



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

Construction Phase Monthly EM&A
Report No. 72
(For December 2021)

January 2022

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. 72
(For December 2021)

January 2022

This Monthly EM&A Report No. 72 has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

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

Certified by:

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

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

Date

14 January 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/JCHL220114

By Email

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

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

14 January 2022

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 72 (December 2021)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 72 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 January 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	9
1.1 Background	9
1.2 Scope of this Report	9
1.3 Project Organisation	9
1.4 Summary of Construction Works	13
1.5 Summary of EM&A Programme Requirements	13
2 Air Quality Monitoring	17
2.1 Action and Limit Levels	17
2.2 Monitoring Equipment	17
2.3 Monitoring Methodology	17
2.3.1 Measuring Procedure	17
2.3.2 Maintenance and Calibration	18
2.4 Summary of Monitoring Results	18
2.5 Conclusion	18
3 Noise Monitoring	19
3.1 Action and Limit Levels	19
3.2 Monitoring Equipment	19
3.3 Monitoring Methodology	20
3.3.1 Monitoring Procedure	20
3.3.2 Maintenance and Calibration	20
3.4 Summary of Monitoring Results	20
3.5 Conclusion	21
4 Water Quality Monitoring	22
4.1 Action and Limit Levels	23
4.2 Monitoring Equipment	24
4.3 Monitoring Methodology	24
4.3.1 Measuring Procedure	24
4.3.2 Maintenance and Calibration	25
4.3.3 Laboratory Measurement / Analysis	25
4.4 Summary of Monitoring Results	25
4.5 Conclusion	26
5 Waste Management	27
5.1 Action and Limit Levels	27

5.2	Waste Management Status	27
5.3	Marine Sediment Management	28
6	Chinese White Dolphin Monitoring	29
6.1	Action and Limit Levels	29
6.2	CWD Monitoring Transects and Stations	29
6.2.1	Small Vessel Line-transect Survey	29
6.2.2	Land-based Theodolite Tracking Survey	31
6.3	CWD Monitoring Methodology	31
6.3.1	Small Vessel Line-transect Survey	31
6.3.2	Photo Identification	32
6.3.3	Land-based Theodolite Tracking Survey	32
6.4	Monitoring Results and Observations	33
6.4.1	Small Vessel Line-transect Survey	33
6.4.2	Photo Identification	36
6.4.3	Land-based Theodolite Tracking Survey	36
6.5	Progress Update on Passive Acoustic Monitoring	37
6.6	Site Audit for CWD-related Mitigation Measures	38
6.7	Timing of reporting CWD Monitoring Results	38
6.8	Summary of CWD Monitoring	38
7	Environmental Site Inspection and Audit	39
7.1	Environmental Site Inspection	39
7.2	Landscape and Visual Mitigation Measures	39
7.3	Land Contamination Assessment	46
7.4	Audit of SkyPier High Speed Ferries	46
7.5	Audit of Construction and Associated Vessels	47
7.6	Implementation of Dolphin Exclusion Zone	48
7.7	Status of Submissions under Environmental Permits	48
7.8	Compliance with Other Statutory Environmental Requirements	48
7.9	Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions	49
7.9.1	Complaints	49
7.9.2	Notifications of Summons or Status of Prosecution	50
7.9.3	Cumulative Statistics	50
8	Future Key Issues and Other EIA & EM&A Issues	51
8.1	Construction Programme for the Coming Reporting Period	51
8.2	Key Environmental Issues for the Coming Reporting Period	53
8.3	Monitoring Schedule for the Coming Reporting Period	54
8.4	Review of the Key Assumptions Adopted in the EIA Report	54
9	Conclusion and Recommendation	55

Tables

Table 1.1: Contact Information of Key Personnel	10
Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual	13
Table 2.1: Locations of Impact Air Quality Monitoring Stations	17
Table 2.2: Action and Limit Levels of Air Quality Monitoring	17
Table 2.3: Air Quality Monitoring Equipment	17
Table 2.4: Summary of Air Quality Monitoring Results	18
Table 3.1: Locations of Impact Noise Monitoring Stations	19
Table 3.2: Action and Limit Levels for Noise Monitoring	19
Table 3.3: Noise Monitoring Equipment	20
Table 3.4: Summary of Construction Noise Monitoring Results	21
Table 4.1: Monitoring Locations of Impact Water Quality Monitoring	22
Table 4.2: Action and Limit Levels for General Water Quality Monitoring	23
Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring	24
Table 4.4: Water Quality Monitoring Equipment	24
Table 4.5: Other Monitoring Equipment	24
Table 4.6: Laboratory Measurement/ Analysis of SS	25
Table 4.7: Summary of SS Compliance Status (Mid-Flood Tide)	26
Table 5.1: Action and Limit Levels for Construction Waste	27
Table 5.2: Construction Waste Statistics	28
Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring	29
Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas	30
Table 6.3: Land-based Theodolite Survey Station Details	31
Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels	35
Table 6.5: Summary of Photo Identification	36
Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking	36
Table 7.1: Landscape and Visual – Construction Phase Audit Summary	40
Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting Period	41
Table 7.3: Monitoring Programme for Landscape and Visual	42
Table 7.4: Event and Action Plan for Landscape and Visual	42
Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period	43
Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period	44
Table 7.7: Photos of the Existing Transplanted Trees Inspected in this Reporting Month	46
Table 7.8: Summary of Key Audit Findings against the SkyPier Plan	47
Table 7.9: Status of Submissions under Environmental Permit	48

Figures

- Figure 1.1 Locations of Key Construction Activities
- Figure 1.2 Latest Layout of the Enhanced Silt Curtain
- 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 6.5 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 72nd Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 31 December 2021.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included seawall and facilities construction, together with runway and associated works. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, road and drainage works, cable ducting, demolition, piling, and excavation works.

EM&A Activities Conducted in the Reporting Period

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

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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

Snapshots of EM&A Activities in the Reporting Period

		
<p>Noise Impact Monitoring conducted by ET in Sha Lo Wan</p>	<p>Chemical Spill Drill conducted by Contractor</p>	<p>On-site Checking of Maintenance Record of Wastewater Treatment Facility</p>

Results of Impact Monitoring

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

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

The water quality monitoring results for all parameters, except suspended solids (SS), obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For SS, one of the testing results triggered the relevant Action Level, and the corresponding investigation was conducted accordingly. The investigation findings revealed that the case was not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

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

- Piling and structure works;
- Stockpiling; and
- Pipe and drainage diversion works.

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

- Site office establishment;
- Cabling works;
- Network installation; and
- Genset installation.

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

- Equipment installation; and
- Cabling works.

Contract 3307 Fire Training Facility

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

Contract 3308 Foreign Object Debris Detection System

- Site formation; and
- Foreign Object Debris Tower installation.

Contract 3310 North Runway Modification Works

- Deep cement mixing; and
- Steel deck erection.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Steel frame installation;
- Structure works; and
- Underground utilities construction.

Contract 3404 Integrated Airport Control System

- Equipment installation; and
- Cable laying.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Sheet piling and pile cap construction;
- Excavation and backfilling; 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;
- Bridge demolition;
- Piling works;
- Drainage works;

- Reinforced concrete works; and
- Builders' works.

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

Contract 3601 New Automated People Mover System (TRC Line)

- Pull out test for guideway;
- Guidebeam installation; and
- Concreting work.

Contract 3602 Existing APM System Modification Works

- Car modification; and
- Concreting work.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

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

Contract 3723 Construction Support Facilities

- Clearance works;
- Finishing works;
- Site formation; and
- Blinding and footing works.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation and lateral support works;
- Rebar fixing and casting; and
- Jacking slab construction.

Contract 3802 APM and BHS Tunnels and Related Works

- Wall and slab construction;
- Installation of dewatering well;
- Pipe pile and sheet pile works; and
- Excavation and lateral supports.

Construction Support (Services / Licences):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant; and
- Testing and commissioning for conveyor belt.

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 emails regarding dust issue were received on 15 November 2021.	ET requested the relevant contractor to provide information related to the complaint. During a regular site inspection, dust was observed when there was vehicle movement on haul road and was rectified by the contractor promptly. An ad-hoc inspection was conducted subsequently in which water spraying at the concerned haul road was observed. All contractors were reminded to properly implement dust mitigation measures, especially water spraying on the haul road in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.
			A complaint regarding suspected dump truck for garbage disposal that was not properly covered was received on 1 December 2021.	ET requested the relevant contractors to provide information related to the complaint. Regular site inspections and ad-hoc inspection were conducted in which no item related to the covering of dump trucks was recorded. All contractors were reminded to ensure the proper covering of dump trucks for garbage disposal and avoid potential blowing away of materials during the process. Hence, the case was considered closed.
			A complaint regarding muddy water was received on 13 December 2021.	ET requested the relevant contractor to provide information related to the complaint. Regular site inspections and ad-hoc inspections were conducted in which no observation on muddy water was recorded. All contractors were reminded to properly implement water quality mitigation measures on their work sites in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.
Notification of any summons and status of prosecutions		√	No notification of summons nor prosecution was received.	Nil

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

1 Introduction

1.1 Background

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

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1¹. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

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

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

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

1.2 Scope of this Report

This is the 72nd Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 December 2021.

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 Leader	Heidi Yu	2828 5704
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-C-CCC-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	Max Chin	6447 5707
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	Billy To	9056 6300
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Steven Meredith	6109 1813
	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
	Environmental Officer	Terry Siu	9141 2511
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 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Contract Manager	Michael Kan	9206 0550
	Environmental Officer	Lisa He	5374 3418
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 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture)	Project Manager	Eric Wu	3973 1718
	Environmental Officer	Rex Yiu	6465 6861

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) (CRRRC Puzhen Bombardier Transportation Systems Limited and CRRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	P L Wong	9143 2185
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Carrie Kwan	9276 0551
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 3722 Western Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture)	Deputy Project Director	Philip Kong	9337 8700
	Environmental Officer	Eddie Suen	6338 8862
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	K F Li	9086 1793

Party	Position	Name	Telephone
Contract 3733 Emergency Repair Service (Wing Hing Construction Co., Ltd.)	Project Manager	Michael Kan	9206 0550
	Environmental Officer	Lisa He	5374 3418

Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Eunice Kwok	9243 1331
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Construction Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Phoebe Ng	9869 1105

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 included reclamation works and land-based works. Works in the reclamation areas included seawall and facilities construction, together with runway and associated works. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, road and drainage works, cable ducting, demolition, piling, and excavation works.

The locations of key construction activities are presented in **Figure 1.1**. **Figure 1.2** presents the latest layout of enhanced silt curtain deployed.

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		

Parameters	EM&A Requirements	Status
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.
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 May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 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 ₂ S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The details of the routine H ₂ S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted and approved by EPD under EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	CAR to be submitted for golf course	The CAR for Golf Course was submitted and accepted by EPD.
Contamination Assessment Reports (CAR) for Terminal 2 Emergency Power Supply Systems	CAR to be submitted for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply Systems were submitted and accepted by EPD.
Terrestrial Ecology		
Pre-construction Egretty Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egretty Survey Plan was submitted and approved by EPD under EP Condition 2.14.

Parameters	EM&A Requirements	Status
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; Land-based theodolite tracking surveys: Two days per month at the Sha Chau station and two days per month at the Lung Kwu Chau station; and Passive Acoustic Monitoring (PAM): For the whole duration of baseline period.	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: One day per month at the Sha Chau station and one day per month at the Lung Kwu Chau station; and PAM: For the whole duration for land formation related construction works.	On-going
Landscape & Visual		
Landscape & Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result 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

Parameters	EM&A Requirements	Status
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

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

- Two skipper training sessions provided by ET: 8 and 29 December 2021.
- Twenty environmental management meetings for EM&A review with works contracts: 1, 2, 3, 14, 15, 16, 17, 21, 22, 23, 24 and 29 December 2021.

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

2 Air Quality Monitoring

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

Table 2.1: Locations of Impact Air Quality Monitoring Stations

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

2.1 Action and Limit Levels

In accordance with the Manual, baseline air quality monitoring of 1-hour TSP levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the air quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 2.2**.

Table 2.2: Action and Limit Levels of Air Quality Monitoring

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

2.2 Monitoring Equipment

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

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-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 ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AR1A	23 - 109	306	500
AR2	26 - 170	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)	20 Mar 2021	Monthly EM&A Report No. 63, Appendix E
	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)	20 Mar 2021	Monthly EM&A Report No. 63, Appendix E

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)	Limit Level, dB(A)
	L _{eq} (30mins)	L _{eq} (30mins)
NM1A ⁽¹⁾	60 - 63	75
NM4 ⁽¹⁾⁽³⁾	60 - 66	70 ⁽²⁾
NM5 ⁽¹⁾⁽³⁾	53 - 59	75
NM6 ⁽¹⁾⁽³⁾	66 - 68	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.
- (3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring levels.

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 and suspended solids (SS) was conducted three days per week, at mid-ebb and mid-flood tides, at a total of 23 water quality monitoring stations, comprising 12 impact (IM) stations, 8 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. The purpose of water quality monitoring at the IM stations is to promptly capture any potential water quality impact from the Project before it could become apparent at sensitive receivers (represented by the SR stations). **Table 4.1** describes the details of the monitoring stations. **Figure 4.1** shows the locations of the monitoring stations.

Table 4.1: Monitoring Locations of Impact Water Quality Monitoring

Monitoring Station	Description	Coordinates	
		Easting	Northing
C1	Control Station	804247	815620
C2	Control Station	806945	825682
C3 ⁽²⁾	Control Station	817803	822109
IM1	Impact Station	807132	817949
IM2	Impact Station	806166	818163
IM3	Impact Station	805594	818784
IM4	Impact Station	804607	819725
IM5	Impact Station	804867	820735
IM6	Impact Station	805828	821060
IM7	Impact Station	806835	821349
IM8	Impact Station	808140	821830
IM9	Impact Station	808811	822094
IM10	Impact Station	809794	822385
IM11	Impact Station	811460	822057
IM12	Impact Station	812046	821459
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977
SR2	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147
SR4A	Sha Lo Wan	807810	817189
SR5A	San Tau Beach SSSI	810696	816593
SR6A ⁽³⁾	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636
SR8 ⁽⁴⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390

Notes:

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

4.1 Action and Limit Levels

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

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

Parameters	Action Level (AL)		Limit Level (LL)	
Action and Limit Levels for general water quality monitoring (excluding SR1A & SR8)				
DO in mg/l (Surface, Middle & Bottom)	Surface and Middle		Surface and Middle	
	4.5mg/l		4.1mg/l	5mg/l for Fish Culture Zone (SR7) only
	Bottom		Bottom	
	3.4mg/l		2.7mg/l	
Suspended Solids (SS) in mg/l	23	or 120% of upstream control station at the same tide of the same day, whichever is higher	37	or 130% of upstream control station at the same tide of the same day, whichever is higher
Turbidity in NTU	22.6		36.1	
Action and Limit Levels SR1A				
SS (mg/l)	33		42	
Action and Limit Levels SR8				
SS (mg/l)	52		60	

Notes:

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

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

Control Station	Impact Stations
Flood Tide	
C1	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, SR3
SR2 ⁽¹⁾	IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR3, SR4A, SR5A, SR6A, SR8
Ebb Tide	
C1	SR4A, SR5A, SR6A
C2	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR2, SR3, SR7, 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)	24 Dec 2021	Appendix D
	YSI ProDSS (Serial No. 18A104824) ⁽¹⁾	24 Sep 2021	Monthly EM&A Report No. 69, Appendix E
	YSI ProDSS (Serial No. 15M100005)	22 Oct 2021	Monthly EM&A Report No. 70, Appendix E
	YSI ProDSS (Serial No. 16H104233)	26 Nov 2021	Monthly EM&A Report No. 71, Appendix E
	YSI ProDSS (Serial No. 16H104234)	26 Nov 2021	Monthly EM&A Report No. 71, Appendix E
	YSI ProDSS (Serial No. 17E100747)	24 Dec 2021	Appendix D

Note:

- (1) The monitoring equipment was not used after the expiry date of the calibration certificate (23 Dec 2021).

