bottom	6.6	0.1	288	21.7	21.7	8.0	8.0	29.1	29.0	135.3	139.2	10.1	10.4	4.9		10		90				<0.2		1.9	
						6.6	0.2	295	21.7		8.0		29.0		143.0		10.6		5.0		11		90				<0.2		1.8	

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 12 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Calm	14:05	7.8	Surface	1.0	0.0	269	23.4	23.4	8.1	8.1	23.8	23.8	153.3	146.4	11.4	9.7	1.1	2.3	6	8	52	77	822253	809852	<0.2	<0.2	1.4	1.4
						1.0	0.0	276	23.4		8.1		23.7		139.4		10.4		1.1		6		52				<0.2		1.4	
					Middle	3.9	0.0	267	21.9	21.9	8.1	8.1	27.7	27.7	112.6	112.3	8.4		2.1		8		87				<0.2		1.5	
						3.9	0.0	272	21.9		8.1		27.7		112.0		8.4		2.0		9		88				<0.2		1.4	
					Bottom	6.8	0.1	254	21.9	22.0	8.1	8.1	27.8	27.7	112.9	113.1	8.4	8.4	3.7		9		90				<0.2		1.5	
						6.8	0.1	259	22.0		8.1		27.7		113.3		8.4		3.6		8		90				<0.2		1.3	
IM11	Fine	Calm	14:11	8.0	Surface	1.0	0.2	264	21.9	21.9	8.1	8.1	27.8	27.9	114.2	114.2	8.5	8.3	2.1	3.7	5	7	63	75	821516	810537	<0.2	<0.2	1.3	1.4
						1.0	0.2	256	21.9		8.1		27.9		114.2		8.5		2.1		6		63				<0.2		1.4	
					Middle	4.0	0.1	255	21.8	21.8	8.1	8.1	28.1	28.2	108.9	108.9	8.1		4.0		8		78				<0.2		1.4	
						4.0	0.1	261	21.8		8.1		28.2		108.8		8.1		4.0		7		79				<0.2		1.5	
					Bottom	7.0	0.1	292	21.8	21.8	8.1	8.1	28.5	28.5	110.0	113.1	8.2	8.4	5.0		8		85				<0.2		1.4	
						7.0	0.0	296	21.8		8.1		28.5		116.1		8.6		5.0		9		84				<0.2		1.4	
IM12	Fine	Calm	14:17	8.4	Surface	1.0	0.1	289	22.0	22.0	8.1	8.1	26.6	26.7	118.7	117.5	8.9	8.3	3.1	4.1	6	8	48	73	821140	811533	<0.2	<0.2	1.4	1.4
						1.0	0.2	295	21.9		8.1		26.7		116.2		8.7		3.1		7		49				<0.2		1.4	
					Middle	4.2	0.1	314	21.7	21.7	8.0	8.0	28.9	28.9	104.7	104.7	7.8		4.1		9		83				<0.2		1.4	
						4.2	0.1	315	21.6		8.0		28.9		104.6		7.8		4.1		9		83				<0.2		1.5	
					Bottom	7.4	0.2	282	21.5	21.5	8.0	8.0	29.7	29.7	100.4	101.2	7.5	7.6	5.1		9		87				<0.2		1.3	
						7.4	0.2	277	21.5		8.0		29.7		101.9		7.6		5.0		10		88				<0.2		1.3	
SR1A	Fine	Calm	14:37	5.5	Surface	1.0	0.0	189	23.1	23.1	8.1	8.1	23.9	23.9	157.5	156.4	11.8	11.7	3.9	4.6	8	7	-	-	819972	812656	-	-	-	-
						1.0	0.1	193	23.1		8.1		23.9		155.3		11.6		4.0		7		-				-		-	
					Middle	2.8	0.0	159	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	0.0	159	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.0	195	22.7	22.8	8.1	8.1	26.6	26.6	138.3	138.6	10.2	10.3	5.1		7		-				-		-	
						4.5	0.0	198	22.8		8.1		26.6		138.8		10.3		5.2		6		-				-		-	
SR2	Fine	Calm	14:47	5.2	Surface	1.0	0.0	294	24.1	24.2	8.1	8.1	22.0	21.8	174.4	172.8	12.9	12.8	1.1	1.6	6	8	69	78	821482	814144	<0.2	<0.2	1.4	1.4
						1.0	0.1	301	24.3		8.1		21.6		171.1		12.7		1.1		7		69				<0.2		1.4	
					Middle	-	0.0	294	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.0	299	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	303	22.3	22.4	8.1	8.1	26.6	26.2	138.3	138.9	10.3	10.4	2.1		9		86				<0.2		1.5	
						4.2	0.1	307	22.5		8.1		25.9		139.5		10.4		2.2		8		86				<0.2		1.3	
SR3	Fine	Calm	14:22	8.8	Surface	1.0	0.2	149	21.9	21.9	8.1	8.1	27.2	27.3	121.5	119.8	9.1	8.6	2.4	3.2	12	11	-	-	822164	807557	-	-	-	-
						1.0	0.2	154	21.8		8.1		27.4		118.1		8.8		2.4		12		-				-		-	
					Middle	4.4	0.2	150	21.8	21.8	8.1	8.0	27.9	27.9	109.6	109.3	8.2		3.2		11		-				-		-	
						4.4	0.2	143	21.8		8.0		27.9		109.0		8.1		3.1		10		-				-		-	
					Bottom	7.8	0.1	144	22.1	22.1	8.1	8.1	29.1	29.0	106.7	108.1	7.9	8.0	4.1		10		-				-		-	
						7.8	0.2	150	22.1		8.1		28.9		109.4		8.1		4.1		10		-				-		-	
SR4A	Fine	Calm	15:32	9.0	Surface	1.0	0.0	324	24.2	24.3	8.1	8.1	21.4	21.0	164.0	161.8	12.2	10.9	4.0	5.1	8	9	-	-	817188	807812	-	-	-	-
						1.0	0.0	329	24.4		8.1		20.6		159.5		11.8		4.0		8		-				-		-	
					Middle	4.5	0.0	320	22.1	22.1	8.1	8.1	27.7	27.7	132.0	132.2	9.8		5.2		8		-				-		-	
						4.5	0.1	321	22.1		8.1		27.7		132.3		9.8		5.2		9		-				-		-	
					Bottom	8.0	0.1	301	22.2	22.2	8.1	8.1	27.8	27.7	143.4	148.8	10.6	11.0	6.0		10		-				-		-	
						8.0	0.0	297	22.2		8.1		27.6		154.1		11.4		6.1		9		-				-		-	
SR8	Fine	Calm	14:22	4.8	Surface	1.0	-	-	24.4	24.4	8.1	8.1	20.8	20.8	167.5	163.6	12.4	12.2	2.9	3.3	9	9	-	-	820412	811636	-	-	-	-
						1.0	-	-	24.4		8.1		20.8		159.6		11.9		2.8		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.0	22.0	8.1	8.1	27.8	27.8	117.4	117.7	8.7	8.8	3.8		7		-				-		-	
						3.8	-	-	22.0		8.1		27.8		118.0		8.8		3.8		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 14 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	11:00	9.0	Surface	1.0	0.2	194	22.7	22.7	8.2	8.2	26.5	26.5	112.5	112.6	8.3	8.4	1.0	1.1	<2	2	46	73	815605	804264	<0.2	<0.2	1.3	1.5
						1.0	0.2	198	22.7		8.2		26.4		112.6		8.3		1.0		<2		46				<0.2		1.4	
					Middle	4.5	0.1	216	22.8	22.8	8.2	8.2	26.2	26.2	112.9	112.9	8.4		1.2		2		87				<0.2		1.5	
						4.5	0.1	210	22.8		8.2		26.1		112.9		8.4		1.1		2		87				<0.2		1.6	
					Bottom	8.0	0.1	221	22.9	22.9	8.2	8.2	25.8	25.8	113.5	113.7	8.4	8.4	1.3		2		87				<0.2		1.6	
						8.0	0.2	227	22.9		8.2		25.8		113.9		8.4		1.3		2		87				<0.2		1.4	
C2	Fine	Calm	12:05	10.2	Surface	1.0	0.5	186	23.3	23.3	8.2	8.2	24.7	24.7	115.1	115.0	8.5	8.5	1.6	2.3	<2	2	44	73	825666	806948	<0.2	<0.2	1.2	1.4
						1.0	0.5	179	23.3		8.2		24.7		114.8		8.5		1.7		<2		44				<0.2		1.4	
					Middle	5.1	0.5	166	23.0	23.0	8.2	8.2	24.9	24.9	113.5	113.4	8.4		2.0		2		86				<0.2		1.5	
						5.1	0.5	166	23.0		8.2		24.9		113.2		8.4		2.0		2		87				<0.2		1.5	
					Bottom	9.2	0.5	182	22.3	22.4	8.1	8.1	28.1	28.0	105.1	105.3	7.8	7.8	3.3		3		87				<0.2		1.5	
						9.2	0.4	188	22.4		8.1		27.8		105.4		7.8		3.3		3		87				<0.2		1.5	
C3	Fine	Calm	10:39	9.8	Surface	1.0	0.3	80	22.4	22.4	8.1	8.1	28.2	28.4	115.0	115.0	8.5	8.3	0.3	0.6	<2	2	44	72	822115	817794	<0.2	<0.2	1.3	1.3
						1.0	0.3	81	22.3		8.1		28.5		115.0		8.5		0.3		<2		44				<0.2		1.3	
					Middle	4.9	0.2	86	22.0	22.0	8.1	8.1	29.8	29.9	110.0	110.0	8.1		0.4		<2		86				<0.2		1.4	
						4.9	0.2	89	21.9		8.1		30.0		109.9		8.1		0.5		<2		86				<0.2		1.3	
					Bottom	8.8	0.3	86	21.5	21.5	8.1	8.1	31.4	31.4	104.4	104.5	7.7	7.7	1.0		2		87				<0.2		1.3	
						8.8	0.3	84	21.5		8.1		31.4		104.6		7.7		1.0		3		87				<0.2		1.3	
IM1	Fine	Calm	11:18	6.4	Surface	1.0	0.2	180	23.1	23.1	8.2	8.2	23.0	23.1	119.0	118.5	8.9	8.6	1.9	2.1	<2	2	52	75	818333	806467	<0.2	<0.2	1.4	1.4
						1.0	0.1	184	23.1		8.2		23.1		118.0		8.8		2.0		<2		52				<0.2		1.4	
					Middle	3.2	0.2	176	23.0	23.0	8.1	8.1	25.3	25.4	113.3	111.3	8.4		2.0		3		86				<0.2		1.4	
						3.2	0.1	177	23.0		8.1		25.5		109.2		8.1		2.1		2		86				<0.2		1.4	
					Bottom	5.4	0.2	164	22.4	23.1	8.1	8.1	26.0	25.3	107.0	106.8	8.0	7.9	2.2		3		88				<0.2		1.4	
						5.4	0.1	162	23.7		8.1		24.5		106.5		7.8		2.3		2		88				<0.2		1.4	
IM2	Fine	Calm	11:23	7.2	Surface	1.0	0.2	185	23.0	23.0	8.2	8.2	24.1	24.2	117.7	117.4	8.8	8.6	1.4	2.1	3	2	48	74	819195	806228	<0.2	<0.2	1.4	1.4
						1.0	0.2	186	22.9		8.2		24.3		117.1		8.7		1.5		2		48				<0.2		1.4	
					Middle	3.6	0.1	201	22.9	22.9	8.1	8.1	24.8	24.8	113.8	113.2	8.5		2.0		2		86				<0.2		1.4	
						3.6	0.2	205	22.9		8.1		24.8		112.5		8.4		2.1		2		86				<0.2		1.4	
					Bottom	6.2	0.1	183	23.0	23.0	8.1	8.1	27.3	27.3	107.5	108.0	7.9	8.0	3.0		2		86				<0.2		1.3	
						6.2	0.1	176	23.0		8.1		27.2		108.5		8.0		2.9		2		87				<0.2		1.4	
IM7	Fine	Calm	11:42	8.0	Surface	1.0	0.2	163	22.9	22.9	8.1	8.1	25.4	25.5	113.7	113.2	8.5	8.1	2.8	3.5	2	3	49	75	821343	806855	<0.2	<0.2	1.4	1.4
						1.0	0.2	165	22.8		8.1		25.6		112.6		8.4		2.9		3		49				<0.2		1.5	
					Middle	4.0	0.1	143	22.7	22.7	8.1	8.1	27.0	26.9	105.8	105.6	7.8		3.3		2		86				<0.2		1.5	
						4.0	0.2	139	22.7		8.1		26.7		105.4		7.8		3.3		3		86				<0.2		1.4	
					Bottom	7.0	0.1	159	22.3	22.4	8.1	8.1	28.2	28.1	104.6	104.8	7.7	7.8	4.3		2		90				<0.2		1.2	
						7.0	0.1	159	22.4		8.1		28.0		105.0		7.8		4.4		3		90				<0.2		1.4	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Calm	12:03	8.2	Surface	1.0	0.4	107	23.1	23.1	8.3	8.3	23.5	23.5	114.9	114.6	8.6	8.2	3.2	5.5	2	2	48	74	822257	809856	<0.2	<0.2	1.4	1.4
						1.0	0.3	99	23.0		8.3		23.6		114.3		8.6		3.3		2		48				<0.2		1.4	
					Middle	4.1	0.4	127	22.7	22.7	8.1	8.1	26.0	26.0	105.6	105.4	7.8		5.6		3		83				<0.2		1.4	
						4.1	0.4	127	22.6		8.1		26.1		105.1		7.8		5.6		2		83				<0.2		1.3	
					Bottom	7.2	0.4	113	22.6	22.6	8.1	8.1	26.4	26.4	94.7	94.7	7.0	7.0	7.6		2		90				<0.2		1.3	
						7.2	0.4	113	22.6		8.1		26.3		94.7		7.0		7.5		2		90				<0.2		1.4	
IM11	Fine	Calm	11:55	7.0	Surface	1.0	0.4	101	23.1	23.1	8.3	8.3	23.2	23.3	115.4	115.2	8.6	8.3	3.6	5.4	2	3	47	75	821495	810552	<0.2	<0.2	1.4	1.4
						1.0	0.4	93	23.1		8.3		23.4		114.9		8.6		3.5		2		47				<0.2		1.3	
					Middle	3.5	0.5	88	22.6	22.6	8.1	8.1	24.8	24.8	106.1	105.8	7.9		5.7		3		87				<0.2		1.4	
						3.5	0.5	87	22.6		8.1		24.8		105.5		7.9		5.7		3		87				<0.2		1.4	
					Bottom	6.0	0.4	73	22.5	22.6	8.1	8.1	27.3	27.2	92.4	92.3	6.8	6.8	7.0		3		90				<0.2		1.4	
						6.0	0.4	76	22.6		8.1		27.2		92.2		6.8		7.1		2		90				<0.2		1.4	
IM12	Fine	Calm	11:47	8.6	Surface	1.0	0.5	104	22.9	22.9	8.3	8.3	23.3	23.3	114.4	114.0	8.6	8.2	1.0	1.7	4	3	44	72	821151	811500	<0.2	<0.2	1.4	1.4
						1.0	0.5	102	22.9		8.3		23.3		113.6		8.6		1.1		2		44				<0.2		1.4	
					Middle	4.3	0.4	119	22.6	22.6	8.1	8.1	26.2	26.3	103.6	103.5	7.7		2.0		3		86				<0.2		1.3	
						4.3	0.4	122	22.6		8.1		26.4		103.3		7.7		1.9		2		86				<0.2		1.4	
					Bottom	7.6	0.4	96	22.3	22.4	8.1	8.1	27.9	27.8	90.3	90.1	6.7	6.7	2.1		3		86				<0.2		1.3	
						7.6	0.4	100	22.4		8.1		27.8		89.8		6.6		2.0		2		87				<0.2		1.4	
SR1A	Fine	Calm	11:22	4.8	Surface	1.0	0.0	45	22.9	22.9	8.1	8.1	24.1	24.1	115.1	114.8	8.6	8.6	2.7	3.1	2	2	-	-	819977	812662	-	-	-	-
						1.0	0.0	44	22.9		8.1		24.1		114.5		8.6		2.8		2		-				-		-	
					Middle	2.4	0.0	45	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	0.0	39	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	48	23.0	23.1	8.1	8.1	26.1	26.2	105.5	105.2	7.8	7.8	3.4		<2		-				-		-	
						3.8	0.0	46	23.1		8.1		26.3		104.9		7.7		3.4		<2		-				-		-	
SR2	Fine	Calm	11:07	5.0	Surface	1.0	0.2	48	22.9	22.9	8.2	8.2	25.8	25.8	114.4	114.3	8.5	8.5	1.4	1.6	3	2	44	66	821448	814184	<0.2	<0.2	1.5	1.4
						1.0	0.2	42	22.9		8.2		25.8		114.1		8.5		1.4		2		44				<0.2		1.4	
					Middle	-	0.2	64	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.2	57	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	50	22.7	22.7	8.0	8.0	26.2	26.1	106.9	106.9	7.9	7.9	1.8		<2		87				<0.2		1.3	
						4.0	0.1	53	22.7		8.0		26.1		106.9		7.9		1.9		<2		87				<0.2		1.3	
SR3	Fine	Calm	11:48	8.8	Surface	1.0	0.3	162	22.6	22.6	8.1	8.1	27.4	27.5	109.7	109.4	8.1	7.9	2.0	2.8	3	3	-	-	822145	807590	-	-	-	-
						1.0	0.3	160	22.5		8.1		27.6		109.0		8.1		1.9		4		-				-		-	
					Middle	4.4	0.3	150	22.4	22.4	8.1	8.1	28.0	28.0	104.7	104.5	7.7		2.1		4		-				-		-	
						4.4	0.3	155	22.3		8.1		28.1		104.3		7.7		2.3		3		-				-		-	
					Bottom	7.8	0.3	157	22.2	22.3	8.0	8.0	28.3	28.2	103.5	103.4	7.7	7.7	4.4		3		-				-		-	
						7.8	0.3	152	22.3		8.0		28.2		103.2		7.6		4.3		2		-				-		-	
SR4A	Fine	Calm	10:40	9.4	Surface	1.0	0.0	85	22.3	22.3	8.1	8.1	27.8	27.8	114.6	114.5	8.5	8.1	0.4	1.0	2	2	-	-	817181	807805	-	-	-	-
						1.0	0.0	86	22.2		8.1		27.8		114.4		8.5		0.5		2		-				-		-	
					Middle	4.7	0.1	87	21.6	21.6	8.1	8.1	31.4	31.4	105.1	105.2	7.7		0.9		2		-				-		-	
						4.7	0.0	83	21.6		8.1		31.4		105.2		7.7		1.0		2		-				-		-	
					Bottom	8.4	0.1	71	21.8	21.9	8.1	8.1	31.2	31.1	105.7	105.9	7.7	7.8	1.7		2		-				-		-	
						8.4	0.1	74	21.9		8.1		31.0		106.1		7.8		1.6		2		-				-		-	
SR8	Fine	Calm	11:43	5.2	Surface	1.0	-	-	23.4	23.4	8.2	8.2	24.0	24.0	114.3	112.6	8.5	8.4	1.6	1.7	2	3	-	-	820405	811602	-	-	-	-
						1.0	-	-	23.3		8.2		24.1		110.9		8.2		1.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	23.2	23.3	8.1	8.1	24.6	24.5	96.5	96.1	7.2	7.2	1.9		3		-				-		-	
						4.2	-	-	23.3		8.2		24.4		95.6		7.1		1.8		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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Calm	16:58	8.4	Surface	1.0	0.3	38	22.9	22.9	8.1	8.1	24.1	24.1	113.3	113.1	8.5	8.1	3.2	4.3	2	3	52	76	815624	804256	<0.2	<0.2	1.4	1.4
						1.0	0.3	32	22.8		8.1		24.1		112.9		8.5		3.2		4		52				<0.2		1.3	
					Middle	4.2	0.2	13	22.7	22.7	8.1	8.1	26.1	26.1	103.2	103.0	7.7		4.4		3		87				<0.2		1.4	
						4.2	0.2	12	22.7		8.1		26.1		102.8		7.6		4.7		2		86				<0.2		1.4	
					Bottom	7.4	0.2	31	22.7	22.7	8.1	8.1	26.4	26.3	101.9	102.0	7.6	7.6	5.1		2		88				<0.2		1.3	
						7.4	0.3	33	22.7		8.1		26.3		102.0		7.6		5.2		2		88				<0.2		1.3	
C2	Fine	Calm	15:49	10.0	Surface	1.0	0.2	176	23.0	23.0	8.3	8.3	23.6	23.6	120.9	120.8	9.1	8.6	1.1	1.7	<2	<2	44	73	825660	806929	<0.2	<0.2	1.5	1.4
						1.0	0.2	173	22.9		8.3		23.7		120.7		9.1		1.0		<2		44				<0.2		1.4	
					Middle	5.0	0.2	192	22.3	22.4	8.1	8.1	26.3	26.2	108.0	107.8	8.1		1.9		<2		86				<0.2		1.4	
						5.0	0.2	187	22.4		8.1		26.2		107.5		8.0		1.8		<2		86				<0.2		1.4	
					Bottom	9.0	0.2	183	22.9	22.9	8.1	8.1	28.6	28.6	108.0	108.0	7.9	7.9	2.1		<2		90				<0.2		1.3	
						9.0	0.2	181	22.9		8.1		28.6		108.0		7.9		2.1		<2		90				<0.2		1.5	
C3	Fine	Calm	16:52	11.0	Surface	1.0	0.5	276	22.8	22.8	8.2	8.2	27.4	27.4	113.2	113.1	8.3	8.3	1.1	1.5	<2	2	52	74	822100	817784	<0.2	<0.2	1.3	1.4
						1.0	0.4	269	22.8		8.2		27.4		113.0		8.3		1.0		<2		52				<0.2		1.3	
					Middle	5.5	0.5	279	22.7	22.7	8.2	8.2	27.8	27.9	111.1	111.0	8.2		1.2		2		82				<0.2		1.3	
						5.5	0.5	277	22.6		8.2		28.0		110.8		8.2		1.2		2		82				<0.2		1.4	
					Bottom	10.0	0.4	288	22.5	22.6	8.2	8.2	28.2	28.0	110.3	110.6	8.1	8.1	2.3		2		87				<0.2		1.3	
						10.0	0.4	292	22.6		8.2		27.9		110.8		8.1		2.3		2		87				<0.2		1.5	
IM1	Fine	Calm	16:39	6.8	Surface	1.0	0.1	19	23.1	23.1	8.2	8.2	22.9	22.9	117.4	117.1	8.8	8.5	2.0	3.1	2	2	48	75	818332	806472	<0.2	<0.2	1.3	1.4
						1.0	0.1	19	23.1		8.2		23.0		116.8		8.8		2.1		3		48				<0.2		1.4	
					Middle	3.4	0.1	16	22.7	22.7	8.2	8.2	25.7	25.7	111.7	110.9	8.3		3.4		2		86				<0.2		1.3	
						3.4	0.1	8	22.7		8.2		25.8		110.1		8.2		3.5		3		86				<0.2		1.4	
					Bottom	5.8	0.1	35	22.9	23.0	8.2	8.1	26.0	26.0	105.4	105.1	7.8	7.8	4.0		<2		91				<0.2		1.4	
						5.8	0.0	29	23.0		8.1		26.1		104.8		7.7		3.6		<2		91				<0.2		1.4	
IM2	Fine	Calm	16:33	7.0	Surface	1.0	0.1	293	22.8	22.8	8.3	8.3	23.0	23.0	114.9	113.6	8.7	8.2	1.5	2.5	2	2	49	72	819202	806258	<0.2	<0.2	1.4	1.3
						1.0	0.1	286	22.8		8.3		23.1		112.3		8.5		1.5		2		49				<0.2		1.3	
					Middle	3.5	0.1	289	23.0	23.0	8.1	8.1	26.4	26.4	104.8	104.9	7.7		2.2		2		80				<0.2		1.3	
						3.5	0.1	287	23.0		8.1		26.4		105.0		7.7		2.1		2		80				<0.2		1.3	
					Bottom	6.0	0.1	307	23.2	23.2	8.1	8.1	26.8	26.7	107.1	108.6	7.8	8.0	3.9		<2		87				<0.2		1.4	
						6.0	0.0	306	23.2		8.1		26.6		110.1		8.1		3.6		<2		88				<0.2		1.3	
IM7	Fine	Calm	16:13	7.4	Surface	1.0	0.3	254	22.9	22.9	8.2	8.2	23.5	23.6	116.1	115.9	8.7	8.3	1.7	2.5	<2	<2	52	76	821357	806850	<0.2	<0.2	1.5	1.4
						1.0	0.2	253	22.8		8.2		23.6		115.6		8.7		1.8		<2		52				<0.2		1.4	
					Middle	3.7	0.2	261	22.7	22.8	8.1	8.1	26.9	27.0	106.0	105.8	7.8		2.1		<2		87				<0.2		1.3	
						3.7	0.2	260	22.8		8.1		27.0		105.5		7.8		2.2		<2		87				<0.2		1.4	
					Bottom	6.4	0.2	273	23.0	23.0	8.1	8.1	27.5	27.5	105.9	106.8	7.8	7.9	3.6		<2		90				<0.2		1.4	
						6.4	0.2	278	23.0		8.1		27.5		107.7		7.9		3.6		<2		90				<0.2		1.5	

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 14 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Calm	15:51	7.4	Surface	1.0	0.1	234	23.5	23.5	8.2	8.2	23.5	23.6	118.3	118.2	8.8	8.8	2.0	3.5	<2	2	52	77	822235	809834	<0.2	<0.2	1.4	1.4
						1.0	0.1	234	23.4		8.2		23.6		118.1		8.8		2.0		<2		52				<0.2		1.3	
					Middle	3.7	0.1	210	23.0	23.0	8.2	8.2	23.8	23.8	116.9	116.7	8.7		3.6		2		87				<0.2		1.4	
						3.7	0.2	210	23.0		8.2		23.8		116.5		8.7		3.6		3		88				<0.2		1.4	
					Bottom	6.4	0.1	240	22.7	22.8	8.2	8.2	26.3	26.3	108.7	109.1	8.1	8.1	4.9		2		90				<0.2		1.4	
						6.4	0.1	233	22.8		8.2		26.3		109.5		8.1		4.9		2		90				<0.2		1.4	
IM11	Fine	Calm	15:55	7.6	Surface	1.0	0.2	255	23.4	23.4	8.2	8.2	23.5	23.5	119.6	119.5	8.9	8.5	3.6	4.3	3	2	63	76	821496	810521	<0.2	<0.2	1.4	1.4
						1.0	0.2	256	23.4		8.2		23.5		119.3		8.9		3.6		3		63				<0.2		1.3	
					Middle	3.8	0.2	283	22.7	22.7	8.2	8.2	26.0	26.0	107.7	107.8	8.0		4.0		2		79				<0.2		1.5	
						3.8	0.2	288	22.7		8.2		26.0		107.8		8.0		4.1		2		79				<0.2		1.4	
					Bottom	6.6	0.2	256	22.7	22.7	8.2	8.2	26.2	26.2	109.4	109.6	8.1	8.1	5.3		2		85				<0.2		1.4	
						6.6	0.2	262	22.7		8.2		26.2		109.8		8.1		5.4		2		84				<0.2		1.4	
IM12	Fine	Calm	16:00	8.2	Surface	1.0	0.2	286	23.4	23.4	8.2	8.2	24.0	24.0	121.3	121.2	9.0	8.7	2.1	3.3	<2	2	48	75	821141	811503	<0.2	<0.2	1.3	1.4
						1.0	0.2	287	23.3		8.2		24.1		121.1		9.0		2.3		<2		49				<0.2		1.3	
					Middle	4.1	0.2	276	23.0	23.0	8.2	8.2	25.1	25.1	113.6	113.6	8.4		3.8		2		87				<0.2		1.3	
						4.1	0.1	277	23.0		8.2		25.1		113.6		8.4		3.7		2		87				<0.2		1.4	
					Bottom	7.2	0.2	294	23.0	23.0	8.2	8.2	25.1	25.1	113.4	113.5	8.4	8.4	4.1		3		90				<0.2		1.4	
						7.2	0.2	287	23.0		8.2		25.1		113.5		8.4		4.1		2		90				<0.2		1.4	
SR1A	Fine	Calm	16:22	5.0	Surface	1.0	0.0	176	23.3	23.3	8.2	8.2	25.1	25.1	115.5	115.4	8.5	8.5	2.3	2.8	<2	2	-	-	819976	812656	-	-	-	-
						1.0	-	179	23.3		8.2		25.1		115.2		8.5		2.4		<2		-				-		-	
					Middle	2.5	0.0	182	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	0.1	185	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.0	196	23.1	23.1	8.2	8.2	25.8	25.8	113.3	113.1	8.4	8.4	3.3		2		-				-		-	
						4.0	0.0	203	23.0		8.2		25.8		112.8		8.3		3.2		2		-				-		-	
SR2	Fine	Calm	16:33	5.2	Surface	1.0	0.1	324	23.3	23.3	8.2	8.2	24.6	24.7	118.4	118.3	8.8	8.8	1.0	1.2	2	2	69	78	821439	814161	<0.2	<0.2	1.4	1.4
						1.0	0.0	323	23.3		8.2		24.7		118.2		8.8		1.1		2		69				<0.2		1.4	
					Middle	-	0.1	337	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	330	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	315	23.1	23.2	8.2	8.2	25.6	25.5	110.0	109.7	8.1	8.1	1.4		2		86				<0.2		1.4	
						4.2	0.1	311	23.2		8.2		25.5		109.4		8.1		1.3		3		86				<0.2		1.3	
SR3	Fine	Calm	16:07	8.6	Surface	1.0	0.1	201	23.5	23.5	8.2	8.2	23.5	23.5	116.2	116.1	8.6	8.6	1.2	1.3	<2	<2	-	-	822132	807564	-	-	-	-
						1.0	0.1	202	23.5		8.2		23.5		116.0		8.6		1.1		<2		-				-		-	
					Middle	4.3	0.1	213	23.5	23.5	8.2	8.2	23.6	23.6	115.0	114.8	8.5		1.4		<2		-				-		-	
						4.3	0.1	219	23.5		8.2		23.6		114.6		8.5		1.4		<2		-				-		-	
					Bottom	7.6	0.1	203	23.5	23.5	8.2	8.2	23.5	23.5	114.2	114.2	8.5	8.5	1.4		<2		-				-		-	
						7.6	0.1	207	23.5		8.2		23.5		114.1		8.5		1.5		<2		-				-		-	
SR4A	Fine	Calm	17:17	9.0	Surface	1.0	0.0	210	22.8	22.8	8.2	8.2	25.3	25.4	115.6	115.5	8.6	8.3	2.2	3.1	2	2	-	-	817172	807821	-	-	-	-
						1.0	0.0	203	22.8		8.2		25.5		115.3		8.6		2.2		2		-				-		-	
					Middle	4.5	0.0	243	22.7	22.7	8.2	8.2	26.0	26.0	108.0	108.0	8.0		3.1		2		-				-		-	
						4.5	-	247	22.7		8.2		26.0		107.9		8.0		3.2		3		-				-		-	
					Bottom	8.0	0.1	230	22.7	22.7	8.2	8.2	26.1	26.1	108.3	108.4	8.0	8.0	4.0		3		-				-		-	
						8.0	0.1	222	22.7		8.2		26.1		108.4		8.0		4.1		2		-				-		-	
SR8	Fine	Calm	16:05	4.8	Surface	1.0	-	-	23.7	23.7	8.2	8.2	24.0	24.0	117.9	117.8	8.7	8.7	1.2	1.5	2	2	-	-	820368	811612	-	-	-	-
						1.0	-	-	23.7		8.2		24.0		117.7		8.7		1.1		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	23.7	23.7	8.2	8.2	24.2	24.2	117.3	117.3	8.6	8.6	1.9		2		-				-		-	
						3.8	-	-	23.7		8.2		24.2		117.2		8.6		1.9		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 16 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Misty	Rough	12:19	8.4	Surface	1.0	0.3	216	22.2	22.2	8.1	8.1	29.4	29.4	98.7	98.8	7.3	7.3	2.1	3.2	5	7	52	75	815632	804233	<0.2	<0.2	1.0	1.0
						1.0	0.3	213	22.2		8.1		29.4		98.8		7.3		2.2		6		52				<0.2		1.0	
					Middle	4.2	0.3	210	22.2	22.2	8.1	8.1	29.4	29.4	98.8	98.9	7.3		3.0		6		86				<0.2		1.0	
						4.2	0.3	214	22.2		8.1		29.4		98.9		7.3		3.1		7		86				<0.2		1.0	
					Bottom	7.4	0.3	193	22.2	22.2	8.1	8.1	29.4	29.4	99.0	99.0	7.3	7.3	4.4		7		88				<0.2		0.9	
						7.4	0.3	198	22.2		8.1		29.4		99.0		7.3		4.4		8		88				<0.2		0.9	
C2	Misty	Rough	11:10	10.0	Surface	1.0	0.1	106	22.4	22.4	8.1	8.1	28.7	28.7	97.6	97.7	7.2	7.2	3.1	4.2	8	8	44	74	825690	806928	<0.2	<0.2	1.0	1.0
						1.0	0.1	100	22.4		8.1		28.7		97.7		7.2		3.1		7		44				<0.2		0.9	
					Middle	5.0	0.0	110	22.4	22.4	8.1	8.1	28.7	28.7	97.8	98.0	7.2		4.1		8		86				<0.2		0.9	
						5.0	0.1	111	22.4		8.1		28.7		98.1		7.2		4.2		8		86				<0.2		1.0	
					Bottom	9.0	0.1	141	22.4	22.4	8.1	8.1	28.8	28.8	98.4	98.7	7.2	7.3	5.5		8		91				<0.2		0.9	
						9.0	0.0	136	22.4		8.1		28.8		98.9		7.3		5.5		8		91				<0.2		1.0	
C3	Misty	Rough	12:07	11.0	Surface	1.0	0.4	63	22.2	22.2	8.1	8.1	29.4	29.4	102.4	102.3	7.5	7.5	2.4	3.5	6	7	52	74	822098	817805	<0.2	<0.2	0.9	1.0
						1.0	0.4	65	22.2		8.1		29.4		102.2		7.6		2.5		6		52				<0.2		1.0	
					Middle	5.5	0.4	80	22.2	22.2	8.1	8.1	29.4	29.4	102.1	102.3	7.5		3.1		8		83				<0.2		1.0	
						5.5	0.4	80	22.2		8.1		29.4		102.5		7.5		3.2		8		83				<0.2		1.0	
					Bottom	10.0	0.4	97	22.2	22.2	8.1	8.1	29.4	29.4	102.4	102.5	7.5	7.5	4.8		8		87				<0.2		0.9	
						10.0	0.4	94	22.2		8.1		29.4		102.6		7.5		4.8		8		87				<0.2		1.0	
IM1	Misty	Rough	12:00	6.8	Surface	1.0	0.1	190	22.2	22.2	8.1	8.1	29.4	29.4	99.0	99.1	7.3	7.3	5.0	6.4	6	7	48	75	818352	806452	<0.2	<0.2	1.0	1.0
						1.0	0.1	192	22.2		8.1		29.4		99.1		7.3		5.1		7		48				<0.2		0.9	
					Middle	3.4	0.1	179	22.2	22.2	8.1	8.1	29.4	29.4	99.3	99.4	7.3		6.6		6		87				<0.2		0.9	
						3.4	0.1	180	22.2		8.1		29.4		99.4		7.3		6.7		7		87				<0.2		1.0	
					Bottom	5.8	0.1	181	22.2	22.2	8.1	8.1	29.4	29.4	99.7	99.8	7.3	7.3	7.5		7		91				<0.2		1.0	
						5.8	0.1	175	22.2		8.1		29.4		99.9		7.3		7.4		7		91				<0.2		0.9	
IM2	Misty	Rough	11:54	7.0	Surface	1.0	0.1	185	22.2	22.2	8.1	8.1	29.5	29.5	98.3	98.4	7.2	7.3	4.0	5.4	7	6	50	72	819175	806222	<0.2	<0.2	1.0	1.0
						1.0	0.1	180	22.2		8.1		29.5		98.4		7.2		4.1		6		50				<0.2		1.0	
					Middle	3.5	0.1	170	22.2	22.2	8.1	8.1	29.5	29.5	98.8	98.9	7.3		5.1		7		80				<0.2		1.0	
						3.5	0.1	165	22.2		8.1		29.5		98.9		7.3		5.2		6		80				<0.2		1.0	
					Bottom	6.0	0.1	148	22.2	22.2	8.1	8.1	29.4	29.4	99.4	99.5	7.3	7.3	7.1		6		86				<0.2		0.9	
						6.0	0.1	152	22.2		8.1		29.4		99.5		7.3		6.9		5		86				<0.2		1.0	
IM7	Misty	Rough	11:34	7.4	Surface	1.0	0.2	74	22.3	22.3	8.1	8.1	29.1	29.1	99.7	99.8	7.3	7.3	4.1	5.1	7	7	52	76	821351	806829	<0.2	<0.2	1.0	1.0
						1.0	0.2	69	22.3		8.1		29.1		99.8		7.3		4.1		7		52				<0.2		1.0	
					Middle	3.7	0.2	60	22.3	22.3	8.1	8.1	29.1	29.1	99.9	100.0	7.3		5.1		7		87				<0.2		1.0	
						3.7	0.2	66	22.3		8.1		29.1		100.0		7.4		5.1		8		87				<0.2		0.9	
					Bottom	6.4	0.1	83	22.3	22.3	8.1	8.1	29.1	29.1	100.3	100.4	7.4	7.4	6.3		7		90				<0.2		1.0	
						6.4	0.2	90	22.3		8.1		29.1		100.5		7.4		6.2		8		90				<0.2		1.0	