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

Table 4.5: Other Monitoring Equipment

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

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

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

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

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

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

4.3.3 Laboratory Measurement / Analysis

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

Table 4.6: Laboratory Measurement/ Analysis of SS

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

4.4 Summary of Monitoring Results

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

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

Table 4.7 present the summary of the SS compliance status at IM and SR stations during mid-flood tide for the reporting period.

Table 4.7: Summary of SS Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR1A	SR2	SR3	SR4A	SR5A	SR6A	SR7	SR8	
02/12/2021																					
04/12/2021																					
07/12/2021																					
09/12/2021																					
11/12/2021																					
14/12/2021																					
16/12/2021																					
18/12/2021																					
21/12/2021																					
23/12/2021																					
25/12/2021																					
28/12/2021																					
30/12/2021																					
No. of result triggering Action or Limit Level	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Detailed results are presented in Appendix C .	
Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
	Monitoring result triggered the Action Level at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

For SS, one of the testing results triggered the corresponding Action Level, and investigation was conducted accordingly. The case occurred at only one monitoring station, which is located upstream of the Project during flood tide, and would unlikely be affected by the Project.

4.5 Conclusion

During the reporting period, it is noted that most of the monitoring results were within their corresponding Action and Limit Levels, while one SS measurement result triggered the corresponding Action Level, investigation was conducted accordingly.

Based on the investigation findings, the result that triggered the corresponding Action Level was not due to the Project. Therefore, the Project did not cause adverse impact at the water quality sensitive receivers. All required actions under the Event and Action Plan were followed. This case appeared to be due to natural fluctuation or other sources not related to the Project.

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, aluminum, copper, other metals and glass 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)
November 2021 ⁽²⁾⁽³⁾	*16,540	*6,051	7,039	5,493	0	1,400	2,631
December 2021 ⁽²⁾⁽⁴⁾	4,842	15,538	1,251	10,204	600	2,742	2,764

Notes:

- (1) C&D refers to Construction and Demolition.
- (2) Metals, paper and/or plastics were recycled in the reporting period.
- (3) Updated figure for the previous month is reported and marked with an asterisk (*). Updated figures for earlier months will be reported in the forthcoming Quarterly and Annual EM&A Reports.
- (4) 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 subsequent EM&A Reports upon completion.

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 1, 3, 6, 7, 13, 15, 16 and 17 December 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

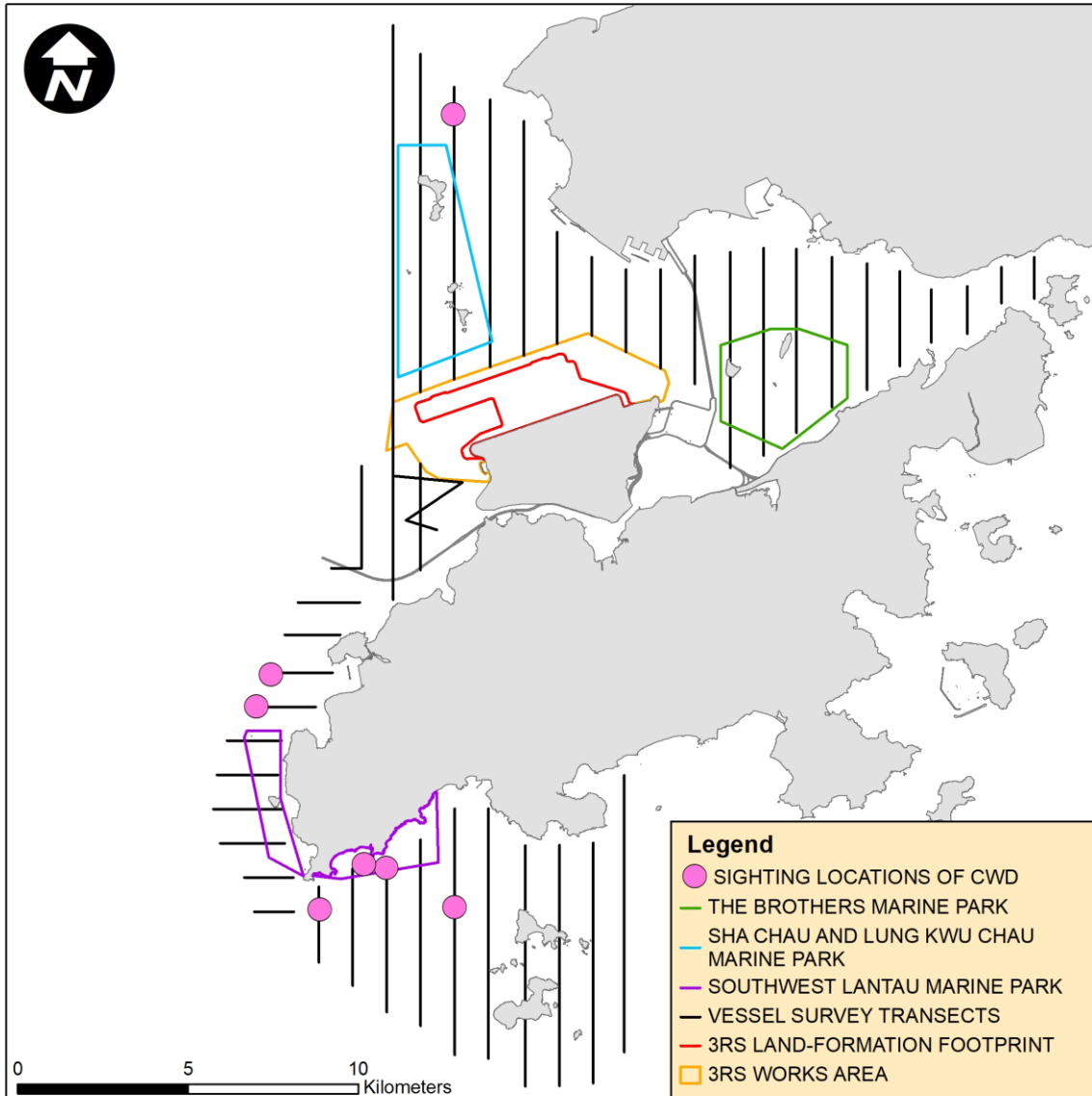
A total of around 453.76 km of survey effort was collected from these surveys and 376.86 km of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In December 2021, 7 sightings with 18 dolphins were sighted. Amongst these sightings, 6 sightings of 17 dolphins 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 December 2021 is illustrated in **Figure 6.3**. In WL, CWD groups were recorded at waters off Tai O to Yi O; while in SWL, CWD groups were scattered at waters near Fan Lau. In NWL, the only CWD sighting was spotted at waters to the North of Lung Kwu Chau. 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 7 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Encounter Rate

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

Encounter Rate by Number of Dolphin Sightings (STG)

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

Encounter Rate by Number of Dolphins (ANI)

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

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

In December 2021, a total of around 376.86 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 6 on-effort sightings with 17 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 October to December 2021), a total of around 1097.82 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 27 on-effort sightings and a total number of 89 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 month of December 2021 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)
December 2021	1.59	4.51
Running Quarter from September to November 2021 ⁽¹⁾	2.46	8.11
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, i.e. the data from October to December 2021, 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 December 2021, 7 groups of 18 dolphins in total were sighted, and the average group size of CWDs was 2.6 dolphins per group. Numbers of CWD sightings with small group size (i.e. 1-2 dolphins) and medium group size (i.e. 3-9 dolphins) were similar. No CWD sighting with large group size (i.e. 10 or more dolphins) was recorded in this reporting month.

Activities and Association with Fishing Boats

Two CWD sightings were recorded engaging in feeding activities in December 2021. One CWD group was observed associated with operating gill-netter near Fan Lau.

Mother-calf Pair

In December 2021, no mother-calf pair was recorded.

6.4.2 Photo Identification

In December 2021, a total number of nine different CWD individuals were identified for totally nine 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
NLMM016	07-Dec-21	1	NWL	SLMM037	06-Dec-21	2	SWL
SLMM003	06-Dec-21	2	SWL	WLMM040	06-Dec-21	2	SWL
SLMM012	16-Dec-21	1	SWL	WLMM043	15-Dec-21	1	WL
SLMM014	16-Dec-21	1	SWL	WLMM068	15-Dec-21	1	WL
SLMM025	16-Dec-21	1	SWL				

6.4.3 Land-based Theodolite Tracking Survey

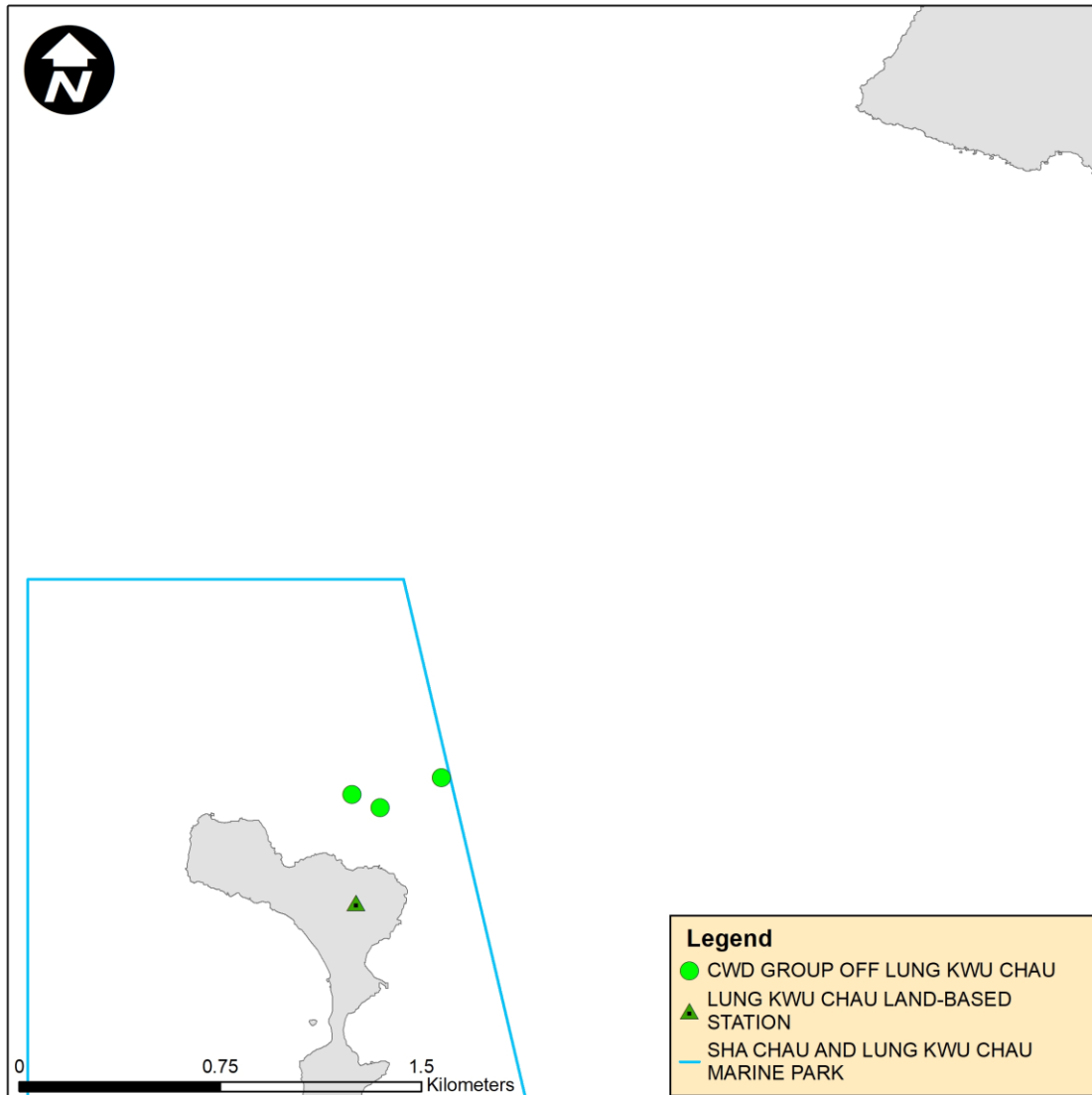
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 16 December 2021 and at SC on 20 December 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. Three CWD groups were tracked from 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**. The first sighting location of CWD groups tracked at LKC station during land-based theodolite tracking survey in December 2021 was depicted in **Figure 6.4**.

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

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau	1	6:00	3	0.5
Sha Chau	1	6:00	0	0
TOTAL	2	12:00	3	0.25

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



Remark: Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

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 11 October 2021 and the next re-deployment is scheduled in early January 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, 1 to 2 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for seawall construction related 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 contractors' DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

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

6.7 Timing of reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

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

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

Site inspections of the construction works were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. The weekly site inspection schedule of the construction works is provided in **Appendix B**. Bi-weekly site inspections were also conducted by the IEC. Besides, *ad-hoc* site inspections were 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 were 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 are 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 were 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 have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project.	3302, 3503, 3508, 3602, 3801
	The Contractors’ performance on the implementation of the tree maintenance and protection measures were observed and checked by the ET weekly during construction period.	3802 (To be implemented)

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
<p>CM9 – Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme</p>	<p>Tree Transplanting Specifications have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees will unavoidably be affected by the construction works.</p> <p>The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site.</p> <p>The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works.</p> <p>Long term management of the transplanted trees were currently monitored by ET annually.</p>	<p>3503, 3508, 3801</p> <p>3802 (To be implemented)</p>
<p>CM10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical</p>	<p>To be implemented around taxiways and runways as soon as practicable.</p>	<p>To be implemented</p>

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

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

In accordance with the Updated EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained and transplanted trees under the Project were 52 and 26, respectively. All works areas including 8 retained trees were handed over from Contract 3503 to Contract 3508, of which 5 trees will be felled by Contract 3508 at a later stage. 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

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.	methods to prevent 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	6	3	0
3508 ⁽¹⁾	24	12	0	0
3602	2	0	0	0
3801	17	0	5 ⁽²⁾	0
Sub-total	52	18	8	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 ⁽¹⁾	51	0		10
Sub-total	51	0		10
Grand Total	103	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** and **Table 7.7** respectively.