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 16 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Misty	Rough	11:06	7.4	Surface	1.0	0.1	67	22.4	22.4	8.2	8.2	28.3	28.3	101.6	101.7	7.5	7.5	3.1	4.1	6	6	52	77	822236	809817	<0.2	<0.2	1.0	1.0
						1.0	0.0	73	22.4		8.2		28.4		101.7		7.5		3.2		7		52				<0.2		1.1	
					Middle	3.7	0.1	44	22.4	22.4	8.2	8.2	28.4	28.4	101.7	101.8	7.5		4.2		6		88				<0.2		1.0	
						3.7	0.2	47	22.4		8.2		28.5		101.8		7.5		4.1		7		88				<0.2		1.0	
					Bottom	6.4	0.1	73	22.4	22.4	8.2	8.2	28.5	28.5	102.0	102.3	7.5	7.6	5.1		6		91				<0.2		1.0	
						6.4	0.0	68	22.4		8.2		28.5		102.5		7.6		5.0		6		90				<0.2		1.0	
IM11	Misty	Rough	11:10	7.6	Surface	1.0	0.2	85	22.2	22.2	8.1	8.1	29.5	29.5	100.6	100.7	7.4	7.4	4.0	5.1	7	8	63	75	821513	810548	<0.2	<0.2	1.0	1.0
						1.0	0.2	81	22.2		8.1		29.5		100.7		7.4		4.1		7		63				<0.2		1.0	
					Middle	3.8	0.2	73	22.2	22.2	8.1	8.1	29.5	29.5	101.1	101.2	7.4		5.1		7		80				<0.2		1.0	
						3.8	0.2	74	22.2		8.1		29.5		101.3		7.4		5.1		8		80				<0.2		0.9	
					Bottom	6.6	0.1	80	22.2	22.2	8.1	8.1	29.5	29.5	102.1	102.3	7.5	7.5	6.1		8		82				<0.2		0.9	
						6.6	0.2	75	22.1		8.1		29.5		102.5		7.5		6.0		8		82				<0.2		1.0	
IM12	Misty	Rough	11:15	8.2	Surface	1.0	0.2	82	22.2	22.2	8.1	8.1	29.5	29.5	100.5	100.7	7.4	7.4	3.0	4.1	5	7	48	75	821157	811517	<0.2	<0.2	0.9	1.0
						1.0	0.2	78	22.2		8.1		29.6		100.8		7.4		3.1		6		49				<0.2		1.0	
					Middle	4.1	0.2	99	22.2	22.2	8.1	8.1	29.6	29.6	101.1	101.2	7.4		4.2		8		87				<0.2		0.9	
						4.1	0.2	100	22.2		8.1		29.6		101.3		7.4		4.1		7		87				<0.2		1.0	
					Bottom	7.2	0.2	109	22.1	22.2	8.1	8.1	29.8	29.7	102.8	103.2	7.5	7.6	5.2		7		90				<0.2		1.0	
						7.2	0.2	107	22.2		8.1		29.7		103.6		7.6		5.3		8		90				<0.2		0.9	
SR1A	Misty	Rough	11:37	5.0	Surface	1.0	0.0	57	22.5	22.5	8.1	8.1	28.3	28.3	99.7	99.8	7.3	7.3	2.2	3.0	5	7	-	-	819983	812661	-	-	-	-
						1.0	-	59	22.5		8.1		28.3		99.9		7.3		2.1		6		-				-		-	
					Middle	2.5	0.0	60	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	64	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.0	59	22.5	22.5	8.1	8.1	28.3	28.3	100.3	100.5	7.4	7.4	4.0		9		-				-		-	
						4.0	0.0	61	22.5		8.1		28.3		100.6		7.4		3.9		8		-				-		-	
SR2	Misty	Rough	11:48	5.2	Surface	1.0	0.2	41	22.2	22.2	8.1	8.1	29.4	29.5	103.2	103.4	7.6	7.6	3.6	3.8	6	6	68	77	821461	814145	<0.2	<0.2	1.0	1.0
						1.0	0.2	41	22.2		8.1		29.5		103.6		7.6		3.5		6		68				<0.2		1.0	
					Middle	-	0.3	33	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.3	28	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	34	22.2	22.2	8.1	8.1	29.5	29.5	104.3	104.6	7.7	7.7	4.1		6		86				<0.2		0.9	
						4.2	0.3	35	22.2		8.1		29.5		104.9		7.7		4.1		7		87				<0.2		0.9	
SR3	Misty	Rough	11:28	8.6	Surface	1.0	0.1	94	22.2	22.2	8.1	8.1	29.3	29.3	98.4	98.4	7.2	7.3	5.1	6.3	8	8	-	-	822143	807557	-	-	-	-
						1.0	0.1	93	22.2		8.1		29.4		98.4		7.2		5.1		8		-				-		-	
					Middle	4.3	0.1	106	22.2	22.2	8.1	8.1	29.4	29.4	98.7	98.8	7.3		6.1		9		-				-		-	
						4.3	0.1	108	22.2		8.1		29.3		98.9		7.3		6.2		8		-				-		-	
					Bottom	7.6	0.2	79	22.2	22.2	8.1	8.1	29.3	29.3	99.3	99.4	7.3	7.3	7.6		8		-				-		-	
						7.6	0.2	80	22.2		8.1		29.3		99.4		7.3		7.6		9		-				-		-	
SR4A	Misty	Rough	12:38	9.0	Surface	1.0	0.0	54	22.2	22.2	8.1	8.1	29.4	29.4	99.0	99.0	7.3	7.3	2.0	3.2	6	8	-	-	817171	807798	-	-	-	-
						1.0	0.0	53	22.2		8.1		29.4		99.0		7.3		2.1		7		-				-		-	
					Middle	4.5	0.0	59	22.2	22.2	8.1	8.1	29.4	29.4	99.2	99.3	7.3		3.1		9		-				-		-	
						4.5	0.0	62	22.2		8.1		29.4		99.3		7.3		3.2		8		-				-		-	
					Bottom	8.0	0.0	72	22.2	22.2	8.1	8.1	29.4	29.4	99.5	99.6	7.3	7.3	4.5		10		-				-		-	
						8.0	0.1	78	22.2		8.1		29.4		99.6		7.3		4.6		10		-				-		-	
SR8	Misty	Rough	11:20	4.8	Surface	1.0	-	-	22.3	22.3	8.1	8.1	29.3	29.3	102.1	102.2	7.5	7.5	5.1	5.6	6	8	-	-	820408	811637	-	-	-	-
						1.0	-	-	22.3		8.1		29.3		102.3		7.5		5.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.2	22.2	8.1	8.1	29.3	29.3	103.4	103.8	7.6	7.7	6.0		8		-				-		-	
						3.8	-	-	22.2		8.1		29.3		104.2		7.7		6.1		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 16 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Misty	Rough	07:24	9.0	Surface	1.0	0.4	19	22.1	22.1	8.1	8.1	30.0	30.0	99.2	99.3	7.3	7.3	4.2	5.2	8	7	44	73	815610	804248	<0.2	<0.2	0.9	0.9
						1.0	0.4	17	22.1		8.1		30.0		99.3		7.3		4.2		9		44				<0.2		0.9	
					Middle	4.5	0.5	17	22.1	22.1	8.1	8.1	30.0	30.0	99.8	99.9	7.3		5.2		7		87				<0.2		1.0	
						4.5	0.5	14	22.1		8.1		30.0		100.0		7.3		5.2		6		87				<0.2		0.9	
					Bottom	8.0	0.4	31	22.1	22.1	8.1	8.1	30.0	30.0	100.8	101.0	7.4	7.4	6.2		6		87				<0.2		0.9	
						8.0	0.4	32	22.1		8.1		30.0		101.1		7.4		6.2		7		87				<0.2		0.9	
C2	Misty	Rough	08:29	10.2	Surface	1.0	0.4	350	22.4	22.4	8.1	8.1	28.8	28.8	100.8	100.9	7.4	7.5	2.0	3.2	11	10	44	73	825665	806939	<0.2	<0.2	0.8	0.9
						1.0	0.4	346	22.4		8.1		28.8		101.0		7.4		2.1		12		44				<0.2		0.9	
					Middle	5.1	0.4	7	22.4	22.4	8.1	8.1	28.8	28.8	101.7	102.0	7.5		3.4		10		87				<0.2		0.9	
						5.1	0.4	3	22.4		8.1		28.7		102.2		7.5		3.5		10		87				<0.2		0.9	
					Bottom	9.2	0.4	7	22.3	22.2	8.1	8.1	28.3	28.3	104.5	106.8	7.7	7.5	4.1		8		87				<0.2		1.0	
						9.2	0.4	10	22.1		8.1		28.2		109.1		7.2		4.1		8		87				<0.2		1.0	
C3	Misty	Rough	07:10	9.8	Surface	1.0	0.5	259	22.0	22.0	8.0	8.0	30.7	30.7	100.2	100.1	7.3	7.3	1.4	2.2	8	8	44	72	822114	817804	<0.2	<0.2	0.9	1.0
						1.0	0.4	251	21.9		8.0		30.7		100.0		7.3		1.4		7		43				<0.2		0.9	
					Middle	4.9	0.5	277	21.9	21.9	8.0	8.0	31.4	31.4	98.8	98.8	7.2		2.2		7		86				<0.2		1.0	
						4.9	0.5	275	21.9		8.0		31.4		98.8		7.2		2.2		8		86				<0.2		0.9	
					Bottom	8.8	0.5	238	21.9	21.9	8.0	8.0	31.4	31.4	99.3	99.4	7.2	7.3	3.2		9		87				<0.2		1.0	
						8.8	0.5	242	21.9		8.0		31.4		99.5		7.3		3.0		10		87				<0.2		1.0	
IM1	Misty	Rough	07:42	6.4	Surface	1.0	0.3	30	22.3	22.3	8.1	8.1	28.9	28.9	98.6	98.7	7.3	7.3	4.0	5.2	7	7	52	75	818360	806456	<0.2	<0.2	0.9	0.9
						1.0	0.4	28	22.3		8.1		28.9		98.7		7.3		4.1		6		52				<0.2		0.9	
					Middle	3.2	0.3	5	22.3	22.3	8.1	8.1	28.9	28.9	98.7	98.8	7.3		5.2		7		86				<0.2		0.9	
						3.2	0.3	359	22.3		8.1		28.9		98.8		7.3		5.3		6		87				<0.2		0.9	
					Bottom	5.4	0.3	358	22.3	22.3	8.1	8.1	28.9	28.9	98.8	98.9	7.3	7.3	6.4		8		87				<0.2		0.9	
						5.4	0.2	359	22.3		8.1		29.0		99.0		7.3		6.4		8		87				<0.2		1.0	
IM2	Misty	Rough	07:47	7.2	Surface	1.0	0.3	3	22.5	22.5	8.1	8.1	28.2	28.2	97.3	97.3	7.2	7.2	2.2	3.6	9	10	48	74	819159	806220	<0.2	<0.2	0.9	0.9
						1.0	0.3	1	22.5		8.1		28.2		97.3		7.2		2.5		8		48				<0.2		0.9	
					Middle	3.6	0.3	3	22.5	22.5	8.1	8.1	28.2	28.2	97.3	97.3	7.2		3.5		9		86				<0.2		0.9	
						3.6	0.3	9	22.5		8.1		28.2		97.2		7.2		3.5		10		86				<0.2		1.0	
					Bottom	6.2	0.3	35	22.5	22.5	8.1	8.1	28.2	28.2	97.3	97.3	7.2	7.2	4.8		11		86				<0.2		0.8	
						6.2	0.3	39	22.5		8.1		28.2		97.3		7.2		4.8		12		87				<0.2		0.9	
IM7	Misty	Rough	08:06	8.0	Surface	1.0	0.2	358	22.5	22.5	8.1	8.1	28.2	28.2	96.9	96.9	7.1	7.1	2.0	3.3	6	9	49	75	821344	806823	<0.2	<0.2	0.9	0.9
						1.0	0.2	351	22.5		8.1		28.2		96.9		7.1		2.1		7		49				<0.2		0.9	
					Middle	4.0	0.3	356	22.5	22.5	8.1	8.1	28.2	28.2	96.9	97.0	7.1		3.6		10		86				<0.2		0.9	
						4.0	0.3	353	22.5		8.1		28.2		97.0		7.1		3.5		9		86				<0.2		0.9	
					Bottom	7.0	0.2	0	22.5	22.5	8.1	8.1	28.2	28.2	97.2	97.3	7.2	7.2	4.4		11		91				<0.2		1.0	
						7.0	0.2	2	22.5		8.1		28.2		97.3		7.2		4.4		10		91				<0.2		1.0	

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 16 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Misty	Rough	08:13	8.2	Surface	1.0	0.4	299	22.2	22.2	8.1	8.1	29.4	29.4	101.0	101.1	7.4	7.5	6.4	7.5	6	8	48	74	822246	809843	<0.2	<0.2	0.9	0.9
						1.0	0.4	303	22.2		8.1		29.4		101.2		7.4		6.5		7		48				<0.2		0.9	
					Middle	4.1	0.4	305	22.2	22.2	8.1	8.1	29.4	29.4	101.8	102.0	7.5		7.2		7		83				<0.2		0.9	
						4.1	0.4	306	22.2		8.1		29.4		102.2		7.5		7.2		8		83				<0.2		0.8	
					Bottom	7.2	0.4	275	22.2	22.2	8.1	8.1	29.4	29.4	103.3	103.7	7.6	7.7	8.8		8		90				<0.2		1.0	
						7.2	0.4	268	22.2		8.1		29.3		104.0		7.7		8.9		9		90				<0.2		1.0	
IM11	Misty	Rough	08:07	7.0	Surface	1.0	0.4	282	22.2	22.2	8.1	8.1	29.4	29.4	101.2	101.3	7.4	7.5	4.0	5.1	8	7	47	75	821506	810541	<0.2	<0.2	0.9	0.9
						1.0	0.4	286	22.2		8.1		29.4		101.3		7.4		4.1		8		47				<0.2		0.9	
					Middle	3.5	0.4	271	22.2	22.2	8.1	8.1	29.4	29.4	101.9	102.1	7.5		5.1		7		87				<0.2		1.0	
						3.5	0.5	265	22.2		8.1		29.4		102.3		7.5		5.2		6		87				<0.2		0.9	
					Bottom	6.0	0.5	275	22.2	22.2	8.1	8.1	29.4	29.4	103.2	103.7	7.6	7.6	6.2		6		90				<0.2		0.9	
						6.0	0.4	277	22.2		8.1		29.4		104.1		7.6		6.2		5		90				<0.2		0.9	
IM12	Misty	Rough	08:01	8.6	Surface	1.0	0.5	272	22.2	22.2	8.1	8.1	29.4	29.4	100.0	100.1	7.3	7.4	7.1	8.2	9	7	44	72	821149	811539	<0.2	<0.2	0.9	0.9
						1.0	0.5	275	22.2		8.1		29.5		100.2		7.4		7.1		8		44				<0.2		0.9	
					Middle	4.3	0.5	281	22.2	22.2	8.1	8.1	29.5	29.5	101.2	101.3	7.4		8.4		7		86				<0.2		1.0	
						4.3	0.5	286	22.2		8.1		29.5		101.4		7.5		8.5		7		86				<0.2		0.9	
					Bottom	7.6	0.4	272	22.2	22.2	8.1	8.1	29.5	29.5	102.6	102.9	7.5	7.6	9.0		6		87				<0.2		1.0	
						7.6	0.4	272	22.2		8.1		29.5		103.2		7.6		9.1		5		87				<0.2		0.9	
SR1A	Misty	Rough	07:41	4.8	Surface	1.0	0.0	182	22.5	22.5	8.1	8.1	28.3	28.3	98.8	99.0	7.3	7.3	4.0	4.0	7	7	-	-	819973	812657	-	-	-	-
						1.0	0.0	180	22.5		8.1		28.3		99.2		7.3		4.0		7		-				-		-	
					Middle	2.4	-	210	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	0.0	208	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	204	22.5	22.5	8.1	8.1	28.3	28.2	99.8	100.0	7.3	7.4	4.0		6		-				-		-	
						3.8	0.0	207	22.5		8.1		28.2		100.1		7.4		4.1		8		-				-		-	
SR2	Misty	Rough	07:28	5.2	Surface	1.0	0.1	222	22.1	22.1	8.1	8.1	30.0	30.0	102.4	102.5	7.5	7.5	5.1	5.8	10	9	44	66	821484	814149	<0.2	<0.2	0.9	0.9
						1.0	0.1	226	22.1		8.1		30.0		102.6		7.5		5.2		10		44				<0.2		0.9	
					Middle	-	0.1	231	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	233	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	243	22.1	22.1	8.1	8.1	30.1	30.1	105.2	105.4	7.7	7.7	6.7		7		87				<0.2		1.0	
						4.2	0.1	237	22.1		8.1		30.1		105.5		7.7		6.5		7		87				<0.2		0.9	
SR3	Misty	Rough	08:12	8.8	Surface	1.0	0.3	346	22.5	22.5	8.1	8.1	28.2	28.2	97.4	97.4	7.2	7.3	2.1	3.6	6	9	-	-	822124	807585	-	-	-	-
						1.0	0.3	344	22.5		8.1		28.2		97.4		7.2		2.2		8		-				-		-	
					Middle	4.4	0.4	3	22.5	22.5	8.1	8.1	28.2	28.2	97.6	97.6	7.3		3.8		9		-				-		-	
						4.4	0.4	8	22.5		8.1		28.2		97.6		7.3		3.8		10		-				-		-	
					Bottom	7.8	0.4	335	22.5	22.5	8.1	8.1	28.2	28.2	97.9	98.0	7.3	7.3	4.8		10		-				-		-	
						7.8	0.4	328	22.5		8.1		28.2		98.0		7.3		4.8		11		-				-		-	
SR4A	Misty	Rough	07:04	9.4	Surface	1.0	0.0	200	21.9	21.9	8.0	8.0	31.0	31.1	99.4	99.4	7.3	7.3	1.0	1.2	8	8	-	-	817204	807829	-	-	-	-
						1.0	0.0	193	21.9		8.0		31.1		99.3		7.3		1.0		8		-				-		-	
					Middle	4.7	0.0	190	21.9	21.9	8.0	8.0	31.3	31.3	99.6	99.7	7.3		1.1		7		-				-		-	
						4.7	0.1	189	21.9		8.0		31.2		99.8		7.3		1.1		8		-				-		-	
					Bottom	8.4	0.1	208	21.9	22.0	8.0	8.0	30.9	30.9	100.4	100.5	7.3	7.4	1.5		8		-				-		-	
						8.4	0.0	213	22.0		8.0		30.8		100.6		7.4		1.4		7		-				-		-	
SR8	Misty	Rough	07:57	5.2	Surface	1.0	-	-	22.3	22.3	8.1	8.1	29.1	29.1	101.7	101.8	7.5	7.5	5.1	5.9	8	7	-	-	820403	811612	-	-	-	-
						1.0	-	-	22.3		8.1		29.1		101.9		7.5		5.2		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	22.3	22.3	8.1	8.1	29.2	29.2	103.1	103.4	7.6	7.6	6.7		6		-				-		-	
						4.2	-	-	22.3		8.1		29.2		103.6		7.6		6.7		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 19 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	13:47	8.0	Surface	1.0	0.3	219	21.8	21.8	8.0	8.0	29.2	29.2	98.5	98.5	7.3	7.2	2.4	3.6	6	5	47	50	815600	804236	<0.2	<0.2	1.0	1.0
						1.0	0.4	216	21.8		8.0		29.3		98.4		7.3		2.5		6		48				<0.2		1.1	
					Middle	4.0	0.3	220	21.7	21.7	8.1	8.1	30.1	30.2	94.2	94.2	7.0		4.1		5		49				<0.2		1.0	
						4.0	0.3	216	21.7		8.1		30.2		94.2		7.0		4.1		5		50				<0.2		0.9	
					Bottom	7.0	0.3	218	21.8	21.8	8.1	8.1	30.6	30.5	94.7	94.8	7.0	7.0	4.4		4		53				<0.2		1.0	
						7.0	0.4	215	21.8		8.1		30.5		94.8		7.0		4.4		5		51				<0.2		1.0	
C2	Cloudy	Moderate	12:58	11.8	Surface	1.0	0.3	158	22.0	22.0	8.0	8.0	28.4	28.4	94.7	94.8	7.0	6.9	6.4	7.5	4	6	47	50	825692	806952	<0.2	<0.2	1.0	1.0
						1.0	0.2	156	22.0		8.0		28.5		94.8		7.1		6.4		5		48				<0.2		1.0	
					Middle	5.9	0.3	167	21.9	21.9	8.0	8.0	29.2	29.2	91.2	91.2	6.8		7.8		5		48				<0.2		1.0	
						5.9	0.3	173	21.9		8.0		29.2		91.2		6.8		7.7		6		50				<0.2		0.9	
					Bottom	10.8	0.3	146	21.9	21.9	8.0	8.0	29.2	29.2	91.5	91.6	6.8	6.8	8.3		6		52				<0.2		0.9	
						10.8	0.3	139	21.9		8.0		29.2		91.6		6.8		8.3		7		52				<0.2		1.0	
C3	Cloudy	Rough	14:03	11.8	Surface	1.0	0.6	81	21.9	21.9	8.0	8.0	31.3	31.4	91.0	91.0	6.6	6.6	6.6	7.4	5	5	46	49	822099	817825	<0.2	<0.2	0.9	1.0
						1.0	0.5	83	21.9		8.0		31.4		91.0		6.6		6.5		5		47				<0.2		0.9	
					Middle	5.9	0.6	60	21.9	21.9	8.0	8.0	31.9	31.9	91.2	91.3	6.6		6.6		6		48				<0.2		1.0	
						5.9	0.5	53	21.9		8.0		31.9		91.3		6.7		6.9		4		48				<0.2		1.0	
					Bottom	10.8	0.6	93	21.9	21.9	7.8	7.8	32.2	32.3	92.5	92.5	6.7	6.7	8.8		6		51				<0.2		1.0	
						10.8	0.6	87	21.8		7.8		32.3		92.5		6.7		8.8		6		51				<0.2		0.9	
IM1	Cloudy	Moderate	13:37	6.6	Surface	1.0	0.2	185	21.8	21.8	8.0	8.0	29.7	29.8	99.9	100.0	7.4	7.2	4.3	6.1	5	5	47	49	818364	806457	<0.2	<0.2	1.0	0.9
						1.0	0.2	191	21.8		8.0		29.8		100.1		7.4		4.4		6		48				<0.2		0.9	
					Middle	3.3	0.1	199	21.6	21.6	8.0	8.0	30.1	30.1	93.4	93.5	6.9		6.7		6		49				<0.2		1.0	
						3.3	0.1	203	21.6		8.0		30.1		93.5		6.9		6.6		5		49				<0.2		0.9	
					Bottom	5.6	0.1	195	21.6	21.6	8.0	8.0	30.1	30.1	94.6	94.7	7.0	7.0	7.3		4		51				<0.2		0.9	
						5.6	0.1	195	21.6		8.0		30.0		94.7		7.0		7.3		4		51				<0.2		0.9	
IM2	Cloudy	Moderate	13:32	7.2	Surface	1.0	0.2	185	21.8	21.8	8.0	8.0	29.8	29.8	96.7	96.8	7.2	7.1	5.4	7.0	4	6	48	50	819188	806241	<0.2	<0.2	1.0	1.0
						1.0	0.1	178	21.8		8.0		29.8		96.9		7.2		5.4		5		47				<0.2		1.0	
					Middle	3.6	0.1	185	21.7	21.7	8.0	8.0	30.0	30.0	92.9	92.9	6.9		7.2		5		50				<0.2		1.0	
						3.6	0.2	184	21.7		8.0		30.0		92.9		6.9		7.3		6		50				<0.2		1.0	
					Bottom	6.2	0.1	192	21.6	21.6	8.0	8.0	30.4	30.4	93.6	93.7	6.9	6.9	8.3		6		51				<0.2		0.9	
						6.2	0.1	191	21.6		8.0		30.4		93.7		6.9		8.4		7		52				<0.2		0.9	
IM7	Cloudy	Moderate	13:15	7.0	Surface	1.0	0.1	129	22.1	22.1	7.9	7.9	27.2	27.2	101.1	101.2	7.6	7.3	4.3	5.6	5	5	48	50	821351	806850	<0.2	<0.2	1.0	0.9
						1.0	0.1	126	22.0		7.9		27.2		101.2		7.6		4.3		5		47				<0.2		0.9	
					Middle	3.5	0.2	113	21.8	21.8	8.0	8.0	29.5	29.5	93.0	93.0	6.9		5.4		5		50				<0.2		1.0	
						3.5	0.2	109	21.8		8.0		29.5		93.0		6.9		5.4		5		51				<0.2		0.9	
					Bottom	6.0	0.2	123	21.8	21.8	8.0	8.0	29.5	29.5	93.5	93.6	6.9	6.9	7.0		5		52				<0.2		0.8	
						6.0	0.2	122	21.8		8.0		29.5		93.7		6.9		7.0		5		51				<0.2		0.9	

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 19 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Cloudy	Rough	12:58	8.5	Surface	1.0	0.3	88	21.9	21.9	8.0	8.0	29.0	29.0	93.6	93.6	6.9	6.9	9.0	13.7	6	6	46	49	822216	809826	<0.2	<0.2	0.9	0.9
						1.0	0.4	91	21.9		8.0		29.1		93.6		6.9		9.5		5		47				<0.2		0.9	
					Middle	4.3	0.3	111	21.8	21.8	8.0	8.0	29.4	29.4	93.8	93.9	6.9		15.3		6		48				<0.2		0.9	
						4.3	0.3	111	21.8		8.0		29.4		93.9		6.9		15.0		6		49				<0.2		1.0	
					Bottom	7.5	0.3	89	21.8	21.8	8.0	8.0	29.5	29.5	94.7	94.8	7.0	7.0	15.6		6		51				<0.2		1.0	
						7.5	0.4	91	21.8		8.0		29.5		94.9		7.0		17.9		6		52				<0.2		0.9	
IM11	Cloudy	Rough	13:04	8.4	Surface	1.0	0.4	102	21.8	21.8	8.0	8.0	29.1	29.1	93.5	93.5	6.9	7.0	14.3	16.6	4	6	47	49	821489	810556	<0.2	<0.2	1.0	1.0
						1.0	0.4	108	21.8		8.0		29.2		93.5		6.9		14.0		5		47				<0.2		1.0	
					Middle	4.2	0.4	96	21.8	21.8	8.0	8.0	29.2	29.2	94.1	94.2	7.0		17.8		6		49				<0.2		1.0	
						4.2	0.5	95	21.8		8.0		29.2		94.3		7.0		17.3		6		48				<0.2		1.0	
					Bottom	7.4	0.4	97	21.8	21.8	8.0	8.0	29.3	29.3	96.7	96.8	7.2	7.2	17.5		6		50				<0.2		1.0	
						7.4	0.4	92	21.8		8.0		29.3		96.9		7.2		18.5		6		51				<0.2		0.9	
IM12	Cloudy	Rough	13:10	9.4	Surface	1.0	0.5	90	21.9	21.9	8.0	8.0	29.4	29.4	92.4	92.4	6.8	6.8	11.0	12.1	6	6	46	49	821151	811510	<0.2	<0.2	0.8	0.9
						1.0	0.5	84	21.9		8.0		29.4		92.4		6.8		11.3		5		47				<0.2		1.0	
					Middle	4.7	0.4	94	21.9	21.9	8.0	8.0	29.5	29.5	92.6	92.7	6.8		12.2		5		49				<0.2		0.9	
						4.7	0.4	93	21.9		8.0		29.5		92.7		6.8		12.3		6		48				<0.2		0.9	
					Bottom	8.4	0.5	79	21.9	21.9	8.0	8.0	29.6	29.6	93.2	93.5	6.9	6.9	12.9		6		51				<0.2		1.0	
						8.4	0.5	83	21.9		8.0		29.6		93.8		6.9		13.1		6		52				<0.2		0.9	
SR1A	Cloudy	Rough	13:33	5.8	Surface	1.0	0.0	53	21.9	21.9	8.0	8.0	29.8	29.8	91.2	91.3	6.7	6.7	7.9	9.0	6	5	-	-	819980	812659	-	-	-	-
						1.0	-	51	21.9		8.0		29.8		91.3		6.7		8.1		5		-				-		-	
					Middle	2.9	-	67	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	59	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	47	21.9	21.9	8.0	8.0	29.9	29.9	92.1	92.2	6.8	6.8	10.0		4		-				-		-	
						4.8	0.0	52	21.9		8.0		29.9		92.2		6.8		9.9		5		-				-		-	
SR2	Cloudy	Rough	13:45	4.7	Surface	1.0	0.3	43	21.9	21.9	8.0	8.0	29.2	29.2	93.4	93.5	6.9	6.9	6.0	6.4	5	6	48	49	821474	814181	<0.2	<0.2	0.8	0.9
						1.0	0.4	43	21.9		8.0		29.2		93.5		6.9		6.0		5		47				<0.2		0.9	
					Middle	-	0.4	72	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.4	75	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.4	41	21.9	21.9	8.0	8.0	30.0	30.0	97.2	97.5	7.2	7.2	6.8		6		51				<0.2		1.0	
						3.7	0.5	33	21.9		8.0		30.0		97.7		7.2		6.8		6		50				<0.2		0.9	
SR3	Cloudy	Moderate	13:09	8.2	Surface	1.0	0.2	124	21.9	21.9	7.9	7.9	28.1	28.2	97.9	98.0	7.3	7.0	4.6	5.4	4	5	-	-	822165	807564	-	-	-	-
						1.0	0.2	121	21.9		7.9		28.3		98.0		7.3		4.6		5		-				-		-	
					Middle	4.1	0.3	132	21.8	21.8	8.0	8.0	28.8	28.8	89.1	89.2	6.6		5.3		5		-				-		-	
						4.1	0.3	128	21.8		8.0		28.8		89.2		6.6		5.3		5		-				-		-	
					Bottom	7.2	0.3	119	21.8	21.8	8.0	8.0	29.1	29.0	90.2	90.3	6.7	6.7	6.4		6		-				-		-	
						7.2	0.3	120	21.8		8.0		29.0		90.3		6.7		6.4		5		-				-		-	
SR4A	Cloudy	Moderate	14:03	9.0	Surface	1.0	0.0	115	22.0	22.0	8.0	8.0	29.2	29.2	103.1	103.2	7.6	7.3	4.3	5.6	5	5	-	-	817210	807792	-	-	-	-
						1.0	0.0	118	22.0		8.0		29.2		103.3		7.6		4.3		5		-				-		-	
					Middle	4.5	0.0	90	21.9	21.9	8.0	8.0	29.3	29.3	92.9	93.0	6.9		5.8		5		-				-		-	
						4.5	0.0	95	21.9		8.0		29.3		93.0		6.9		5.8		6		-				-		-	
					Bottom	8.0	0.0	88	21.9	21.9	8.0	8.0	29.3	29.3	94.2	94.3	7.0	7.0	6.8		6		-				-		-	
						8.0	0.0	82	21.9		8.0		29.3		94.4		7.0		6.8		5		-				-		-	
SR8	Cloudy	Rough	13:14	4.4	Surface	1.0	-	-	22.0	22.0	8.0	8.0	29.6	29.6	94.0	94.3	6.9	7.0	8.0	8.1	5	7	-	-	820378	811631	-	-	-	-
						1.0	-	-	22.0		8.0		29.6		94.5		7.0		8.1		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	-	-	22.0	22.0	8.0	8.0	29.6	29.6	96.2	96.4	7.1	7.1	8.3		8		-				-		-	
						3.4	-	-	22.0		8.0		29.6		96.6		7.1		8.3		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 19 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Rainy	Rough	08:35	8.6	Surface	1.0	0.4	33	21.0	21.0	8.1	8.1	29.1	29.1	98.4	98.5	7.4	7.4	11.4	12.6	8	7	48	50	815640	804235	<0.2	<0.2	0.9	0.9
						1.0	0.4	34	21.0		8.1		29.2		98.5		7.4		11.5		7		47				<0.2		1.0	
					Middle	4.3	0.4	29	21.0	20.8	8.1	8.1	30.0	30.0	99.1	99.2	7.4		13.0		8		50				<0.2		0.9	
						4.3	0.5	32	20.5		8.1		30.1		99.3		7.5		13.0		7		51				<0.2		0.9	
					Bottom	7.6	0.4	53	20.5	20.7	8.1	8.1	30.5	30.5	95.2	95.3	7.2	7.2	13.4		5		52				<0.2		0.9	
						7.6	0.4	55	20.9		8.1		30.5		95.3		7.1		13.3		6		51				<0.2		0.9	
C2	Rainy	Moderate	09:44	11.4	Surface	1.0	0.5	353	21.9	21.9	8.0	8.0	28.5	28.6	96.2	96.3	7.2	7.3	6.4	9.8	8	8	44	72	825682	806935	<0.2	<0.2	0.9	0.9
						1.0	0.4	347	21.9		8.0		28.6		96.4		7.2		7.1		8		44				<0.2		0.9	
					Middle	5.7	0.5	337	21.7	21.7	8.0	8.0	29.4	29.4	98.7	98.9	7.4		11.2		8		85				<0.2		0.9	
						5.7	0.4	335	21.7		8.0		29.4		99.0		7.4		11.5		8		85				<0.2		0.9	
					Bottom	10.4	0.4	14	21.7	21.7	8.0	8.0	29.4	29.4	99.9	100.1	7.4	7.5	11.5		9		86				<0.2		0.8	
						10.4	0.4	10	21.7		8.0		29.4		100.2		7.5		11.5		9		86				<0.2		0.9	
C3	Rainy	Moderate	08:05	12.8	Surface	1.0	0.5	262	21.9	21.9	7.9	7.9	30.2	30.2	91.7	91.7	6.7	6.7	3.4	8.2	5	5	46	49	822098	817812	<0.2	<0.2	0.9	0.9
						1.0	0.6	263	21.9		7.9		30.2		91.7		6.7		3.4		5		47				<0.2		0.8	
					Middle	6.4	0.5	277	22.0	22.0	7.9	7.9	31.4	31.4	90.4	90.4	6.6		10.0		6		49				<0.2		1.0	
						6.4	0.5	271	22.0		7.9		31.4		90.4		6.6		9.9		5		48				<0.2		0.9	
					Bottom	11.8	0.5	265	21.9	21.9	7.8	7.8	31.6	31.6	89.8	89.8	6.5	6.5	11.3		6		51				<0.2		0.9	
						11.8	0.5	270	21.9		7.8		31.6		89.8		6.5		11.2		5		51				<0.2		0.9	
IM1	Rainy	Moderate	08:52	6.3	Surface	1.0	0.3	4	21.1	21.1	8.1	8.1	28.9	28.9	101.6	101.7	7.7	7.5	9.9	10.6	6	7	47	49	818342	806467	<0.2	<0.2	0.9	0.9
						1.0	0.3	0	21.1		8.1		29.0		101.7		7.7		10.0		5		46				<0.2		0.9	
					Middle	3.2	0.3	1	21.1	21.2	8.1	8.1	29.1	29.1	95.2	95.3	7.2		10.3		6		49				<0.2		0.8	
						3.2	0.2	353	21.2		8.1		29.1		95.3		7.2		10.4		6		48				<0.2		0.9	
					Bottom	5.3	0.3	38	21.3	21.3	8.1	8.1	29.0	29.0	95.9	97.0	7.2	7.3	11.6		8		51				<0.2		0.9	
						5.3	0.3	37	21.3		8.1		29.0		98.0		7.4		11.7		9		52				<0.2		0.9	
IM2	Rainy	Moderate	08:56	7.2	Surface	1.0	0.4	29	21.2	21.2	8.1	8.1	29.0	29.0	104.8	104.9	7.9	7.5	11.3	12.5	6	7	47	49	819198	806227	<0.2	<0.2	1.0	0.9
						1.0	0.4	28	21.2		8.1		29.0		104.9		7.9		11.4		6		46				<0.2		1.0	
					Middle	3.6	0.4	14	21.1	21.1	8.1	8.1	29.2	29.2	94.4	94.5	7.1		12.4		6		48				<0.2		0.9	
						3.6	0.3	18	21.1		8.1		29.2		94.5		7.1		12.5		7		48				<0.2		0.9	
					Bottom	6.2	0.3	8	21.2	21.2	8.1	8.1	29.2	29.2	94.8	94.9	7.1	7.1	13.7		7		51				<0.2		0.8	
						6.2	0.2	6	21.2		8.1		29.2		95.0		7.1		13.6		8		52				<0.2		0.9	
IM7	Rainy	Moderate	09:17	10.4	Surface	1.0	0.2	357	22.1	22.1	8.0	8.0	28.2	28.2	92.7	92.7	6.9	6.9	5.8	10.3	7	7	48	50	821341	806815	<0.2	<0.2	0.8	0.9
						1.0	0.2	351	22.1		8.0		28.2		92.6		6.9		6.2		8		47				<0.2		1.0	
					Middle	5.2	0.3	14	22.1	22.1	8.0	8.0	28.5	28.5	93.4	93.6	6.9		11.4		7		49				<0.2		0.9	
						5.2	0.3	14	22.1		8.0		28.5		93.7		7.0		11.9		7		50				<0.2		0.9	
					Bottom	9.4	0.2	353	22.1	22.1	8.0	8.0	28.4	28.4	96.5	96.8	7.2	7.2	13.1		7		52				<0.2		0.9	
						9.4	0.2	354	22.1		8.0		28.4		97.1		7.2		13.2		7		51				<0.2		1.0	