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

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
CT1253	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019	Contract 3801	
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021	Contract 3503	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
T836	13 Dec 2019	<u>Establishment period</u> 14 Dec 2020 – Jan 2021	Contract 3503	
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
T838	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021	Contract 3503	
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
T812	21 Dec 2020	<u>Establishment period</u> 22 Dec 2020 – Dec 2021	Contract 3503	Next inspection will be conducted in February 2022. Photos of the last inspection in December 2021 were shown in Table 7.7 .
T814	20 Dec 2020	<u>Establishment period</u> 21 Dec 2020 – Dec 2021	Contract 3503	
T815	15 Dec 2020	<u>Establishment period</u> 16 Dec 2020 – Dec 2021	Contract 3503	
T829	18 Dec 2020	<u>Establishment period</u> 19 Dec 2020 – Dec 2021	Contract 3503	
T830	14 Dec 2020	<u>Establishment period</u> 15 Dec 2020 – Dec 2021	Contract 3503	
T831	19 Dec 2020	<u>Establishment period</u> 20 Dec 2020 – Dec 2021	Contract 3503	
T1493	6 Jul 2021	<u>Establishment period</u> 7 Jul 2021 – Jul 2022	Contract 3508	Next inspection will be conducted in January 2022. Photos of the last inspection in November 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No. 71
T1494	6 Jul 2021	<u>Establishment period</u> 7 Jul 2021 – Jul 2022	Contract 3508	
T1495	10 Jul 2021	<u>Establishment period</u> 11 Jul 2021 – Jul 2022	Contract 3508	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
T1496	5 Jul 2021	<u>Establishment period</u> 6 Jul 2021 – Jul 2022	Contract 3508	
T1497	5 Jul 2021	<u>Establishment period</u> 6 Jul 2021 – Jul 2022	Contract 3508	
T1498	29 Jun 2021	<u>Establishment period</u> 30 Jun 2021 – Jul 2022	Contract 3508	
T1499	29 Jun 2021	<u>Establishment period</u> 30 Jun 2021 – Jul 2022	Contract 3508	
T1500	30 Jun 2021	<u>Establishment period</u> 1 Jul 2021 – Jul 2022	Contract 3508	
T1501	30 Jun 2021	<u>Establishment period</u> 1 Jul 2021 – Jul 2022	Contract 3508	
T1502	5 Jul 2021	<u>Establishment period</u> 6 Jul 2021 – Jul 2022	Contract 3508	
T1503	6 Jul 2021	<u>Establishment period</u> 7 Jul 2021 – Jul 2022	Contract 3508	
T1504	24 Jun 2021	<u>Establishment period</u> 25 Jun 2021 – Jul 2022	Contract 3508	
CT1194	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	NA Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filing Station.
CT1794	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 AsiaWorld-Expo	NA The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 AsiaWorld-Expo	NA The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 7.7: Photos of the Existing Transplanted Trees Inspected in this Reporting Month

Under 12-month Establishment Period:		
 <p>T812</p>	 <p>T814</p>	 <p>T815</p>
 <p>T829</p>	 <p>T830</p>	 <p>T831</p>

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 December 2021. 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 7.8**.

The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 2 to 4 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 Q3 to Q4 2021. The captains were informed on the issue and ET will continue to closely monitor the implementation of the SkyPier Plan in the period.

Table 7.8: Summary of Key Audit Findings against the SkyPier Plan

Requirements in the SkyPier Plan	1 to 31 December 2021
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
Daily Cap for all SkyPier HSFs including those not using diverted route	2 to 4 daily movement (within the maximum daily cap - 125 daily movements)

7.5 Audit of Construction and Associated Vessels

The updated Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV) was submitted and approved in May 2020 by EPD under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET carried out the following actions during the reporting period:

- Two skipper training sessions were 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.
- Three skipper training sessions were held by contractors' Environmental Officers. Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 3 skippers were trained by ET and 4 skippers were trained by contractors' Environmental Officers. In total, 1838 skippers were trained from August 2016 to December 2021.
- 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 24-hour DEZs with a 250m radius for marine works were established and implemented by the contractors for seawall construction according to their Method Statement for DEZ Monitoring that followed the specifications and requirements of the DEZ Plan.

During the reporting period, ET was notified that no dolphin sightings were recorded within the DEZ by the contractors. The ET checked the dolphin sighting record and relevant records by the contractors to audit the implementation of 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 7.9**.

Table 7.9: Status of Submissions under Environmental Permit

EP Condition	Submission	Status
2.1	Complaint Management Plan	
2.4	Management Organizations	
2.5	Construction Works Schedule and Location Plans	
2.7	Marine Park Proposal	
2.8	Marine Ecology Conservation Plan	
2.9	Marine Travel Routes and Management Plan for Construction and Associated Vessels	
2.10	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier	
2.11	Marine Mammal Watching Plan	Accepted / approved by EPD
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

Complaint received in the previous reporting period

As reported in the previous Monthly EM&A Report, two emails regarding dust issue were received on 15 November 2021. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. From the photos and videos provided by the complainant, ET recognized the location, identified a related contractor and requested them to provide information. According to the contractor, three water tankers were arranged to carry out water spraying for their site and one of the water tankers was designated to focus on watering along the concerned haul road. Extra water spraying on the concerned haul road by workers was also arranged. At one of the ET's weekly site inspection, dust was observed during vehicle movement on haul road and was rectified by the contractor subsequently; and at another regular inspection, no item related to dust issue was recorded. During an ad-hoc inspection by EPD, ET, IEC and AAHK, water spraying at the concerned haul road was observed. The ET also checked air quality monitoring results from before and after the receiving of the complaint and noted all results were within the corresponding Action and Limit Levels. ET would continue to monitor contractor's performance of water spraying in accordance with their management plan and reminded all contractors to properly implement dust mitigation measures, especially water spraying on the haul road in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.

Complaints received in this reporting period

A complaint regarding suspected dump truck for garbage disposal that was not properly covered and leaving the 3RS construction site area via pier was received on 1 December 2021. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. The ET recognized the location, identified two related contractors and requested them to provide information. According to the replies, one of the contractors reported they did not have dump trucks for garbage disposal leaving the alleged pier during the period of investigation. Another contractor replied they had dump trucks for the disposal of garbage going to landfill by marine route during the period of investigation, stating their dump trucks were covered entirely and checked by site supervisors before leaving their construction site and that refresher trainings on the proper covering of dump trucks were also provided to their site foremen and frontline workers. Based on the ET's weekly site inspections, no item related to the covering of dump trucks was recorded. And during an ad-hoc inspection by EPD, ET, IEC and AAHK, it was observed that all dump trucks were properly covered when embarking Roro barges. ET would continue to monitor contractor's performance and reminded all contractors to ensure the proper covering of dump trucks for garbage disposal. Hence, the case was considered closed.

A complaint regarding muddy water was received on 13 December 2021. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. From the photo provided by the complainant, ET recognized the location, identified a related contractor and requested them to provide information. According to the reply, there were work activities at the alleged location during the period of investigation and that silt curtain was provided to contain muddy water. The contractor also indicated provision of mitigation measures including daily visual check at their works area and training on water control measures to frontline staff. At ET's regular and ad-hoc site inspections and ad-hoc inspection by EPD, ET, IEC and AAHK, there was no observation on muddy water. For the installation of silt curtain, ET reminded

the contractor to maintain it properly. The ET also checked water quality monitoring results from before and after the receiving of the complaint and noted all results were within the corresponding Action and Limit Levels. ET would continue to monitor contractor's performance and reminded all contractors to properly implement water quality mitigation measures in accordance with the implementation schedule in the Updated EM&A Manual. Hence, the case was considered closed.

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

- Piling and structure works;
- Stockpiling; and
- Pipe and drainage diversion works.

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

- Site office establishment;
- Cabling works;
- Network installation; and
- Genset installation.

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

- Equipment installation; and
- Cabling works.

Contract 3307 Fire Training Facility

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

Contract 3308 Foreign Object Debris Detection System

- Site formation; and

Foreign Object Debris Tower installation.

Contract 3310 North Runway Modification Works

- Deep cement mixing; and
- Steel deck erection.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Steel frame installation;
- Structure works; and
- Underground utilities construction.

Contract 3404 Integrated Airport Control System

- Equipment installation; and
- Cable laying.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Sheet piling and pile cap construction;
- Excavation and backfilling; 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;
- Bridge demolition;
- Piling works;
- Drainage works;
- Reinforced concrete works; and
- Builders' works.

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

Contract 3601 New Automated People Mover System (TRC Line)

- Pull out test for guideway;
- Guidebeam installation; and
- Concreting work.

Contract 3602 Existing APM System Modification Works

- Car modification; and
- Concreting work.

Contract 3603 Baggage Handling System (BHS)

- BHS installation.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Laying of drainage pipes and ducts;
- Site clearance;

- Paving works; and
- Road works.

Contract 3723 Construction Support Facilities

- Clearance works;
- Finishing works;
- Site formation; and
- Blinding and footing works.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation and lateral support works;
- Rebar fixing and casting; and
- Jacking slab construction.

Contract 3802 APM and BHS Tunnels and Related Works

- Wall and slab construction;
- Installation of dewatering well;
- Pipe pile and sheet pile works; and
- Excavation and lateral supports.

Construction Support (Services / Licenses):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant; and
- Testing and commissioning for conveyor belt.

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;
- Water quality from DCM works;
- DEZ monitoring for ground improvement works (DCM works) and 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 included reclamation works and land-based works. Works in the reclamation areas included seawall and facilities construction, together with runway and associated works. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, 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, construction waste, and CWD did not trigger the corresponding Action and Limit Levels during the reporting period.

The water quality monitoring results for all parameters, except SS, obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For SS, one of the testing results triggered the relevant Action Level, and the corresponding investigation was conducted accordingly. The investigation findings concluded that the case was not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

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

On the implementation of the SkyPier Plan, 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 4 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

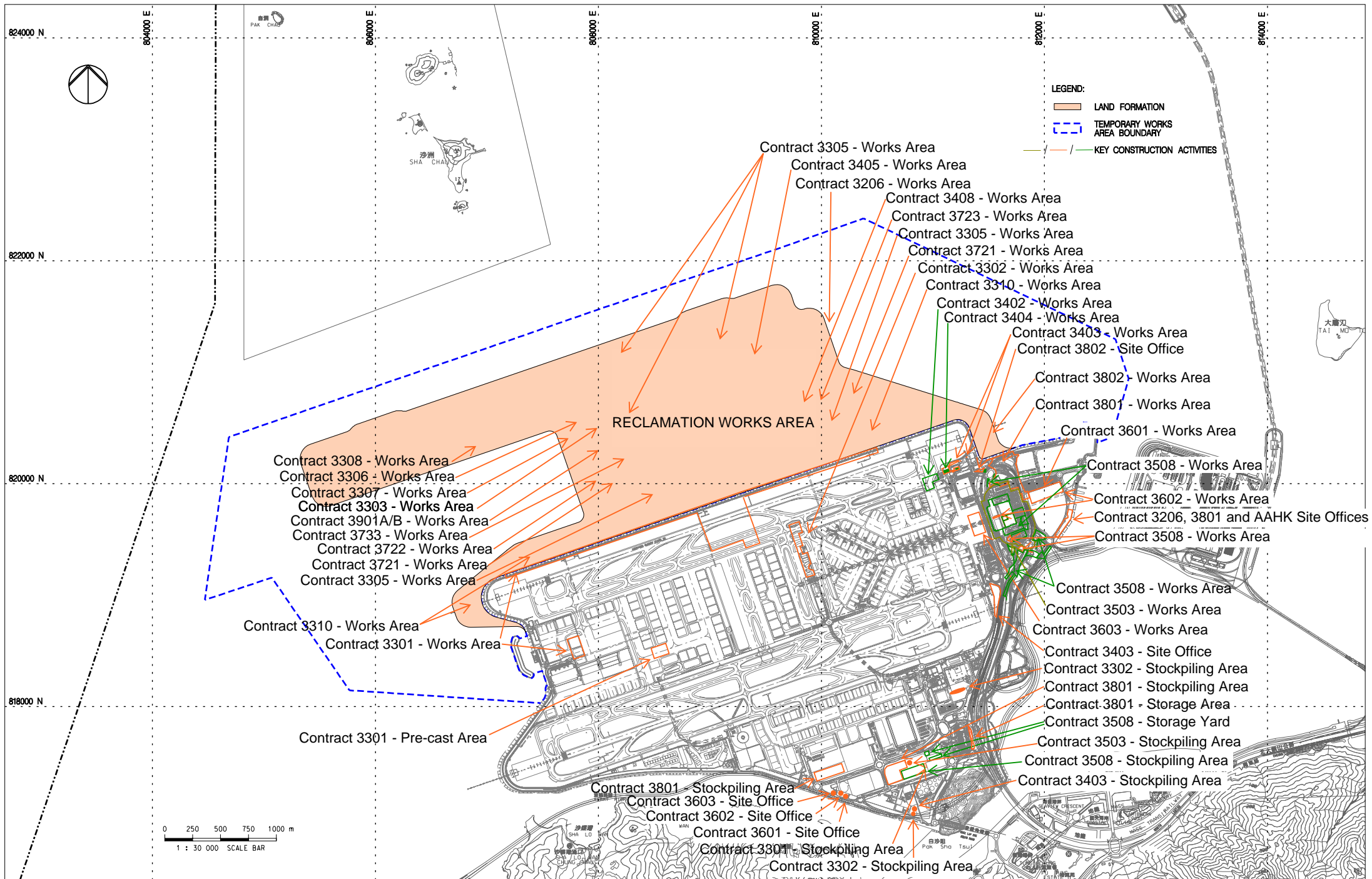
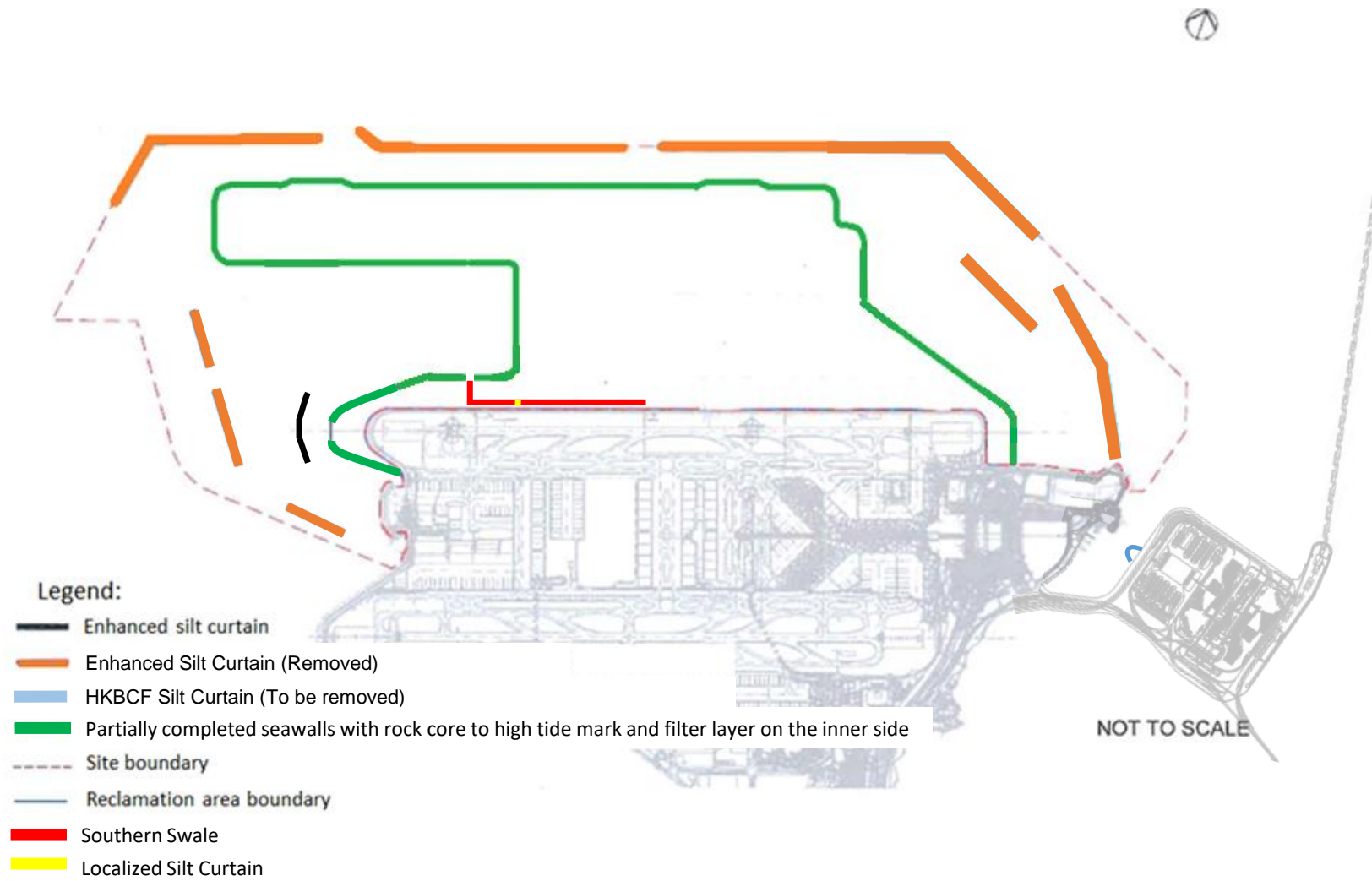