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 19 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Rainy	Rough	09:16	8.5	Surface	1.0	0.3	296	21.9	21.9	8.0	8.0	29.6	29.6	92.5	92.5	6.8	6.9	14.9	18.3	7	5	45	49	822262	809853	<0.2	<0.2	1.0	1.0
						1.0	0.3	289	21.9		8.0		29.6		92.5		6.8		14.9		6		46				<0.2		0.9	
					Middle	4.3	0.4	282	21.9	21.9	8.0	8.0	29.7	29.7	93.1	93.2	6.9		15.4		5		49				<0.2		1.0	
						4.3	0.4	287	21.9		8.0		29.7		93.3		6.9		15.7		5		50				<0.2		0.9	
					Bottom	7.5	0.3	275	21.9	21.9	8.0	8.0	29.7	29.7	95.3	95.5	7.0	7.0	23.5		5		50				<0.2		1.0	
						7.5	0.4	280	21.9		8.0		29.7		95.6		7.0		25.3		4		51				<0.2		0.9	
IM11	Rainy	Rough	09:10	8.8	Surface	1.0	0.5	289	22.0	22.0	8.0	8.0	29.9	29.9	91.0	91.0	6.7	6.7	16.1	16.9	6	5	46	48	821496	810537	<0.2	<0.2	0.9	0.9
						1.0	0.4	291	22.0		8.0		29.9		91.0		6.7		16.2		4		46				<0.2		0.9	
					Middle	4.4	0.4	270	22.0	22.0	8.0	8.0	29.9	29.9	91.3	91.4	6.7		17.1		5		49				<0.2		0.9	
						4.4	0.5	276	22.0		8.0		29.9		91.5		6.7		17.0		5		48				<0.2		1.0	
					Bottom	7.8	0.5	282	22.0	22.0	8.0	8.0	29.9	29.9	92.9	93.1	6.8	6.9	17.8		4		50				<0.2		0.9	
						7.8	0.4	283	22.0		8.0		29.9		93.2		6.9		17.5		5		51				<0.2		0.9	
IM12	Rainy	Rough	09:05	8.9	Surface	1.0	0.6	291	22.0	22.0	8.0	8.0	29.6	29.6	91.4	91.4	6.7	6.7	15.5	17.6	5	4	46	48	821154	811519	<0.2	<0.2	0.9	1.0
						1.0	0.5	293	22.0		8.0		29.6		91.4		6.7		15.3		4		47				<0.2		0.9	
					Middle	4.5	0.5	270	22.0	22.0	8.0	8.0	29.8	29.8	91.6	91.6	6.7		17.6		4		48				<0.2		1.1	
						4.5	0.5	262	22.0		8.0		29.8		91.6		6.7		16.4		5		48				<0.2		1.0	
					Bottom	7.9	0.5	285	22.0	22.0	8.0	8.0	29.9	29.9	92.5	92.7	6.8	6.8	21.5		4		50				<0.2		0.9	
						7.9	0.5	280	22.0		8.0		29.9		92.8		6.8		19.3		4		50				<0.2		0.9	
SR1A	Rainy	Moderate	08:39	5.8	Surface	1.0	0.0	210	21.9	21.9	8.0	8.0	29.4	29.4	90.0	90.0	6.7	6.7	4.4	6.3	5	5	-	-	819981	812655	-	-	-	-
						1.0	0.1	212	21.8		8.0		29.5		89.9		6.6		4.7		4		-				-		-	
					Middle	2.9	0.0	198	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.1	190	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	-	199	21.8	21.8	8.0	8.0	29.8	29.8	90.2	90.3	6.7	6.7	8.0		5		-				-		-	
						4.8	-	194	21.8		8.0		29.8		90.3		6.7		8.0		4		-				-		-	
SR2	Rainy	Moderate	08:23	5.5	Surface	1.0	0.0	226	22.0	22.0	8.0	8.0	29.6	29.6	92.0	92.1	6.8	6.8	15.3	16.1	5	5	46	48	821462	814148	<0.2	<0.2	1.0	1.0
						1.0	0.0	218	22.0		8.0		29.6		92.1		6.8		15.3		5		47				<0.2		0.9	
					Middle	-	0.1	230	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	228	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	251	22.0	22.0	8.0	8.0	29.6	29.6	92.9	93.0	6.8	6.9	16.5		6		49				<0.2		1.0	
						4.5	0.1	254	22.0		8.0		29.6		93.0		6.9		17.2		5		50				<0.2		0.9	
SR3	Rainy	Moderate	09:36	8.2	Surface	1.0	0.3	350	21.7	21.7	8.0	8.0	29.6	29.6	95.3	95.3	7.1	7.1	13.7	14.4	6	5	-	-	822157	807593	-	-	-	-
						1.0	0.3	349	21.7		8.0		29.6		95.3		7.1		13.3		5		-				-		-	
					Middle	4.1	0.4	349	21.8	21.8	8.0	8.0	29.6	29.6	95.2	95.2	7.1		13.9		5		-				-		-	
						4.1	0.4	356	21.8		8.0		29.6		95.2		7.1		13.1		5		-				-		-	
					Bottom	7.2	0.4	321	21.7	21.7	8.0	8.0	29.6	29.6	95.7	95.8	7.1	7.1	16.3		5		-				-		-	
						7.2	0.3	320	21.7		8.0		29.6		95.8		7.1		16.4		5		-				-		-	
SR4A	Rainy	Rough	08:13	9.4	Surface	1.0	0.0	144	21.1	21.1	8.1	8.1	28.6	28.6	98.3	98.3	7.4	7.2	10.4	11.4	4	5	-	-	817211	807823	-	-	-	-
						1.0	0.1	149	21.1		8.1		28.6		98.3		7.4		10.4		4		-				-		-	
					Middle	4.7	0.1	137	20.8	20.8	8.1	8.1	28.8	28.8	91.8	91.8	7.0		11.4		5		-				-		-	
						4.7	0.0	143	20.8		8.1		28.8		91.8		7.0		11.4		4		-				-		-	
					Bottom	8.4	0.1	162	20.7	20.7	8.0	8.0	28.8	28.8	92.2	92.3	7.0	7.0	12.4		6		-				-		-	
						8.4	0.0	164	20.7		8.0		28.8		92.3		7.0		12.5		5		-				-		-	
SR8	Rainy	Moderate	09:00	5.4	Surface	1.0	-	-	21.9	21.9	8.0	8.0	29.2	29.2	91.8	91.9	6.8	6.8	10.5	16.3	3	3	-	-	820374	811640	-	-	-	-
						1.0	-	-	21.9		8.0		29.2		91.9		6.8		10.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	21.9	21.9	8.0	8.0	29.6	29.6	93.4	93.6	6.9	6.9	23.3		3		-				-		-	
						4.4	-	-	21.9		8.0		29.6		93.8		6.9		20.8		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	15:29	8.6	Surface	1.0	0.4	211	23.2	23.2	8.0	8.0	30.1	30.1	99.6	99.6	7.2	7.0	1.4	2.6	4	4	47	50	815635	804241	<0.2	<0.2	1.4	1.1
						1.0	0.4	211	23.2		8.0		30.2		99.5		7.2		1.5		4		48				<0.2		1.3	
					Middle	4.3	0.4	193	23.1	23.1	8.0	8.0	31.0	31.0	95.3	95.3	6.8		3.1		4		50				<0.2		1.1	
						4.3	0.4	200	23.1		8.0		31.0		95.3		6.8		3.1		4		50				<0.2		1.0	
					Bottom	7.6	0.4	199	23.2	23.2	8.0	8.0	31.4	31.4	95.8	95.9	6.9	6.9	3.4		3		52				<0.2		1.0	
						7.6	0.5	198	23.2		8.0		31.4		95.9		6.9		3.4		4		53				<0.2		1.0	
C2	Cloudy	Moderate	14:40	11.2	Surface	1.0	0.5	156	23.4	23.4	8.0	8.0	29.3	29.3	95.8	95.9	6.9	6.8	5.4	6.5	4	4	48	50	825669	806943	<0.2	<0.2	1.2	1.2
						1.0	0.5	160	23.4		8.0		29.3		95.9		6.9		5.4		5		48				<0.2		1.0	
					Middle	5.6	0.5	184	23.3	23.3	8.0	8.0	30.0	30.1	92.3	92.3	6.6		6.8		3		49				<0.2		1.2	
						5.6	0.4	184	23.3		8.0		30.1		92.3		6.6		6.7		4		50				<0.2		1.3	
					Bottom	10.2	0.5	174	23.3	23.3	8.0	8.0	30.1	30.1	92.6	92.7	6.7	6.7	7.3		3		52				<0.2		1.3	
						10.2	0.5	172	23.3		8.0		30.1		92.7		6.7		7.3		4		53				<0.2		1.1	
C3	Fine	Moderate	15:46	11.2	Surface	1.0	0.6	77	22.3	22.3	8.0	8.0	31.1	31.1	89.5	89.5	6.5	6.5	6.3	8.7	5	6	47	50	822112	817786	<0.2	<0.2	1.4	1.2
						1.0	0.6	73	22.3		8.0		31.1		89.5		6.5		6.6		6		48				<0.2		1.2	
					Middle	5.6	0.6	94	22.0	22.0	8.0	8.0	31.8	31.8	88.2	88.3	6.4		9.1		5		50				<0.2		1.3	
						5.6	0.6	100	22.0		8.0		31.8		88.3		6.4		8.9		6		51				<0.2		1.1	
					Bottom	10.2	0.6	65	22.0	22.0	8.0	8.0	31.9	31.9	89.6	89.9	6.5	6.6	10.4		6		52				<0.2		1.2	
						10.2	0.6	70	22.0		8.0		31.9		90.1		6.6		10.9		7		52				<0.2		1.1	
IM1	Cloudy	Moderate	15:19	6.7	Surface	1.0	0.3	186	23.2	23.2	7.9	7.9	30.6	30.6	101.0	101.1	7.3	7.1	3.3	5.1	5	5	49	50	818333	806467	<0.2	<0.2	0.8	0.9
						1.0	0.2	187	23.2		7.9		30.7		101.2		7.3		3.4		4		47				<0.2		0.9	
					Middle	3.4	0.2	174	23.0	23.0	7.9	7.9	30.9	30.9	94.5	94.6	6.8		5.7		4		50				<0.2		0.9	
						3.4	0.3	173	23.0		7.9		30.9		94.6		6.8		5.6		5		49				<0.2		0.8	
					Bottom	5.7	0.2	188	23.0	23.0	7.9	7.9	31.0	30.9	95.7	95.8	6.9	6.9	6.3		6		52				<0.2		0.8	
						5.7	0.3	192	23.0		7.9		30.9		95.8		6.9		6.3		7		52				<0.2		0.9	
IM2	Cloudy	Moderate	15:14	7.2	Surface	1.0	0.3	203	23.2	23.2	8.0	8.0	30.6	30.6	97.8	97.9	7.0	6.9	4.4	6.0	5	5	48	50	819179	806236	<0.2	<0.2	1.1	1.1
						1.0	0.3	195	23.2		8.0		30.7		98.0		7.0		4.4		5		47				<0.2		1.1	
					Middle	3.6	0.3	191	23.1	23.1	8.0	8.0	30.9	30.9	94.0	94.0	6.8		6.2		5		50				<0.2		1.2	
						3.6	0.2	188	23.1		8.0		30.9		94.0		6.8		6.3		5		50				<0.2		1.2	
					Bottom	6.2	0.3	194	23.0	23.0	8.0	8.0	31.2	31.3	94.7	94.8	6.8	6.8	7.3		5		52				<0.2		1.1	
						6.2	0.4	198	23.0		8.0		31.3		94.8		6.8		7.4		6		52				<0.2		1.1	
IM7	Cloudy	Moderate	14:57	8.1	Surface	1.0	0.2	153	23.5	23.5	7.9	7.9	28.1	28.1	102.2	102.3	7.4	7.1	3.3	4.6	4	5	46	49	821360	806850	<0.2	<0.2	1.0	1.0
						1.0	0.2	147	23.4		7.9		28.1		102.3		7.4		3.3		4		47				<0.2		0.9	
					Middle	4.1	0.3	139	23.2	23.2	7.9	7.9	30.4	30.4	94.1	94.1	6.8		4.4		4		49				<0.2		0.9	
						4.1	0.2	133	23.2		7.9		30.4		94.1		6.8		4.4		5		48				<0.2		1.0	
					Bottom	7.1	0.2	164	23.2	23.2	7.9	7.9	30.4	30.4	94.6	94.7	6.8	6.8	6.0		7		50				<0.2		1.0	
						7.1	0.2	161	23.2		7.9		30.4		94.8		6.8		6.0		6		51				<0.2		1.1	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	14:36	8.9	Surface	1.0	0.4	114	22.4	22.4	8.0	8.0	29.6	29.7	91.5	91.5	6.7	6.7	5.5	8.8	4	8	48	51	822226	809856	<0.2	<0.2	1.1	1.3
						1.0	0.5	113	22.3		8.0		29.7		91.4		6.7		5.7		3		49				<0.2		1.1	
					Middle	4.5	0.4	87	22.1	22.1	8.0	8.0	30.1	30.1	90.7	90.8	6.6		7.4		9		51				<0.2		1.5	
						4.5	0.5	89	22.1		8.0		30.1		90.8		6.6		7.4		8		51				<0.2		1.3	
					Bottom	7.9	0.4	123	22.2	22.2	8.0	8.0	30.2	30.2	92.0	92.1	6.7	6.7	13.5		11		54				<0.2		1.2	
						7.9	0.4	123	22.2		8.0		30.2		92.1		6.7		13.6		10		53				<0.2		1.3	
IM11	Fine	Moderate	14:43	8.8	Surface	1.0	0.5	85	22.6	22.6	8.0	8.0	29.3	29.3	96.0	96.0	7.0	7.0	4.5	8.0	11	11	50	51	821488	810562	<0.2	<0.2	2.0	2.1
						1.0	0.5	88	22.6		8.0		29.3		96.0		7.0		4.6		10		49				<0.2		2.0	
					Middle	4.4	0.5	82	22.3	22.3	8.0	8.0	29.8	29.8	94.5	94.5	6.9		7.5		10		51				<0.2		2.1	
						4.4	0.6	79	22.3		8.0		29.8		94.4		6.9		7.6		11		52				<0.2		2.1	
					Bottom	7.8	0.5	99	22.3	22.3	8.0	8.0	30.0	30.0	94.4	94.5	6.9	6.9	11.9		11		53				<0.2		2.1	
						7.8	0.5	94	22.3		8.0		30.0		94.5		6.9		12.1		11		53				<0.2		2.0	
IM12	Fine	Moderate	14:50	8.8	Surface	1.0	0.4	95	22.5	22.5	8.0	8.0	29.7	29.7	95.7	95.7	7.0	7.0	7.3	10.6	8	6	49	51	821176	811500	<0.2	<0.2	1.2	1.2
						1.0	0.4	88	22.5		8.0		29.7		95.7		7.0		7.5		6		50				<0.2		1.1	
					Middle	4.4	0.5	79	22.3	22.3	8.0	8.0	30.0	30.0	94.9	94.9	6.9		10.3		6		51				<0.2		1.2	
						4.4	0.5	82	22.3		8.0		30.0		94.9		6.9		10.0		6		52				<0.2		1.2	
					Bottom	7.8	0.5	98	22.3	22.3	8.0	8.0	30.1	30.1	95.0	95.1	6.9	7.0	14.6		6		53				<0.2		1.1	
						7.8	0.5	94	22.3		8.0		30.1		95.1		7.0		14.1		5		53				<0.2		1.1	
SR1A	Fine	Moderate	15:16	5.7	Surface	1.0	0.0	59	22.6	22.6	8.0	8.0	29.7	29.7	92.8	92.9	6.8	6.8	8.3	7.8	6	5	-	-	819979	812662	-	-	-	-
						1.0	0.0	55	22.6		8.0		29.7		93.0		6.8		8.2		5		-				-		-	
					Middle	2.9	-	73	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	76	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	42	22.5	22.5	8.0	8.0	29.8	29.8	94.3	94.5	6.9	6.9	7.3		5		-				-		-	
						4.7	0.0	44	22.5		8.0		29.7		94.6		6.9		7.5		4		-				-		-	
SR2	Fine	Moderate	15:28	4.8	Surface	1.0	0.4	43	22.9	22.9	8.0	8.0	29.3	29.3	94.9	94.8	6.9	6.9	6.4	7.2	6	7	49	49	821445	814161	<0.2	<0.2	1.8	1.9
						1.0	0.5	39	22.9		8.0		29.3		94.7		6.9		6.6		7		48				<0.2		1.9	
					Middle	-	0.4	69	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.5	64	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	59	22.5	22.5	8.0	8.0	29.7	29.7	93.5	93.6	6.8	6.8	8.0		7		50				<0.2		1.9	
						3.8	0.4	66	22.5		8.0		29.8		93.6		6.8		7.9		6		50				<0.2		1.8	
SR3	Cloudy	Moderate	14:51	8.7	Surface	1.0	0.3	140	23.3	23.3	7.9	7.9	29.0	29.1	99.0	99.1	7.2	6.9	3.6	4.4	5	5	-	-	822131	807553	-	-	-	-
						1.0	0.3	137	23.3		7.9		29.2		99.1		7.2		3.6		6		-				-		-	
					Middle	4.4	0.3	163	23.2	23.2	7.9	7.9	29.7	29.7	90.2	90.3	6.5		4.3		5		-				-		-	
						4.4	0.3	161	23.2		7.9		29.7		90.3		6.5		4.3		5		-				-		-	
					Bottom	7.7	0.3	129	23.2	23.2	7.9	7.9	29.9	29.9	91.3	91.4	6.6	6.6	5.4		5		-				-		-	
						7.7	0.2	133	23.2		7.9		29.9		91.4		6.6		5.4		4		-				-		-	
SR4A	Cloudy	Moderate	15:45	8.9	Surface	1.0	0.1	86	23.4	23.4	7.9	7.9	30.9	31.0	104.2	104.3	7.4	7.1	3.3	4.6	4	4	-	-	817192	807831	-	-	-	-
						1.0	0.1	93	23.4		7.9		31.0		104.4		7.5		3.3		5		-				-		-	
					Middle	4.5	-	76	23.3	23.3	7.9	7.9	31.1	31.1	94.0	94.1	6.7		4.8		5		-				-		-	
						4.5	-	78	23.3		7.9		31.1		94.1		6.7		4.8		4		-				-		-	
					Bottom	7.9	0.1	70	23.3	23.3	7.9	7.9	31.1	31.0	95.3	95.4	6.8	6.8	5.8		4		-				-		-	
						7.9	0.0	72	23.3		7.9		31.0		95.5		6.8		5.8		4		-				-		-	
SR8	Fine	Moderate	14:54	5.4	Surface	1.0	-	-	22.8	22.8	8.0	8.0	29.8	29.8	90.6	90.6	6.6	6.6	7.3	9.4	6	6	-	-	820373	811624	-	-	-	-
						1.0	-	-	22.8		8.0		29.8		90.5		6.6		7.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	22.6	22.6	8.0	8.0	29.9	29.9	87.9	87.9	6.4	6.4	11.4		7		-				-		-	
						4.4	-	-	22.6		8.0		29.9		87.9		6.4		11.3		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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	09:13	8.5	Surface	1.0	0.3	43	22.1	22.1	8.0	8.0	30.0	30.0	92.7	92.8	6.8	6.8	8.9	10.0	4	4	46	49	815619	804232	<0.2	<0.2	0.8	0.8
						1.0	0.2	36	22.1		8.0		30.1		92.8		6.8		8.9		3		47				<0.2		0.8	
					Middle	4.3	0.4	51	22.1	21.9	8.1	8.1	30.9	30.9	93.4	93.5	6.8		10.4		4		49				<0.2		0.9	
						4.3	0.4	49	21.6		8.1		31.0		93.6		6.9		10.4		4		50				<0.2		0.9	
					Bottom	7.5	0.3	23	21.6	21.8	8.1	8.1	31.4	31.4	89.5	89.6	6.6	6.6	10.8		5		51				<0.2		0.8	
						7.5	0.3	21	22.0		8.1		31.4		89.6		6.6		10.8		4		52				<0.2		0.8	
C2	Cloudy	Moderate	10:55	11.5	Surface	1.0	0.5	2	23.2	23.2	8.0	8.0	29.1	29.1	81.3	81.3	5.9	5.9	3.2	7.7	5	5	46	49	825686	806928	<0.2	<0.2	0.9	0.9
						1.0	0.5	355	23.2		8.0		29.1		81.2		5.9		3.7		6		47				<0.2		1.0	
					Middle	5.8	0.5	9	23.2	23.2	8.0	8.0	29.3	29.3	82.0	82.2	5.9		8.8		5		48				<0.2		1.0	
						5.8	0.5	14	23.2		8.0		29.3		82.3		6.0		9.3		5		49				<0.2		0.9	
					Bottom	10.5	0.4	0	23.2	23.2	8.0	8.0	29.3	29.3	85.1	85.4	6.2	6.2	10.5		4		51				<0.2		0.9	
						10.5	0.4	355	23.2		8.0		29.3		85.7		6.2		10.7		5		51				<0.2		0.9	
C3	Cloudy	Moderate	09:08	11.8	Surface	1.0	0.4	253	22.1	22.1	8.0	8.0	30.1	30.1	90.5	90.5	6.6	6.5	3.2	6.6	4	5	47	50	822090	817786	<0.2	<0.2	1.5	2.6
						1.0	0.3	248	22.1		8.0		30.1		90.5		6.6		3.2		5		48				<0.2		1.5	
					Middle	5.9	0.4	238	22.0	22.0	8.0	8.0	31.4	31.4	86.8	86.8	6.3		3.8		5		50				<0.2		3.1	
						5.9	0.3	234	22.0		8.0		31.4		86.7		6.3		4.0		4		51				<0.2		3.1	
					Bottom	10.8	0.4	233	22.0	22.0	8.0	8.0	31.9	31.9	86.0	86.0	6.3	6.3	13.1		4		52				<0.2		3.2	
						10.8	0.4	236	22.0		8.0		31.9		85.9		6.2		12.4		5		52				<0.2		3.2	
IM1	Cloudy	Moderate	09:30	6.4	Surface	1.0	0.2	12	22.2	22.2	8.0	8.0	29.8	29.8	90.2	90.3	6.6	6.4	7.3	8.1	4	5	48	50	818329	806467	<0.2	<0.2	0.9	0.9
						1.0	0.2	9	22.2		8.0		29.8		90.3		6.6		7.4		5		48				<0.2		0.9	
					Middle	3.2	0.3	7	22.2	22.3	8.0	8.0	30.0	30.0	83.8	83.9	6.2		7.8		5		50				<0.2		0.9	
						3.2	0.2	9	22.3		8.0		30.0		83.9		6.2		7.8		4		50				<0.2		1.0	
					Bottom	5.4	0.2	0	22.4	22.4	8.0	8.0	29.9	29.9	84.5	85.6	6.2	6.3	9.1		5		52				<0.2		0.9	
						5.4	0.2	0	22.4		8.0		29.9		86.6		6.3		9.1		5		52				<0.2		0.9	
IM2	Cloudy	Moderate	09:34	6.8	Surface	1.0	0.2	34	22.3	22.3	8.0	8.0	29.8	29.9	93.4	93.5	6.9	6.5	8.8	9.9	3	5	49	51	819196	806242	<0.2	<0.2	0.9	0.9
						1.0	0.3	33	22.3		8.0		29.9		93.5		6.9		8.8		4		48				<0.2		0.8	
					Middle	3.4	0.3	13	22.2	22.2	8.1	8.1	30.1	30.1	83.0	83.1	6.1		9.9		6		50				<0.2		0.8	
						3.4	0.2	14	22.2		8.1		30.1		83.1		6.1		9.9		5		51				<0.2		0.9	
					Bottom	5.8	0.3	36	22.3	22.3	8.1	8.1	30.1	30.1	83.4	83.5	6.1	6.1	11.1		6		52				<0.2		0.9	
						5.8	0.3	29	22.3		8.1		30.1		83.6		6.1		11.1		7		53				<0.2		0.9	
IM7	Cloudy	Moderate	10:22	7.8	Surface	1.0	0.3	10	23.0	23.0	8.0	8.0	29.4	29.4	90.5	90.6	6.6	6.7	3.8	7.1	6	6	47	50	821348	806858	<0.2	<0.2	0.8	1.0
						1.0	0.2	16	23.0		8.0		29.5		90.7		6.6		3.6		5		49				<0.2		0.8	
					Middle	3.9	0.3	28	22.8	22.8	8.0	8.0	30.3	30.3	93.0	93.2	6.8		8.7		6		50				<0.2		1.1	
						3.9	0.2	31	22.8		8.0		30.3		93.3		6.8		8.9		7		50				<0.2		1.2	
					Bottom	6.8	0.3	357	22.8	22.8	8.0	8.0	30.3	30.3	94.2	94.4	6.8	6.9	8.9		7		52				<0.2		1.1	
						6.8	0.3	358	22.8		8.0		30.3		94.5		6.9		8.9		6		51				<0.2		1.1	

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 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Cloudy	Moderate	10:16	8.0	Surface	1.0	0.4	289	22.3	22.3	8.0	8.0	29.4	29.4	90.8	90.8	6.7	6.7	6.6	10.0	4	4	48	50	822260	809855	<0.2	<0.2	1.9	1.9
						1.0	0.4	286	22.3		8.0		29.4		90.7		6.7		6.9		3		49						2.1	
					Middle	4.0	0.4	274	22.2	22.2	8.0	8.0	29.8	29.8	90.2	90.3	6.6		11.3		3		50				<0.2		1.9	
						4.0	0.4	277	22.2		8.0		29.8		90.3		6.6		11.4		4		51				<0.2		1.9	
					Bottom	7.0	0.4	297	22.2	22.2	8.0	8.0	29.8	29.8	90.9	91.0	6.7	6.7	11.9		4		52				<0.2		1.9	
						7.0	0.4	293	22.2		8.0		29.8		91.0		6.7		12.0		4		52				<0.2		1.9	
IM11	Cloudy	Moderate	10:10	8.5	Surface	1.0	0.4	266	22.2	22.2	8.0	8.0	29.4	29.4	90.5	90.5	6.6	6.6	6.9	11.1	6	6	49	50	821491	810543	<0.2	<0.2	1.0	1.1
						1.0	0.4	267	22.2		8.0		29.4		90.4		6.6		7.2		7		48				<0.2		1.1	
					Middle	4.3	0.5	284	22.1	22.1	8.0	8.0	29.9	29.9	89.6	89.7	6.6		12.0		4		50				<0.2		1.2	
						4.3	0.5	286	22.1		8.0		29.9		89.7		6.6		12.2		10		51				<0.2		1.2	
					Bottom	7.5	0.5	273	22.1	22.1	8.0	8.0	29.9	29.9	90.4	90.4	6.6	6.6	14.6		3		52				<0.2		1.2	
						7.5	0.5	272	22.1		8.0		29.9		90.4		6.6		13.8		4		52				<0.2		1.1	
IM12	Cloudy	Moderate	10:04	8.9	Surface	1.0	0.5	268	22.1	22.1	8.0	8.0	30.1	30.1	89.1	89.1	6.5	6.5	7.8	12.7	13	12	47	50	821173	811495	<0.2	<0.2	2.4	2.0
						1.0	0.5	261	22.1		8.0		30.1		89.1		6.5		7.8		14		48				<0.2		2.5	
					Middle	4.5	0.5	285	22.1	22.1	8.0	8.0	30.1	30.1	89.1	89.1	6.5		15.1		11		50				<0.2		1.9	
						4.5	0.5	283	22.1		8.0		30.1		89.1		6.5		15.2		12		50				<0.2		1.8	
					Bottom	7.9	0.5	298	22.1	22.1	8.0	8.0	30.1	30.1	89.4	89.5	6.6	6.6	15.6		11		53				<0.2		1.8	
						7.9	0.5	304	22.1		8.0		30.1		89.6		6.6		14.8		11		52				<0.2		1.7	
SR1A	Cloudy	Moderate	09:39	5.6	Surface	1.0	0.0	222	22.2	22.2	7.9	7.9	29.2	29.2	89.0	89.0	6.6	6.6	4.4	4.9	4	6	-	-	819974	812664	-	-	-	-
						1.0	0.0	218	22.2		7.9		29.2		89.0		6.6		4.6		4		-				-		-	
					Middle	2.8	-	191	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	0.0	198	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.0	225	22.2	22.3	8.0	8.0	29.5	29.5	89.1	89.3	6.5	6.6	5.4		4		-				-		-	
						4.6	0.0	217	22.3		8.0		29.4		89.4		6.6		5.4		12		-				-		-	
SR2	Cloudy	Moderate	09:25	5.6	Surface	1.0	0.1	225	22.2	22.2	8.0	8.0	30.1	30.1	89.8	89.8	6.6	6.6	8.9	9.5	4	4	49	51	821478	814168	<0.2	<0.2	0.9	1.0
						1.0	0.1	227	22.2		8.0		30.1		89.8		6.6		9.1		3		48				<0.2		1.0	
					Middle	-	0.1	231	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	234	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.1	211	22.2	22.2	8.0	8.0	30.1	30.1	90.1	90.2	6.6	6.6	10.0		4		52				<0.2		1.0	
						4.6	0.2	211	22.2		8.0		30.1		90.2		6.6		9.9		6		53				<0.2		0.9	
SR3	Cloudy	Moderate	10:14	8.4	Surface	1.0	0.4	342	22.8	22.8	8.0	8.0	30.5	30.5	89.6	89.6	6.5	6.5	11.1	11.9	6	6	-	-	822137	807568	-	-	-	-
						1.0	0.3	339	22.8		8.0		30.5		89.6		6.5		10.7		5		-				-		-	
					Middle	4.2	0.4	352	22.9	22.9	8.0	8.0	30.5	30.5	89.5	89.5	6.5		11.4		5		-				-		-	
						4.2	0.4	357	22.9		8.0		30.5		89.5		6.5		10.5		6		-				-		-	
					Bottom	7.4	0.4	348	22.8	22.8	8.0	8.0	30.5	30.5	90.0	90.1	6.5	6.5	13.8		6		-				-		-	
						7.4	0.3	349	22.8		8.0		30.5		90.1		6.5		13.8		6		-				-		-	
SR4A	Cloudy	Moderate	08:51	8.4	Surface	1.0	0.0	141	22.2	22.2	8.0	8.0	29.5	29.5	92.6	92.6	6.8	6.6	7.8	8.8	2	3	-	-	817186	807813	-	-	-	-
						1.0	0.0	137	22.2		8.0		29.5		92.6		6.8		7.8		3		-				-		-	
					Middle	4.2	0.1	143	21.9	21.9	8.0	8.0	29.7	29.7	86.1	86.1	6.4		8.9		3		-				-		-	
						4.2	0.1	149	21.9		8.0		29.7		86.1		6.4		8.8		3		-				-		-	
					Bottom	7.4	0.0	130	21.8	21.8	8.0	8.0	29.6	29.6	86.5	86.6	6.4	6.4	9.9		3		-				-		-	
						7.4	0.1	124	21.8		8.0		29.6		86.6		6.4		9.9		3		-				-		-	
SR8	Cloudy	Moderate	09:59	4.8	Surface	1.0	-	-	22.3	22.3	8.0	8.0	29.2	29.2	89.4	89.3	6.6	6.6	7.1	8.9	11	11	-	-	820406	811632	-	-	-	-
						1.0	-	-	22.3		8.0		29.2		89.1		6.5		7.7		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	22.2	22.2	8.0	8.0	29.3	29.3	88.0	87.9	6.5	6.5	10.1		11		-				-		-	
						3.8	-	-	22.2		8.0		29.3		87.8		6.5		10.6		10		-				-		-	

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 23 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	17:33	8.6	Surface	1.0	0.4	212	24.0	24.0	7.9	7.9	29.8	29.8	100.7	100.7	7.2	7.1	0.8	1.0	4	4	48	51	815600	804268	<0.2	<0.2	1.9	1.7
						1.0	0.4	208	24.0		7.9		29.9		100.6		7.2		0.7		4		49				<0.2		1.9	
					Middle	4.3	0.4	204	23.9	23.9	8.0	8.0	30.7	30.8	96.4	96.4	6.9		0.9		3		51				<0.2		1.5	
						4.3	0.4	204	23.9		8.0		30.8		96.4		6.9		0.9		4		50				<0.2		1.5	
					Bottom	7.6	0.4	223	24.0	24.0	8.0	8.0	31.2	31.1	96.9	97.0	6.9	6.9	1.2		4		52				<0.2		1.6	
						7.6	0.4	228	24.0		8.0		31.1		97.0		6.9		1.2		3		54				<0.2		1.6	
C2	Fine	Moderate	16:43	11.1	Surface	1.0	0.3	172	24.2	24.2	7.9	7.9	29.0	29.0	96.9	97.0	6.9	6.8	3.2	4.3	3	3	48	50	825703	806939	<0.2	<0.2	1.6	1.8
						1.0	0.3	168	24.2		7.9		29.1		97.0		6.9		3.2		4		48				<0.2		1.6	
					Middle	5.6	0.3	175	24.1	24.1	8.0	8.0	29.8	29.8	93.4	93.4	6.6		4.6		3		49				<0.2		1.8	
						5.6	0.3	169	24.1		8.0		29.8		93.4		6.6		4.6		3		50				<0.2		1.8	
					Bottom	10.1	0.3	181	24.1	24.1	8.0	8.0	29.8	29.8	93.7	93.8	6.7	6.7	5.1		3		52				<0.2		1.9	
						10.1	0.3	185	24.1		8.0		29.8		93.8		6.7		5.1		2		54				<0.2		1.8	
C3	Sunny	Moderate	17:55	11.2	Surface	1.0	0.4	75	23.2	23.2	8.0	8.0	30.4	30.4	98.5	98.6	7.1	6.8	8.5	7.1	2	4	47	50	822111	817813	<0.2	<0.2	1.7	1.6
						1.0	0.4	72	23.2		8.0		30.4		98.7		7.1		8.5		3		48				<0.2		1.7	
					Middle	5.6	0.4	91	22.6	22.6	8.0	8.0	31.3	31.4	90.1	89.9	6.5		8.2		4		50				<0.2		1.6	
						5.6	0.3	89	22.6		8.0		31.4		89.7		6.5		8.2		3		51				<0.2		1.5	
					Bottom	10.2	0.4	64	22.4	22.4	8.0	8.0	32.3	32.3	88.2	88.3	6.4	6.4	4.3		4		52				<0.2		1.4	
						10.2	0.3	69	22.4		8.0		32.3		88.3		6.4		4.8		5		52				<0.2		1.5	
IM1	Cloudy	Moderate	17:22	6.4	Surface	1.0	0.2	180	24.0	24.0	7.9	7.9	30.3	30.4	102.1	102.2	7.3	7.1	1.2	2.9	3	3	49	50	818359	806480	<0.2	<0.2	1.6	1.8
						1.0	0.2	178	24.0		7.9		30.4		102.3		7.3		1.2		3		48				<0.2		1.6	
					Middle	3.2	0.3	172	23.8	23.8	7.9	7.9	30.7	30.7	95.6	95.7	6.8		3.6		3		51				<0.2		1.9	
						3.2	0.3	176	23.8		7.9		30.7		95.7		6.8		3.4		3		50				<0.2		1.9	
					Bottom	5.4	0.3	179	23.8	23.8	7.9	7.9	30.7	30.7	96.8	96.9	6.9	6.9	4.1		3		52				<0.2		1.8	
						5.4	0.3	182	23.8		7.9		30.6		96.9		6.9		4.1		3		52				<0.2		1.8	
IM2	Cloudy	Moderate	17:18	6.8	Surface	1.0	0.3	183	24.0	24.0	7.9	7.9	30.4	30.4	98.9	99.0	7.0	6.9	2.2	3.8	4	3	49	51	819168	806212	<0.2	<0.2	1.6	1.6
						1.0	0.3	182	24.0		7.9		30.4		99.1		7.0		2.2		3		48				<0.2		1.6	
					Middle	3.4	0.2	174	23.9	23.9	7.9	7.9	30.6	30.6	95.1	95.1	6.8		4.0		3		51				<0.2		1.7	
						3.4	0.2	180	23.9		7.9		30.6		95.1		6.8		4.1		4		50				<0.2		1.7	
					Bottom	5.8	0.3	183	23.8	23.8	8.0	8.0	31.0	31.0	95.8	95.9	6.8	6.8	5.1		3		52				<0.2		1.6	
						5.8	0.3	187	23.8		8.0		31.0		95.9		6.8		5.2		2		53				<0.2		1.5	
IM7	Cloudy	Moderate	17:00	7.5	Surface	1.0	0.2	175	24.3	24.3	7.9	7.9	27.8	27.8	103.3	103.4	7.4	7.1	1.1	2.4	2	3	47	50	821353	806826	<0.2	<0.2	1.6	1.6
						1.0	0.2	168	24.2		7.9		27.8		103.4		7.4		1.1		4		48				<0.2		1.5	
					Middle	3.8	0.2	169	24.0	24.0	7.9	7.9	30.1	30.1	95.2	95.2	6.8		2.2		4		50				<0.2		1.6	
						3.8	0.2	162	24.0		7.9		30.1		95.2		6.8		2.2		3		49				<0.2		1.6	
					Bottom	6.5	0.2	146	24.0	24.0	7.9	7.9	30.1	30.1	95.7	95.8	6.8	6.8	3.8		3		51				<0.2		1.7	
						6.5	0.2	140	24.0		7.9		30.1		95.9		6.8		3.9		3		52				<0.2		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 23 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	16:42	7.8	Surface	1.0	0.3	119	23.6	23.6	7.9	7.9	26.8	26.8	101.6	101.6	7.4	7.1	2.4	4.7	4	3	48	51	822246	809816	<0.2	<0.2	1.4	1.5
						1.0	0.3	124	23.5		7.9		26.8		101.5		7.4		2.5		5		49				<0.2		1.4	
					Middle	3.9	0.3	110	23.1	23.1	7.9	7.9	28.3	28.3	91.9	91.9	6.7		3.2		3		51				<0.2		1.6	
						3.9	0.3	116	23.1		7.9		28.3		91.9		6.7		3.3		3		51				<0.2		1.6	
					Bottom	6.8	0.4	105	23.0	23.0	8.0	8.0	29.1	29.1	87.7	87.7	6.4	6.4	8.2		2		54				<0.2		1.5	
						6.8	0.4	101	23.0		8.0		29.1		87.7		6.4		8.3		3		53				<0.2		1.4	
IM11	Fine	Moderate	16:49	8.1	Surface	1.0	0.4	98	23.8	23.8	7.9	7.9	26.8	26.8	101.7	101.6	7.4	7.1	2.5	4.4	2	3	50	51	821488	810551	<0.2	<0.2	1.5	1.6
						1.0	0.4	93	23.7		7.9		26.8		101.5		7.4		2.5		2		49				<0.2		1.6	
					Middle	4.1	0.4	96	22.9	22.9	7.9	7.9	29.0	29.1	93.5	93.5	6.8		4.7		2		51				<0.2		1.6	
						4.1	0.3	99	22.9		7.9		29.2		93.4		6.8		5.0		3		52				<0.2		1.5	
					Bottom	7.1	0.4	116	22.7	22.7	7.9	7.9	29.6	29.6	89.2	89.3	6.5	6.5	5.9		3		53				<0.2		1.5	
						7.1	0.3	109	22.7		7.9		29.6		89.4		6.5		6.0		3		53				<0.2		1.6	
IM12	Fine	Moderate	16:56	8.6	Surface	1.0	0.4	90	23.4	23.4	7.9	7.9	26.8	26.8	100.7	100.4	7.4	7.0	2.5	4.6	2	4	49	51	821160	811517	<0.2	<0.2	1.6	1.7
						1.0	0.3	92	23.3		7.9		26.8		100.0		7.3		2.6		4		50				<0.2		1.6	
					Middle	4.3	0.4	82	22.7	22.7	7.9	7.9	29.7	29.8	92.1	90.5	6.7		4.3		4		51				<0.2		1.7	
						4.3	0.4	81	22.7		7.9		29.9		88.9		6.5		4.7		4		52				<0.2		1.6	
					Bottom	7.6	0.4	102	22.6	22.6	7.9	7.9	30.3	30.3	88.7	88.8	6.4	6.5	6.5		5		53				<0.2		1.8	
						7.6	0.4	101	22.6		7.9		30.3		88.9		6.5		6.8		4		53				<0.2		1.7	
SR1A	Sunny	Moderate	17:22	5.5	Surface	1.0	0.1	65	23.3	23.3	7.9	7.9	28.4	28.4	101.7	101.7	7.4	7.4	4.1	4.7	4	4	-	-	819972	812655	-	-	-	-
						1.0	0.1	61	23.3		7.9		28.4		101.7		7.4		4.1		4		-				-		-	
					Middle	2.8	0.0	54	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	0.0	49	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	87	23.1	23.1	7.9	7.9	29.1	29.1	92.7	92.8	6.7	6.7	5.2		4		-				-		-	
						4.5	0.0	90	23.1		7.9		29.0		92.9		6.7		5.2		3		-				-		-	
SR2	Sunny	Moderate	17:35	4.6	Surface	1.0	0.3	40	23.7	23.7	8.0	8.0	28.0	28.0	104.1	103.9	7.5	7.5	2.4	2.7	4	3	49	49	821477	814145	<0.2	<0.2	1.5	1.5
						1.0	0.3	42	23.7		8.0		28.0		103.7		7.5		2.4		2		48				<0.2		1.5	
					Middle	-	0.3	60	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.3	53	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.4	25	23.4	23.4	8.0	8.0	28.8	28.9	100.8	100.7	7.3	7.3	2.9		2		50				<0.2		1.5	
						3.6	0.4	17	23.3		8.0		28.9		100.6		7.3		3.0		2		50				<0.2		1.4	
SR3	Fine	Moderate	16:55	8.5	Surface	1.0	0.3	162	24.1	24.1	7.9	7.9	28.7	28.8	100.1	100.2	7.2	6.9	1.4	2.2	4	4	-	-	822136	807554	-	-	-	-
						1.0	0.3	162	24.1		7.9		28.9		100.2		7.2		1.4		5		-				-		-	
					Middle	4.3	0.3	156	24.0	24.0	7.9	7.9	29.4	29.4	91.3	91.4	6.5		2.1		5		-				-		-	
						4.3	0.3	153	24.0		7.9		29.4		91.4		6.5		2.1		4		-				-		-	
					Bottom	7.5	0.4	182	24.0	24.0	7.9	7.9	29.7	29.6	92.4	92.5	6.6	6.6	3.2		4		-				-		-	
						7.5	0.4	187	24.0		7.9		29.6		92.5		6.6		3.2		4		-				-		-	
SR4A	Cloudy	Moderate	17:48	8.8	Surface	1.0	0.1	60	24.2	24.2	7.9	7.9	30.7	30.7	105.3	105.4	7.4	7.1	1.1	2.4	3	3	-	-	817206	807831	-	-	-	-
						1.0	0.1	55	24.2		7.9		30.7		105.5		7.5		1.1		2		-				-		-	
					Middle	4.4	0.0	90	24.1	24.1	7.9	7.9	30.8	30.8	95.1	95.2	6.7		2.6		4		-				-		-	
						4.4	0.1	85	24.1		7.9		30.8		95.2		6.7		2.6		3		-				-		-	
					Bottom	7.8	0.0	71	24.1	24.1	7.9	7.9	30.8	30.8	96.4	96.5	6.8	6.8	3.6		2		-				-		-	
						7.8	0.0	73	24.1		7.9		30.8		96.6		6.8		3.6		4		-				-		-	
SR8	Sunny	Moderate	17:01	4.6	Surface	1.0	-	-	23.5	23.5	8.0	8.0	26.8	26.9	98.7	98.5	7.2	7.2	3.6	4.9	4	4	-	-	820367	811638	-	-	-	-
						1.0	-	-	23.5		8.0		27.0		98.3		7.2		3.8		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	23.0	23.0	8.0	8.0	28.9	28.9	85.7	85.3	6.2	6.2	6.1		3		-				-		-	
						3.6	-	-	23.0		8.0		28.9		84.8		6.2		6.3		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 23 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	06:17	8.5	Surface	1.0	0.0	199	22.6	22.6	8.0	8.0	29.7	29.7	90.1	90.2	6.6	6.6	6.7	7.8	3	3	47	50	815598	804237	<0.2	<0.2	1.6	1.5
						1.0	0.0	204	22.6		8.0		29.8		90.2		6.6		6.7		3		48				<0.2		1.6	
					Middle	4.3	0.1	208	22.6	22.4	8.0	8.0	30.6	30.6	90.8	90.9	6.6		8.2		3		50				<0.2		1.6	
						4.3	0.0	210	22.1		8.0		30.7		91.0		6.7		8.2		3		51				<0.2		1.4	
					Bottom	7.5	0.1	215	22.1	22.3	8.0	8.0	31.1	31.1	86.9	87.0	6.4	6.4	8.6		4		52				<0.2		1.4	
						7.5	0.0	215	22.5		8.0		31.1		87.0		6.3		8.6		3		53				<0.2		1.4	
C2	Cloudy	Moderate	07:28	11.6	Surface	1.0	0.2	184	23.7	23.7	7.9	7.9	28.8	28.8	78.7	78.7	5.7	5.7	1.0	5.5	3	4	47	49	825703	806925	<0.2	<0.2	1.7	1.7
						1.0	0.2	190	23.7		7.9		28.8		78.6		5.7		1.1		4		47				<0.2		1.7	
					Middle	5.8	0.2	191	23.7	23.7	7.9	7.9	29.1	29.1	79.4	79.6	5.7		6.7		4		49				<0.2		1.7	
						5.8	0.3	193	23.7		7.9		29.1		79.7		5.7		7.2		4		50				<0.2		1.6	
					Bottom	10.6	0.2	185	23.7	23.7	7.9	7.9	29.0	29.0	82.5	82.8	5.9	6.0	8.3		4		51				<0.2		1.7	
						10.6	0.2	187	23.7		7.9		29.0		83.1		6.0		8.5		4		52				<0.2		1.8	
C3	Fine	Moderate	06:11	11.3	Surface	1.0	0.1	97	22.8	22.8	7.9	7.9	29.1	29.1	94.5	94.5	6.9	6.7	2.5	2.9	3	4	48	51	822125	817786	<0.2	<0.2	1.5	1.7
						1.0	0.1	92	22.8		7.9		29.1		94.5		6.9		2.5		3		49				<0.2		1.5	
					Middle	5.7	0.1	67	22.6	22.6	7.9	7.9	30.7	30.8	89.3	89.2	6.5		3.3		5		51				<0.2		1.6	
						5.7	0.1	71	22.6		7.9		30.8		89.1		6.5		3.3		4		51				<0.2		1.7	
					Bottom	10.3	0.0	71	22.5	22.5	7.9	7.9	31.1	31.1	88.1	88.2	6.4	6.4	3.0		5		52				<0.2		1.8	
						10.3	0.0	68	22.5		7.9		31.1		88.3		6.4		3.1		6		53				<0.2		1.8	
IM1	Cloudy	Moderate	06:34	6.3	Surface	1.0	0.0	183	22.7	22.7	8.0	8.0	29.5	29.5	87.6	87.7	6.4	6.2	5.2	5.9	3	3	49	51	818361	806465	<0.2	<0.2	1.6	1.5
						1.0	0.1	181	22.7		8.0		29.6		87.7		6.4		5.2		3		49				<0.2		1.5	
					Middle	3.2	0.1	177	22.7	22.8	8.0	8.0	29.7	29.7	81.2	81.3	5.9		5.6		3		51				<0.2		1.6	
						3.2	0.1	183	22.8		8.0		29.7		81.3		5.9		5.6		4		51				<0.2		1.5	
					Bottom	5.3	0.0	193	22.9	22.9	8.0	8.0	29.6	29.6	81.9	83.0	6.0	6.1	6.9		4		53				<0.2		1.6	
						5.3	0.0	186	22.9		8.0		29.6		84.0		6.1		6.9		3		53				<0.2		1.4	
IM2	Cloudy	Moderate	06:39	6.8	Surface	1.0	0.1	193	22.8	22.8	8.0	8.0	29.6	29.6	90.8	90.9	6.6	6.3	6.6	7.7	2	3	50	52	819200	806237	<0.2	<0.2	1.5	1.6
						1.0	0.1	190	22.8		8.0		29.6		90.9		6.6		6.6		3		49				<0.2		1.6	
					Middle	3.4	0.0	197	22.7	22.7	8.0	8.0	29.8	29.8	80.4	80.5	5.9		7.7		4		51				<0.2		1.6	
						3.4	0.1	194	22.7		8.0		29.8		80.5		5.9		7.7		2		52				<0.2		1.5	
					Bottom	5.8	0.1	176	22.8	22.8	8.0	8.0	29.8	29.8	80.8	80.9	5.9	5.9	8.9		3		53				<0.2		1.7	
						5.8	0.1	171	22.8		8.0		29.8		81.0		5.9		8.9		4		54				<0.2		1.6	
IM7	Cloudy	Moderate	07:07	7.8	Surface	1.0	0.0	149	23.5	23.5	7.9	7.9	29.1	29.2	87.9	88.0	6.4	6.5	1.6	4.9	2	3	48	51	821353	806829	<0.2	<0.2	1.4	1.5
						1.0	0.1	149	23.5		7.9		29.2		88.1		6.4		1.4		2		50				<0.2		1.4	
					Middle	3.9	0.0	181	23.3	23.3	8.0	8.0	30.0	30.0	90.4	90.6	6.5		6.5		2		51				<0.2		1.6	
						3.9	0.0	187	23.3		8.0		30.0		90.7		6.5		6.7		3		51				<0.2		1.5	
					Bottom	6.8	0.1	146	23.3	23.3	8.0	8.0	30.0	30.0	91.6	91.8	6.6	6.6	6.7		3		53				<0.2		1.5	
						6.8	0.1	149	23.3		8.0		30.0		91.9		6.6		6.7		3		52				<0.2		1.5	

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 23 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Fine	Moderate	07:25	8.2	Surface	1.0	0.1	102	23.2	23.2	8.0	7.9	27.0	27.0	97.4	97.5	7.1	7.0	3.0	5.6	4	3	49	51	822233	809847	<0.2	<0.2	1.7	1.8
						1.0	0.0	104	23.2		7.9		27.0		97.5		7.1		3.0		3		50				<0.2		1.9	
					Middle	4.1	0.1	106	23.0	23.0	7.9	7.9	27.9	28.0	93.2	93.1	6.8		4.6		3		50				<0.2		1.9	
						4.1	0.0	109	23.0		7.9		28.0		93.0		6.8		5.1		3		51				<0.2		1.9	
					Bottom	7.2	0.1	112	23.0	23.1	7.9	7.9	28.5	28.5	93.2	93.3	6.8	6.8	8.9		2		52				<0.2		1.8	
						7.2	0.1	116	23.1		7.9		28.5		93.4		6.8		8.9		3		53				<0.2		1.8	
IM11	Fine	Moderate	07:18	7.8	Surface	1.0	0.1	86	23.3	23.3	7.9	7.9	27.1	27.2	95.9	95.8	7.0	6.8	4.2	4.6	3	4	49	51	821510	810559	<0.2	<0.2	1.8	1.8
						1.0	0.1	90	23.2		7.9		27.2		95.6		7.0		4.3		3		49				<0.2		1.8	
					Middle	3.9	0.1	95	23.0	23.0	7.9	7.9	28.0	28.0	90.5	90.4	6.6		5.0		3		51				<0.2		1.8	
						3.9	0.1	98	23.0		7.9		28.1		90.3		6.6		5.0		4		51				<0.2		1.9	
					Bottom	6.8	0.1	88	22.9	22.9	7.9	7.9	28.7	28.7	89.6	89.6	6.5	6.5	4.5		4		52				<0.2		1.8	
						6.8	0.0	87	22.9		7.9		28.7		89.6		6.5		4.6		5		53				<0.2		1.9	
IM12	Fine	Moderate	07:11	8.7	Surface	1.0	0.1	82	23.5	23.5	7.9	7.9	26.5	26.5	99.0	99.0	7.2	7.1	3.0	4.2	5	4	48	51	821181	811507	<0.2	<0.2	2.0	2.1
						1.0	0.1	87	23.5		7.9		26.5		99.0		7.2		3.0		4		49				<0.2		2.0	
					Middle	4.4	0.1	77	23.1	23.1	7.9	7.9	27.0	27.1	93.7	93.7	6.9		3.1		3		51				<0.2		2.0	
						4.4	0.1	69	23.1		7.9		27.1		93.6		6.9		3.2		3		51				<0.2		1.9	
					Bottom	7.7	0.1	82	22.7	22.7	7.9	7.9	29.4	29.4	87.6	87.6	6.4	6.4	6.4		3		54				<0.2		2.2	
						7.7	0.1	86	22.7		7.9		29.4		87.6		6.4		6.5		3		53				<0.2		2.2	
SR1A	Fine	Moderate	06:45	5.7	Surface	1.0	0.0	315	23.3	23.3	7.9	7.9	27.4	27.5	95.7	95.4	7.0	7.0	3.0	5.0	3	3	-	-	819971	812663	-	-	-	-
						1.0	0.0	317	23.3		7.9		27.7		95.0		6.9		3.3		3		-				-		-	
					Middle	2.9	0.0	311	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	307	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	303	23.3	23.4	7.9	7.9	29.1	29.1	92.2	92.4	6.7	6.7	6.8		2		-				-		-	
						4.7	0.0	310	23.4		7.9		29.1		92.5		6.7		6.8		3		-				-		-	
SR2	Fine	Moderate	06:33	4.5	Surface	1.0	0.1	153	23.6	23.6	7.9	7.9	26.4	26.5	101.9	101.9	7.4	7.4	2.3	2.2	2	3	50	51	821448	814184	<0.2	<0.2	1.8	1.9
						1.0	0.0	154	23.6		7.9		26.5		101.9		7.4		2.3		3		49				<0.2		1.9	
					Middle	-	0.1	127	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	125	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	155	23.3	23.3	8.0	8.0	27.4	27.4	97.1	97.1	7.1	7.1	2.2		3		52				<0.2		1.9	
						3.5	0.1	161	23.3		8.0		27.4		97.1		7.1		2.1		2		54				<0.2		1.9	
SR3	Cloudy	Moderate	07:19	8.8	Surface	1.0	0.1	162	23.3	23.3	8.0	8.0	30.2	30.2	87.0	87.0	6.3	6.3	8.9	9.0	2	3	-	-	822145	807572	-	-	-	-
						1.0	0.1	160	23.3		8.0		30.2		87.0		6.3		8.5		3		-				-		-	
					Middle	4.4	0.2	149	23.4	23.4	8.0	8.0	30.2	30.2	86.9	86.9	6.3		9.2		3		-				-		-	
						4.4	0.2	147	23.4		8.0		30.2		86.9		6.3		8.3		3		-				-		-	
					Bottom	7.8	0.1	174	23.3	23.3	8.0	8.0	30.2	30.2	87.4	87.5	6.3	6.3	9.4		3		-				-		-	
						7.8	0.0	167	23.3		8.0		30.2		87.5		6.3		9.5		3		-				-		-	
SR4A	Cloudy	Moderate	05:56	8.7	Surface	1.0	0.0	295	22.7	22.7	8.0	8.0	30.4	30.4	90.0	90.0	6.5	6.3	5.6	6.7	6	4	-	-	817169	807808	-	-	-	-
						1.0	0.0	298	22.7		8.0		30.4		90.0		6.5		5.6		5		-				-		-	
					Middle	4.4	0.0	316	22.4	22.4	8.0	8.0	30.6	30.6	83.5	83.5	6.1		6.7		4		-				-		-	
						4.4	0.0	313	22.4		8.0		30.6		83.5		6.1		6.7		3		-				-		-	
					Bottom	7.7	0.0	307	22.3	22.3	8.0	8.0	30.5	30.5	83.9	84.0	6.1	6.1	7.7		4		-				-		-	
						7.7	0.0	311	22.3		8.0		30.5		84.0		6.1		7.7		3		-				-		-	
SR8	Fine	Moderate	07:05	4.3	Surface	1.0	-	-	23.8	23.8	7.9	7.9	26.3	26.3	100.3	100.3	7.3	7.3	5.2	4.7	4	4	-	-	820372	811629	-	-	-	-
						1.0	-	-	23.8		7.9		26.3		100.3		7.3		5.3		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	23.8	23.8	8.0	8.0	26.3	26.3	100.4	100.5	7.3	7.3	4.3		4		-				-		-	
						3.3	-	-	23.8		8.0		26.3		100.5		7.3		4.2		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 26 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	10:34	7.8	Surface	1.0	0.2	207	25.0	25.0	8.0	8.0	26.3	26.3	104.8	104.8	7.5	7.3	1.1	5.0	5	4	49	50	815637	804233	<0.2	<0.2	1.7	1.7
						1.0	0.2	203	25.0		8.0		26.3		104.8		7.5		1.1		4		47				<0.2		1.8	
					Middle	3.9	0.2	194	23.9	23.9	8.0	8.0	29.7	29.7	98.5	98.5	7.0		4.7		3		50				<0.2		1.7	
						3.9	0.2	188	23.9		8.0		29.7		98.4		7.0		4.8		4		51				<0.2		1.7	
					Bottom	6.8	0.2	199	23.9	23.9	8.0	8.0	29.7	29.7	98.0	98.1	7.0	7.0	9.3		4		52				<0.2		1.6	
						6.8	0.2	194	23.9		8.0		29.7		98.1		7.0		9.1		3		52				<0.2		1.6	
C2	Fine	Moderate	11:44	11.5	Surface	1.0	0.4	177	26.1	26.1	8.1	8.1	22.1	22.1	120.4	120.4	8.6	7.7	0.9	4.3	8	6	47	50	825664	806943	<0.2	<0.2	1.9	1.8
						1.0	0.4	174	26.1		8.1		22.1		120.3		8.6		1.0		7		48				<0.2		1.8	
					Middle	5.8	0.4	192	24.7	24.7	8.0	8.0	25.3	25.3	94.6	94.6	6.8		1.5		4		50				<0.2		1.9	
						5.8	0.4	193	24.7		8.0		25.3		94.6		6.8		1.5		6		51				<0.2		1.8	
					Bottom	10.5	0.4	195	23.7	23.7	7.9	7.9	28.6	28.6	80.0	80.0	5.7	5.8	10.1		5		52				<0.2		1.6	
						10.5	0.4	188	23.7		7.9		28.6		80.0		5.8		10.6		6		53				<0.2		1.6	
C3	Sunny	Moderate	09:29	11.2	Surface	1.0	0.3	87	24.1	24.1	7.9	7.9	28.5	28.5	104.8	104.8	7.5	7.1	1.1	2.0	3	3	44	48	822129	817817	<0.2	<0.2	1.6	1.5
						1.0	0.2	84	24.1		7.9		28.5		104.8		7.5		1.1		3		44				<0.2		1.4	
					Middle	5.6	0.2	80	23.0	23.0	7.9	7.9	31.7	31.7	92.8	92.8	6.6		2.1		3		47				<0.2		1.4	
						5.6	0.2	83	23.0		7.9		31.7		92.8		6.6		2.1		2		47				<0.2		1.5	
					Bottom	10.2	0.2	84	23.0	23.0	7.9	7.9	31.9	31.9	92.7	92.8	6.6	6.6	2.9		2		52				<0.2		1.5	
						10.2	0.3	90	23.0		7.9		31.9		92.8		6.6		2.9		3		52				<0.2		1.6	
IM1	Fine	Moderate	10:51	6.4	Surface	1.0	0.2	198	25.1	25.1	8.0	8.0	25.6	25.6	103.7	103.7	7.4	7.4	0.5	1.0	4	4	48	50	818349	806468	<0.2	<0.2	2.1	2.0
						1.0	0.2	197	25.1		8.0		25.6		103.7		7.4		0.5		4		48				<0.2		2.2	
					Middle	3.2	0.1	205	25.0	25.0	8.0	8.0	25.6	25.6	102.7	102.7	7.3		0.9		3		49				<0.2		2.1	
						3.2	0.2	198	25.0		8.0		25.6		102.6		7.3		0.8		4		50				<0.2		2.0	
					Bottom	5.4	0.1	206	24.3	24.3	8.1	8.1	27.4	27.4	95.1	95.2	6.8	6.8	1.5		3		53				<0.2		1.8	
						5.4	0.1	212	24.3		8.1		27.4		95.3		6.8		1.7		4		52				<0.2		2.0	
IM2	Fine	Moderate	10:57	6.5	Surface	1.0	0.2	188	25.3	25.3	8.0	8.0	25.5	25.5	104.3	104.3	7.4	7.4	1.1	0.9	4	4	47	49	819171	806216	<0.2	<0.2	1.6	1.7
						1.0	0.2	188	25.3		8.0		25.5		104.3		7.4		1.1		4		48				<0.2		1.7	
					Middle	3.3	0.2	191	25.0	25.0	8.0	8.0	25.6	25.6	103.0	103.0	7.4		0.8		4		49				<0.2		1.9	
						3.3	0.1	184	25.0		8.0		25.6		102.9		7.4		0.7		5		48				<0.2		1.8	
					Bottom	5.5	0.2	222	24.8	24.8	8.0	8.0	25.7	25.7	100.5	100.5	7.2	7.2	0.7		4		50				<0.2		1.6	
						5.5	0.2	217	24.8		8.0		25.7		100.5		7.2		0.7		4		51				<0.2		1.6	
IM7	Fine	Moderate	11:18	7.9	Surface	1.0	0.2	199	25.1	25.1	8.0	8.0	24.4	24.4	102.3	102.3	7.4	7.2	1.2	2.6	4	4	48	50	821355	806812	<0.2	<0.2	1.9	1.8
						1.0	0.2	199	25.1		8.0		24.4		102.3		7.4		1.2		4		48				<0.2		1.8	
					Middle	4.0	0.2	188	24.8	24.8	8.0	8.0	25.8	25.8	97.9	97.8	7.0		1.7		4		50				<0.2		1.7	
						4.0	0.2	194	24.8		8.0		25.8		97.7		7.0		1.9		4		50				<0.2		1.7	
					Bottom	6.9	0.2	221	24.8	24.8	8.1	8.1	26.4	26.4	96.5	96.5	6.9	6.9	4.9		4		52				<0.2		1.9	
						6.9	0.1	218	24.8		8.1		26.4		96.5		6.9		4.9		4		53				<0.2		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 26 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Sunny	Moderate	10:56	7.8	Surface	1.0	0.3	125	25.1	25.1	8.1	8.1	24.0	24.0	120.7	120.6	8.7	8.1	2.4	5.2	5	5	41	46	822227	809854	<0.2	<0.2	1.8	1.6
						1.0	0.3	117	25.1		8.1		24.0		120.5		8.7		2.3		6		41				<0.2		1.8	
					Middle	3.9	0.2	97	24.3	24.3	8.0	8.0	26.6	26.6	104.3	104.3	7.5		4.1		5		43				<0.2		1.8	
						3.9	0.2	98	24.3		8.0		26.6		104.2		7.5		4.1		4		44				<0.2		1.6	
					Bottom	6.8	0.3	91	24.3	24.3	8.0	8.0	27.1	27.1	101.2	101.3	7.3	7.3	9.0		4		52				<0.2		1.4	
						6.8	0.4	84	24.3		8.0		27.1		101.3		7.3		9.1		3		52				<0.2		1.4	
IM11	Sunny	Moderate	10:48	7.5	Surface	1.0	0.3	91	24.6	24.6	8.0	8.0	25.6	25.6	108.0	108.0	7.8	7.5	3.0	5.9	3	5	44	47	821508	810554	<0.2	<0.2	1.7	1.7
						1.0	0.3	92	24.6		8.0		25.6		108.0		7.8		3.0		4		44				<0.2		1.8	
					Middle	3.8	0.3	99	24.3	24.3	8.0	8.0	26.8	26.8	99.9	99.9	7.2		7.8		5		47				<0.2		1.7	
						3.8	0.3	100	24.3		8.0		26.8		99.9		7.2		7.8		4		47				<0.2		1.6	
					Bottom	6.5	0.3	99	24.2	24.2	8.0	8.0	27.5	27.5	97.6	97.6	7.0	7.0	6.9		6		51				<0.2		1.6	
						6.5	0.3	96	24.2		8.0		27.5		97.5		7.0		6.9		5		51				<0.2		1.6	
IM12	Sunny	Moderate	10:39	9.1	Surface	1.0	0.3	99	24.9	24.9	8.1	8.1	24.0	24.0	120.6	120.6	8.7	8.0	3.0	5.5	6	4	40	46	821169	811529	<0.2	<0.2	1.7	1.7
						1.0	0.2	101	24.9		8.1		24.0		120.5		8.7		3.1		5		40				<0.2		1.8	
					Middle	4.6	0.3	117	24.2	24.2	8.0	8.0	27.4	27.4	101.9	101.9	7.3		4.4		5		47				<0.2		1.7	
						4.6	0.3	118	24.2		8.0		27.4		101.8		7.3		4.3		4		47				<0.2		1.6	
					Bottom	8.1	0.3	94	24.0	24.0	8.0	8.0	28.1	28.1	97.1	97.2	7.0	7.0	9.0		3		51				<0.2		1.7	
						8.1	0.3	98	24.0		8.0		28.1		97.2		7.0		9.1		3		51				<0.2		1.6	
SR1A	Sunny	Calm	10:09	5.8	Surface	1.0	0.1	74	24.7	24.7	8.0	8.0	26.5	26.5	106.0	106.0	7.6	7.6	2.3	4.2	5	6	-	-	819973	812661	-	-	-	-
						1.0	0.1	71	24.7		8.0		26.5		106.0		7.6		2.3		6		-				-		-	
					Middle	2.9	0.0	83	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.9	0.0	90	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.0	101	23.8	23.8	8.0	8.0	28.8	28.8	93.7	93.8	6.7	6.7	6.2		6		-				-		-	
						4.8	0.0	107	23.8		8.0		28.8		93.8		6.7		6.1		7		-				-		-	
SR2	Sunny	Moderate	09:53	4.5	Surface	1.0	0.1	77	25.3	25.3	8.2	8.2	22.8	22.8	126.5	126.5	9.1	9.1	1.1	1.9	3	3	48	50	821439	814176	<0.2	<0.2	1.5	1.5
						1.0	0.1	70	25.3		8.2		22.8		126.4		9.1		1.1		3		48				<0.2		1.3	
					Middle	-	0.1	56	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	58	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.2	49	24.5	24.5	8.1	8.1	26.2	26.2	109.5	109.3	7.9	7.9	2.7		3		51				<0.2		1.6	
						3.5	0.2	50	24.5		8.1		26.3		109.1		7.8		2.7		3		51				<0.2		1.6	
SR3	Fine	Moderate	11:24	8.5	Surface	1.0	0.4	153	25.6	25.6	8.0	8.0	23.2	23.2	110.5	110.4	7.9	7.3	1.1	3.4	4	5	-	-	822165	807561	-	-	-	-
						1.0	0.4	146	25.5		8.0		23.2		110.2		7.9		1.2		5		-				-		-	
					Middle	4.3	0.4	156	24.6	24.6	7.9	7.9	25.9	25.9	92.9	92.8	6.7		3.4		5		-				-		-	
						4.3	0.4	150	24.6		7.9		25.9		92.7		6.7		3.4		4		-				-		-	
					Bottom	7.5	0.4	176	24.5	24.5	7.9	7.9	26.2	26.2	90.1	90.0	6.5	6.5	5.6		6		-				-		-	
						7.5	0.4	179	24.5		7.9		26.2		89.8		6.5		5.6		5		-				-		-	
SR4A	Fine	Moderate	10:16	9.4	Surface	1.0	0.0	74	24.9	24.9	8.0	8.0	25.7	25.7	100.4	100.4	7.2	7.2	2.0	3.0	9	7	-	-	817177	807826	-	-	-	-
						1.0	0.0	71	24.9		8.0		25.7		100.4		7.2		2.0		8		-				-		-	
					Middle	4.7	0.0	82	24.8	24.8	8.0	8.0	25.9	25.9	99.2	99.2	7.1		2.9		7		-				-		-	
						4.7	0.1	82	24.8		8.0		25.9		99.2		7.1		2.8		6		-				-		-	
					Bottom	8.4	0.0	61	24.8	24.8	8.0	8.0	26.0	26.0	98.2	98.2	7.0	7.0	4.1		6		-				-		-	
						8.4	0.0	67	24.8		8.0		26.0		98.2		7.0		4.1		6		-				-		-	
SR8	Sunny	Calm	10:33	5.1	Surface	1.0	-	-	25.2	25.2	8.1	8.1	24.7	24.7	123.1	123.1	8.8	8.8	2.9	4.2	4	4	-	-	820386	811604	-	-	-	-
						1.0	-	-	25.2		8.1		24.7		123.1		8.8		2.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	24.8	24.9	8.1	8.1	25.8	25.8	112.9	113.0	8.1	8.1	5.5		4		-				-		-	
						4.1	-	-	24.9		8.1		25.7		113.0		8.1		5.5		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 26 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	15:08	8.2	Surface	1.0	0.2	43	25.5	25.5	8.0	8.0	26.0	26.0	103.2	103.2	7.3	7.1	0.8	6.4	6	5	47	49	815642	804260	<0.2	<0.2	2.0	1.9
						1.0	0.2	49	25.5		8.0		26.0		103.2		7.3		0.8		5		48				<0.2		1.8	
					Middle	4.1	0.2	32	24.1	24.1	8.0	8.0	29.2	29.2	97.2	97.2	6.9		6.9		5		49				<0.2		1.8	
						4.1	0.2	29	24.1		8.0		29.2		97.1		6.9		7.1		4		48				<0.2		1.7	
					Bottom	7.2	0.2	43	24.2	24.2	8.0	8.0	29.4	29.4	95.0	95.1	6.7	6.8	11.1		4		50				<0.2		1.9	
						7.2	0.2	43	24.2		8.0		29.4		95.1		6.8		11.7		3		51				<0.2		1.9	
C2	Sunny	Moderate	14:04	11.5	Surface	1.0	0.2	200	26.6	26.6	8.2	8.2	21.7	21.7	131.9	131.9	9.4	8.1	1.4	6.5	3	3	48	50	825683	806929	<0.2	<0.2	1.9	2.0
						1.0	0.2	205	26.6		8.2		21.7		131.8		9.4		1.4		4		47				<0.2		1.9	
					Middle	5.8	0.2	186	24.8	24.8	8.1	8.1	25.0	25.0	94.3	94.3	6.8		10.1		3		49				<0.2		2.0	
						5.8	0.1	184	24.7		8.1		25.0		94.3		6.8		10.1		4		50				<0.2		1.9	
					Bottom	10.5	0.1	193	24.4	24.4	8.2	8.2	27.4	27.3	86.1	86.2	6.2	6.2	7.9		2		52				<0.2		2.1	
						10.5	0.1	194	24.4		8.2		27.3		86.2		6.2		8.0		3		52				<0.2		2.2	
C3	Sunny	Moderate	15:45	12.7	Surface	1.0	0.4	248	25.5	25.5	8.1	8.1	24.6	24.6	128.9	128.8	9.2	9.1	1.5	2.9	4	4	43	45	822109	817825	<0.2	<0.2	1.7	1.7
						1.0	0.4	245	25.5		8.1		24.7		128.6		9.2		1.5		4		43				<0.2		1.6	
					Middle	6.4	0.4	266	25.3	25.3	8.1	8.1	24.8	24.8	123.9	124.1	8.9		1.9		4		44				<0.2		1.7	
						6.4	0.4	264	25.2		8.1		24.8		124.2		8.9		1.9		5		43				<0.2		1.8	
					Bottom	11.7	0.4	266	24.0	24.0	8.0	8.0	28.3	28.3	96.8	96.8	6.9	6.9	5.4		4		49				<0.2		1.7	
						11.7	0.4	263	24.0		8.0		28.3		96.8		6.9		5.4		5		49				<0.2		1.7	
IM1	Fine	Moderate	14:50	6.6	Surface	1.0	0.0	13	25.6	25.6	8.0	8.0	25.7	25.7	103.7	103.7	7.3	7.0	0.2	5.2	4	4	48	51	818359	806444	<0.2	<0.2	1.8	1.9
						1.0	0.1	11	25.6		8.0		25.7		103.7		7.3		0.2		3		49				<0.2		1.7	
					Middle	3.3	0.0	-	24.9	24.9	7.9	7.9	26.3	26.3	93.4	93.4	6.7		1.9		4		49				<0.2		1.7	
						3.3	0.1	-	24.8		7.9		26.4		93.4		6.7		2.0		3		51				<0.2		1.7	
					Bottom	5.6	0.1	32	24.4	24.4	8.0	8.0	27.9	27.9	92.8	92.8	6.6	6.6	13.3		5		54				<0.2		2.3	
						5.6	0.1	26	24.4		8.0		27.9		92.8		6.6		13.7		4		53				<0.2		2.2	
IM2	Fine	Moderate	14:43	6.6	Surface	1.0	0.1	261	25.5	25.6	8.0	8.0	25.7	25.7	102.9	102.9	7.3	7.1	0.3	6.1	4	4	49	50	819177	806242	<0.2	<0.2	1.9	2.1
						1.0	0.1	267	25.6		8.0		25.7		102.9		7.3		0.3		3		47				<0.2		1.8	
					Middle	3.3	0.1	273	24.9	24.9	8.0	8.0	26.2	26.3	96.9	96.9	6.9		3.6		3		50				<0.2		2.4	
						3.3	0.1	272	24.9		8.0		26.3		96.8		6.9		3.8		4		51				<0.2		2.2	
					Bottom	5.6	0.1	253	24.5	24.5	8.0	8.0	27.4	27.4	92.1	92.1	6.6	6.6	14.3		4		52				<0.2		2.0	
						5.6	0.1	247	24.5		8.0		27.4		92.1		6.6		14.4		5		52				<0.2		2.1	
IM7	Fine	Moderate	14:24	8.0	Surface	1.0	0.2	263	25.4	25.4	8.0	8.0	24.5	24.4	106.1	106.1	7.6	7.4	0.9	2.4	3	3	49	50	821366	806826	<0.2	<0.2	2.1	2.0
						1.0	0.2	267	25.4		8.0		24.4		106.1		7.6		0.9		3		48				<0.2		2.2	
					Middle	4.0	0.1	244	24.8	24.8	8.0	8.0	25.5	25.5	98.8	98.8	7.1		2.4		3		49				<0.2		1.8	
						4.0	0.2	248	24.8		8.0		25.6		98.7		7.1		2.5		4		50				<0.2		1.8	
					Bottom	7.0	0.2	272	24.7	24.7	8.0	8.0	26.0	26.0	94.0	94.1	6.7	6.8	3.9		3		52				<0.2		2.1	
						7.0	0.2	265	24.7		8.0		26.0		94.2		6.8		4.0		4		51				<0.2		2.2	