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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

Figure 1.2

Latest Layout of the Enhanced Silt Curtain and HKBCF Silt Curtain





80000 E

80000 E

81000 E

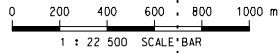
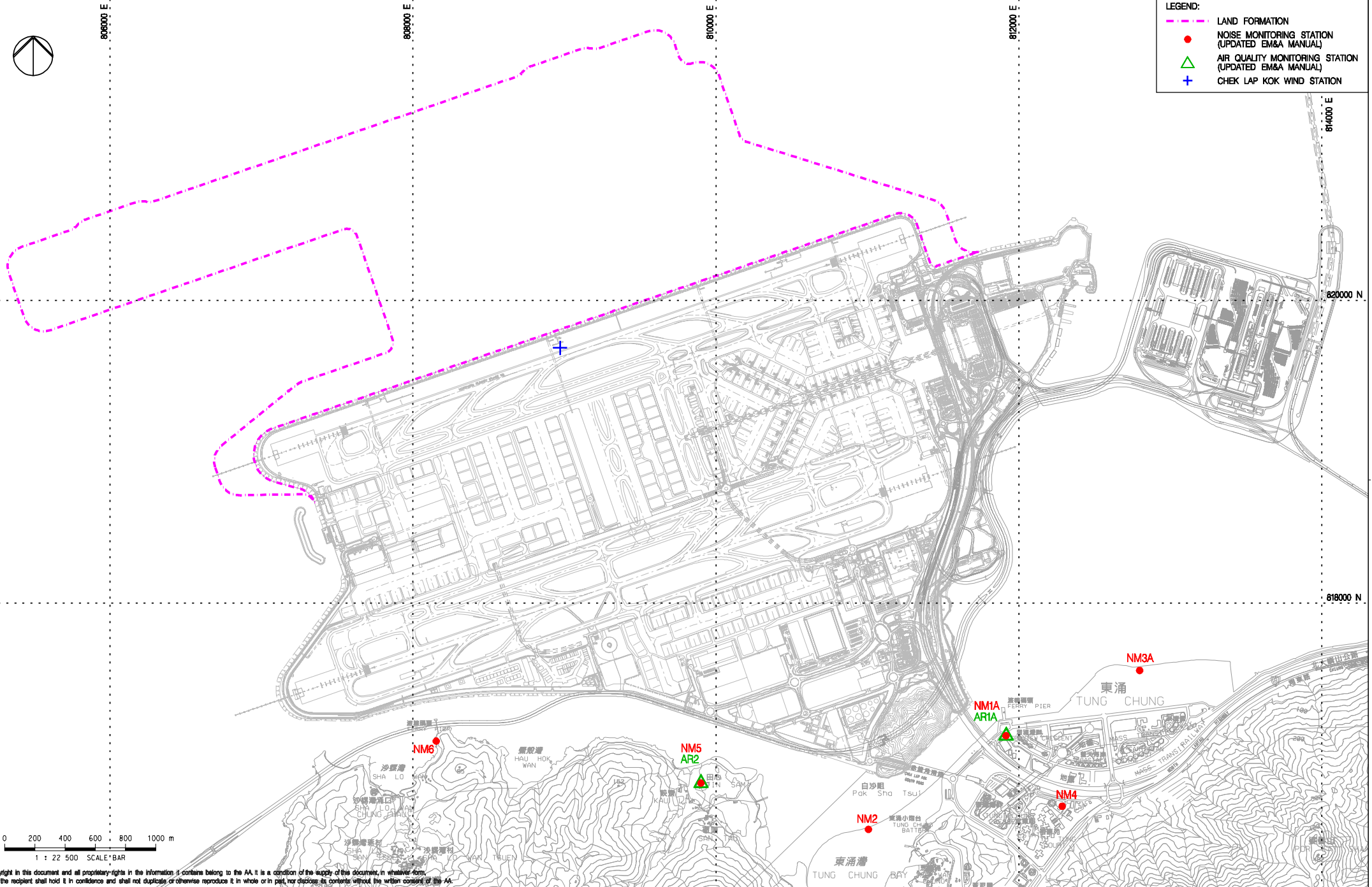
82000 E

84000 E

82000 N

81800 N

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



Copyright in this document and all proprietary rights in the information it contains belong to the AA. It is a condition of the supply of this document, in whatever form, that the recipient shall hold it in confidence and shall not duplicate or otherwise reproduce it in whole or in part, nor disclose its contents without the written consent of the AA.

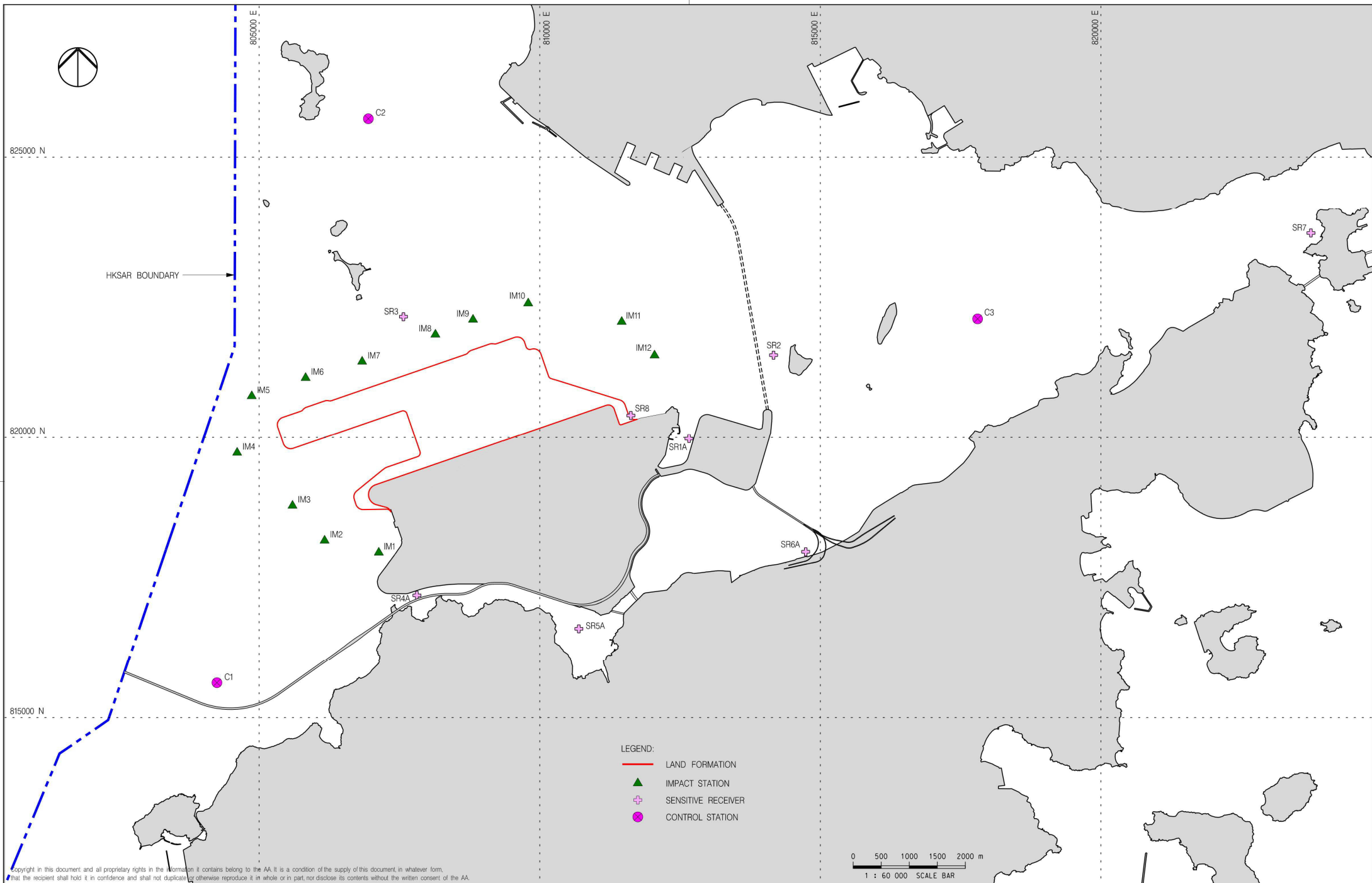
Rev.	Date	Description	Checked
A	06JAN16	FIRST ISSUE	RO
B	28JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	28OCT18	GENERAL REVISION	SH



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

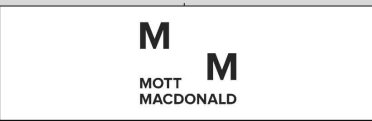
Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

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



Copyright in this document and all proprietary rights in the information it contains belong to the AA. It is a condition of the supply of this document, in whatever form, that the recipient shall hold it in confidence and shall not duplicate or otherwise reproduce it in whole or in part, nor disclose its contents without the written consent of the AA.

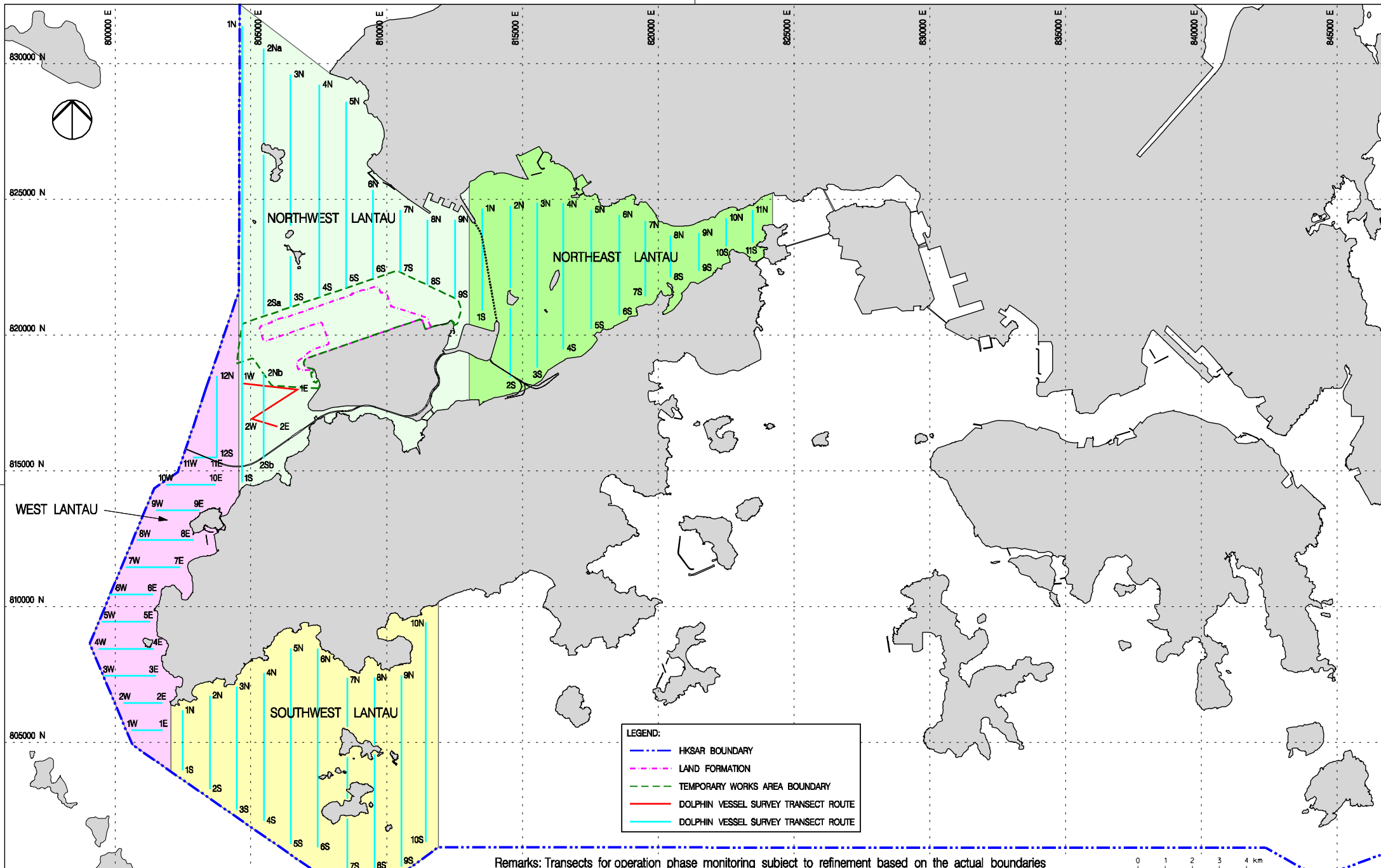
Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL



Title
WATER QUALITY MONITORING STATIONS

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

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



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

Copyright in this document and all proprietary rights in the information it contains belong to the AA. It is a condition of the supply of this document, in whatever form, that the recipient shall hold it in confidence and shall not duplicate or otherwise reproduce it in whole or in part, nor disclose its contents without the written consent of the AA.