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 26 April 22 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)		Total Alkalinity		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM10	Sunny	Moderate	14:11	7.9	Surface	1.0	0.1	249	25.2	25.2	8.1	8.1	24.6	24.7	122.4	122.4	8.8	8.4	1.3	3.7	5	5	44	48	822218	809855	<0.2	<0.2	2.0	1.8
						1.0	0.1	254	25.1		8.1		24.8		122.4		8.8		1.3		5		44				<0.2		1.9	
					Middle	4.0	0.1	272	24.6	24.6	8.0	8.0	25.9	26.1	109.6	109.6	7.9		3.6		5		48				<0.2		1.7	
						4.0	0.1	267	24.5		8.0		26.3		109.6		7.9		3.6		4		48				<0.2		1.8	
					Bottom	6.9	0.1	248	24.4	24.4	8.0	8.0	26.8	26.7	105.9	106.1	7.6	7.6	6.2		4		51				<0.2		1.7	
						6.9	0.1	249	24.4		8.0		26.7		106.2		7.6		6.3		4		51				<0.2		1.7	
IM11	Sunny	Moderate	14:22	8.1	Surface	1.0	0.1	272	25.1	25.1	8.1	8.1	25.2	25.2	118.9	118.9	8.5	8.2	2.8	3.5	6	7	40	47	821491	810532	<0.2	<0.2	2.0	1.8
						1.0	0.1	278	25.1		8.1		25.3		118.8		8.5		2.8		6		40				<0.2		2.0	
					Middle	4.1	0.1	258	24.7	24.7	8.0	8.0	25.9	25.9	108.8	108.8	7.8		4.4		6		48				<0.2		1.7	
						4.1	0.1	262	24.7		8.0		25.9		108.8		7.8		4.3		7		48				<0.2		1.6	
					Bottom	7.1	0.2	264	24.5	24.5	8.0	8.0	26.4	26.4	101.0	101.0	7.3	7.3	3.5		8		52				<0.2		1.7	
						7.1	0.2	265	24.5		8.0		26.5		101.0		7.2		3.5		7		52				<0.2		1.6	
IM12	Sunny	Moderate	14:30	9.8	Surface	1.0	0.2	277	25.1	25.1	8.1	8.1	24.4	24.4	121.9	121.8	8.8	8.3	1.3	3.5	6	5	44	47	821170	811508	<0.2	<0.2	1.7	1.7
						1.0	0.2	269	25.1		8.1		24.4		121.7		8.7		1.3		5		44				<0.2		1.8	
					Middle	4.9	0.3	308	24.7	24.7	8.0	8.0	25.6	25.7	109.2	109.3	7.8		3.4		5		47				<0.2		1.8	
						4.9	0.3	312	24.7		8.0		25.7		109.3		7.8		3.5		4		47				<0.2		1.8	
					Bottom	8.8	0.2	273	24.2	24.2	8.0	8.0	27.3	27.4	97.1	97.1	7.0	7.0	5.6		5		51				<0.2		1.7	
						8.8	0.2	276	24.2		8.0		27.4		97.0		7.0		5.7		4		51				<0.2		1.6	
SR1A	Sunny	Moderate	15:02	4.6	Surface	1.0	0.1	189	25.3	25.3	8.1	8.1	24.8	24.8	128.7	128.7	9.2	9.2	2.5	3.2	4	3	-	-	819976	812659	-	-	-	-
						1.0	0.1	194	25.3		8.1		24.8		128.6		9.2		2.4		3		-				-		-	
					Middle	2.3	0.0	177	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	0.0	182	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.0	187	25.1	25.1	8.1	8.1	25.6	25.6	122.0	122.0	8.7	8.7	4.0		4		-				-		-	
						3.6	0.0	192	25.1		8.1		25.6		121.9		8.7		4.1		2		-				-		-	
SR2	Sunny	Moderate	15:17	4.7	Surface	1.0	0.1	291	25.3	25.3	8.1	8.1	24.8	24.7	126.0	125.8	9.0	9.0	1.5	3.1	3	3	43	46	821467	814186	<0.2	<0.2	1.6	1.6
						1.0	0.1	294	25.3		8.1		24.7		125.5		9.0		1.5		3		43				<0.2		1.5	
					Middle	-	0.1	258	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	0.1	261	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	278	24.2	24.2	8.0	8.0	27.6	27.5	101.3	101.3	7.3	7.3	4.8		4		48				<0.2		1.6	
						3.7	0.0	277	24.2		8.0		27.5		101.3		7.3		4.8		3		48				<0.2		1.6	
SR3	Sunny	Moderate	14:18	8.6	Surface	1.0	0.2	172	26.0	26.0	8.0	8.0	22.9	22.9	114.9	114.9	8.2	7.8	0.7	2.6	4	4	-	-	822164	807558	-	-	-	-
						1.0	0.2	168	25.9		8.0		22.9		114.8		8.2		0.7		5		-				-		-	
					Middle	4.3	0.2	191	24.9	24.9	8.0	8.0	25.1	25.1	101.3	101.3	7.3		2.7		3		-				-		-	
						4.3	0.2	190	24.9		8.0		25.1		101.3		7.3		2.6		4		-				-		-	
					Bottom	7.6	0.2	178	24.9	24.9	8.0	8.0	25.6	25.6	97.6	97.7	7.0	7.0	4.3		2		-				-		-	
						7.6	0.2	185	24.9		8.0		25.6		97.7		7.0		4.8		3		-				-		-	
SR4A	Fine	Moderate	15:27	8.0	Surface	1.0	0.0	258	25.2	25.2	8.0	8.0	25.8	25.8	98.4	98.4	7.0	6.9	1.0	3.9	3	4	-	-	817167	807803	-	-	-	-
						1.0	0.1	252	25.2		8.0		25.8		98.4		7.0		1.1		3		-				-		-	
					Middle	4.0	0.0	243	24.7	24.7	7.9	7.9	26.5	26.6	93.8	93.7	6.7		3.2		4		-				-		-	
						4.0	0.0	238	24.6		7.9		26.6		93.6		6.7		3.3		4		-				-		-	
					Bottom	7.0	0.0	253	24.3	24.3	7.9	7.9	27.5	27.5	86.3	86.3	6.2	6.2	7.3		5		-				-		-	
						7.0	0.1	254	24.3		7.9		27.5		86.2		6.2		7.3		4		-				-		-	
SR8	Sunny	Moderate	14:35	4.1	Surface	1.0	-	-	25.6	25.6	8.2	8.2	24.2	24.2	132.2	132.2	9.4	9.4	2.8	2.8	4	5	-	-	820384	811646	-	-	-	-
						1.0	-	-	25.5		8.2		24.2		132.2		9.4		2.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	-	-	25.7	25.7	8.1	8.1	24.5	24.5	127.0	127.0	9.0	9.0	2.9		5		-				-		-	
						3.1	-	-	25.7		8.1		24.5		126.9		9.0		3.0		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 28 April 22 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	Fine	Moderate	12:17	7.9	Surface	1.0	0.4	205	25.9	25.9	8.0	8.0	24.8	24.8	97.4	97.4	6.9	6.8	1.0	3.4	3	3	815600	804231
						1.0	0.4	197	25.9		8.0		24.8		97.3		6.9		1.0		4			
					Middle	4.0	0.4	194	24.7	24.8	8.0	8.0	28.2	28.2	94.9	95.0	6.7		2.0		3			
						4.0	0.4	200	24.8		8.0		28.2		95.0		6.7		2.2		2			
					Bottom	6.9	0.4	222	24.4	24.5	8.0	8.0	29.2	29.2	93.5	93.6	6.6	6.6	6.8		2			
						6.9	0.4	228	24.5		8.0		29.2		93.6		6.6		7.7		3			
C2	Fine	Moderate	13:35	11.5	Surface	1.0	0.6	180	26.5	26.5	7.9	7.9	21.1	21.1	95.3	95.3	6.8	6.6	2.9	7.7	4	4	825689	806968
						1.0	0.6	186	26.4		7.9		21.1		95.2		6.8		3.3		3			
					Middle	5.8	0.7	161	25.5	25.5	7.9	7.9	23.5	23.5	88.5	88.4	6.4		6.1		3			
						5.8	0.7	166	25.4		7.9		23.6		88.3		6.4		6.2		4			
					Bottom	10.5	0.7	181	24.8	24.8	8.0	8.0	27.2	27.2	81.7	81.9	5.8	5.8	13.9		4			
						10.5	0.7	185	24.8		8.0		27.1		82.0		5.8		13.9		4			
C3	Fine	Moderate	11:05	9.6	Surface	1.0	0.4	92	25.0	25.0	7.9	7.9	27.6	27.7	97.3	97.2	6.9	6.8	1.0	1.2	3	3	822108	817781
						1.0	0.4	96	25.0		7.9		27.7		97.1		6.9		1.1		3			
					Middle	4.8	0.4	84	24.5	24.5	7.9	7.9	29.2	29.2	95.0	95.0	6.7		1.1		2			
						4.8	0.4	85	24.4		7.9		29.3		94.9		6.7		1.1		3			
					Bottom	8.6	0.4	65	23.8	23.8	7.9	7.9	31.2	31.2	92.5	92.5	6.5	6.5	1.5		2			
						8.6	0.3	65	23.8		7.9		31.3		92.5		6.5		1.5		2			
IM1	Fine	Moderate	12:34	6.3	Surface	1.0	0.3	185	25.8	25.8	7.9	7.9	24.5	24.6	94.8	94.8	6.7	6.6	0.8	4.5	4	3	818347	806435
						1.0	0.3	186	25.8		7.9		24.6		94.8		6.7		0.9		5			
					Middle	3.2	0.4	192	25.5	25.5	8.0	8.0	25.6	25.6	90.9	91.0	6.5		3.4		3			
						3.2	0.4	186	25.4		8.0		25.6		91.0		6.5		5.0		3			
					Bottom	5.3	0.3	192	25.1	25.1	8.0	8.0	26.9	26.9	90.3	90.3	6.4	6.4	8.5		2			
						5.3	0.2	185	25.1		8.0		26.9		90.3		6.4		8.6		3			
IM2	Fine	Moderate	12:41	6.9	Surface	1.0	0.4	213	26.0	26.0	7.9	7.9	24.5	24.5	95.9	95.9	6.8	6.7	0.6	3.8	3	3	819162	806243
						1.0	0.3	220	26.0		7.9		24.5		95.9		6.8		0.6		3			
					Middle	3.5	0.4	187	25.6	25.6	7.9	7.9	25.3	25.3	91.8	91.9	6.5		1.3		2			
						3.5	0.4	183	25.6		7.9		25.3		92.0		6.5		1.3		3			
					Bottom	5.9	0.4	198	25.1	25.1	8.0	8.0	26.5	26.5	89.5	89.5	6.3	6.4	9.4		2			
						5.9	0.4	192	25.1		8.0		26.5		89.5		6.4		9.4		3			
IM7	Fine	Moderate	13:01	7.6	Surface	1.0	0.3	210	26.0	26.0	7.9	7.9	22.9	22.9	90.6	90.4	6.5	6.4	1.3	3.8	3	4	821344	806851
						1.0	0.3	209	26.0		7.9		22.9		90.1		6.4		1.4		2			
					Middle	3.8	0.3	198	25.6	25.6	8.0	8.0	24.6	24.6	88.2	88.3	6.3		5.1		4			
						3.8	0.3	204	25.6		8.0		24.6		88.4		6.3		5.1		4			
					Bottom	6.6	0.3	199	25.7	25.7	8.0	8.0	24.8	24.8	89.9	90.0	6.4	6.4	4.9		5			
						6.6	0.3	197	25.7		8.0		24.8		90.0		6.4		5.0		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**

Note: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 April 22 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	12:29	8.0	Surface	1.0	0.4	125	25.3	25.3	8.0	8.0	23.5	23.5	99.7	99.6	7.2	7.0	3.3	5.0	3	3	822234	809854
						1.0	0.4	120	25.3		8.0		23.5		99.4		7.2		3.4		4			
					Middle	4.0	0.4	128	25.1	25.1	8.0	8.0	26.3	26.3	93.9	94.1	6.7		5.4		2			
						4.0	0.5	129	25.1		8.0		26.3		94.2		6.7		5.7		3			
					Bottom	7.0	0.4	111	25.1	25.1	8.0	8.0	26.4	26.4	95.9	96.1	6.8	6.8	6.1		2			
						7.0	0.5	116	25.1		8.0		26.4		96.2		6.8		6.1		2			
IM11	Fine	Moderate	12:23	7.0	Surface	1.0	0.4	92	25.3	25.3	8.0	8.0	25.1	25.1	94.6	94.6	6.7	6.7	4.8	6.0	3	4	821518	810551
						1.0	0.4	91	25.3		8.0		25.1		94.5		6.7		4.9		3			
					Middle	3.5	0.4	104	25.3	25.3	8.0	8.0	25.4	25.4	94.3	94.3	6.7		6.1		4			
						3.5	0.4	110	25.3		8.0		25.5		94.3		6.7		6.2		4			
					Bottom	6.0	0.4	117	25.3	25.3	8.0	8.0	25.6	25.6	95.7	95.8	6.8	6.8	7.0		6			
						6.0	0.5	121	25.3		8.0		25.6		95.8		6.8		7.0		6			
IM12	Fine	Moderate	12:15	9.0	Surface	1.0	0.5	96	25.3	25.3	8.0	8.0	25.4	25.4	95.1	95.1	6.8	6.8	5.1	6.2	2	3	821139	811534
						1.0	0.4	92	25.3		8.0		25.5		95.1		6.8		5.1		3			
					Middle	4.5	0.4	114	25.2	25.2	8.0	8.0	25.7	25.7	95.6	95.8	6.8		6.0		3			
						4.5	0.4	119	25.2		8.0		25.7		95.9		6.8		6.1		3			
					Bottom	8.0	0.4	99	25.2	25.2	8.0	8.0	25.8	25.8	97.8	98.0	7.0	7.0	7.3		4			
						8.0	0.5	94	25.2		8.0		25.8		98.1		7.0		7.4		4			
SR1A	Fine	Moderate	11:46	4.2	Surface	1.0	-	78	25.7	25.7	8.0	8.0	25.6	25.7	100.2	100.3	7.1	7.1	2.5	2.6	4	4	819983	812658
						1.0	0.0	84	25.7		8.0		25.7		100.3		7.1		2.5		3			
					Middle	2.1	0.0	74	-	-	-	-	-	-	-	-	-		-		-			
						2.1	0.0	66	-		-		-		-		-		-		-			
					Bottom	3.2	-	93	25.7	25.7	8.0	8.0	25.7	25.7	101.7	102.0	7.2	7.2	2.7		5			
						3.2	-	91	25.7		8.0		25.7		102.2		7.2		2.7		4			
SR2	Fine	Moderate	11:30	5.2	Surface	1.0	0.3	47	24.7	24.7	8.0	8.0	27.4	27.5	92.6	92.7	6.6	6.6	1.7	2.2	4	4	821469	814158
						1.0	0.3	41	24.7		8.0		27.5		92.7		6.6		1.6		3			
					Middle	-	0.3	49	-	-	-	-	-	-	-	-	-		-		-			
						-	0.3	53	-		-		-		-		-		-		-			
					Bottom	4.2	0.3	40	24.7	24.7	8.0	8.0	27.7	27.7	93.4	93.5	6.6	6.6	2.8		3			
						4.2	0.3	33	24.7		8.0		27.6		93.6		6.6		2.7		4			
SR3	Fine	Moderate	13:08	8.1	Surface	1.0	0.5	175	26.3	26.3	7.9	7.9	22.1	22.1	94.5	94.5	6.7	6.7	1.1	3.4	3	3	822145	807594
						1.0	0.5	169	26.2		7.9		22.1		94.5		6.7		1.1		4			
					Middle	4.1	0.5	154	26.0	26.0	7.9	7.9	23.2	23.2	93.6	93.6	6.7		2.2		4			
						4.1	0.5	147	26.0		7.9		23.1		93.6		6.7		2.5		3			
					Bottom	7.1	0.5	189	25.6	25.6	7.9	7.9	24.9	24.9	87.5	87.6	6.2	6.2	6.7		3			
						7.1	0.5	182	25.6		8.0		24.9		87.6		6.2		6.7		3			
SR4A	Fine	Moderate	11:59	8.9	Surface	1.0	0.0	41	26.0	26.0	7.9	7.9	24.1	24.1	94.9	94.9	6.7	6.5	1.8	4.8	2	3	817183	807816
						1.0	0.1	37	25.9		7.9		24.1		94.9		6.7		2.0		2			
					Middle	4.5	0.0	32	25.4	25.4	8.0	8.0	25.9	25.9	88.1	88.2	6.2		5.6		2			
						4.5	0.0	28	25.4		8.0		25.9		88.2		6.3		5.5		3			
					Bottom	7.9	0.0	37	25.3	25.3	8.0	8.0	26.3	26.3	89.3	89.3	6.3	6.3	6.7		2			
						7.9	0.1	40	25.3		8.0		26.3		89.3		6.3		6.9		4			
SR8	Fine	Moderate	12:10	4.4	Surface	1.0	-	-	26.2	26.2	8.0	8.0	25.7	25.7	97.8	97.8	6.8	6.8	5.8	5.9	7	6	820374	811632
						1.0	-	-	26.2		8.0		25.7		97.7		6.8		5.9		7			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	3.4	-	-	26.0	26.1	8.0	8.0	25.6	25.5	96.8	96.9	6.8	6.8	6.0		5			
						3.4	-	-	26.1		8.0		25.5		96.9		6.8		6.1		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**
Note: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 April 22 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	Sunny	Moderate	17:07	8.0	Surface	1.0	0.3	39	25.9	25.9	7.9	7.9	25.1	25.1	93.4	93.3	6.6	6.6	2.3	4.6	3	2	815608	804254
						1.0	0.2	31	25.9		7.9		25.2		93.1		6.6		2.4		2			
					Middle	4.0	0.3	42	25.4	25.4	8.0	8.0	25.4	25.4	91.8	91.8	6.5		1.8		2			
						4.0	0.2	38	25.3		8.0		25.5		91.7		6.5		2.0		2			
					Bottom	7.0	0.2	37	24.9	24.9	8.0	8.0	27.7	27.7	90.1	90.1	6.4	6.4	9.8		<2			
						7.0	0.2	43	24.9		8.0		27.7		90.1		6.4		9.2		<2			
C2	Sunny	Moderate	16:04	11.7	Surface	1.0	0.2	188	26.5	26.5	8.0	8.0	19.9	19.9	94.1	94.1	6.8	6.4	0.9	7.5	3	3	825679	806922
						1.0	0.2	185	26.5		8.0		19.9		94.0		6.8		0.8		2			
					Middle	5.9	0.2	195	25.0	25.0	8.0	8.0	25.4	25.5	82.0	82.0	5.9		8.5		3			
						5.9	0.2	194	25.0		8.0		25.5		81.9		5.9		9.2		3			
					Bottom	10.7	0.2	193	25.0	25.0	8.0	8.0	26.1	26.1	81.8	81.9	5.8	5.8	12.4		3			
						10.7	0.2	199	25.0		8.1		26.1		81.9		5.8		12.9		2			
C3	Fine	Moderate	17:08	11.0	Surface	1.0	0.5	257	25.4	25.5	8.0	8.0	25.6	25.6	94.6	94.5	6.7	6.6	1.0	1.2	2	2	822105	817808
						1.0	0.5	256	25.5		8.0		25.6		94.4		6.7		1.0		2			
					Middle	5.5	0.5	286	24.2	24.2	8.0	8.0	29.4	29.4	90.1	90.1	6.4		1.2		2			
						5.5	0.5	279	24.2		8.0		29.4		90.1		6.4		1.1		3			
					Bottom	10.0	0.5	277	24.1	24.1	8.0	8.0	29.8	29.8	91.5	91.6	6.5	6.5	1.4		2			
						10.0	0.5	269	24.1		8.0		29.8		91.6		6.5		1.4		3			
IM1	Sunny	Moderate	16:51	6.1	Surface	1.0	0.0	350	26.2	26.2	8.0	8.0	24.8	24.8	95.0	95.0	6.7	6.6	1.8	6.6	7	6	818350	806477
						1.0	0.0	355	26.1		8.0		24.9		95.0		6.7		1.9		6			
					Middle	3.1	0.1	345	25.5	25.4	8.0	8.0	25.3	25.3	90.7	90.6	6.5		8.7		7			
						3.1	0.1	347	25.3		8.0		25.4		90.4		6.4		8.8		6			
					Bottom	5.1	0.0	339	25.0	25.0	8.0	8.0	27.5	27.5	89.4	89.5	6.3	6.3	9.2		5			
						5.1	0.0	341	25.0		8.0		27.4		89.6		6.3		9.2		6			
IM2	Sunny	Moderate	16:44	6.9	Surface	1.0	0.1	263	26.3	26.3	7.9	7.9	24.6	24.7	96.9	96.9	6.8	6.6	1.6	5.5	2	3	819160	806255
						1.0	0.1	261	26.2		7.9		24.8		96.9		6.8		1.5		2			
					Middle	3.5	0.1	276	25.2	25.2	8.0	8.0	26.5	26.6	90.1	89.9	6.4		6.4		3			
						3.5	0.1	274	25.1		8.0		26.7		89.7		6.4		6.7		3			
					Bottom	5.9	0.1	272	24.9	24.9	8.0	8.0	27.3	27.3	88.7	88.7	6.3	6.3	8.6		4			
						5.9	0.1	275	24.9		8.0		27.3		88.7		6.3		8.5		4			
IM7	Sunny	Moderate	16:26	7.0	Surface	1.0	0.2	260	26.6	26.6	7.9	7.9	22.5	22.5	94.6	94.6	6.7	6.6	2.6	4.7	2	3	821359	806852
						1.0	0.2	255	26.6		7.9		22.5		94.6		6.7		2.7		3			
					Middle	3.5	0.2	241	26.0	26.0	7.9	7.9	23.5	23.5	90.4	90.4	6.4		3.0		4			
						3.5	0.2	241	26.0		7.9		23.5		90.4		6.4		3.2		3			
					Bottom	6.0	0.2	273	25.7	25.8	7.9	7.9	24.1	24.1	89.0	89.1	6.3	6.3	8.1		4			
						6.0	0.2	268	25.8		7.9		24.1		89.1		6.3		8.4		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**
Note: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 April 22 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	Moderate	16:00	7.4	Surface	1.0	0.2	207	26.0	26.0	8.0	8.0	23.7	23.7	99.7	99.6	7.1	7.0	1.0	2.2	2	3	822218	809828
						1.0	0.2	207	26.0		8.0		23.8		99.4		7.1		1.0		3			
					Middle	3.7	0.2	203	25.7	25.7	8.0	8.0	24.6	24.7	97.3	97.3	6.9		2.0		3			
						3.7	0.1	196	25.6		8.0		24.7		97.2		6.9		2.0		2			
					Bottom	6.4	0.1	216	25.4	25.5	8.0	8.0	25.3	25.3	97.6	97.8	6.9	7.0	3.5		3			
						6.4	0.1	213	25.5		8.0		25.2		97.9		7.0		3.4		3			
IM11	Fine	Moderate	16:05	7.8	Surface	1.0	0.1	250	25.9	25.9	8.0	8.0	24.3	24.4	99.7	99.6	7.1	7.1	3.3	5.0	2	3	821518	810548
						1.0	0.1	248	25.9		8.0		24.5		99.5		7.1		3.7		3			
					Middle	3.9	0.2	258	25.7	25.7	8.0	8.0	25.0	25.0	98.6	98.5	7.0		5.2		2			
						3.9	0.2	261	25.7		8.0		25.0		98.3		7.0		5.6		3			
					Bottom	6.8	0.2	235	25.5	25.5	8.0	8.0	25.0	25.0	97.4	97.7	6.9	7.0	6.1		4			
						6.8	0.2	227	25.5		8.0		24.9		97.9		7.0		6.1		4			
IM12	Fine	Moderate	16:11	8.0	Surface	1.0	0.2	290	25.9	25.9	8.0	8.0	24.2	24.2	100.1	100.2	7.1	7.0	1.7	3.1	3	3	821165	811528
						1.0	0.2	297	25.8		8.0		24.3		100.2		7.1		1.8		4			
					Middle	4.0	0.2	297	25.5	25.5	8.0	8.0	25.1	25.1	96.6	96.6	6.9		3.1		4			
						4.0	0.2	291	25.5		8.0		25.1		96.6		6.9		3.2		2			
					Bottom	7.0	0.2	295	25.5	25.5	8.0	8.0	25.2	25.2	97.2	97.3	6.9	6.9	4.2		3			
						7.0	0.2	296	25.5		8.0		25.2		97.4		6.9		4.3		3			
SR1A	Fine	Moderate	16:37	5.6	Surface	1.0	0.0	189	25.7	25.7	8.0	8.0	24.8	24.8	99.0	99.0	7.0	7.0	1.0	1.7	4	4	819973	812661
						1.0	0.1	188	25.7		8.0		24.8		98.9		7.0		1.0		5			
					Middle	2.8	0.1	178	-	-	-	-	-	-	-	-	-		-		-			
						2.8	0.1	171	-		-		-		-		-		-		-			
					Bottom	4.6	0.1	190	25.5	25.5	8.0	8.0	25.1	25.1	99.3	99.5	7.1	7.1	2.3		3			
						4.6	0.0	192	25.5		8.0		25.1		99.7		7.1		2.3		4			
SR2	Fine	Moderate	16:45	4.8	Surface	1.0	0.1	319	25.4	25.4	8.0	8.0	24.4	24.4	100.0	99.7	7.2	7.2	2.5	2.9	4	4	821478	814166
						1.0	0.1	320	25.3		8.0		24.4		99.3		7.1		2.6		3			
					Middle	-	0.1	310	-	-	-	-	-	-	-	-	-		-		-			
						-	0.1	306	-		-		-		-		-		-		-			
					Bottom	3.8	0.1	299	25.1	25.1	8.0	8.0	26.4	26.4	94.6	94.7	6.7	6.7	3.3		5			
						3.8	0.1	297	25.1		8.0		26.4		94.8		6.7		3.2		4			
SR3	Sunny	Moderate	16:20	8.6	Surface	1.0	0.2	187	26.6	26.5	7.9	7.9	21.5	21.6	95.8	95.8	6.8	6.6	1.1	5.2	<2	2	822140	807564
						1.0	0.2	183	26.4		7.9		21.6		95.7		6.8		1.1		<2			
					Middle	4.3	0.2	216	25.7	25.7	7.9	7.9	24.0	24.0	87.8	87.8	6.3		3.5		2			
						4.3	0.3	218	25.7		7.9		24.1		87.7		6.3		3.6		3			
					Bottom	7.6	0.2	212	25.6	25.6	8.0	8.0	24.2	24.2	87.4	87.4	6.2	6.2	11.1		3			
						7.6	0.2	211	25.6		8.0		24.2		87.4		6.2		11.1		2			
SR4A	Sunny	Moderate	17:26	8.5	Surface	1.0	0.1	158	26.8	26.8	8.0	8.0	24.6	24.6	98.3	98.2	6.8	6.8	3.9	6.2	3	3	817187	807801
						1.0	0.1	153	26.8		8.0		24.6		98.1		6.8		3.8		2			
					Middle	4.3	0.0	153	26.7	26.7	8.0	8.0	24.5	24.5	96.8	96.8	6.8		5.1		2			
						4.3	0.0	159	26.7		8.0		24.5		96.8		6.8		5.5		3			
					Bottom	7.5	0.0	191	26.8	26.8	8.0	8.0	24.5	24.5	96.4	96.4	6.7	6.7	9.4		3			
						7.5	0.0	191	26.8		8.0		24.5		96.3		6.7		9.6		2			
SR8	Fine	Moderate	16:16	5.0	Surface	1.0	-	-	25.8	25.8	8.0	8.0	24.4	24.4	98.8	98.9	7.0	7.0	1.9	3.5	3	3	820397	811618
						1.0	-	-	25.8		8.0		24.4		98.9		7.0		1.9		3			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	4.0	-	-	25.7	25.8	8.0	8.0	24.7	24.7	99.8	100.1	7.1	7.1	5.0		3			
						4.0	-	-	25.8		8.0		24.6		100.4		7.1		5.1		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: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 April 22 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	Misty	Moderate	11:30	7.4	Surface	1.0	0.1	208	25.9	25.9	8.3	8.3	21.4	21.4	93.9	93.9	6.8	6.7	2.9	4.0	4	4	815632	804245
						1.0	0.1	202	25.9		8.4		21.5		93.8		6.8		2.8		4			
					Middle	3.7	0.2	191	24.3	24.2	8.4	8.4	27.1	27.2	92.2	92.1	6.6		4.1		4			
						3.7	0.2	189	24.1		8.4		27.3		92.0		6.6		4.1		3			
					Bottom	6.4	0.1	215	24.0	24.0	8.5	8.5	30.9	30.9	91.4	91.4	6.4	6.4	5.1		3			
						6.4	0.1	222	24.0		8.5		30.9		91.3		6.4		5.1		4			
C2	Misty	Moderate	12:42	10.2	Surface	1.0	0.6	181	26.0	26.0	8.3	8.3	22.3	22.3	90.7	90.7	6.5	6.3	2.0	2.5	2	3	825704	806956
						1.0	0.6	183	25.9		8.3		22.3		90.6		6.5		2.1		2			
					Middle	5.1	0.5	156	25.7	25.7	8.3	8.3	24.3	24.4	85.7	85.7	6.1		3.2		3			
						5.1	0.5	157	25.7		8.3		24.5		85.7		6.1		3.1		3			
					Bottom	9.2	0.6	153	25.6	25.6	8.3	8.3	25.9	25.9	86.6	87.1	6.1	6.2	2.1		3			
						9.2	0.6	150	25.6		8.3		25.9		87.6		6.2		2.3		4			
C3	Cloudy	Moderate	11:16	11.4	Surface	1.0	0.3	63	25.0	25.0	7.9	7.9	28.1	28.2	92.5	92.5	6.5	6.4	0.9	2.3	4	3	822118	817788
						1.0	0.3	65	25.0		7.9		28.2		92.5		6.5		0.9		3			
					Middle	5.7	0.3	86	24.3	24.3	7.9	7.9	30.7	30.7	89.2	89.2	6.3		1.9		3			
						5.7	0.3	90	24.3		7.9		30.8		89.1		6.3		1.9		2			
					Bottom	10.4	0.3	73	24.0	24.0	7.9	7.9	31.8	31.8	88.2	88.3	6.2	6.2	4.5		2			
						10.4	0.4	80	24.0		7.9		31.7		88.3		6.2		3.9		2			
IM1	Misty	Moderate	11:52	6.4	Surface	1.0	0.1	175	26.1	26.1	8.4	8.4	22.0	22.1	91.2	91.1	6.5	6.5	1.2	2.4	4	4	818351	806440
						1.0	0.1	168	26.1		8.5		22.1		90.9		6.5		1.2		4			
					Middle	3.2	0.1	181	26.1	26.1	8.5	8.5	22.7	22.7	90.5	90.6	6.5		2.8		3			
						3.2	0.1	174	26.1		8.5		22.7		90.7		6.5		2.9		4			
					Bottom	5.4	0.1	199	26.1	26.1	8.5	8.5	22.8	22.8	91.9	92.1	6.5	6.6	3.1		3			
						5.4	0.2	202	26.1		8.6		22.8		92.2		6.6		3.2		3			
IM2	Misty	Moderate	11:57	6.6	Surface	1.0	0.2	191	26.0	26.0	8.2	8.2	24.0	24.2	88.3	88.2	6.3	6.2	3.9	5.0	4	3	819190	806234
						1.0	0.2	194	25.9		8.2		24.3		88.0		6.2		3.9		4			
					Middle	3.3	0.2	197	25.8	25.8	8.3	8.3	24.9	24.9	87.7	87.7	6.2		5.1		3			
						3.3	0.2	196	25.8		8.3		24.9		87.6		6.2		5.1		3			
					Bottom	5.6	0.1	192	26.2	26.3	8.3	8.2	25.0	24.9	87.4	87.5	6.1	6.1	6.1		3			
						5.6	0.2	190	26.3		8.2		24.9		87.5		6.1		6.2		2			
IM7	Misty	Moderate	12:21	8.0	Surface	1.0	0.3	145	26.2	26.2	8.2	8.2	20.7	20.7	88.4	88.3	6.4	6.3	2.3	3.3	4	4	821370	806836
						1.0	0.3	147	26.1		8.2		20.7		88.1		6.3		2.2		3			
					Middle	4.0	0.2	148	25.9	25.9	8.2	8.2	22.8	22.8	87.2	87.3	6.2		3.3		3			
						4.0	0.2	143	25.9		8.2		22.8		87.4		6.2		3.4		4			
					Bottom	7.0	0.3	155	26.4	26.5	8.2	8.2	22.9	22.9	88.3	88.5	6.3	6.3	4.4		4			
						7.0	0.3	149	26.6		8.2		22.8		88.6		6.3		4.2		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**

Note: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 April 22 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	Cloudy	Moderate	12:31	8.2	Surface	1.0	0.5	113	25.8	25.8	7.9	7.9	22.5	22.5	89.1	89.1	6.4	6.4	3.9	4.4	4	4	822223	809834
						1.0	0.4	106	25.7		7.9		22.6		89.0		6.4		4.1		4			
					Middle	4.1	0.4	98	25.5	25.5	7.9	7.9	25.7	25.7	88.7	88.8	6.3		4.5		2			
						4.1	0.5	93	25.5		7.9		25.7		88.8		6.3		4.5		4			
					Bottom	7.2	0.5	88	25.5	25.5	7.9	7.9	25.8	25.8	90.0	90.2	6.4	6.4	4.6		3			
						7.2	0.4	84	25.5		7.9		25.8		90.3		6.4		4.6		4			
IM11	Cloudy	Moderate	12:24	8.5	Surface	1.0	0.6	107	26.0	26.0	7.9	7.9	22.6	22.6	91.7	91.7	6.6	6.5	3.2	4.3	3	3	821495	810558
						1.0	0.5	100	26.0		7.9		22.6		91.6		6.6		3.2		3			
					Middle	4.3	0.5	112	25.6	25.6	7.9	7.9	25.5	25.5	88.5	88.5	6.3		3.6		2			
						4.3	0.5	104	25.6		7.9		25.6		88.4		6.3		3.8		4			
					Bottom	7.5	0.6	112	25.5	25.5	7.9	7.9	26.1	26.1	87.7	87.7	6.2	6.2	5.8		3			
						7.5	0.6	118	25.5		7.9		26.1		87.7		6.2		6.0		4			
IM12	Cloudy	Moderate	12:17	9.2	Surface	1.0	0.5	89	25.8	25.8	7.9	7.9	24.9	24.9	92.3	92.3	6.5	6.4	3.3	4.5	4	4	821177	811510
						1.0	0.6	88	25.8		7.9		24.9		92.3		6.5		3.3		4			
					Middle	4.6	0.6	119	25.3	25.3	7.9	7.9	26.6	26.6	87.0	87.0	6.2		4.7		4			
						4.6	0.6	115	25.3		7.9		26.6		87.0		6.2		4.7		4			
					Bottom	8.2	0.6	106	25.2	25.2	7.9	7.9	27.1	27.1	87.1	87.1	6.2	6.2	5.2		5			
						8.2	0.6	99	25.2		7.9		27.1		87.1		6.2		5.7		5			
SR1A	Cloudy	Moderate	11:50	5.4	Surface	1.0	0.0	60	25.4	25.4	7.9	7.9	24.9	25.0	88.7	88.7	6.3	6.3	7.2	9.1	4	4	819979	812665
						1.0	0.0	60	25.3		7.9		25.0		88.7		6.3		7.6		4			
					Middle	2.7	0.1	41	-	-	-	-	-	-	-	-	-		-		-			
						2.7	0.0	37	-		-		-		-		-		-		-			
					Bottom	4.4	-	69	25.2	25.2	7.9	7.9	27.2	27.2	90.0	90.2	6.4	6.4	10.6		4			
						4.4	0.0	61	25.2		7.9		27.2		90.3		6.4		11.1		3			
SR2	Cloudy	Moderate	11:36	4.6	Surface	1.0	0.2	53	25.5	25.5	7.9	7.9	25.6	25.6	91.1	90.9	6.5	6.5	2.2	4.4	4	4	821473	814154
						1.0	0.2	49	25.5		7.9		25.6		90.6		6.4		2.2		3			
					Middle	-	0.2	34	-	-	-	-	-	-	-	-	-		-		-			
						-	0.2	41	-		-		-		-		-		-		-			
					Bottom	3.6	0.2	38	25.0	25.0	7.9	7.9	27.8	27.8	89.7	89.8	6.3	6.3	6.6		5			
						3.6	0.3	39	25.0		7.9		27.8		89.9		6.3		6.5		4			
SR3	Misty	Moderate	12:27	8.8	Surface	1.0	0.4	147	26.1	26.1	8.3	8.3	21.4	21.2	83.0	82.8	6.0	5.9	2.6	4.0	5	4	822135	807592
						1.0	0.4	141	26.1		8.3		21.1		82.5		5.9		2.6		4			
					Middle	4.4	0.5	136	26.0	26.0	8.3	8.3	22.8	22.9	81.9	82.0	5.9		4.0		4			
						4.4	0.5	132	26.0		8.3		22.9		82.1		5.9		4.1		5			
					Bottom	7.8	0.5	158	26.1	26.1	8.3	8.3	23.3	23.2	84.9	85.3	6.0	6.1	5.3		3			
						7.8	0.5	163	26.1		8.3		23.1		85.7		6.1		5.5		4			
SR4A	Misty	Moderate	11:13	9.0	Surface	1.0	0.1	93	26.1	26.1	8.3	8.3	20.0	20.0	92.2	92.1	6.7	6.6	1.8	2.4	3	4	817205	807789
						1.0	0.1	86	26.1		8.3		20.0		91.9		6.7		2.0		4			
					Middle	4.5	-	114	26.0	26.0	8.4	8.4	22.1	22.1	90.0	90.0	6.4		2.3		4			
						4.5	0.0	106	26.0		8.4		22.2		89.9		6.4		2.3		4			
					Bottom	8.0	0.1	114	26.0	26.0	8.4	8.4	22.3	22.2	90.7	91.0	6.5	6.5	3.1		4			
						8.0	0.0	119	26.0		8.5		22.1		91.2		6.5		3.0		4			
SR8	Cloudy	Moderate	12:12	4.8	Surface	1.0	-	-	26.0	26.0	8.0	8.0	25.9	25.9	90.3	90.3	6.3	6.3	5.5	5.4	5	5	820370	811634
						1.0	-	-	26.0		8.0		25.9		90.3		6.3		5.4		4			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	3.8	-	-	25.4	25.4	8.0	8.0	26.5	26.5	83.6	83.6	5.9	5.9	5.3		6			
						3.8	-	-	25.4		8.0		26.5		83.5		5.9		5.4		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**
Note: 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.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 April 22 during Mid-Flood Tide

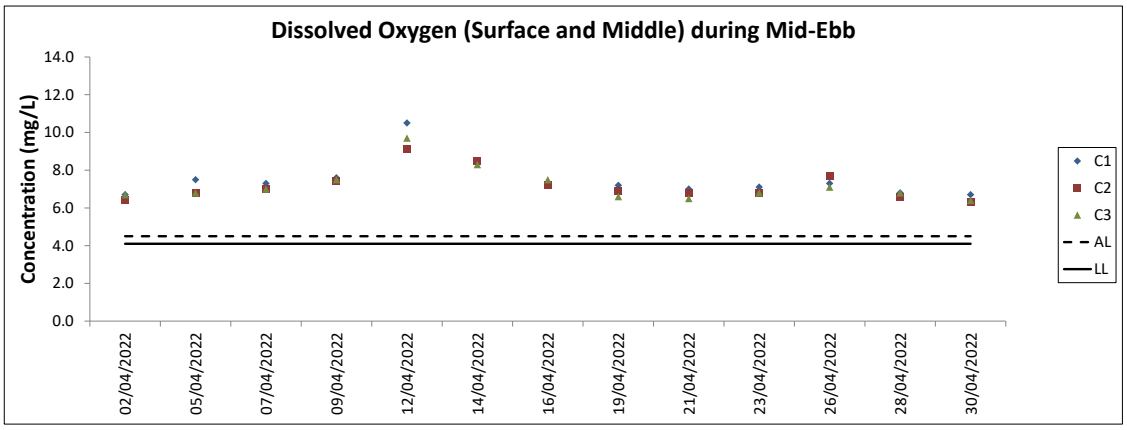
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Misty	Moderate	18:51	8.4	Surface	1.0	0.3	43	26.2	26.2	8.3	8.3	22.0	22.0	97.9	97.9	7.0	6.9	1.1	2.1	4	4	815597	804254
						1.0	0.4	45	26.2		8.3		22.0		97.8		7.0		1.2		3			
					Middle	4.2	0.3	42	24.5	24.5	8.4	8.3	27.6	27.5	93.5	93.4	6.7		2.1		4			
						4.2	0.3	34	24.4		8.3		27.4		93.3		6.7		2.2		4			
					Bottom	7.4	0.3	20	24.3	24.3	8.3	8.3	30.1	30.1	93.2	93.3	6.6	6.6	3.1		4			
						7.4	0.4	19	24.3		8.3		30.0		93.4		6.6		3.1		5			
C2	Misty	Moderate	17:38	10.0	Surface	1.0	0.1	202	26.0	26.0	8.3	8.3	22.2	22.2	90.8	90.8	6.5	6.3	2.1	3.1	3	3	825688	806937
						1.0	0.1	197	26.0		8.3		22.2		90.8		6.5		2.2		4			
					Middle	5.0	0.1	199	25.7	25.7	8.3	8.3	24.2	24.2	86.2	86.1	6.1		3.1		3			
						5.0	0.1	192	25.7		8.3		24.2		85.9		6.1		3.2		2			
					Bottom	9.0	0.1	194	25.9	26.0	8.3	8.3	24.7	24.7	85.2	85.8	6.0	6.1	4.1		3			
						9.0	0.0	194	26.0		8.3		24.7		86.3		6.1		4.0		2			
C3	Fine	Moderate	18:53	11.2	Surface	1.0	0.5	259	25.5	25.5	8.0	8.0	27.0	27.1	95.4	95.3	6.7	6.7	2.4	3.2	4	3	822119	817813
						1.0	0.5	260	25.5		8.0		27.2		95.2		6.7		2.4		5			
					Middle	5.6	0.5	275	25.1	25.1	8.0	8.0	28.3	28.3	93.4	93.3	6.6		3.1		3			
						5.6	0.5	274	25.1		8.0		28.3		93.2		6.6		3.3		2			
					Bottom	10.2	0.5	261	24.5	24.5	8.0	8.0	30.4	30.4	90.3	90.4	6.3	6.3	4.0		2			
						10.2	0.5	266	24.5		8.0		30.4		90.4		6.3		4.1		3			
IM1	Misty	Moderate	18:45	6.8	Surface	1.0	0.2	24	25.9	25.9	8.3	8.3	23.9	23.9	95.4	95.5	6.8	6.8	1.4	2.2	4	4	818354	806467
						1.0	0.2	23	25.8		8.3		24.0		95.5		6.8		1.6		3			
					Middle	3.4	0.1	15	25.7	25.7	8.3	8.3	24.2	24.2	94.7	94.6	6.7		2.1		3			
						3.4	0.1	9	25.7		8.3		24.2		94.4		6.7		2.1		4			
					Bottom	5.8	0.2	18	24.6	24.6	8.3	8.3	29.2	29.2	93.2	93.4	6.6	6.6	3.0		4			
						5.8	0.1	23	24.6		8.3		29.2		93.5		6.6		3.1		5			
IM2	Misty	Moderate	18:41	7.0	Surface	1.0	0.1	349	26.2	26.2	8.3	8.3	23.6	23.6	94.0	94.1	6.7	6.7	3.1	5.4	3	4	819191	806224
						1.0	0.1	344	26.2		8.4		23.6		94.1		6.7		3.2		3			
					Middle	3.5	0.1	8	24.6	24.6	8.4	8.4	28.7	28.8	93.3	93.2	6.6		5.9		4			
						3.5	0.1	2	24.6		8.4		28.8		93.1		6.6		5.8		4			
					Bottom	6.0	0.1	9	24.5	24.5	8.4	8.4	29.3	29.3	92.9	93.0	6.6	6.6	7.2		5			
						6.0	0.2	5	24.5		8.4		29.3		93.1		6.6		7.1		4			
IM7	Misty	Moderate	18:24	7.4	Surface	1.0	0.2	283	26.0	26.0	8.4	8.4	23.2	23.3	87.9	87.9	6.3	6.3	2.9	4.1	4	4	821354	806842
						1.0	0.2	286	26.0		8.4		23.3		87.9		6.3		3.0		5			
					Middle	3.7	0.2	277	25.9	26.0	8.4	8.4	23.5	23.4	88.4	88.6	6.3		4.2		5			
						3.7	0.2	273	26.0		8.4		23.4		88.7		6.3		4.2		4			
					Bottom	6.4	0.2	281	26.0	26.0	8.4	8.4	23.5	23.5	90.3	90.5	6.4	6.5	5.0		3			
						6.4	0.2	281	26.0		8.4		23.5		90.7		6.5		5.0		3			

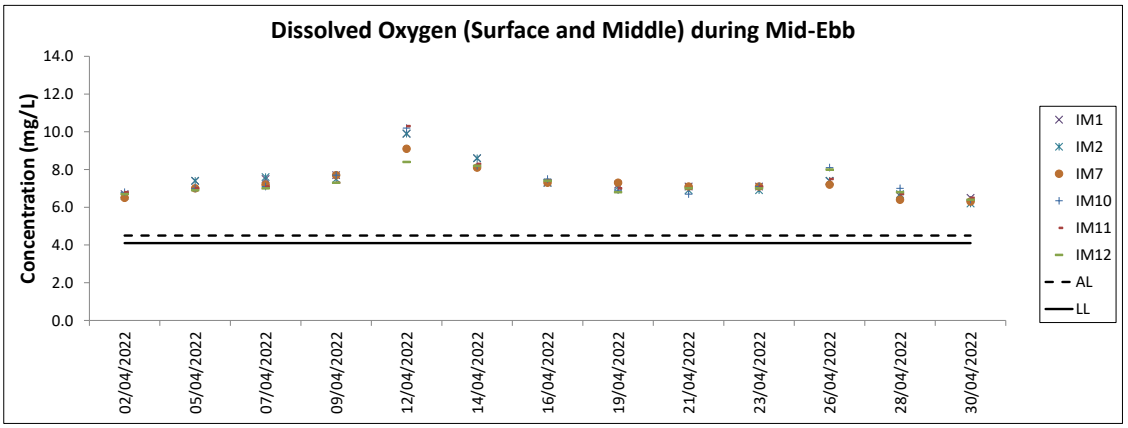
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**
Note: Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022.

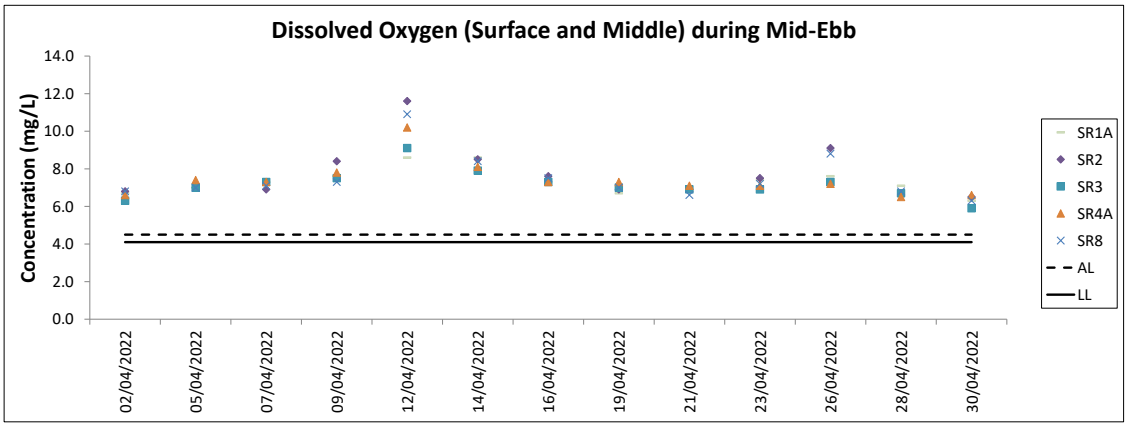
Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 April 22 during Mid-Flood Tide

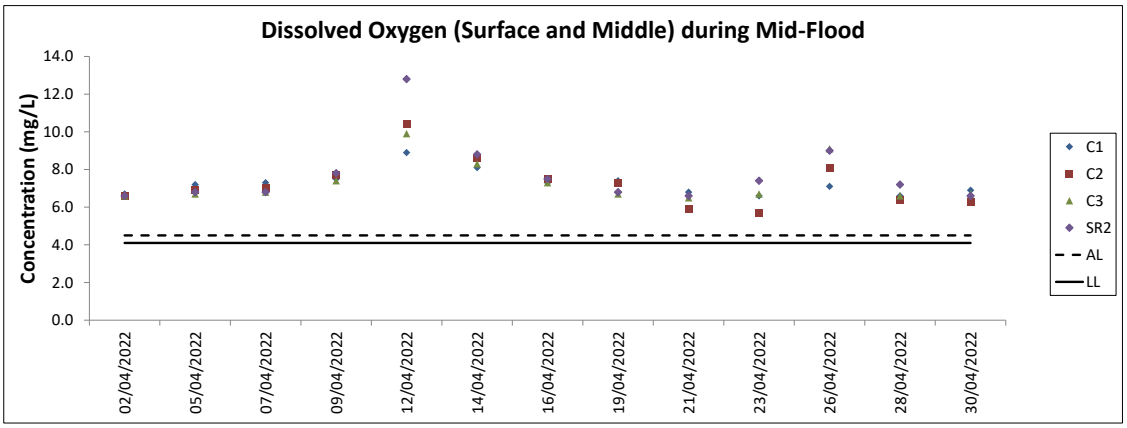
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Fine	Moderate	17:29	8.3	Surface	1.0	0.2	226	26.1	26.1	8.0	8.0	22.3	22.3	94.1	94.1	6.7	6.6	2.8	5.0	3	3	822231	809852
						1.0	0.2	226	26.1		8.0		22.3		94.1		6.7		2.8		4			
					Middle	4.2	0.2	231	25.5	25.5	8.0	8.0	24.5	24.6	89.6	89.6	6.4		5.6		4			
						4.2	0.2	225	25.4		8.0		24.6		89.6		6.4		5.9		3			
					Bottom	7.3	0.1	232	25.1	25.1	8.0	8.0	27.3	27.4	84.7	84.7	6.0	6.0	6.4		3			
						7.3	0.1	239	25.0		8.0		27.4		84.6		6.0		6.5		2			
IM11	Fine	Moderate	17:46	8.6	Surface	1.0	0.3	259	25.9	25.9	7.9	7.9	23.1	23.1	92.0	92.0	6.6	6.4	3.2	6.0	7	5	821489	810554
						1.0	0.3	253	25.9		7.9		23.1		92.0		6.6		3.3		6			
					Middle	4.3	0.4	262	25.4	25.4	7.9	7.9	26.1	26.1	85.8	85.7	6.1		7.3		4			
						4.3	0.4	259	25.4		7.9		26.2		85.6		6.1		7.4		4			
					Bottom	7.6	0.4	266	25.3	25.3	7.9	7.9	26.7	26.7	85.7	85.8	6.1	6.1	7.2		2			
						7.6	0.4	264	25.3		7.9		26.7		85.8		6.1		7.3		4			
IM12	Fine	Moderate	17:53	8.6	Surface	1.0	0.3	264	25.9	25.9	7.9	7.9	23.5	23.5	92.1	92.1	6.6	6.5	3.4	4.5	2	4	821160	811507
						1.0	0.3	259	25.9		7.9		23.5		92.0		6.6		3.4		3			
					Middle	4.3	0.4	265	25.5	25.5	7.9	7.9	25.3	25.3	88.1	88.0	6.3		4.3		3			
						4.3	0.4	261	25.4		7.9		25.3		87.9		6.3		4.5		4			
					Bottom	7.6	0.3	271	25.1	25.1	7.9	7.9	27.3	27.3	87.6	87.7	6.2	6.2	5.5		5			
						7.6	0.3	275	25.1		7.9		27.3		87.7		6.2		5.8		5			
SR1A	Fine	Moderate	18:21	5.4	Surface	1.0	0.0	186	25.8	25.8	7.9	7.9	25.1	25.2	90.1	90.0	6.4	6.4	3.7	3.9	2	3	819976	812666
						1.0	0.0	181	25.8		7.9		25.3		89.9		6.4		3.7		2			
					Middle	2.7	0.0	203	-	-	-	-	-	-	-	-	-		-		-			
						2.7	0.1	207	-		-		-		-		-		-		-			
					Bottom	4.4	0.0	207	25.6	25.6	7.9	7.9	26.3	26.3	90.3	90.4	6.4	6.4	4.1		3			
						4.4	0.1	212	25.6		7.9		26.3		90.5		6.4		4.1		3			
SR2	Fine	Moderate	18:35	5.0	Surface	1.0	0.1	259	26.0	26.0	7.9	7.9	23.8	23.8	92.2	92.2	6.6	6.6	2.9	3.1	3	3	821467	814182
						1.0	0.1	262	25.9		7.9		23.8		92.1		6.5		2.9		2			
					Middle	-	0.0	270	-	-	-	-	-	-	-	-	-		-		-			
						-	0.0	276	-		-		-		-		-		-		-			
					Bottom	4.0	0.1	261	25.3	25.3	7.9	7.9	26.6	26.6	90.8	90.9	6.4	6.4	3.3		4			
						4.0	0.0	265	25.3		7.9		26.6		91.0		6.4		3.4		3			
SR3	Misty	Moderate	18:19	8.6	Surface	1.0	0.1	291	25.9	25.9	8.4	8.4	22.6	22.6	81.8	81.9	5.9	5.9	2.4	3.6	3	4	822167	807562
						1.0	0.1	297	25.9		8.4		22.6		81.9		5.9		2.5		4			
					Middle	4.3	0.1	288	25.8	25.8	8.4	8.4	24.1	24.2	82.6	82.8	5.9		3.3		3			
						4.3	0.1	284	25.8		8.4		24.2		82.9		5.9		3.4		4			
					Bottom	7.6	0.1	274	25.8	25.8	8.4	8.4	24.6	24.6	84.6	84.8	6.0	6.0	5.0		4			
						7.6	0.2	270	25.8		8.4		24.6		85.0		6.0		4.9		5			
SR4A	Misty	Moderate	19:07	9.0	Surface	1.0	0.0	199	25.7	25.7	8.3	8.3	22.6	22.7	93.7	93.5	6.7	6.5	2.0	3.2	4	4	817188	807803
						1.0	0.1	197	25.6		8.3		22.7		93.3		6.7		2.1		5			
					Middle	4.5	0.0	190	25.3	25.3	8.3	8.3	26.3	26.4	89.6	89.8	6.3		3.1		4			
						4.5	0.0	186	25.3		8.3		26.4		89.9		6.4		3.2		4			
					Bottom	8.0	0.0	204	25.2	25.2	8.3	8.3	26.8	26.8	91.2	91.4	6.4	6.5	4.4		3			
						8.0	0.0	210	25.2		8.3		26.8		91.6		6.5		4.5		4			
SR8	Fine	Moderate	17:57	5.2	Surface	1.0	-	-	26.1	26.1	7.9	7.9	23.9	23.9	94.8	94.8	6.7	6.7	4.2	3.4	2	2	820376	811600
						1.0	-	-	26.1		7.9		24.0		94.8		6.7		4.1		2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	4.2	-	-	26.0	26.0	7.9	7.9	24.8	24.8	95.4	95.5	6.7	6.7	2.7		3			
						4.2	-	-	26.0		7.9		24.8		95.6		6.7		2.7		2			

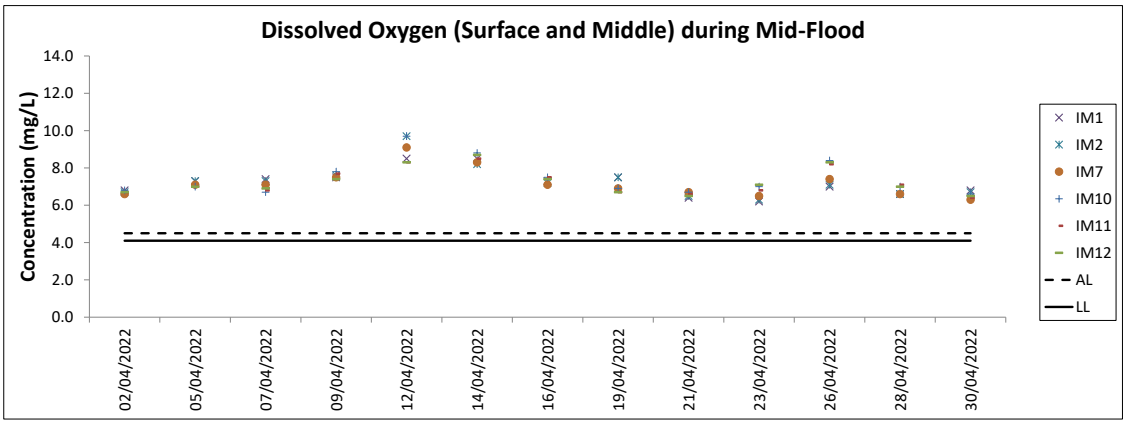
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**
Note: Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022.

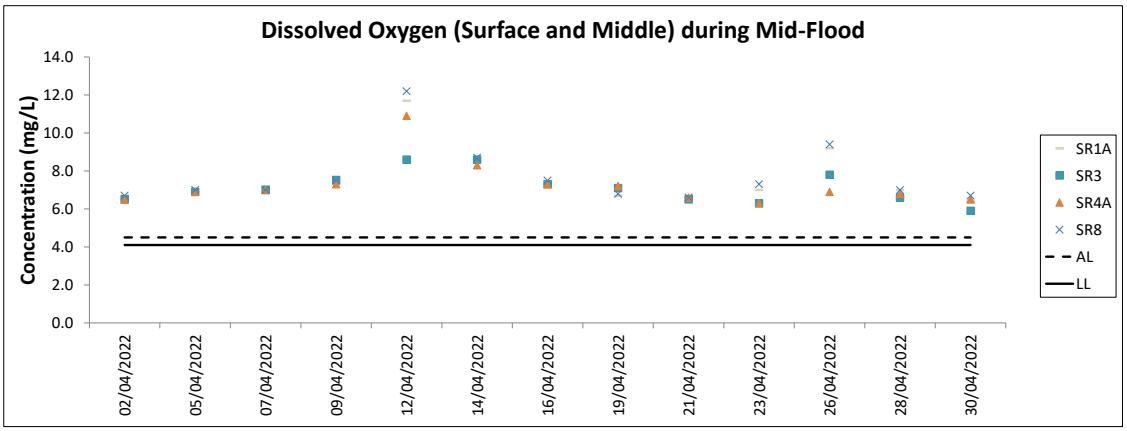

Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
C1
C2
C3
AL
LL

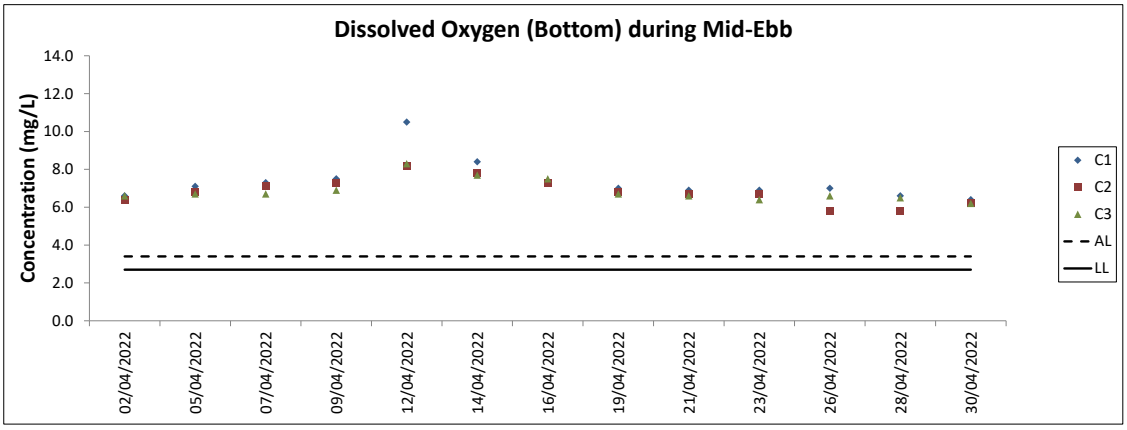

Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
IM1
IM2
IM7
IM10
IM11
IM12
AL
LL

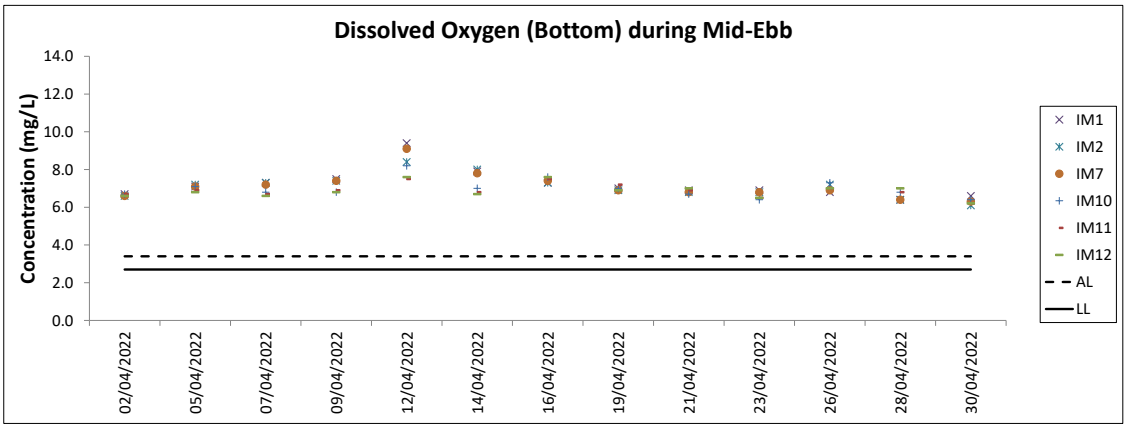

Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
SR1A
SR2
SR3
SR4A
SR8
AL
LL