Rev.	Date	Description	Checked
B	27JUL16	GENERAL REVISION	JT
C	08FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH

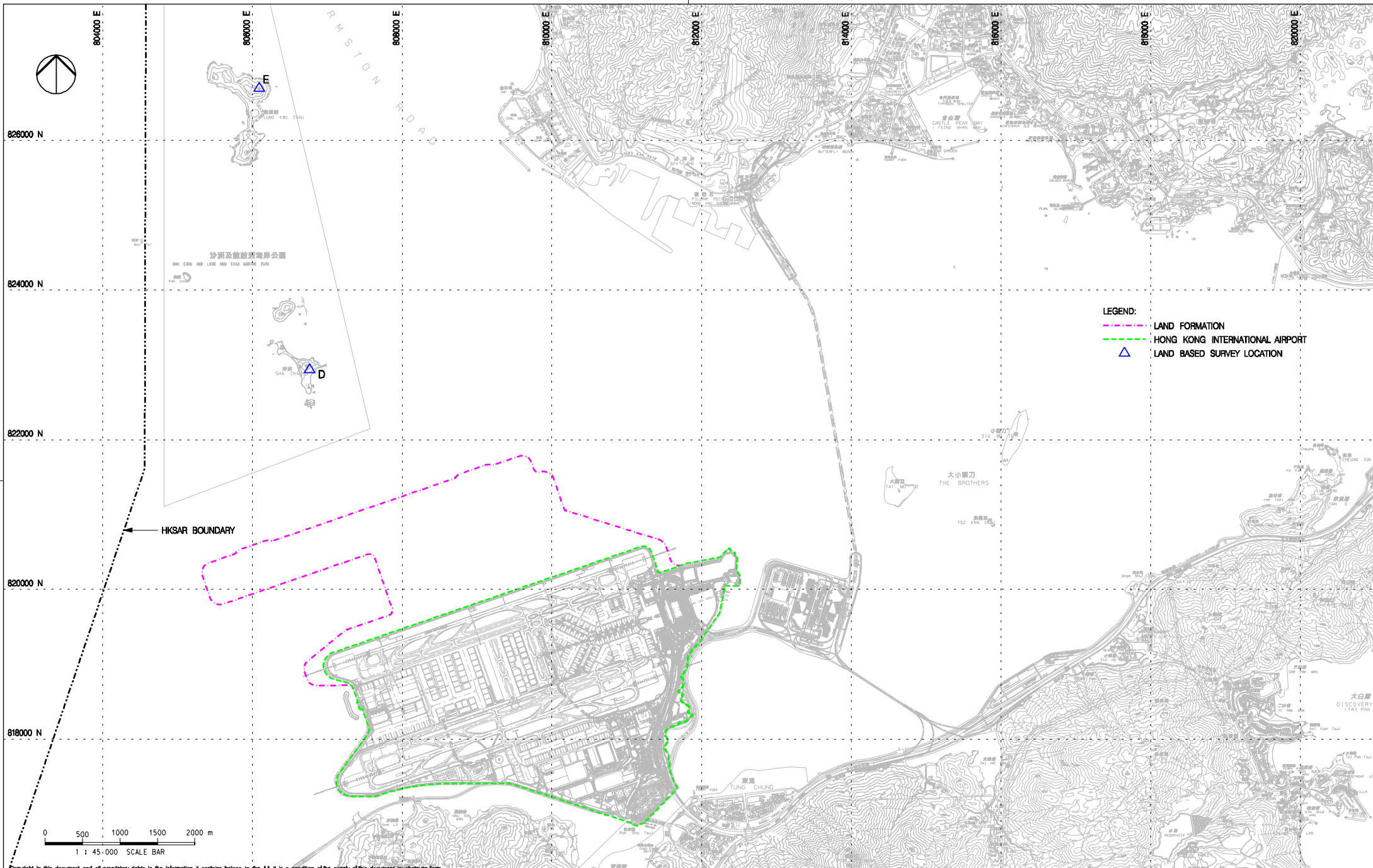


Title
VESSEL BASED DOLPHIN MONITORING
TRANSECTS IN CONSTRUCTION,
POST-CONSTRUCTION AND OPERATION PHASES

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.	Scale at A3 1 : 125000
Rev.	F

FIGURE 6.1



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

Copyright in this document and all proprietary rights in the information it contains belong to the AA. It is a condition of the supply of this document, in whatever form, that the recipient shall hold it in confidence and shall not duplicate or otherwise reproduce it in whole or in part, nor disclose its contents without the written consent of the AA.

Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	06FEB17	GENERAL REVISION	JC
C	29OCT18	GENERAL REVISION	SH



Title

LAND BASED DOLPHIN MONITORING
IN BASELINE AND CONSTRUCTION PHASES

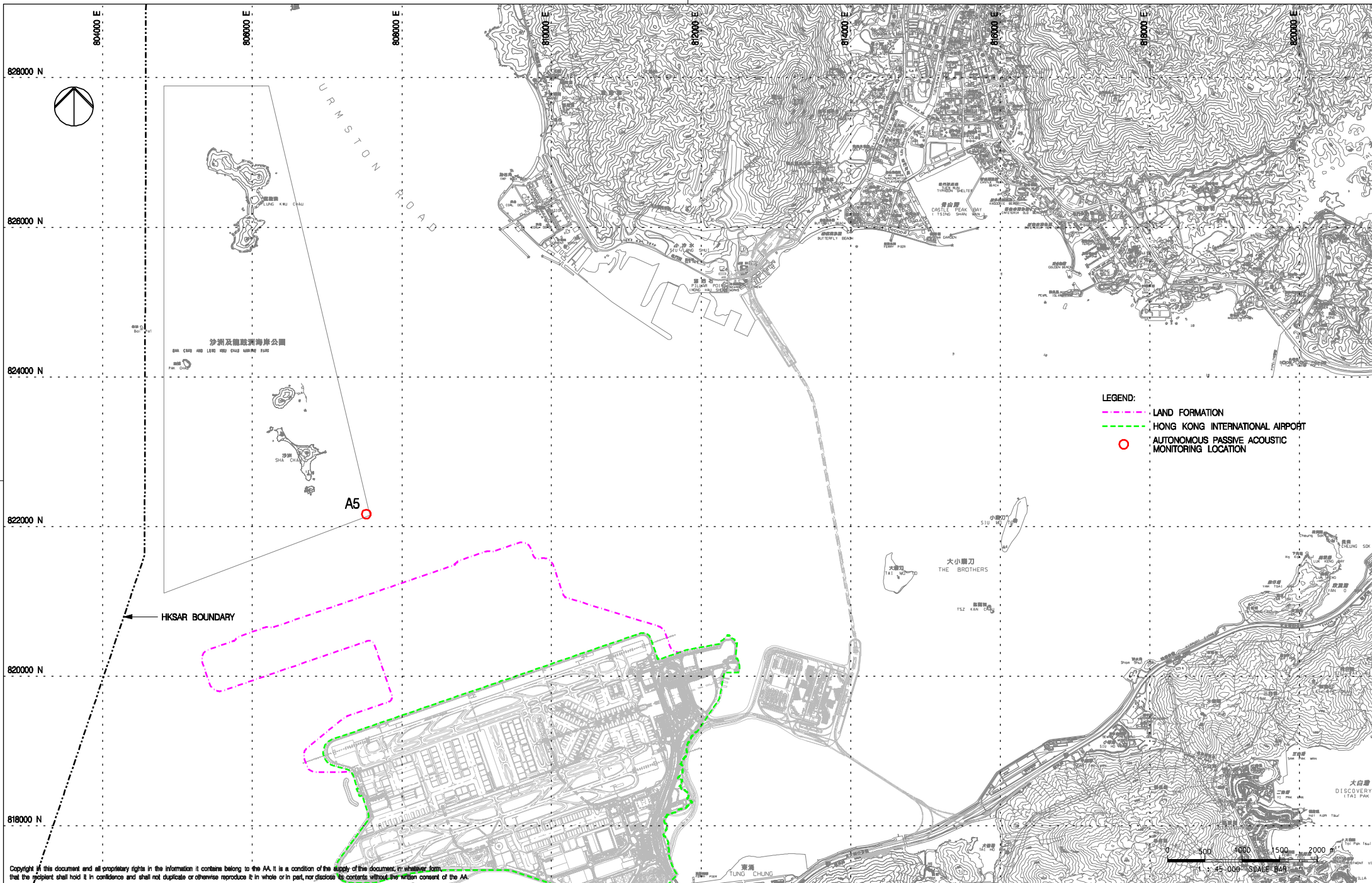
Consultant's Signatures for Approval		Date
Design	JC	29OCT18
Checkers	JC / TK	29OCT18
Approver	EC	29OCT18

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

Drawing No. **FIGURE 6.2**

Scale at A3 **1:45000**

Rev. **C**



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

Copyright in this document and all proprietary rights in the information it contains belong to the AA. It is a condition of the supply of this document, in whatever form, that the recipient shall hold it in confidence and shall not duplicate or otherwise reproduce it in whole or in part, nor disclose its contents without the written consent of the AA.

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



Title
LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1:45000
FIGURE 6.5	Rev. C