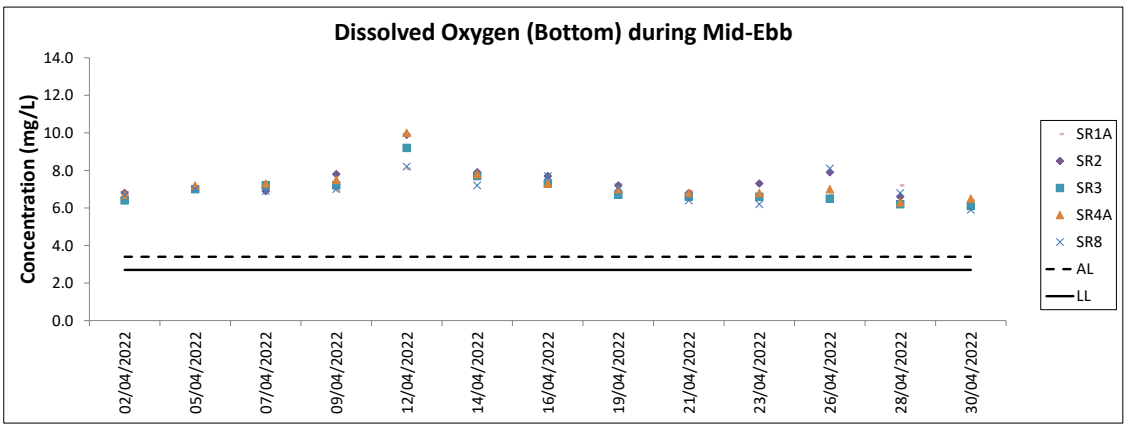

Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
C1
C2
C3
SR2
AL
LL

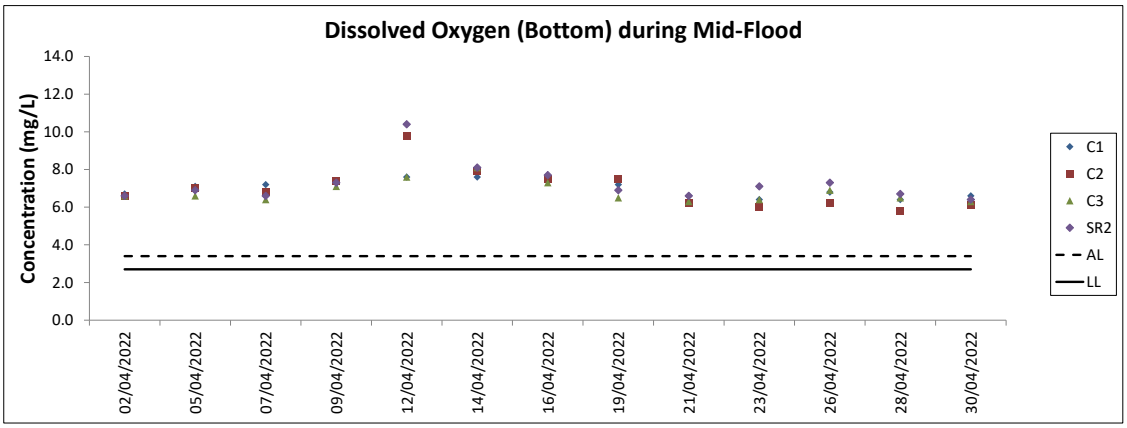

Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
IM1
IM2
IM7
IM10
IM11
IM12
AL
LL

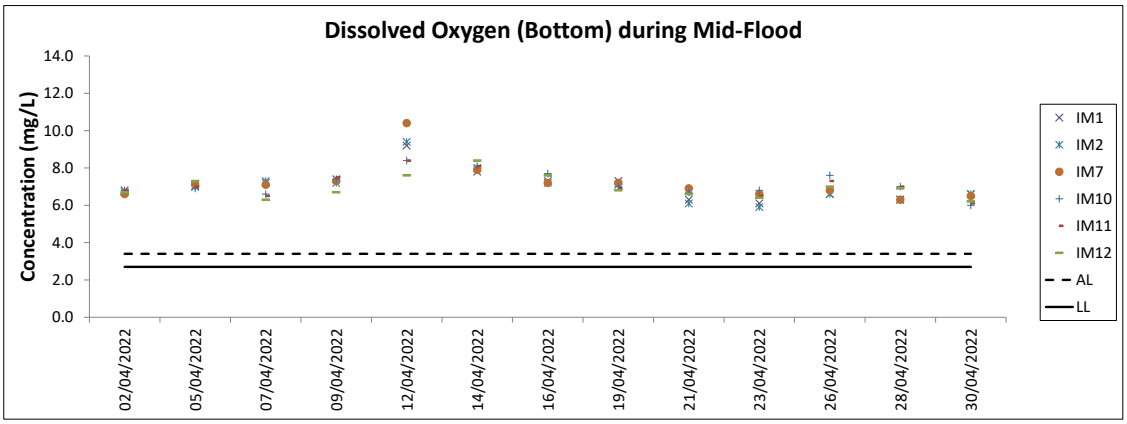

Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
SR1A
SR3
SR4A
SR8
AL
LL

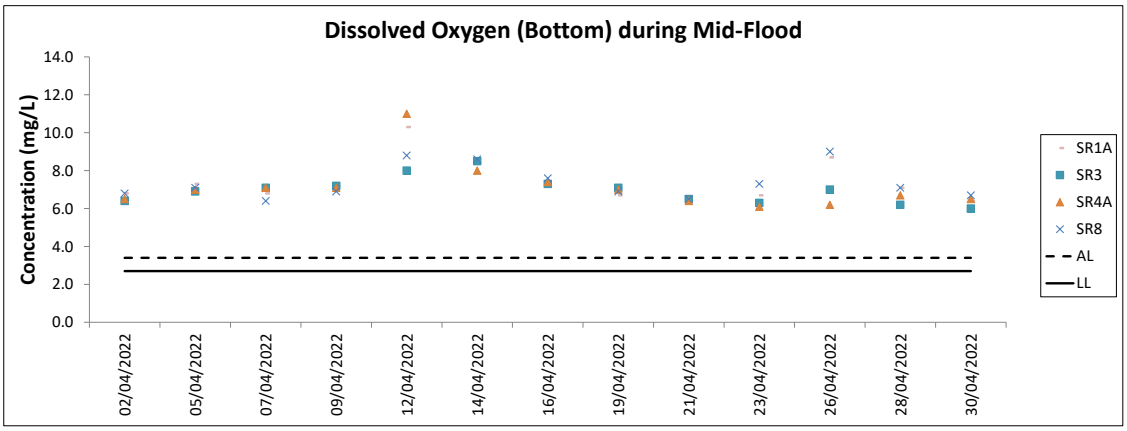

Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
C1
C2
C3
AL
LL

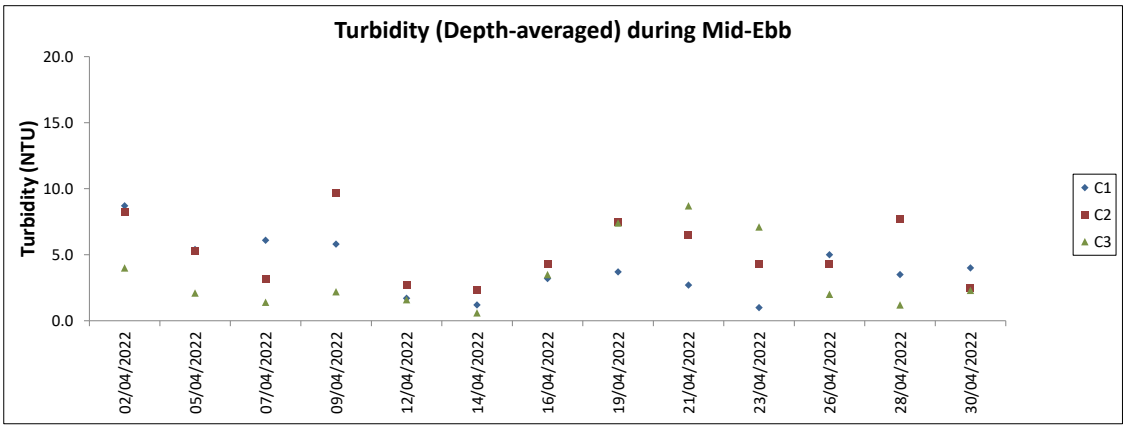

Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
IM1
IM2
IM7
IM10
IM11
IM12
AL
LL

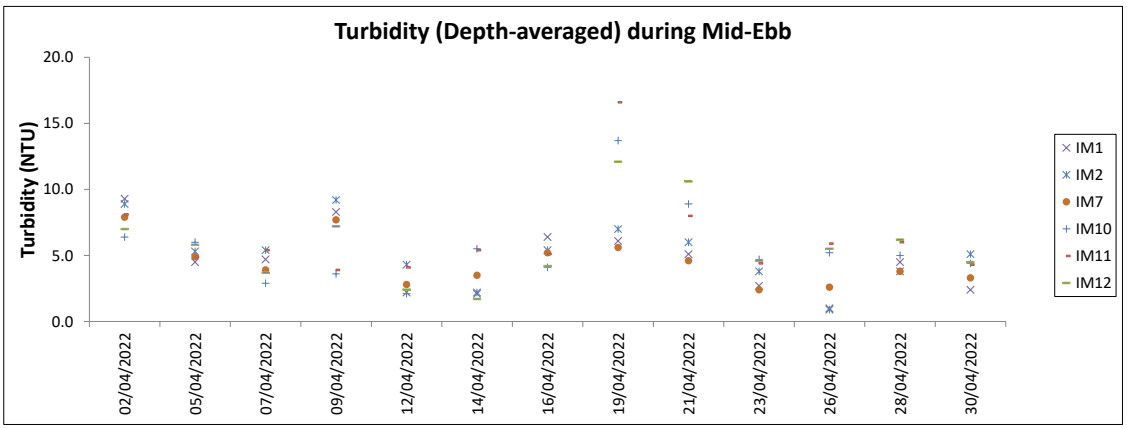

Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
SR1A
SR2
SR3
SR4A
SR8
AL
LL

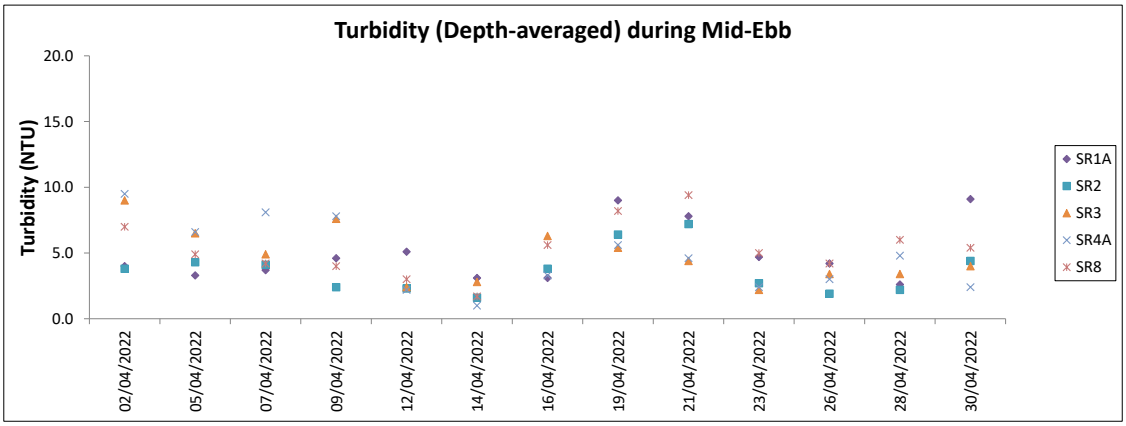

Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
C1
C2
C3
SR2
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
IM1
IM2
IM7
IM10
IM11
IM12
AL
LL

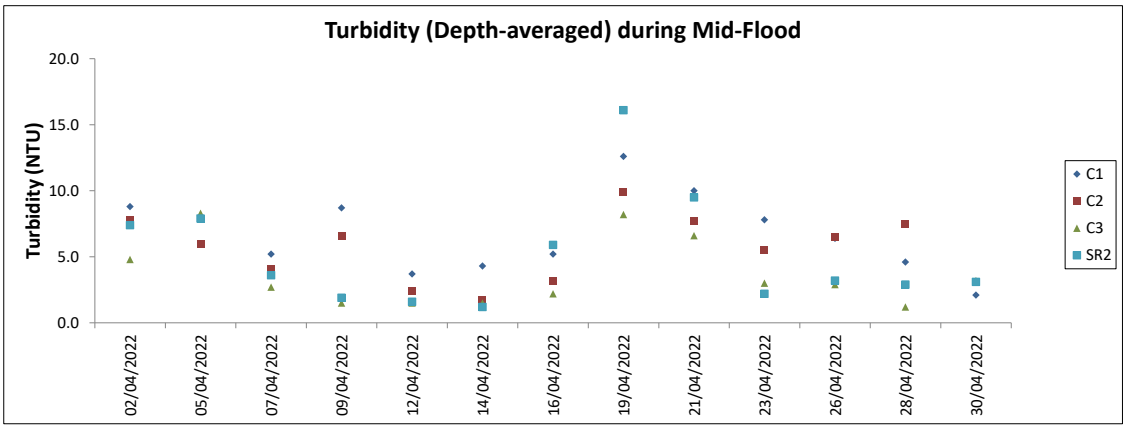

Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/04/2022
05/04/2022
07/04/2022
09/04/2022
12/04/2022
14/04/2022
16/04/2022
19/04/2022
21/04/2022
23/04/2022
26/04/2022
28/04/2022
30/04/2022
SR1A
SR3
SR4A
SR8
AL
LL

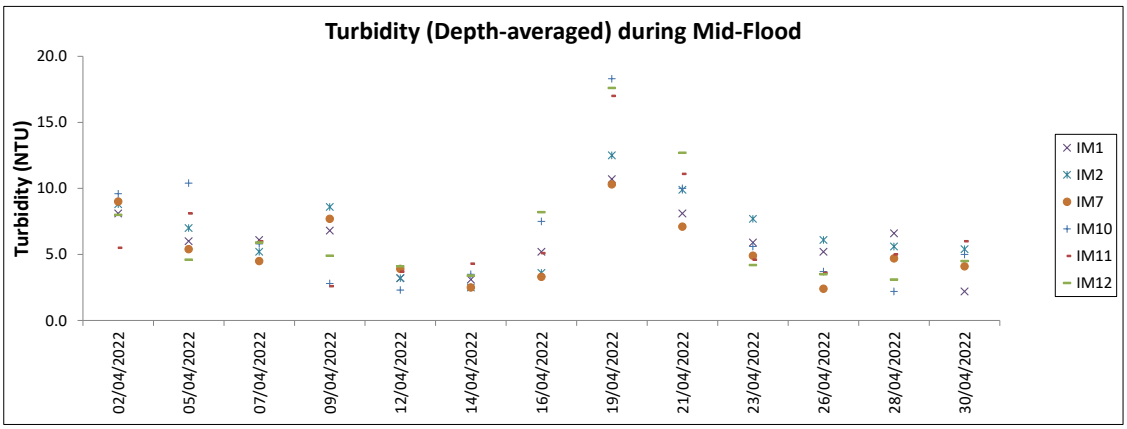


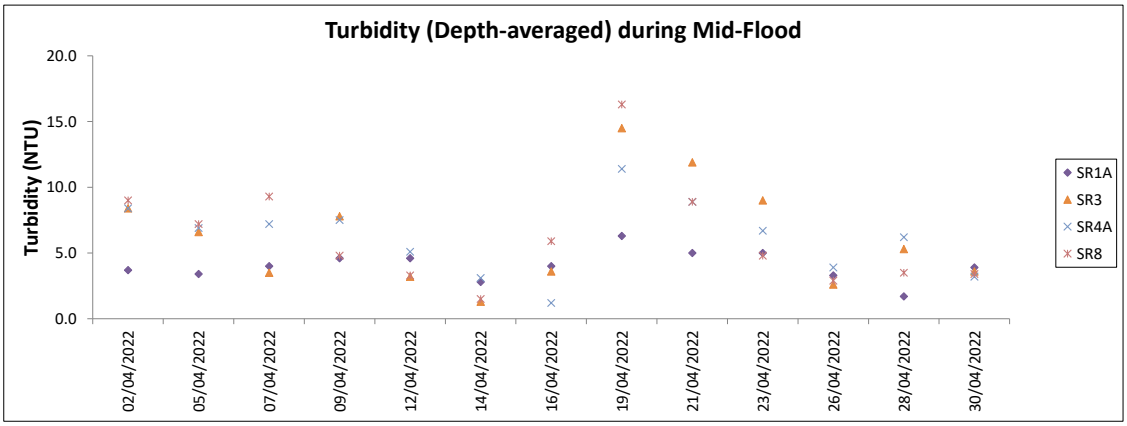




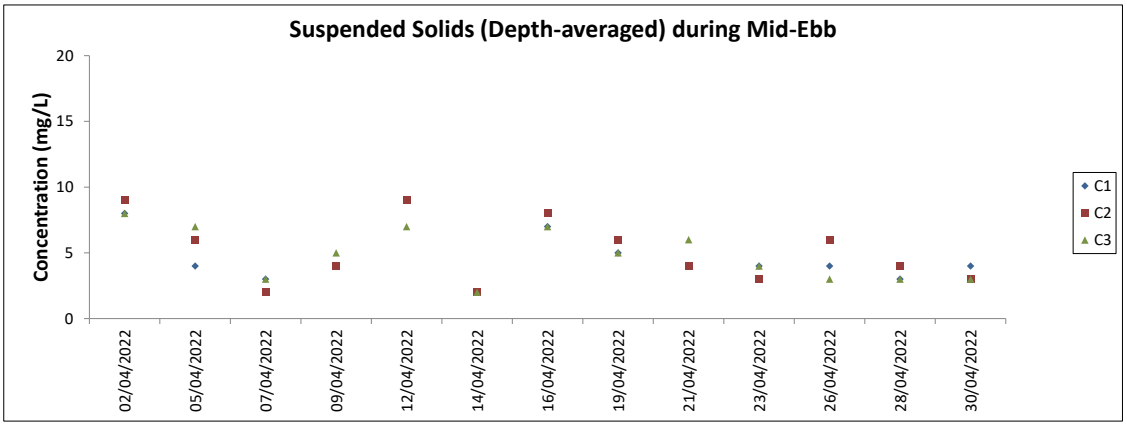
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

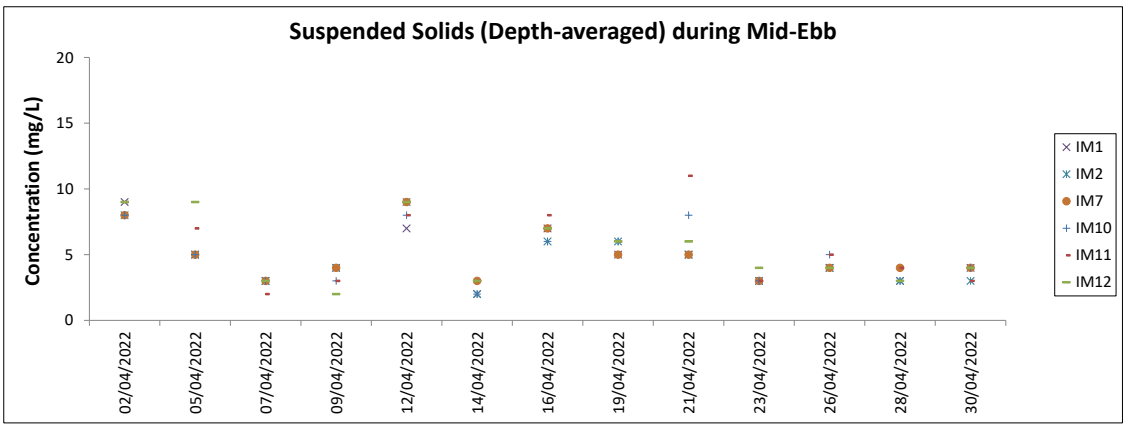


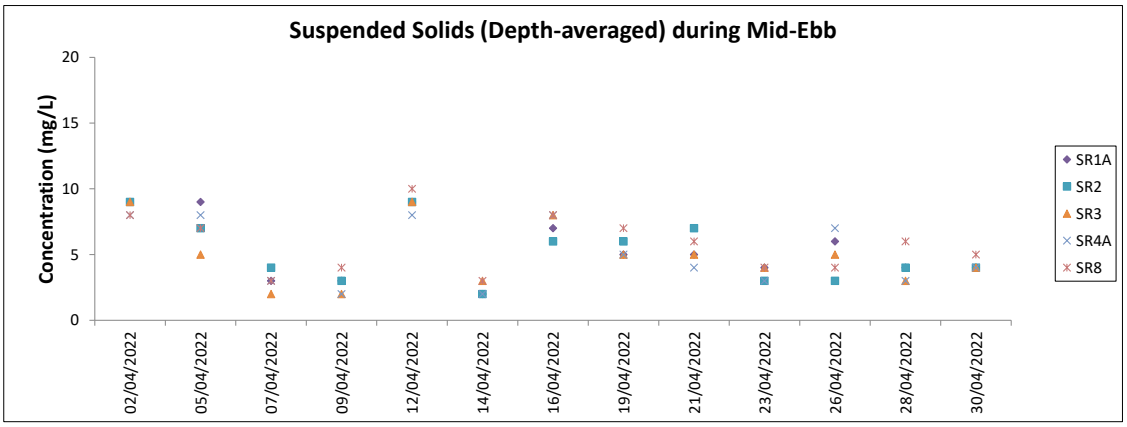




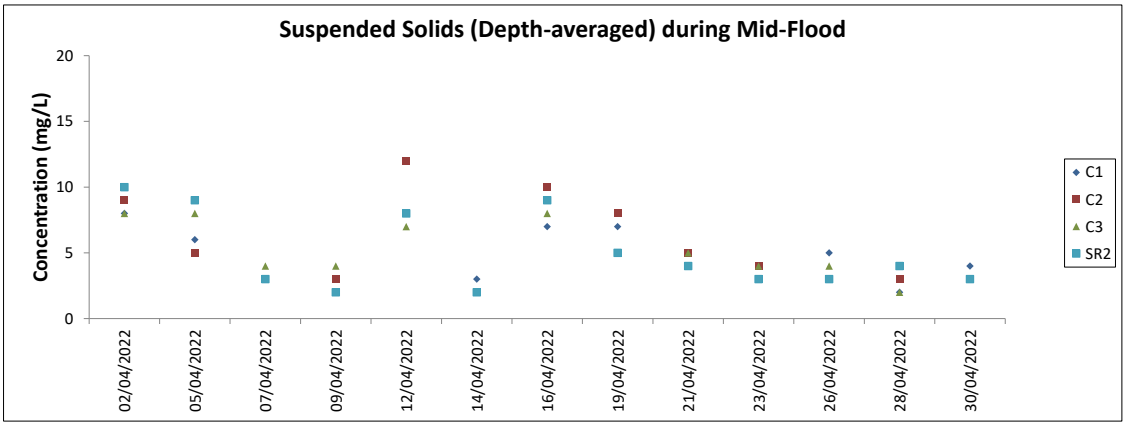
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

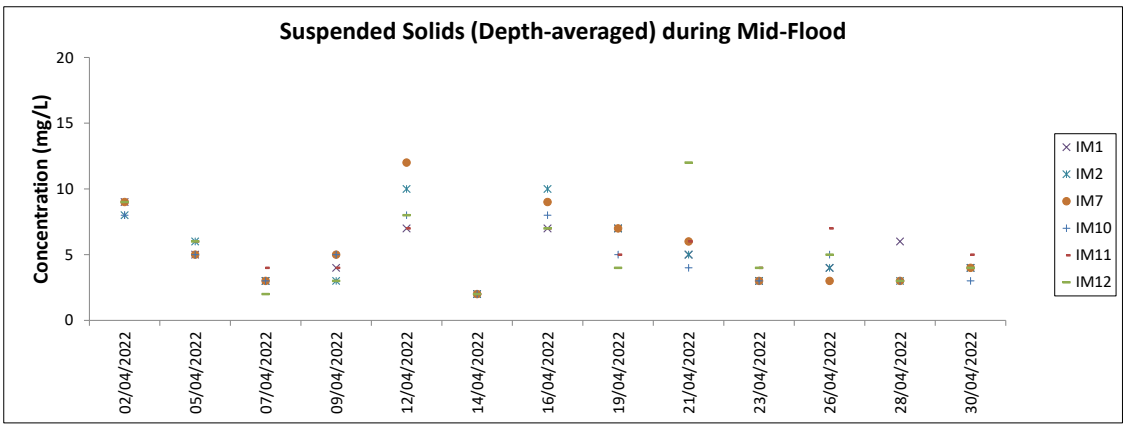


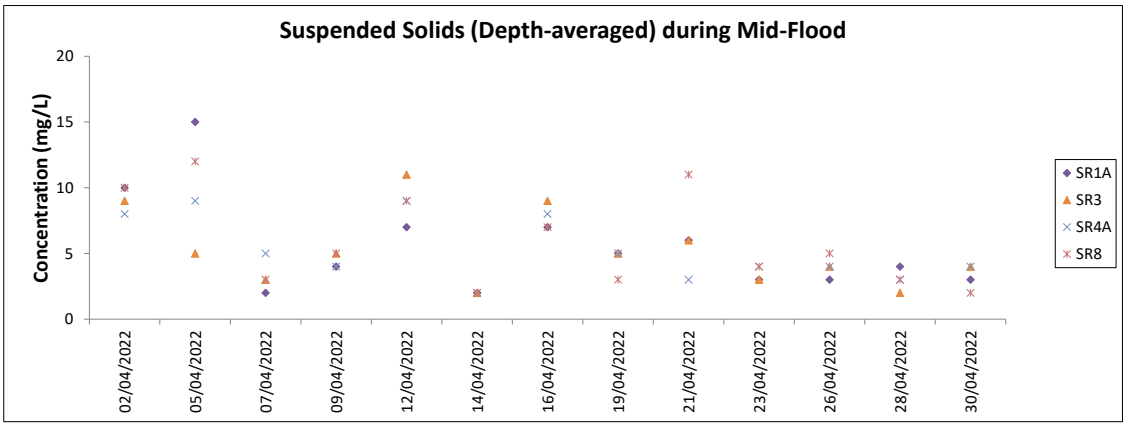




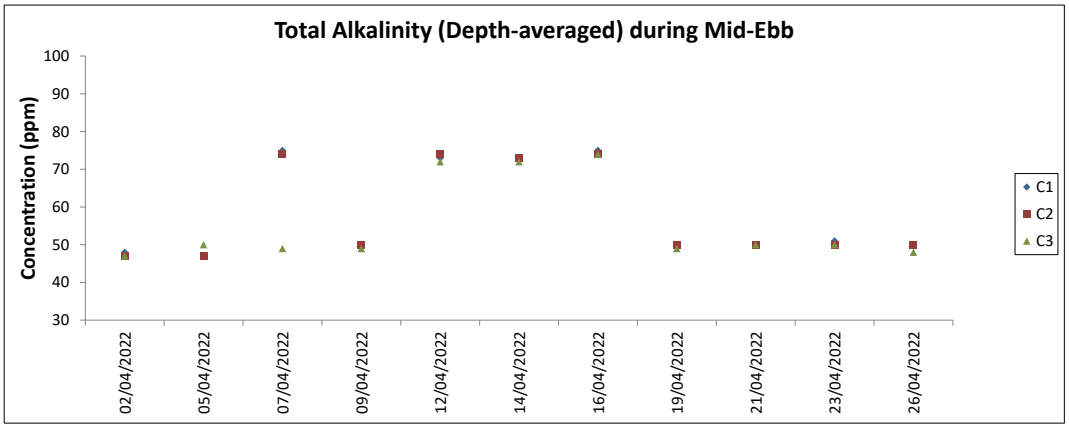
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

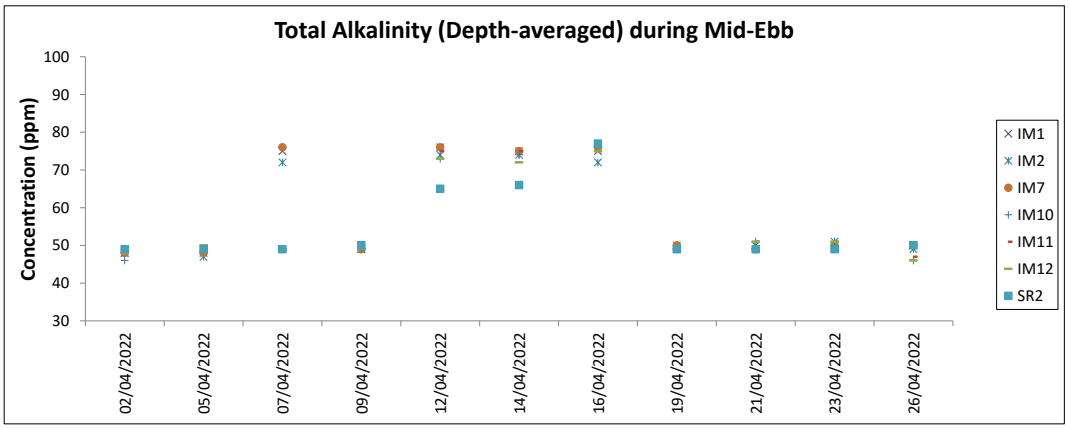




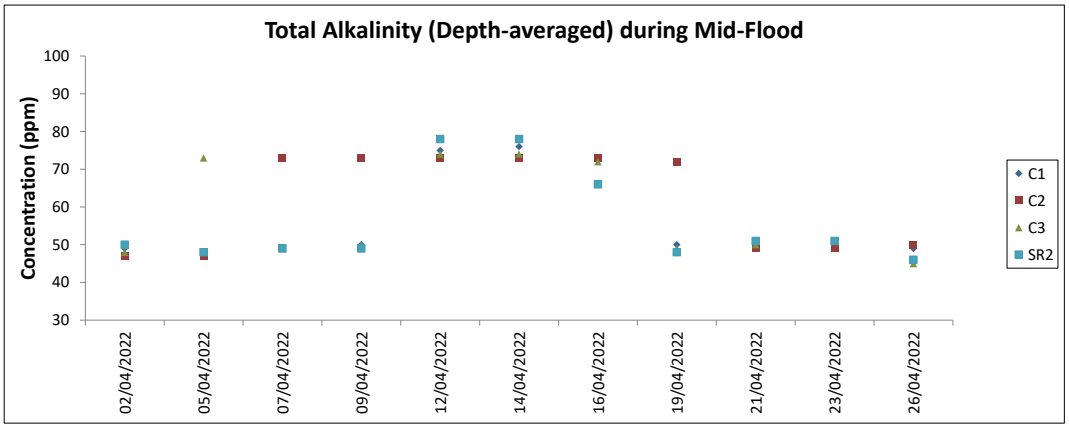


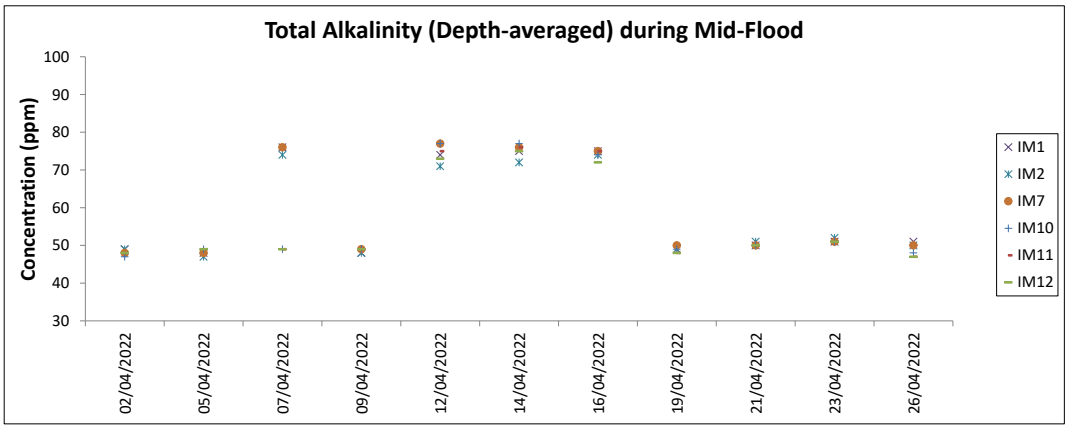
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.
Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
Weather conditions during monitoring are presented in the data tables above.
QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.



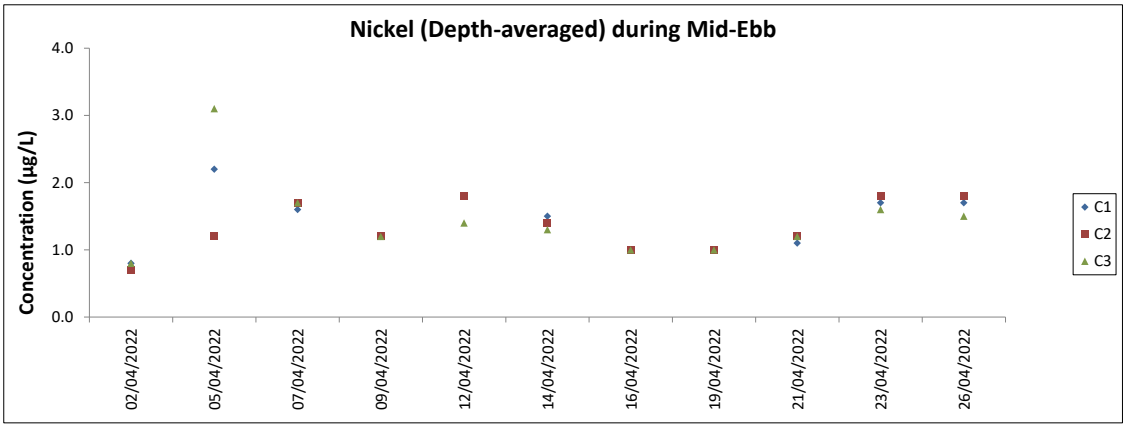


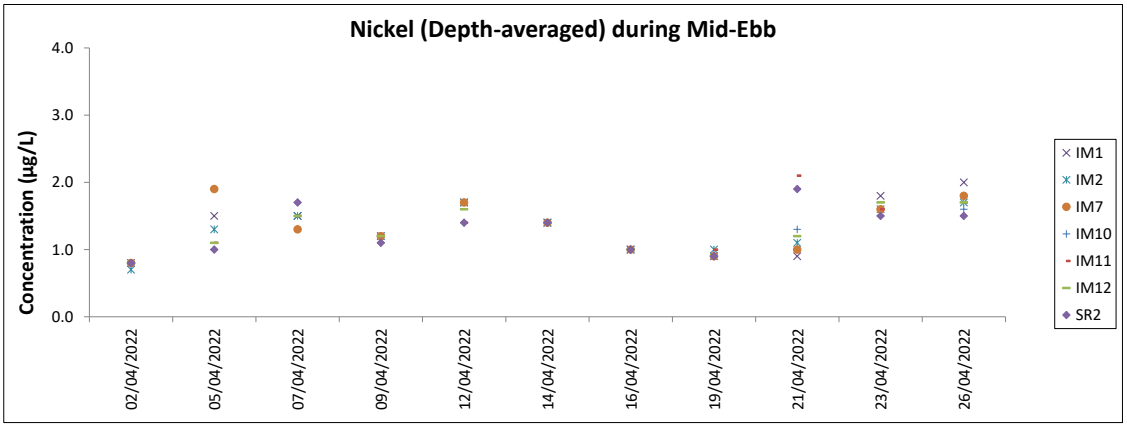
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.
Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022 and would be resumed if there are marine-based DCM works in the coming future.