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

Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Air Quality Impact – Construction Phase					
5.2.6.2	2.1	-	Dust Control Measures <ul style="list-style-type: none"> Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area. 	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	<ul style="list-style-type: none"> Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling. 	Within construction site / Duration of the construction phase	I
5.2.6.4	2.1	-	Dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted. These practices include: Good Site Management <ul style="list-style-type: none"> Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning. 	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads <ul style="list-style-type: none"> Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. 	Within construction site / Duration of the construction phase	I
			Exposed Earth <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Loading, Unloading or Transfer of Dusty Materials <ul style="list-style-type: none"> ▪ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 	Within construction site / Duration of the construction phase	
			Debris Handling <ul style="list-style-type: none"> ▪ Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides; and ▪ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	Within construction site / Duration of the construction phase	
			Transport of Dusty Materials <ul style="list-style-type: none"> ▪ Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	Within construction site / Duration of the construction phase	
			Wheel washing <ul style="list-style-type: none"> ▪ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	Within construction site / Duration of the construction phase	
			Use of vehicles <ul style="list-style-type: none"> ▪ The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site; ▪ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and ▪ Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	Within construction site / Duration of the construction phase	
			Site hoarding <ul style="list-style-type: none"> ▪ Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	Within construction site / Duration of the construction phase	
5.2.6.5	2.1	-	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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ The loading, unloading, handling, transfer or storage of cement, pulverised fuel ash (PFA) and/or other equally dusty materials shall be carried in a totally enclosed system acceptable to EPD. All dust-laden air or waste gas generated by the process operations shall be properly extracted and vented to fabric filtering system to meet the required emission limit; ▪ Cement, PFA and/or other equally dusty materials shall be stored in storage silo fitted with audible high-level alarms to warn of over-filling. The high-level alarm indicators shall be interlocked with the material filling line such that in the event of the silo approaching an overfilling condition, an audible alarm will operate, and after 1 minute or less the material filling line will be closed; ▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit; ▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and ▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery. 		
			<p>Other raw materials</p> <ul style="list-style-type: none"> ▪ The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions; ▪ The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stockpiles and material discharge points; ▪ All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices; ▪ The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; ▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; ▪ Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; ▪ Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used; 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side; ▪ Aggregates with a nominal size greater than 5 mm should preferably be stored in a totally enclosed structure. If open stockpiling is used, the stockpile shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; and ▪ The opening between the storage bin and weighing scale of the materials shall be fully enclosed. 		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> ▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: <ul style="list-style-type: none"> (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	
			<p>Vehicles</p> <ul style="list-style-type: none"> ▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and ▪ All access and route roads within the premises shall be paved and adequately wetted. 	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Housekeeping</p> <ul style="list-style-type: none"> ▪ A high standard of housekeeping shall be maintained. All spillages or deposits of materials on ground, support structures or roofs shall be cleaned up promptly by a cleaning method acceptable to EPD. Any dumping of materials at open area shall be prohibited. 	Within Concrete Batching Plant / Duration of the construction phase	
5.2.6.6	2.1	-	<p>Best Practices for Asphaltic Concrete Plant</p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Tar and Bitumen Works (Asphaltic Concrete Plant) BPM 15 (94) as well as in the future Specified Process licence should be adopted. These include:</p> <p>Design of Chimney</p> <ul style="list-style-type: none"> ▪ The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater; ▪ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition; 	Within Concrete Batching Plant / Duration of the construction phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ The flue gas exit temperature shall not be less than the acid dew point; and ▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected. 		
			<p>Cold feed side</p> <ul style="list-style-type: none"> ▪ The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area; ▪ Where there is sufficient buffer area surrounding the plant, ground stockpiling may be used. The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side. If these aggregates are stored above the feeding hopper, they shall be enclosed at least on top and three sides and be wetted on the surface to prevent wind-whipping; ▪ The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; ▪ Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance; ▪ Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface; ▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and ▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	
			<p>Hot feed side</p> <ul style="list-style-type: none"> ▪ The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values; ▪ The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value; ▪ All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings; ▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages; ▪ All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units). 		
			<p>Material transportation</p> <ul style="list-style-type: none"> The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions; Roadways from the entrance of the plant to the product loading points and/or any other working areas where there are regular movements of vehicles shall be paved or hard surfaced; and Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers. 	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Control of emissions from bitumen decanting</p> <ul style="list-style-type: none"> The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note; Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached; Proper chimney for the discharge of bitumen fumes shall be provided at high level; The emission of bitumen fumes shall not exceed the required emission limit; and The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles. 	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Liquid fuel</p> <ul style="list-style-type: none"> The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air. 	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Housekeeping</p> <ul style="list-style-type: none"> A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis. 	Within Concrete Batching Plant / Duration of the construction phase	
5.2.6.7	2.1	-	<p>Best Practices for Rock Crushing Plants</p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include:</p> <p>Crushers</p>	Within Concrete Batching Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter; ▪ The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping; ▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and ▪ Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure. 		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> ▪ All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and ▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>
			<p>Belt conveyors</p> <ul style="list-style-type: none"> ▪ Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides; ▪ Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and <p>Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.</p>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>
			<p>Storage piles and bins</p> <ul style="list-style-type: none"> ▪ Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>N/A as there was no rock crushing plant at this stage</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls; and Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly. 		
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities. 	Within Concrete Batching Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
Hazard to Human Life – Construction Phase					
Table 6.40	3.2	-	<ul style="list-style-type: none"> Precautionary measures should be established to request barges to move away during typhoons. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> An appropriate marine traffic management system should be established to minimize risk of ship collision. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> Location of all existing hydrant networks should be clearly identified prior to any construction works. 	Construction Site / Construction Period	I
Noise Impact – Construction Phase					
7.5.6	4.3	-	<p>Good Site Practice</p> <p>Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; mobile plant should be sited as far away from NSRs as possible; and material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Within the Project site / During construction phase / Prior to commencement of operation	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
7.5.6	4.3	-	Adoption of QPME <ul style="list-style-type: none"> QPME should be adopted as far as applicable. 	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	Use of Movable Noise Barriers <ul style="list-style-type: none"> Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs. 	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	Use of Noise Enclosure/ Acoustic Shed <ul style="list-style-type: none"> Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator. 	Within the Project site / During construction phase / Prior to commencement of operation	I
Water Quality Impact – Construction Phase					
8.8.1.2 and 8.8.1.3	5.1	2.26	Marine Construction Activities <u>General Measures to be Applied to All Works Areas</u> <ul style="list-style-type: none"> Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; Use of Lean Material Overboard (LMOB) systems shall be prohibited; Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; All vessels shall be sized such that adequate clearance is maintained between vessels and the seabed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the wastewater meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted. 	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<u>Specific Measures to be Applied to All Works Areas</u>	Within construction site / Duration of the construction phase	I – For marine filling C – Completed in Nov 2020 for sand blanket C – Completed in May 2018
			<ul style="list-style-type: none"> ▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; ▪ A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document; ▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities; 		
			<ul style="list-style-type: none"> ▪ Closed grab dredger shall be used to excavate marine sediment; ▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and 		I (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> ▪ The Silt Curtain Deployment Plan shall be implemented. 		I
			<u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u>	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) I – For C7a C – Completed in Dec 2021 for C8 *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> ▪ Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains; ▪ Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and 		
			<ul style="list-style-type: none"> ▪ 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?^
			<p><u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u></p> <ul style="list-style-type: none"> Double layer ‘Type II’ or ‘Type III’ silt curtains to be applied around the eastern openings between partially completed seawalls prior to commencement of marine filling activities. The silt curtains shall be configured to minimise SS release during ebb tides; 	Within construction site / Duration of the construction phase	I *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities; 		N/A (The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and 		I – For C7a C – Completed in Dec 2021 for C8 (The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			<ul style="list-style-type: none"> The silt curtains and silt screens should be regularly checked and maintained. 		I
			<p><u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u></p> <ul style="list-style-type: none"> Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure. 	Within construction site / Duration of the construction phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
8.8.1.4	5.1	-	<p>Modification of the Existing Seawall</p> <ul style="list-style-type: none"> Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works. 	At the existing northern seawall / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.5	5.1	-	<p>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</p> <ul style="list-style-type: none"> During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations. 	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	<p>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</p> <p>Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment.</p>	Within construction site / Duration of the construction phase	<p>C – For approach lights</p> <p>N/A for marker beacons as HKIAAA Marker Beacons would be replaced by buoys</p>
			<p><u>For construction of the eastern approach lights at the CMPs</u></p> <ul style="list-style-type: none"> Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; The excavated materials shall be removed using a closed grab within the steel casings; No discharge of the cement mixed materials into the marine environment will be allowed; and Excavated materials shall be treated and reused on-site. 		C – Completed in Oct 2021
8.8.1.8	5.1	-	<p>Construction of Site Runoff and Drainage</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:</p>	Within construction site / Duration of the construction phase	
			<ul style="list-style-type: none"> Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sandbag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform); 		I
			<ul style="list-style-type: none"> Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction; 		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly; 		
			<ul style="list-style-type: none"> ▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities; 		
			<ul style="list-style-type: none"> ▪ In the event that contaminated groundwater is identified at excavation areas, this should be treated on-site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and 		
			<ul style="list-style-type: none"> ▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge. 		
			<ul style="list-style-type: none"> ▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the construction materials, soil, silt or debris from washing away into the drainage system; 		
			<ul style="list-style-type: none"> ▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and to prevent stormwater runoff being directed into foul sewers; and 		
			<ul style="list-style-type: none"> ▪ Precautionary measures should be taken at any time of the year when rainstorms are likely. Actions to be taken when a rainstorm is imminent or forecasted are summarized in Appendix A2 of ProPECC Note PN 1/94. This includes actions to be taken during and/or after rainstorms. Particular attention should be paid to the control of silty surface runoff during storm events. 		
8.8.1.9	5.1	-	<p>Sewage Effluent from Construction Workforce</p> <ul style="list-style-type: none"> ▪ Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. 	Within construction site / During construction phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.10 8.8.1.11	5.1		<p>General Construction Activities</p> <ul style="list-style-type: none"> Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used; and Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 	Within construction site / During construction phase	I
8.8.1.12 8.8.1.13	5.1	2.28	<p>Drilling Activities for the Submarine Aviation Fuel Pipelines</p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; No bulk storage of chemicals shall be permitted; and A containment pit shall be constructed around the drill holes. This containment pit shall be lined with impermeable lining and bunded on the outside to prevent inflow from off-site areas. 	Within construction site / During construction phase	C – Completed in Jan 2019
			<p>At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater:</p> <ul style="list-style-type: none"> During pipe cleaning, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meet the WPCO/TM requirements before discharge; and Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 	Within construction site / During construction phase	C – Completed in Jan 2019
Waste Management Implication – Construction Phase					
10.5.1.1	7.1	-	<p>Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended:</p> <ul style="list-style-type: none"> The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&D materials; Priority should be given to collect and reuse suitable inert C&D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works; 	Project Site Area / During design and construction phase	I
					I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ Only non-dredged ground improvement methods should be adopted in order to completely avoid the need for dredging and disposal of marine sediment for the proposed land formation work; 		
			<ul style="list-style-type: none"> ▪ Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and 		
			<ul style="list-style-type: none"> ▪ For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development. 		
10.5.1.1	7.1	-	<p>The following good site practices should be performed during the construction activities include:</p> <ul style="list-style-type: none"> ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; ▪ Training of site personnel in proper waste management and chemical waste handling procedures; ▪ Provision of sufficient waste disposal points and regular collection for disposal; ▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/ similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards; ▪ Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; ▪ All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas; ▪ C&D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust; ▪ The speed of the trucks including dump trucks carrying C&D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and ▪ To avoid or minimise dust emission during transport of C&D or waste materials within the site, each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials. Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. 	Project Site Area / Construction Phase	
10.5.1.3	7.1	-	<p>The following practices should be performed to achieve waste reduction include:</p> <ul style="list-style-type: none"> ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; 	Project Site Area / Construction Phase	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ Adoption of repetitive design to allow reuse of formworks as far as practicable; ▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; ▪ Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force; ▪ Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable; ▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and ▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 		
10.5.1.5	7.1		Inert and non-inert C&D materials should be handled and stored separately to avoid mixing the two types of materials.	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	Any recyclable materials should be segregated from the non-inert C&D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	-	A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.	Construction Phase	I
10.5.1.16	7.1	-	<p>The following mitigation measures are recommended during excavation and treatment of the sediments:</p> <ul style="list-style-type: none"> ▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions; ▪ The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions; ▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; ▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; ▪ Treated and untreated sediment should be clearly separated and stored separately; and ▪ Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge. 	Project Site Area / Construction Phase	I I I I I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
10.5.1.18	7.1	-	<p>The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal:</p> <ul style="list-style-type: none"> ▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; ▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by EPD; and ▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 	Project Site Area / Construction Phase	N/A – the field joint excavation works for the submarine cable diversion will no longer be conducted anymore
10.5.1.19	7.1	-	<p>Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ Good quality containers compatible with the chemical wastes should be used; ▪ Incompatible chemicals should be stored separately; ▪ Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and ▪ The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. 	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	<p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.</p>	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	<p>The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.</p>	Project Site Area / Construction Phase	I
Land Contamination – Construction Phase					
11.10.1.2 to 11.10.1.3	8.1	2.32	<p>For areas inaccessible during site reconnaissance survey</p> <ul style="list-style-type: none"> ▪ Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas. 	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas. ▪ After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room. ▪ Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively. 		<p>C – Completed in Jan 2018</p> <hr/> <p>I *(CAR for golf course and Terminal 2 emergency power supply system nos.1, 2, 3, 4 and 5 were submitted to EPD)</p> <hr/> <p>N/A as no remediation was required.</p>
11.8.1.2	8.1	-	<p>If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any):</p> <ul style="list-style-type: none"> ▪ To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; ▪ Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; ▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible; ▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; ▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; ▪ Truck bodies and tailgates should be sealed to prevent any discharge; ▪ Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; ▪ Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit; ▪ Strictly observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and ▪ Maintain records of waste generation and disposal quantities and disposal arrangements. 	Project Site Area / Construction Phase	N/A as no contaminated soil was found.

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Terrestrial Ecological – Construction Phase					
12.10.1.1	9.2	2.14	Pre-construction Egretty Survey <ul style="list-style-type: none"> Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty. 	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	C – Completed in Jan 2019
12.7.2.3 and 12.7.2.6	9.1	2.30	Avoidance and Minimisation of Direct Impact to Egretty <ul style="list-style-type: none"> The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretty. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretty; In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and The containment pit at the daylighting location shall be covered or camouflaged. 	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.5	9.1	2.30	Preservation of Nesting Vegetation <ul style="list-style-type: none"> The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved. 	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.4 and 12.7.2.6	9.1	2.30	Timing the Pipe Connection Works outside Ardeid's Breeding Season <ul style="list-style-type: none"> All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons. 	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.10.1.1	9.3	-	Ecological Monitoring <ul style="list-style-type: none"> During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found. 	at Sheung Sha Chau Island	C – Completed in Jan 2019
Marine Ecological Impact – Pre-construction Phase					
13.11.4.1	10.2.2	-	<ul style="list-style-type: none"> Pre-construction phase Coral Dive Survey. 	HKIAAA artificial seawall	C – Completed in Jan 2016
Marine Ecological Impact – Construction Phase					
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area <ul style="list-style-type: none"> Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population. 	Land formation footprint / during detailed design phase to completion of construction	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.7 to 13.11.1.10	-	2.31	<p>Use of Construction Methods with Minimal Risk/Disturbance</p> <ul style="list-style-type: none"> Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; <hr/> <ul style="list-style-type: none"> Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment; <hr/> <ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; <hr/> <ul style="list-style-type: none"> Avoid bored piling during CWD peak calving season (Mar to Jun); <hr/> <ul style="list-style-type: none"> Prohibition of underwater percussive piling; and <hr/> <ul style="list-style-type: none"> Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources. 	During construction phase at marine works area	<p>C – Completed in Jan 2019 for diversion of aviation fuel pipeline</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights</p> <p>N/A for marker beacons as HKIAAAA Marker Beacons would be replaced by buoys</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
13.11.2.1 to 13.11.2.7	-	-	<p>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</p> <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; <hr/> <ul style="list-style-type: none"> Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains); <hr/> <ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and <hr/> <ul style="list-style-type: none"> Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources. 	All works area during the construction phase	<p>I</p> <hr/> <p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
13.11.1.12	-	-	<p>Strict Enforcement of No-Dumping Policy</p>	All works area during the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works; Fines for infractions should be implemented; and Unscheduled, on-site audits shall be implemented. 		
13.11.1.13	-	-	<p>Good Construction Site Practices</p> <ul style="list-style-type: none"> Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators. 	All works area during the construction phase	I
13.11.1.3 to 13.11.1.6	-	-	<p>Minimisation of Land Formation Area</p> <ul style="list-style-type: none"> Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population. 	Land formation footprint / during detailed design phase to completion of construction	I
13.11.5.4 to 13.11.5.13	10.3.1	-	<p>SkyPier High Speed Ferries' Speed Restrictions and Route Diversions</p> <ul style="list-style-type: none"> SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in Drawing No. MCL/P132/EIA/13-023 of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier HSF numbers; and A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times. <p>Other mitigation measures</p> <ul style="list-style-type: none"> The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed. 	Area between the footprint and SCLKC Marine Park during construction phase	I
13.11.5.14 to 13.11.5.18	10.3.1	2.31	<p>Dolphin Exclusion Zone</p> <ul style="list-style-type: none"> Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas; 	Marine waters around land formation works area during construction phase	I C – Completed in Sep 2016

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and A DEZ would also be implemented during bored piling work but as a precautionary measure only. 		I C – Completed in Oct 2021 for the bored piling work of New approach lights
13.11.5.19	10.4	2.31	Acoustic Decoupling of Construction Equipment <ul style="list-style-type: none"> Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works. 	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	Spill Response Plan <ul style="list-style-type: none"> An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage. 	Construction phase	I
13.11.5.21 to 13.11.5.23	10.6.1	-	Construction Vessel Speed Limits and Skipper Training <ul style="list-style-type: none"> A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities (as currently indicated by the 1x1km grid squares in Figure 6 of Appendix 13.2 of EIA report). Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing. 	All areas north and west of Lantau Island during construction phase	I
Fisheries Impact – Construction Phase					
14.9.1.2 to 14.9.1.5	-	-	Minimisation of Land Formation Area <ul style="list-style-type: none"> Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources. 	Land formation footprint / during detailed design phase to completion of construction	I
14.9.1.6	-	-	Use of Construction Methods with Minimal Risk/Disturbance <ul style="list-style-type: none"> Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; 	During construction phase at marine works area	C – Completed in Jan 2019 for diversion of aviation fuel pipeline

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on fisheries and the marine environment; Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		<p>I</p> <hr/> <p>C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAAA Marker Beacons would be replaced by buoys</p> <hr/> <p>C – Completed in Jan 2019 for HDD works</p>
14.9.1.11	-		<p>Strict Enforcement of No-Dumping Policy</p> <ul style="list-style-type: none"> A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works; Fines for infractions should be implemented; and Unscheduled, on-site audits shall be implemented. 	All works area during the construction phase	I
14.9.1.12	-		<p>Good Construction Site Practices</p> <ul style="list-style-type: none"> Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators. 	All works area during the construction phase	I
14.9.1.13 to 14.9.1.18	-		<p>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</p> <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains); 	All works area during the construction phase	<p>I</p> <hr/> <p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		C – Completed in Oct 2021 for new approach lights N/A for marker beacons as HKIAAAA Marker Beacons would be replaced by buoys
			<ul style="list-style-type: none"> Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources. 		C – Completed on Jan 2019 for HDD work
Landscape and Visual Impact – Construction Phase					
Table 15.6	12.3	-	CM1 - The construction area and contractor’s temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM2 - Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM3 - Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM4 - Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM5 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases.	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Table 15.6	12.3	-	CM6 - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM7 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases.	I
Table 15.6	12.3	-	CM8 - All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor’s works areas.	All existing trees to be retained; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM9 - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM10 - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works; Upon handover and completion of works.	N/A to this reporting month as the land formation works are still ongoing.
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

Monitoring Schedule of This Reporting Period

Dec-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 CWD Survey (Vessel)	2 Site Inspection WQ General mid-ebb: 11:13 mid-flood: 17:03	3 Site Inspection CWD Survey (Vessel)	4 AR1A, AR2 WQ General mid-ebb: 13:00 mid-flood: 07:26
5	6 Site Inspection CWD Survey (Vessel)	7 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 15:24 mid-flood: 10:14	8 Site Inspection	9 Site Inspection NM4, NM6 WQ General mid-ebb: 17:40 mid-flood: 12:35	10 Site Inspection AR1A, AR2 NM1A, NM5	11 WQ General mid-ebb: 20:24 mid-flood: 14:26
12	13 Site Inspection CWD Survey (Vessel)	14 Site Inspection NM4, NM6 WQ General mid-ebb: 09:38 mid-flood: 16:10	15 CWD Survey (Vessel)	16 Site Inspection CWD Survey (Vessel, Land-based) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 11:18 mid-flood: 16:57	17 Site Inspection CWD Survey (Vessel)	18 WQ General mid-ebb: 12:35 mid-flood: 07:29
19	20 Site Inspection CWD Survey (Land-based)	21 Site Inspection WQ General mid-ebb: 14:11 mid-flood: 09:21	22 Site Inspection AR1A, AR2 NM1A, NM5	23 Site Inspection NM4, NM6 WQ General mid-ebb: 15:23 mid-flood: 10:37	24 Site Inspection	25 WQ General mid-ebb: 17:07 mid-flood: 12:05
26	27	28 Site Inspection AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 07:02 mid-flood: 14:20	29 Site Inspection NM4, NM6	30 Site Inspection WQ General mid-ebb: 09:51 mid-flood: 15:39	31 Site Inspection	
<p>Notes:</p> <p>CWD - Chinese White Dolphin</p> <p>Air quality and Noise Monitoring Station</p> <p>WQ - Water Quality</p> <p>NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan</p>						