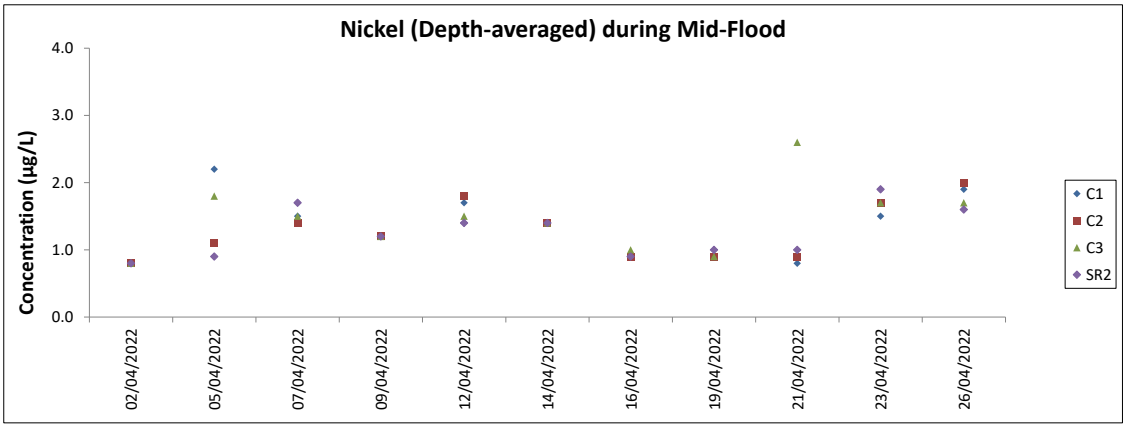


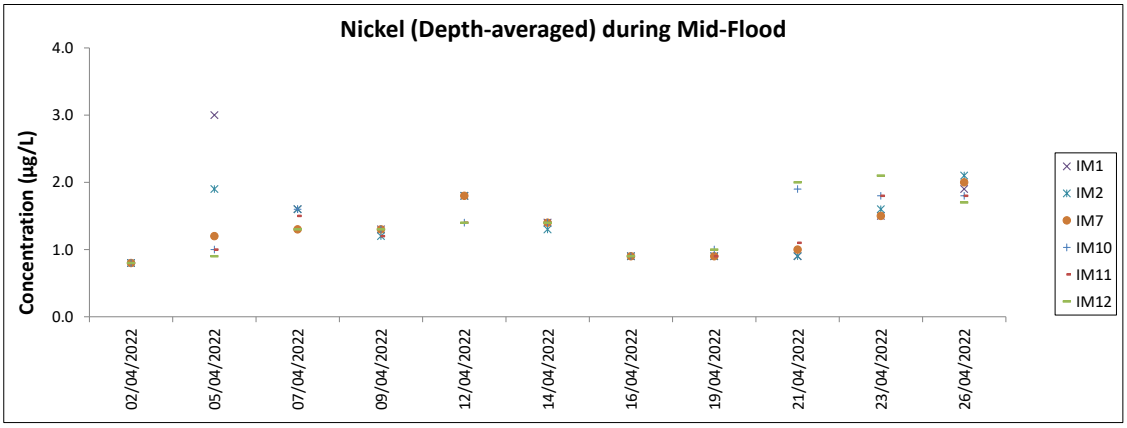
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.
Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022 and would be resumed if there are marine-based DCM works in the coming future.





Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
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.
All chromium results in the reporting period were below the reporting limit 0.2 µg/L.





Note: The Action and Limit Level of nickel 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.
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.
All chromium results in the reporting period were below the reporting limit 0.2 µg/L.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
7-Feb-22	NEL	2	22.800	WINTER	32166	3RS ET	P
7-Feb-22	NEL	3	7.990	WINTER	32166	3RS ET	P
7-Feb-22	NEL	4	5.840	WINTER	32166	3RS ET	P
7-Feb-22	NEL	2	7.900	WINTER	32166	3RS ET	S
7-Feb-22	NEL	3	1.000	WINTER	32166	3RS ET	S
7-Feb-22	NEL	4	1.070	WINTER	32166	3RS ET	S
8-Feb-22	AW	3	4.930	WINTER	32166	3RS ET	P
8-Feb-22	WL	3	14.850	WINTER	32166	3RS ET	P
8-Feb-22	WL	4	5.800	WINTER	32166	3RS ET	P
8-Feb-22	WL	2	1.220	WINTER	32166	3RS ET	S
8-Feb-22	WL	3	7.030	WINTER	32166	3RS ET	S
8-Feb-22	WL	4	2.000	WINTER	32166	3RS ET	S
9-Feb-22	NWL	3	47.720	WINTER	32166	3RS ET	P
9-Feb-22	NWL	4	16.480	WINTER	32166	3RS ET	P
9-Feb-22	NWL	3	11.700	WINTER	32166	3RS ET	S
10-Feb-22	AW	2	4.770	WINTER	32166	3RS ET	P
10-Feb-22	WL	3	19.968	WINTER	32166	3RS ET	P
10-Feb-22	WL	3	9.014	WINTER	32166	3RS ET	S
14-Feb-22	NEL	2	33.240	WINTER	32166	3RS ET	P
14-Feb-22	NEL	3	3.440	WINTER	32166	3RS ET	P
14-Feb-22	NEL	2	9.120	WINTER	32166	3RS ET	S
14-Feb-22	NEL	3	1.200	WINTER	32166	3RS ET	S
15-Feb-22	NWL	2	48.350	WINTER	32166	3RS ET	P
15-Feb-22	NWL	3	14.780	WINTER	32166	3RS ET	P
15-Feb-22	NWL	2	7.770	WINTER	32166	3RS ET	S
15-Feb-22	NWL	3	3.400	WINTER	32166	3RS ET	S
2-Mar-22	SWL	1	19.328	WINTER	32166	3RS ET	P
2-Mar-22	SWL	2	26.443	WINTER	32166	3RS ET	P
2-Mar-22	SWL	3	4.330	WINTER	32166	3RS ET	P
2-Mar-22	SWL	1	5.230	WINTER	32166	3RS ET	S
2-Mar-22	SWL	2	10.819	WINTER	32166	3RS ET	S
2-Mar-22	SWL	3	1.616	WINTER	32166	3RS ET	S
4-Mar-22	SWL	1	3.665	WINTER	32166	3RS ET	P
4-Mar-22	SWL	2	12.934	WINTER	32166	3RS ET	P
4-Mar-22	SWL	3	31.502	WINTER	32166	3RS ET	P
4-Mar-22	SWL	2	3.628	WINTER	32166	3RS ET	S
4-Mar-22	SWL	3	11.733	WINTER	32166	3RS ET	S
7-Mar-22	NEL	2	14.130	SPRING	32166	3RS ET	P
7-Mar-22	NEL	3	19.300	SPRING	32166	3RS ET	P
7-Mar-22	NEL	2	4.270	SPRING	32166	3RS ET	S
7-Mar-22	NEL	3	6.300	SPRING	32166	3RS ET	S
8-Mar-22	NWL	2	32.300	SPRING	32166	3RS ET	P
8-Mar-22	NWL	3	23.320	SPRING	32166	3RS ET	P
8-Mar-22	NWL	2	6.840	SPRING	32166	3RS ET	S
8-Mar-22	NWL	3	3.140	SPRING	32166	3RS ET	S
11-Mar-22	AW	2	1.170	SPRING	32166	3RS ET	P
11-Mar-22	AW	3	3.550	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
11-Mar-22	WL	2	14.610	SPRING	32166	3RS ET	P
11-Mar-22	WL	3	3.830	SPRING	32166	3RS ET	P
11-Mar-22	WL	2	9.470	SPRING	32166	3RS ET	S
14-Mar-22	SWL	2	24.960	SPRING	32166	3RS ET	P
14-Mar-22	SWL	3	29.540	SPRING	32166	3RS ET	P
14-Mar-22	SWL	2	4.000	SPRING	32166	3RS ET	S
14-Mar-22	SWL	3	8.950	SPRING	32166	3RS ET	S
15-Mar-22	AW	1	4.900	SPRING	32166	3RS ET	P
15-Mar-22	WL	2	10.915	SPRING	32166	3RS ET	P
15-Mar-22	WL	3	6.986	SPRING	32166	3RS ET	P
15-Mar-22	WL	2	5.325	SPRING	32166	3RS ET	S
15-Mar-22	WL	3	3.640	SPRING	32166	3RS ET	S
16-Mar-22	NEL	2	28.140	SPRING	32166	3RS ET	P
16-Mar-22	NEL	3	8.300	SPRING	32166	3RS ET	P
16-Mar-22	NEL	2	9.000	SPRING	32166	3RS ET	S
16-Mar-22	NEL	3	1.160	SPRING	32166	3RS ET	S
18-Mar-22	SWL	1	6.271	SPRING	32166	3RS ET	P
18-Mar-22	SWL	2	41.900	SPRING	32166	3RS ET	P
18-Mar-22	SWL	3	6.190	SPRING	32166	3RS ET	P
18-Mar-22	SWL	1	0.890	SPRING	32166	3RS ET	S
18-Mar-22	SWL	2	12.000	SPRING	32166	3RS ET	S
18-Mar-22	SWL	3	1.940	SPRING	32166	3RS ET	S
21-Mar-22	NWL	2	18.260	SPRING	32166	3RS ET	P
21-Mar-22	NWL	3	45.540	SPRING	32166	3RS ET	P
21-Mar-22	NWL	2	1.100	SPRING	32166	3RS ET	S
21-Mar-22	NWL	3	10.500	SPRING	32166	3RS ET	S
06-Apr-22	SWL	2	23.067	SPRING	32166	3RS ET	P
06-Apr-22	SWL	3	31.346	SPRING	32166	3RS ET	P
06-Apr-22	SWL	2	9.583	SPRING	32166	3RS ET	S
06-Apr-22	SWL	3	6.754	SPRING	32166	3RS ET	S
07-Apr-22	NWL	2	57.470	SPRING	32166	3RS ET	P
07-Apr-22	NWL	3	6.100	SPRING	32166	3RS ET	P
07-Apr-22	NWL	2	10.531	SPRING	32166	3RS ET	S
07-Apr-22	NWL	3	1.000	SPRING	32166	3RS ET	S
11-Apr-22	SWL	1	8.575	SPRING	32166	3RS ET	P
11-Apr-22	SWL	2	44.677	SPRING	32166	3RS ET	P
11-Apr-22	SWL	1	0.902	SPRING	32166	3RS ET	S
11-Apr-22	SWL	2	13.602	SPRING	32166	3RS ET	S
14-Apr-22	AW	3	4.910	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	19.290	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	9.650	SPRING	32166	3RS ET	S
19-Apr-22	NEL	2	23.100	SPRING	32166	3RS ET	P
19-Apr-22	NEL	3	14.150	SPRING	32166	3RS ET	P
19-Apr-22	NEL	2	4.100	SPRING	32166	3RS ET	S
19-Apr-22	NEL	3	5.850	SPRING	32166	3RS ET	S
20-Apr-22	NEL	2	37.370	SPRING	32166	3RS ET	P
20-Apr-22	NEL	2	9.830	SPRING	32166	3RS ET	S
22-Apr-22	WL	2	14.921	SPRING	32166	3RS ET	P
22-Apr-22	WL	3	3.677	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
22-Apr-22	WL	2	6.456	SPRING	32166	3RS ET	S
22-Apr-22	WL	3	4.163	SPRING	32166	3RS ET	S
22-Apr-22	AW	1	3.220	SPRING	32166	3RS ET	P
22-Apr-22	AW	2	1.590	SPRING	32166	3RS ET	P
27-Apr-22	NWL	1	4.250	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	32.750	SPRING	32166	3RS ET	P
27-Apr-22	NWL	3	24.650	SPRING	32166	3RS ET	P
27-Apr-22	NWL	4	1.000	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	6.100	SPRING	32166	3RS ET	S
27-Apr-22	NWL	3	5.840	SPRING	32166	3RS ET	S

Notes: CWD monitoring survey data of the two preceding survey months are presented for reference only. The two vessel surveys of February in SWL survey area were rescheduled to early March (i.e., 2 and 4 March 2022) due to unavailability of vessel operators or suitable vessel during the rising impact of COVID-19 pandemic in the second half of February 2022.

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
10-Feb-22	1	1102	CWD	9	WL	3	185	ON	3RS ET	22.2418	113.8301	WINTER	NONE	P
10-Feb-22	2	1119	CWD	1	WL	3	61	ON	3RS ET	22.2316	113.8319	WINTER	NONE	P
10-Feb-22	3	1134	CWD	4	WL	3	78	ON	3RS ET	22.2236	113.8286	WINTER	NONE	P
10-Feb-22	4	1157	CWD	2	WL	3	43	ON	3RS ET	22.2146	113.8308	WINTER	NONE	P
15-Feb-22	1	0950	CWD	3	NWL	2	97	ON	3RS ET	22.3634	113.8706	WINTER	NONE	P
15-Feb-22	2	1054	CWD	2	NWL	2	50	ON	3RS ET	22.3039	113.8778	WINTER	NONE	P
02-Mar-22	1	1023	FP	6	SWL	1	400	ON	3RS ET	22.2167	113.9352	WINTER	NONE	P
02-Mar-22	2	1034	FP	3	SWL	1	88	ON	3RS ET	22.1947	113.9360	WINTER	NONE	P
02-Mar-22	3	1040	FP	2	SWL	1	50	ON	3RS ET	22.1843	113.9360	WINTER	NONE	P
02-Mar-22	4	1112	FP	3	SWL	1	474	ON	3RS ET	22.1693	113.9277	WINTER	NONE	P
02-Mar-22	5	1132	FP	5	SWL	1	44	ON	3RS ET	22.2034	113.9187	WINTER	NONE	S
02-Mar-22	6	1154	FP	1	SWL	2	80	ON	3RS ET	22.1584	113.9175	WINTER	NONE	P
02-Mar-22	7	1204	FP	1	SWL	2	20	ON	3RS ET	22.1413	113.9154	WINTER	NONE	S
02-Mar-22	8	1213	FP	2	SWL	2	62	ON	3RS ET	22.1522	113.9082	WINTER	NONE	P
02-Mar-22	9	1217	FP	2	SWL	2	6	ON	3RS ET	22.1543	113.9050	WINTER	NONE	S
02-Mar-22	10	1310	FP	4	SWL	1	152	ON	3RS ET	22.1701	113.8969	WINTER	NONE	P
02-Mar-22	11	1316	FP	3	SWL	2	306	ON	3RS ET	22.1590	113.8973	WINTER	NONE	P
02-Mar-22	12	1318	FP	6	SWL	2	61	ON	3RS ET	22.1573	113.8974	WINTER	NONE	P
02-Mar-22	13	1328	FP	2	SWL	2	39	ON	3RS ET	22.1495	113.8906	WINTER	NONE	S
02-Mar-22	14	1335	FP	7	SWL	2	69	ON	3RS ET	22.1588	113.8882	WINTER	NONE	P
02-Mar-22	15	1346	FP	1	SWL	1	43	ON	3RS ET	22.1646	113.8883	WINTER	NONE	P
02-Mar-22	16	1427	FP	1	SWL	2	453	ON	3RS ET	22.1757	113.8791	WINTER	NONE	P
02-Mar-22	17	1429	FP	1	SWL	2	10	ON	3RS ET	22.1729	113.8786	WINTER	NONE	P
02-Mar-22	18	1434	FP	4	SWL	2	34	ON	3RS ET	22.1668	113.8789	WINTER	NONE	P
04-Mar-22	1	1025	FP	2	SWL	1	156	ON	3RS ET	22.2173	113.9361	WINTER	NONE	P
04-Mar-22	2	1028	FP	5	SWL	1	45	ON	3RS ET	22.2140	113.9361	WINTER	NONE	P
04-Mar-22	3	1035	FP	1	SWL	1	11	ON	3RS ET	22.2073	113.9362	WINTER	NONE	P
04-Mar-22	4	1042	FP	2	SWL	2	264	ON	3RS ET	22.1863	113.9362	WINTER	NONE	P
04-Mar-22	5	1215	FP	5	SWL	3	6	ON	3RS ET	22.1522	113.9075	WINTER	NONE	P
04-Mar-22	6	1229	FP	4	SWL	3	104	ON	3RS ET	22.1561	113.8999	WINTER	NONE	S
04-Mar-22	7	1329	FP	1	SWL	3	21	ON	3RS ET	22.1568	113.8976	WINTER	NONE	P
04-Mar-22	8	1405	FP	1	SWL	2	73	ON	3RS ET	22.2085	113.8882	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
04-Mar-22	9	1411	FP	3	SWL	2	80	ON	3RS ET	22.2114	113.8837	WINTER	NONE	S
04-Mar-22	10	1415	FP	2	SWL	2	102	ON	3RS ET	22.2081	113.8794	WINTER	NONE	S
04-Mar-22	11	1530	CWD	1	SWL	2	262	ON	3RS ET	22.1899	113.8495	WINTER	NONE	P
08-Mar-22	1	1029	CWD	4	NWL	3	58	ON	3RS ET	22.2918	113.8698	SPRING	NONE	P
11-Mar-22	1	1033	CWD	5	WL	2	202	ON	3RS ET	22.2610	113.8455	SPRING	NONE	P
11-Mar-22	2	1106	CWD	13	WL	2	794	ON	3RS ET	22.2418	113.8348	SPRING	NONE	P
14-Mar-22	1	1035	FP	3	SWL	2	19	ON	3RS ET	22.2002	113.9361	SPRING	NONE	P
14-Mar-22	2	1049	FP	5	SWL	2	128	ON	3RS ET	22.1731	113.9361	SPRING	NONE	P
14-Mar-22	3	1051	FP	3	SWL	2	447	ON	3RS ET	22.1716	113.9362	SPRING	NONE	P
14-Mar-22	4	1200	FP	2	SWL	2	99	ON	3RS ET	22.1569	113.9182	SPRING	NONE	P
14-Mar-22	5	1329	FP	2	SWL	3	474	ON	3RS ET	22.1609	113.8875	SPRING	NONE	P
14-Mar-22	6	1350	CWD	1	SWL	2	831	ON	3RS ET	22.2038	113.8873	SPRING	NONE	P
15-Mar-22	1	1112	CWD	5	WL	3	64	ON	3RS ET	22.2287	113.8376	SPRING	NONE	S
15-Mar-22	2	1128	CWD	2	WL	3	147	ON	3RS ET	22.2227	113.8344	SPRING	NONE	P
15-Mar-22	3	1145	CWD	11	WL	2	127	ON	3RS ET	22.2136	113.8277	SPRING	NONE	P
15-Mar-22	4	1221	CWD	3	WL	2	710	ON	3RS ET	22.2057	113.8362	SPRING	NONE	P
15-Mar-22	5	1248	CWD	3	WL	2	223	ON	3RS ET	22.1959	113.8378	SPRING	NONE	P
18-Mar-22	1	1037	FP	1	SWL	1	98	ON	3RS ET	22.2218	113.9362	SPRING	NONE	P
18-Mar-22	2	1054	FP	4	SWL	1	161	ON	3RS ET	22.1877	113.9367	SPRING	NONE	P
18-Mar-22	3	1101	FP	7	SWL	1	55	ON	3RS ET	22.1779	113.9365	SPRING	NONE	P
18-Mar-22	4	1107	FP	2	SWL	1	134	ON	3RS ET	22.1752	113.9369	SPRING	NONE	P
18-Mar-22	5	1152	FP	3	SWL	3	153	ON	3RS ET	22.1987	113.9275	SPRING	NONE	P
18-Mar-22	6	1236	FP	5	SWL	2	133	ON	3RS ET	22.1488	113.9084	SPRING	NONE	P
18-Mar-22	7	1245	FP	6	SWL	2	5	ON	3RS ET	22.1531	113.9089	SPRING	NONE	P
18-Mar-22	8	1344	FP	8	SWL	1	75	ON	3RS ET	22.2021	113.8975	SPRING	NONE	P
18-Mar-22	9	1355	FP	4	SWL	1	191	ON	3RS ET	22.1928	113.8965	SPRING	NONE	P
18-Mar-22	10	1429	FP	4	SWL	2	6	ON	3RS ET	22.1602	113.8880	SPRING	NONE	P
18-Mar-22	11	1436	FP	1	SWL	2	222	ON	3RS ET	22.1650	113.8882	SPRING	NONE	P
18-Mar-22	12	1439	FP	3	SWL	2	182	ON	3RS ET	22.1664	113.8885	SPRING	NONE	P
18-Mar-22	13	1446	FP	3	SWL	2	8	ON	3RS ET	22.1732	113.8877	SPRING	NONE	P
18-Mar-22	14	1454	FP	1	SWL	2	204	ON	3RS ET	22.1839	113.8878	SPRING	NONE	P
18-Mar-22	15	1512	FP	3	SWL	1	6	ON	3RS ET	22.2086	113.8800	SPRING	NONE	S
18-Mar-22	16	1541	FP	1	SWL	2	71	ON	3RS ET	22.1577	113.8783	SPRING	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
18-Mar-22	17	1545	FP	1	SWL	2	39	ON	3RS ET	22.1585	113.8754	SPRING	NONE	S
18-Mar-22	18	1556	FP	1	SWL	2	46	ON	3RS ET	22.1719	113.8684	SPRING	NONE	P
06-Apr-22	1	1102	FP	2	SWL	2	114	ON	3RS ET	22.1544	113.9361	SPRING	NONE	P
06-Apr-22	2	1110	FP	1	SWL	2	24	ON	3RS ET	22.1434	113.9286	SPRING	NONE	S
06-Apr-22	3	1323	FP	2	SWL	3	385	ON	3RS ET	22.1544	113.8971	SPRING	NONE	P
06-Apr-22	4	1423	FP	4	SWL	3	4	ON	3RS ET	22.1604	113.8785	SPRING	NONE	P
07-Apr-22	1	1057	CWD	2	NWL	2	1080	ON	3RS ET	22.3097	113.8709	SPRING	NONE	S
07-Apr-22	2	1113	CWD	1	NWL	2	741	ON	3RS ET	22.3132	113.8695	SPRING	NONE	S
11-Apr-22	1	1043	FP	1	SWL	2	38	ON	3RS ET	22.1788	113.9359	SPRING	NONE	P
11-Apr-22	2	1112	FP	2	SWL	2	20	ON	3RS ET	22.1666	113.9277	SPRING	NONE	P
11-Apr-22	3	1212	FP	4	SWL	2	101	ON	3RS ET	22.1538	113.9075	SPRING	NONE	P
11-Apr-22	4	1315	FP	4	SWL	2	65	ON	3RS ET	22.1495	113.8975	SPRING	NONE	P
11-Apr-22	5	1318	FP	2	SWL	2	72	ON	3RS ET	22.1490	113.8956	SPRING	NONE	S
11-Apr-22	6	1403	FP	2	SWL	1	255	ON	3RS ET	22.1871	113.8777	SPRING	NONE	P
11-Apr-22	7	1407	FP	3	SWL	1	12	ON	3RS ET	22.1821	113.8777	SPRING	NONE	P
11-Apr-22	8	1409	FP	2	SWL	1	444	ON	3RS ET	22.1788	113.8782	SPRING	NONE	P
11-Apr-22	9	1417	FP	1	SWL	1	206	ON	3RS ET	22.1643	113.8781	SPRING	NONE	P
11-Apr-22	10	1425	FP	5	SWL	1	216	ON	3RS ET	22.1632	113.8686	SPRING	NONE	P
11-Apr-22	11	1428	FP	3	SWL	1	207	ON	3RS ET	22.1656	113.8687	SPRING	NONE	P
11-Apr-22	12	1436	FP	4	SWL	1	580	ON	3RS ET	22.1799	113.8684	SPRING	NONE	P
11-Apr-22	13	1455	FP	8	SWL	2	61	ON	3RS ET	22.1867	113.8586	SPRING	NONE	P
11-Apr-22	14	1501	FP	3	SWL	2	318	ON	3RS ET	22.1760	113.8590	SPRING	NONE	P
11-Apr-22	15	1514	FP	2	SWL	2	14	ON	3RS ET	22.1831	113.8492	SPRING	NONE	P
11-Apr-22	16	1519	CWD	1	SWL	2	207	ON	3RS ET	22.1914	113.8495	SPRING	NONE	P
14-Apr-22	1	1126	CWD	5	WL	3	77	ON	3RS ET	22.2320	113.8365	SPRING	NONE	P
14-Apr-22	2	1233	CWD	2	WL	3	521	ON	3RS ET	22.1968	113.8423	SPRING	NONE	P
22-Apr-22	1	1112	CWD	1	WL	2	174	ON	3RS ET	22.2325	113.8348	SPRING	NONE	P
22-Apr-22	2	1133	CWD	1	WL	2	729	ON	3RS ET	22.2289	113.8378	SPRING	NONE	S
22-Apr-22	3	1145	CWD	7	WL	2	575	ON	3RS ET	22.2242	113.8250	SPRING	NONE	P
27-Apr-22	1	1111	CWD	2	NWL	2	179	ON	3RS ET	22.3302	113.8781	SPRING	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:

Two vessel surveys of February in SWL survey area were rescheduled to early March (i.e., 2 and 4 March 2022) due to unavailability of vessel operators or suitable vessel during the rising impact of COVID-19 pandemic in the second half of February 2022.

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 449.474 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 9 on-effort sightings and total number of 22 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in April 2022 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in April 2022

$$STG = \frac{9}{449.474} \times 100 = 2.00$$

Encounter Rate by Number of Dolphins (ANI) in April 2022

$$ANI = \frac{22}{449.474} \times 100 = 4.89$$

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

A total of 1295.531 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 91 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)

$$STG = \frac{25}{1295.531} \times 100 = 1.93$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{91}{1295.531} \times 100 = 7.02$$

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

	
WLMM043_20220407_1_4	SLMM060_20220411_16_5
	
SLMM037_20220414_2_5	NLMM055_20220422_3_8
	
SLMM025_20220422_3_4	SLMM052_20220422_3_1
	
WLMM001_20220422_3_1	WLMM056_20220422_3_8

	
WLMM080_20220422_3_5	NLMM052_20220427_1_7
	
NLMM085_20220427_1_4	

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
20-Apr-22	Lung Kwu Chau	8:50	14:50	6:00	2	3	0	-
21-Apr-22	Sha Chau	10:50	16:50	6:00	2	3	0	-

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

Appendix D. Calibration Certificates

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB040015
Date of Issue : 08 April 2022

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong
Attn :

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	S/N: 17E100747
Date of Received :	08 April 2022
Date of Calibration :	08 April 2022
Date of Next Calibration :	07 July 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
Turbidity	APHA 21e 2130B
Dissolved oxygen	APHA 21e 4500 O
pH value	APHA 21e 4500 H+
Salinity	APHA 21e 2520B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Conductivity	APHA 21e 2510B

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.05	--	Satisfactory
10	9.94	-0.6	Satisfactory
20	19.9	-0.5	Satisfactory
100	97.96	-2.0	Satisfactory
800	797.37	-0.3	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

(2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.23	8.39	0.16	Satisfactory
5.61	5.79	0.18	Satisfactory
4.20	4.36	0.16	Satisfactory
0.15	0.40	0.25	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(3) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning
Assistant Manager (Chemical Testing)

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB040015
Date of Issue : 08 April 2022

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.06	0.06	Satisfactory
7.42	7.47	0.05	Satisfactory
10.01	10.18	0.17	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(4) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	10.24	2.40	Satisfactory
20	20.37	1.85	Satisfactory
30	30.18	0.60	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10.0	0.0	Satisfactory
20	19.9	-0.1	Satisfactory
48	48.0	0.0	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

(6) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	151.3	3.00	Satisfactory
1412	1380	-2.27	Satisfactory
12890	12258	-4.90	Satisfactory
58670	58105	-0.96	Satisfactory
111900	112267	0.33	Satisfactory

Tolerance of Conductivity should be less than ± 10.0 (%)

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

·The results relate only to the calibrated equipment as received

·The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

·"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

·The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ---

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB040014
Date of Issue : 08 April 2022

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong
Attn :

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	S/N: 21G105356
Date of Received :	08 April 2022
Date of Calibration :	08 April 2022
Date of Next Calibration :	07 July 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
Turbidity	APHA 21e 2130B
Dissolved oxygen	APHA 21e 4500 O
pH value	APHA 21e 4500 H+
Salinity	APHA 21e 2520B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Conductivity	APHA 21e 2510B

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.06	--	Satisfactory
10	9.95	-0.5	Satisfactory
20	19.88	-0.6	Satisfactory
100	98.27	-1.7	Satisfactory
800	796.82	-0.4	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

(2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.23	8.40	0.17	Satisfactory
5.61	5.74	0.13	Satisfactory
4.20	4.42	0.22	Satisfactory
0.15	0.33	0.18	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(3) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning
Assistant Manager (Chemical Testing)

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB040014
Date of Issue : 08 April 2022
Page No. : 2 of 2

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.03	0.03	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.11	0.10	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(4) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	10.08	0.80	Satisfactory
20	20.24	1.20	Satisfactory
30	30.16	0.53	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10.0	0.0	Satisfactory
20	19.9	-0.1	Satisfactory
48	48.0	0.0	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

(6) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	150.9	2.72	Satisfactory
1412	1374	-2.69	Satisfactory
12890	12254	-4.93	Satisfactory
58670	58236	-0.74	Satisfactory
111900	112346	0.40	Satisfactory

Tolerance of Conductivity should be less than ± 10.0 (%)

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

·The results relate only to the calibrated equipment as received

·The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

·"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

·The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ---

Appendix E. 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-RS0190-22	Valid from 28 Mar 2022 to 27 Sep 2022
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951-F2718-02	Completion of Registration on 9 Jun 2017
	Discharge License under WPCO	Works area of 3301	WT00029286-2017	Valid from 20 Sep 2017 to 30 Sep 2022
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
3302	Notification of Construction Work under APCO	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018
		Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
			454882	Receipt acknowledged by EPD on 2 Apr 2020
			476068	Receipt acknowledged by EPD on 17 Jan 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

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0842-21	Superseded by GW-RS0242-22
			GW-RS0242-22	Valid from 20 Apr 2022 to 19 Oct 2022
			GW-RS1005-21	Valid from 7 Jan 2022 to 6 Jul 2022
3303	Notification of Construction Work under APCO	Works area of 3303	445611	Receipt acknowledged by EPD on 27 May 2019
	Specified Process license under APCO	Works area of 3303	L-15-040 (1)	Valid from 29 Mar 2021 to 28 Mar 2025
	Registration as Chemical Waste Producer	Works area of 3303	5213-951-S4174-01	Completion of Registration on 17 Jun 2019
	Discharge License under WPCO	Works area of 3303	WT00035689-2020	Valid from 11 May 2020 to 31 May 2025
		Works area of 3303	WT00036734-2020	Valid from 1 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3303	A/C 7034272	Approval granted from EPD on 10 Jun 2019
	Construction Noise Permit (General Works)	Works area of 3303 (Existing airport)	GW-RS0823-21	Valid from 16 Nov 2021 to 15 May 2022
		Works area of 3303 (Reclamation area)	GW-RS0066-22	Valid from 31 Jan 2022 to 30 Jul 2022
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
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	454964	Receipt acknowledged by EPD on 6 Apr 2020
	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-RS0052-22	Valid from 6 Feb 2022 to 5 Aug 2022
3308	Bill Account for disposal	Works area of 3308	A/C 7038988	Approval granted from EPD on 24 Nov 2020
	Construction Noise Permit (General Works)	Works area of 3308	GW-RS0109-22	Valid from 1 Mar 2022 to 31 Jul 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3310	Notification of Construction Work under APCO	Works area of 3310	474782	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-RS1046-21	Valid from 28 Dec 2021 to 27 Jun 2022
		Works area of 3310 (Reclamation area)	GW-RS0071-22	Superseded by GW-RS0257-22
		Works area of 3310 (Reclamation area)	GW-RS0257-22	Valid from 16 Apr 2022 to 11 Oct 2022
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	450860	Receipt acknowledged by EPD on 11 Nov 2019
		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
	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-RS0083-22	Valid from 1 Mar 2022 to 31 Aug 2022
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0909-21	Valid from 1 Dec 2021 to 31 May 2022
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	453447	Receipt acknowledged by EPD on 18 Feb 2020
	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
		Works area of 3405	GW-RS0966-21	Superseded by GW-RS0241-22

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3405	GW-RS0241-22	Valid from 16 Apr 2022 to 11 Oct 2022
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-RS0020-22	Superseded by GW-RS0268-22
		Works area of 3408	GW-RS0268-22	Valid from 16 Apr 2022 to 30 Sep 2022
3503	Notification of Construction Work under APCO	Works area of 3503	459394	Receipt acknowledged by EPD on 28 Aug 2020
		Stockpiling area of 3503	459392	Receipt acknowledged by EPD on 28 Aug 2020
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
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 11 Mar 2021 to 31 Mar 2026
			WT00037523-2021	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037225-2020	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037549-2021	Valid from 1 Apr 2021 to 30 Apr 2026
	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-RS0778-21	Valid from 15 Oct 2021 to 12 Apr 2022
		Works area of 3508	GW-RS0166-22	Valid from 18 Mar 2022 to 16 Sep 2022
		Works area of 3508	GW-RS0271-22	Valid from 22 Apr 2022 to 12 Oct 2022
		Works area of 3508 (Special Case)	GW-RS0176-22	Valid from 24 March 2022 to 14 April 2022
		Works area of 3508 (Special Case)	GW-RS0963-21	Valid from 17 Dec 2021 to 27 May 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
		Works area of 3508 (Special Case)	GW-RS0862-21	Valid from 13 Nov 2021 to 19 May 2022
		Works area of 3508 (Area 13)	GW-RS0999-21	Valid from 25 Dec 2021 to 31 May 2022
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-RS0899-21	Valid from 1 Dec 2021 to 31 May 2022
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-RS0126-22	Valid from 1 Mar 2022 to 31 Aug 2022
		Works area of 3602	GW-RS0172-22	Valid from 28 Mar 2022 to 27 Sep 2022
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-RS0878-21	Valid from 24 Nov 2021 to 23 May 2022
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-RS0058-22	Valid from 31 Jan 2022 to 30 Jun 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3723	Notification of Construction Work under APCO	3723A	464440	Receipt acknowledged by EPD on 9 Feb 2021
		3723B	464444	Receipt acknowledged by EPD on 9 Feb 2021
	Registration as Chemical Waste Producer	3723A	WPN 5218-951-T3920-01	Completion of Registration on 9 Feb 2021
		3723B	WPN 5218-951-T3921-01	Completion of Registration on 9 Feb 2021
	Discharge License under WPCO	Works area of 3723A & 3723B	WT00039451-2021	Valid from 28 Oct 2021 to 31 Oct 2023
	Bill Account for disposal	Works area of 3723A	A/C 7039755	Approval granted from EPD on 24 Feb 2021
		Works area of 3723B	A/C 7039754	Approval granted from EPD on 24 Feb 2021
	Construction Noise Permit (General Works)	Works area of 3723A & 3723B	GW-RS1013-21	Valid from 14 Jan 2022 to 13 Jul 2022
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
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 and stockpiling area of 3801	WT00029535-2017	Valid from 30 Jul 2019 to 30 Nov 2022
		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-RS0132-22	Valid from 27 Feb 2022 to 26 Aug 2022 Superseded by GW-RS0240-22
		Works area of 3801	GW-RS0240-22	Valid from 10 Apr 2022 to 3 Oct 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (Special Case)	Works area of 3801 (Box Jacking)	GW-RS0103-22	Valid from 11 Feb 2022 to 8 May 2022
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
	Registration as Chemical Waste Producer	Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020
		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	WT00039092-2021	Valid from 30 Nov 2021 to 31 Nov 2026
	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-RS0114-22	Valid from 18 Feb 2022 to 13 Aug 2022 Superseded by GW-RS0248-22
		Works area of 3802	GW-RS0248-22	Valid from 16 Apr 2022 to 11 Oct 2022
		Works area of 3802 (Ventilation Building)	GW-RS0247-22	Valid from 16 Apr 2022 to 10 Oct 2022
		Works area of 3802	GW-RS0888-21	Valid from 29 Nov 2021 to 19 May 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
	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-RS0059-22	Valid from 5 Feb 2022 to 4 Aug 2022
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	Works area of 3901B	EP/RS/0000438 488	Approval granted on 26 Jun 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Alteration) Regulations			
	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-RS0128-22	Valid from 14 Mar 2022 to 13 Sep 2022

Appendix F. 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	1	0	0
From 28 December 2015 to end of the reporting period	51	2	2