Tentative Monitoring Schedule of Next Reporting Period

Jan-22

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 WQ General mid-ebb: 12:02 mid-flood: 17:04
2	3 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	4 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General mid-ebb: 14:27 mid-flood: 09:15	5 Site Inspection CWD Survey (Vessel)	6 Site Inspection WQ General mid-ebb: 16:01 mid-flood: 10:45	7 Site Inspection	8 AR1A, AR2 WQ General mid-ebb: 17:54 mid-flood: 12:16
9	10 Site Inspection CWD Survey (Vessel)	11 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 07:07 mid-flood: 14:19	12 CWD Survey (Vessel)	13 Site Inspection NM4, NM6 WQ General mid-ebb: 09:54 mid-flood: 15:18	14 Site Inspection AR1A, AR2 NM1A, NM5	15 WQ General mid-ebb: 11:39 mid-flood: 06:57
16	17 Site Inspection CWD Survey (Land-based)	18 Site Inspection NM4, NM6 WQ General mid-ebb: 13:27 mid-flood: 08:31	19 CWD Survey (Vessel)	20 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 14:37 mid-flood: 09:31	21 Site Inspection	22 WQ General mid-ebb: 15:55 mid-flood: 10:33
23	24 Site Inspection CWD Survey (Land-based)	25 Site Inspection NM4, NM6 WQ General mid-ebb: 05:25 mid-flood: 12:21	26 AR1A, AR2 NM1A, NM5	27 Site Inspection WQ General mid-ebb: 08:03 mid-flood: 13:53	28 Site Inspection	29 WQ General mid-ebb: 11:04 mid-flood: 15:49
30	31 Site Inspection AR1A, AR2 NM1A, NM5	Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan				

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

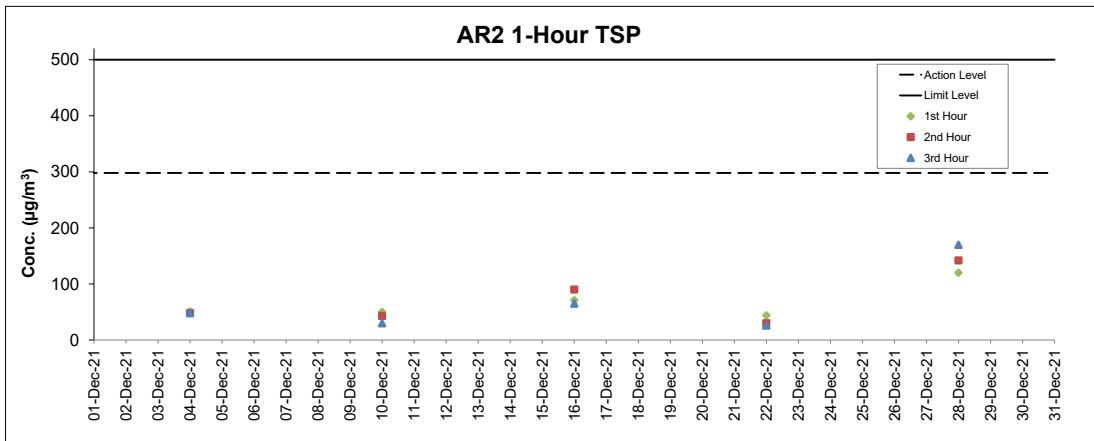
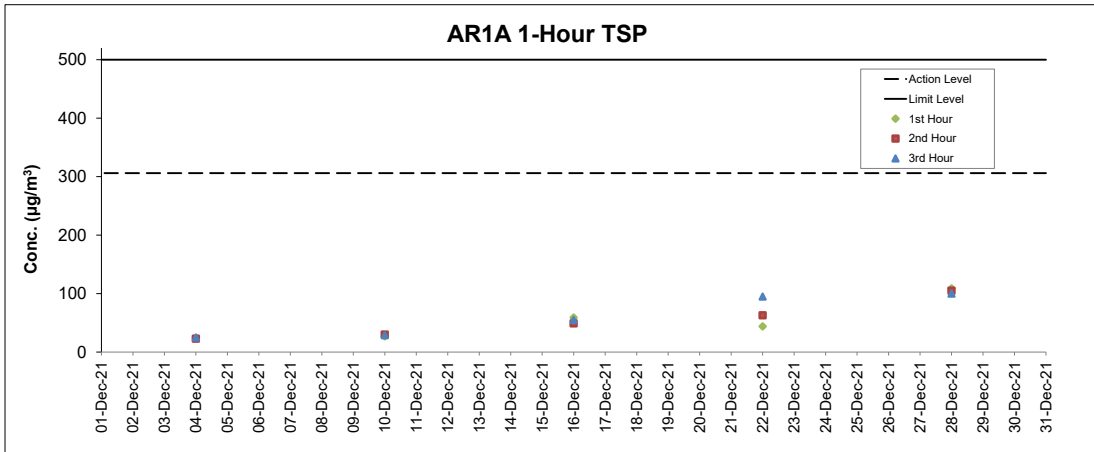
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
04-Dec-21	10:08	Sunny	2.8	54	24	306	500
04-Dec-21	11:08	Sunny	1.7	Variable	23	306	500
04-Dec-21	12:08	Sunny	4.7	344	25	306	500
10-Dec-21	12:57	Sunny	5.0	93	27	306	500
10-Dec-21	13:57	Sunny	6.7	125	30	306	500
10-Dec-21	14:57	Sunny	6.9	112	29	306	500
16-Dec-21	9:15	Sunny	6.7	88	59	306	500
16-Dec-21	10:15	Sunny	6.4	81	49	306	500
16-Dec-21	11:15	Sunny	7.2	84	55	306	500
22-Dec-21	12:55	Fine	2.8	316	44	306	500
22-Dec-21	13:55	Fine	3.3	307	63	306	500
22-Dec-21	14:55	Fine	2.5	290	95	306	500
28-Dec-21	7:45	Overcast	1.7	24	109	306	500
28-Dec-21	8:45	Overcast	2.2	31	105	306	500
28-Dec-21	9:45	Overcast	2.8	68	100	306	500

1-hour TSP Results

Station: AR2- Village House, Tin Sum

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
04-Dec-21	14:06	Sunny	4.4	343	51	298	500
04-Dec-21	15:06	Sunny	2.8	343	48	298	500
04-Dec-21	16:06	Sunny	2.5	304	48	298	500
10-Dec-21	8:47	Sunny	2.5	32	50	298	500
10-Dec-21	9:47	Sunny	2.2	319	43	298	500
10-Dec-21	10:47	Sunny	2.8	50	30	298	500
16-Dec-21	13:51	Sunny	5.3	86	71	298	500
16-Dec-21	14:51	Sunny	3.1	87	90	298	500
16-Dec-21	15:51	Sunny	4.4	91	65	298	500
22-Dec-21	8:47	Overcast	2.2	62	44	298	500
22-Dec-21	9:47	Overcast	4.4	55	30	298	500
22-Dec-21	10:47	Overcast	1.4	Variable	26	298	500
28-Dec-21	11:59	Fine	2.5	350	120	298	500
28-Dec-21	12:59	Fine	3.3	317	142	298	500
28-Dec-21	13:59	Fine	4.2	324	170	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) ^
10-Dec-21	Sunny	12:58	56.3	49.2	60
10-Dec-21	Sunny	13:03	59.0	50.5	
10-Dec-21	Sunny	13:08	61.2	51.0	
10-Dec-21	Sunny	13:13	57.9	51.1	
10-Dec-21	Sunny	13:18	62.6	53.0	
10-Dec-21	Sunny	13:23	58.2	50.7	
16-Dec-21	Sunny	10:55	67.3	56.2	63
16-Dec-21	Sunny	11:00	66.6	50.4	
16-Dec-21	Sunny	11:05	61.9	51.4	
16-Dec-21	Sunny	11:10	57.6	51.9	
16-Dec-21	Sunny	11:15	56.1	49.4	
16-Dec-21	Sunny	11:20	58.2	50.8	
22-Dec-21	Fine	12:57	58.3	49.4	60
22-Dec-21	Fine	13:02	62.6	50.1	
22-Dec-21	Fine	13:07	65.3	50.9	
22-Dec-21	Fine	13:12	57.8	50.6	
22-Dec-21	Fine	13:17	58.8	50.4	
22-Dec-21	Fine	13:22	57.8	51.0	
28-Dec-21	Overcast	07:46	60.1	51.3	60
28-Dec-21	Overcast	07:51	59.5	51.4	
28-Dec-21	Overcast	07:56	60.2	52.0	
28-Dec-21	Overcast	08:01	61.3	54.2	
28-Dec-21	Overcast	08:06	60.4	52.1	
28-Dec-21	Overcast	08:11	57.6	50.5	

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) ^
09-Dec-21	Sunny	13:56	64.6	55.4	66
09-Dec-21	Sunny	14:01	62.1	56.3	
09-Dec-21	Sunny	14:06	65.2	56.1	
09-Dec-21	Sunny	14:11	66.0	60.2	
09-Dec-21	Sunny	14:16	66.2	58.2	
09-Dec-21	Sunny	14:21	66.3	57.2	
14-Dec-21	Sunny	13:28	66.0	61.8	60*
14-Dec-21	Sunny	13:33	65.6	62.0	
14-Dec-21	Sunny	13:38	65.2	62.1	
14-Dec-21	Sunny	13:43	64.7	60.9	
14-Dec-21	Sunny	13:48	65.0	60.9	
14-Dec-21	Sunny	13:53	63.9	60.0	
23-Dec-21	Overcast	13:40	61.1	56.4	62
23-Dec-21	Overcast	13:45	59.9	54.9	
23-Dec-21	Overcast	13:50	62.7	57.1	
23-Dec-21	Overcast	13:55	60.9	55.8	
23-Dec-21	Overcast	14:00	60.8	56.1	
23-Dec-21	Overcast	14:05	60.0	55.9	
29-Dec-21	Sunny	13:41	59.9	55.3	61
29-Dec-21	Sunny	13:46	59.6	54.7	
29-Dec-21	Sunny	13:51	60.7	55.5	
29-Dec-21	Sunny	13:56	60.1	54.1	
29-Dec-21	Sunny	14:01	61.0	55.0	
29-Dec-21	Sunny	14:06	58.6	54.9	

Remarks:

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

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
10-Dec-21	Sunny	08:51	53.6	48.2	56
10-Dec-21	Sunny	08:56	51.3	47.5	
10-Dec-21	Sunny	09:01	58.7	48.6	
10-Dec-21	Sunny	09:06	57.4	48.7	
10-Dec-21	Sunny	09:11	52.0	47.8	
10-Dec-21	Sunny	09:16	52.2	47.9	
16-Dec-21	Sunny	14:37	58.7	48.1	59*
16-Dec-21	Sunny	14:42	54.2	48.5	
16-Dec-21	Sunny	14:47	51.1	48.0	
16-Dec-21	Sunny	14:52	52.3	47.1	
16-Dec-21	Sunny	14:57	53.4	47.3	
16-Dec-21	Sunny	15:02	61.5	48.2	
22-Dec-21	Overcast	08:53	52.4	46.4	55
22-Dec-21	Overcast	08:58	54.6	48.1	
22-Dec-21	Overcast	09:03	54.6	48.0	
22-Dec-21	Overcast	09:08	55.4	48.3	
22-Dec-21	Overcast	09:13	53.4	48.0	
22-Dec-21	Overcast	09:18	56.9	49.1	
28-Dec-21	Fine	12:01	51.5	44.8	53
28-Dec-21	Fine	12:06	54.1	46.4	
28-Dec-21	Fine	12:11	55.6	46.4	
28-Dec-21	Fine	12:16	55.8	46.0	
28-Dec-21	Fine	12:21	46.7	44.2	
28-Dec-21	Fine	12:26	48.6	44.3	

Remarks:

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

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

Noise Measurement Results

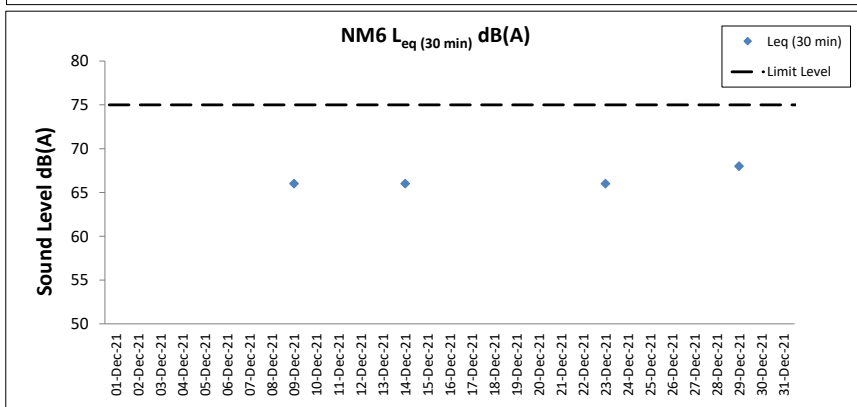
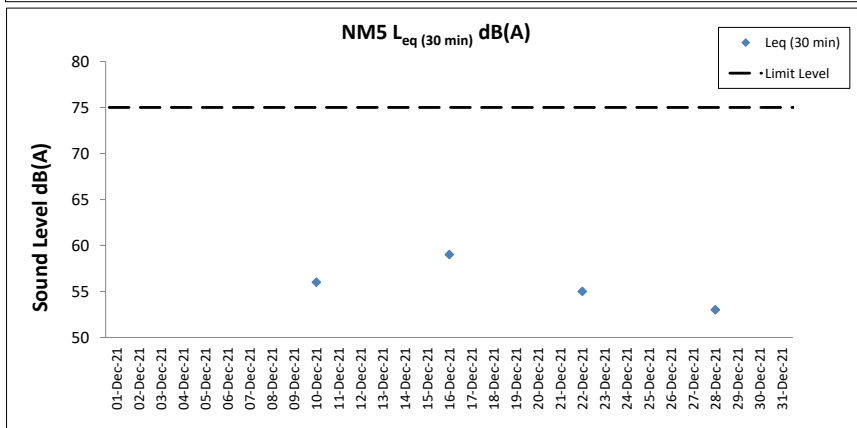
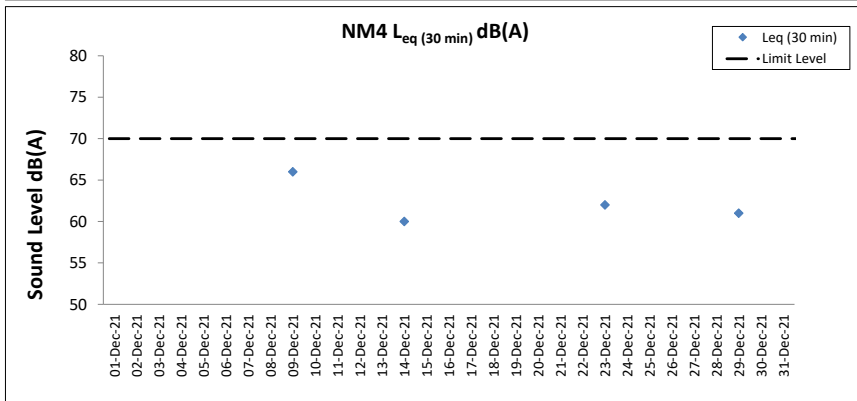
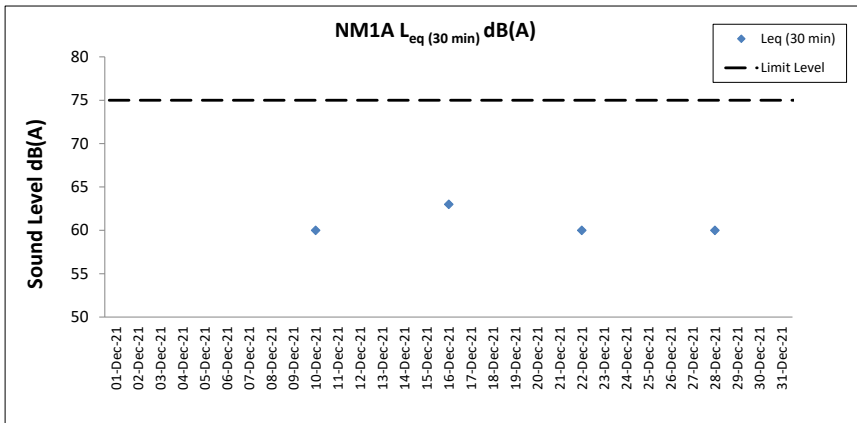
Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
09-Dec-21	Sunny	15:48	70.7	59.9	66*
09-Dec-21	Sunny	15:53	72.2	60.8	
09-Dec-21	Sunny	15:58	68.3	45.0	
09-Dec-21	Sunny	16:03	70.5	49.6	
09-Dec-21	Sunny	16:08	67.3	49.8	
09-Dec-21	Sunny	16:13	70.2	48.9	
14-Dec-21	Sunny	15:55	69.6	47.5	66*
14-Dec-21	Sunny	16:00	67.4	45.0	
14-Dec-21	Sunny	16:05	56.7	43.3	
14-Dec-21	Sunny	16:10	65.1	44.7	
14-Dec-21	Sunny	16:15	74.0	47.3	
14-Dec-21	Sunny	16:20	70.8	58.9	
23-Dec-21	Drizzle	15:54	68.8	47.5	66
23-Dec-21	Drizzle	15:59	57.3	44.1	
23-Dec-21	Drizzle	16:04	65.4	44.1	
23-Dec-21	Drizzle	16:09	61.3	51.1	
23-Dec-21	Drizzle	16:14	52.6	44.5	
23-Dec-21	Drizzle	16:19	60.9	48.4	
29-Dec-21	Sunny	16:01	71.0	51.4	68
29-Dec-21	Sunny	16:06	67.7	48.7	
29-Dec-21	Sunny	16:11	49.4	44.9	
29-Dec-21	Sunny	16:16	49.4	44.6	
29-Dec-21	Sunny	16:21	53.4	46.6	
29-Dec-21	Sunny	16:26	71.8	45.4	

Remarks:

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

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



Notes

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

Water Quality Monitoring Results

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

Water Quality Monitoring Results on 02 December 21 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	10:45	8.2	Surface	1.0	0.0	92	21.0	21.0	8.2	8.2	33.0	33.0	93.6	93.6	6.9	6.9	1.0	1.7	9	12	815623	804237								
						1.0	0.0	96	21.0		8.2	8.2	33.0	33.0	93.6	93.6	6.9		1.0													
						4.1	0.0	166	21.0		8.1	8.1	32.9	32.9	93.6	93.6	6.9		1.6													
					Middle	4.1	0.0	180	21.0	8.1	8.1	32.9	32.9	93.6	93.6	6.9	1.5															
						7.2	0.0	111	20.9	8.1	8.1	32.8	32.8	94.3	94.4	6.9	2.6															
						7.2	0.0	118	20.9	8.1	8.1	32.8	32.8	94.4	94.4	7.0	2.7															
					C2	Sunny	Rough	12:27	8.2	Surface	1.0	0.3	146	21.6	21.6	8.2	8.2	33.2	33.2	106.2	106.2				7.7	7.7	5.1	5.5	7	6	825668	806933
											1.0	0.3	148	21.6		8.2	8.2	33.2	33.2	106.2	106.2				7.7		5.1					
											4.1	0.2	138	21.4		8.2	8.2	33.2	33.2	106.9	107.0				7.8		5.2					
Middle	4.1	0.2	140	21.4						8.2	8.2	33.2	33.2	107.0	107.0	7.8	5.3															
	7.2	0.2	102	21.2						8.2	8.2	33.3	33.3	109.5	109.6	8.0	6.2															
	7.2	0.2	106	21.2						8.2	8.2	33.3	33.3	109.6	109.6	8.0	6.3															
C3	Sunny	Rough	10:20	11.8						Surface	1.0	0.2	207	22.6	22.6	8.1	8.1	33.8	33.8	94.2	94.2	6.7	6.8	4.9	5.3	6	7	822090	817819			
											1.0	0.3	220	22.6		8.1	8.1	33.8	33.8	95.1	95.1	6.8		4.9								
											5.9	0.2	229	22.6		8.1	8.1	33.8	33.8	95.1	95.1	6.8		5.4								
					Middle	5.9	0.2	236	22.6	8.1	8.1	33.8	33.8	95.1	95.1	6.8	5.4															
						10.8	0.2	243	22.5	8.1	8.1	33.8	33.8	96.7	96.8	6.9	5.8															
						10.8	0.3	260	22.5	8.1	8.1	33.8	33.8	96.8	96.8	6.9	5.8															
					IM1	Fine	Moderate	11:04	5.2	Surface	1.0	0.1	249	20.4	20.4	8.1	8.1	32.6	32.6	96.2	96.2	7.2	7.2	1.4	2.2	12				11	817967	807134
											1.0	0.1	260	20.4		8.1	8.1	32.6	32.6	96.2	96.2	7.2		1.5								
											-	-	-	-		-	-	-	-	-	-	-		-		-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-														
	4.2	0.1	153	20.4						8.1	8.1	32.5	32.5	96.4	96.5	7.2	2.9															
	4.2	0.1	167	20.4						8.1	8.1	32.5	32.5	96.6	96.6	7.2	2.9															
IM2	Fine	Moderate	11:11	7.0						Surface	1.0	0.0	190	20.7	20.7	8.2	8.2	32.8	32.8	96.4	96.4	7.1	7.0	2.1	3.2	9	8	818141	806151			
											1.0	0.0	190	20.7		8.2	8.2	32.8	32.8	96.3	96.3	7.1		2.2								
											3.5	0.1	180	20.9		8.1	8.1	33.0	33.0	93.8	93.9	6.9		3.4								
					Middle	3.5	0.1	194	20.9	8.1	8.1	33.0	33.0	93.9	93.9	6.9	3.3															
						6.0	0.1	83	20.9	8.1	8.1	32.9	32.9	95.3	95.4	7.0	4.1															
						6.0	0.1	89	20.9	8.1	8.1	32.9	32.9	95.5	95.5	7.0	4.1															
					IM3	Fine	Moderate	11:17	7.2	Surface	1.0	0.1	226	20.8	20.8	8.2	8.2	32.9	32.9	94.5	94.4	7.0	7.0	1.4	2.5	6				7	818781	805579
											1.0	0.1	247	20.8		8.2	8.2	32.9	32.9	94.3	94.3	7.0		1.5								
											3.6	0.0	254	20.9		8.1	8.1	33.0	33.0	94.1	94.3	6.9		2.6								
Middle	3.6	0.0	274	20.9						8.1	8.1	33.0	33.0	94.4	94.4	7.0	2.6															
	6.2	0.1	73	20.9						8.1	8.1	33.0	33.0	94.7	94.8	7.0	3.5															
	6.2	0.1	78	20.9						8.1	8.1	33.0	33.0	94.8	94.8	7.0	3.5															
IM4	Fine	Moderate	11:25	8.8						Surface	1.0	0.3	147	21.0	21.0	8.2	8.2	33.0	33.0	93.9	93.9	6.9	6.9	1.1	1.7	8	11	819738	804616			
											1.0	0.3	157	21.0		8.2	8.2	33.0	33.0	93.9	93.9	6.9		1.1								
											4.4	0.1	156	21.0		8.1	8.1	33.0	33.0	93.9	93.9	6.9		1.9								
					Middle	4.4	0.1	156	21.0	8.1	8.1	33.0	33.0	93.9	93.9	6.9	1.8															
						7.8	0.2	154	20.9	8.1	8.1	32.9	32.9	94.8	94.9	7.0	2.2															
						7.8	0.2	164	20.9	8.1	8.1	32.9	32.9	95.0	95.0	7.0	2.3															
					IM5	Fine	Moderate	11:33	8.2	Surface	1.0	0.2	199	20.6	20.6	8.2	8.2	32.6	32.6	95.9	95.8	7.1	7.1	1.1	2.5	13				10	820723	804850
											1.0	0.2	201	20.6		8.2	8.2	32.6	32.6	95.7	95.7	7.1		1.2								
											4.1	0.2	179	20.6		8.2	8.2	32.7	32.7	95.4	95.5	7.1		3.0								
Middle	4.1	0.2	179	20.7						8.2	8.2	32.7	32.7	95.6	95.6	7.1	2.9															
	7.2	0.2	183	20.7						8.1	8.1	32.7	32.6	96.1	96.3	7.1	3.3															
	7.2	0.2	200	20.7						8.1	8.1	32.6	32.6	96.5	96.5	7.2	3.3															
IM6	Fine	Moderate	11:41	7.2						Surface	1.0	0.1	205	20.7	20.7	8.2	8.2	32.2	32.2	97.1	97.0	7.2	7.1	1.1	1.6	5	5	821064	805843			
											1.0	0.1	216	20.7		8.2	8.2	32.3	32.2	96.8	96.8	7.2		1.0								
											3.6	0.1	210	20.6		8.2	8.2	32.3	32.3	94.8	94.8	7.1		1.8								
					Middle	3.6	0.1	220	20.6	8.2	8.2	32.3	32.3	94.7	94.7	7.0	1.7															
						6.2	0.2	175	20.6	8.1	8.1	32.3	32.3	95.3	95.5	7.1	2.1															
						6.2	0.2	178	20.6	8.1	8.1	32.3	32.3	95.6	95.6	7.1	2.1															
					IM7	Fine	Moderate	11:49	8.6	Surface	1.0	0.1	125	20.6	20.6	8.2	8.2	32.5	32.5	94.7	94.7	7.0	7.0	1.9	2.5	7				6	821366	806854
											1.0	0.1	136	20.6		8.2	8.2	32.5	32.5	94.6	94.6	7.0		1.8								
											4.3	0.2	109	20.5		8.2	8.2	32.6	32.6	94.1	94.1	7.0		2.6								
Middle	4.3	0.2	113	20.5						8.2	8.2	32.6	32.6	94.1	94.1	7.0	2.7															
	7.6	0.1	136	20.5						8.2	8.2	32.5	32.5	94.8	94.9	7.0	3.0															
	7.6	0.1	146	20.5						8.2	8.2	32.5	32.5	95.0	95.0	7.1	3.0															
IM8	Sunny	Moderate	12:00	7.8						Surface	1.0	0.3	67	21.5	21.5	8.2	8.2	33.3	33.3	105.1	105.1	7.6	7.6	4.3	5.2	8	7	821830	808151			
											1.0	0.3	67	21.5		8.2	8.2	33.3	33.3	105.0	105.0	7.6		4.3								
											3.9	0.2	72	21.3		8.2	8.2	33.4	33.4	104.0	104.0	7.6		5.2								
					Middle	3.9	0.2	74	21.3	8.2	8.2	33.4	33.4	104.0	104.0	7.6	5.2															
						6.8	0.3	74	21.1	8.2	8.2	33.6	33.6	102.9	103.0	7.5	6.1															
						6.8	0.3	76	21.1	8.2	8.2	33.6	33.6	103.0	103.0	7.5	6.2															

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 02 December 21 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				
IM9	Sunny	Moderate	11:54	7.1	Surface	1.0	0.3	91	21.4	21.4	8.2	8.2	33.2	33.2	104.9	104.9	7.6	7.6	3.2	8	8	822098	808802			
						1.0	0.3	96	21.4		8.2	8.2	33.2	33.2	104.9	104.9	7.6	7.6	3.2	9						
						3.6	0.4	83	21.4		8.2	8.2	33.2	33.2	104.5	104.5	7.6	7.6	4.8	8						
					Middle	3.6	0.4	89	21.4	21.4	8.2	8.2	33.2	33.2	104.5	104.5	7.6	7.6	4.9	7						
						6.1	0.3	82	21.3		8.2	8.2	33.2	33.2	104.5	104.5	7.6	7.6	5.8	7						
						6.1	0.3	86	21.3		8.2	8.2	33.2	33.2	104.5	104.5	7.6	7.6	5.8	7						
IM10	Sunny	Moderate	11:45	7.9	Surface	1.0	0.2	85	21.1	21.1	8.2	8.2	33.1	33.1	106.0	106.0	7.8	7.8	4.6	6	6	822388	809789			
						1.0	0.2	91	21.1		8.2	8.2	33.1	33.1	105.9	105.9	7.8	7.8	4.7	7						
						4.0	0.2	84	21.1		8.2	8.2	33.1	33.1	105.5	105.5	7.7	7.7	5.9	6						
					Middle	4.0	0.2	87	21.1	21.1	8.2	8.2	33.1	33.1	105.5	105.5	7.7	7.7	5.9	6						
						6.9	0.2	77	21.2		8.2	8.2	33.2	33.2	105.6	105.7	7.7	7.7	6.6	6						
						6.9	0.2	80	21.2		8.2	8.2	33.2	33.2	105.7	105.7	7.7	7.7	6.6	5						
IM11	Sunny	Moderate	11:35	8.2	Surface	1.0	0.1	128	22.1	22.1	8.2	8.2	33.5	33.5	101.0	101.0	7.3	7.3	5.3	5	6	822063	811441			
						1.0	0.1	129	22.1		8.2	8.2	33.5	33.5	101.0	101.0	7.3	7.3	5.3	5						
						4.1	0.1	124	22.1		8.2	8.2	33.5	33.5	101.0	101.0	7.3	7.3	5.5	6						
					Middle	4.1	0.1	125	22.1	22.1	8.2	8.2	33.5	33.5	101.0	101.0	7.3	7.3	5.6	6						
						7.2	0.1	104	22.1		8.2	8.2	33.6	33.6	101.2	101.3	7.3	7.3	5.5	6						
						7.2	0.1	108	22.1		8.2	8.2	33.6	33.6	101.3	101.3	7.3	7.3	5.5	6						
IM12	Sunny	Moderate	11:27	9.5	Surface	1.0	0.1	164	22.2	22.2	8.1	8.1	33.6	33.6	98.9	98.9	7.1	7.1	4.6	8	7	821459	812024			
						1.0	0.2	173	22.2		8.1	8.1	33.6	33.6	98.9	98.9	7.1	7.1	4.7	8						
						4.8	0.1	126	22.1		8.1	8.1	33.6	33.6	98.9	98.9	7.1	7.1	5.6	7						
					Middle	4.8	0.1	138	22.1	22.1	8.1	8.1	33.6	33.6	98.9	98.9	7.1	7.1	5.6	6						
						8.5	0.2	168	22.1		8.1	8.1	33.6	33.6	99.3	99.4	7.1	7.1	6.0	5						
						8.5	0.2	173	22.1		8.1	8.1	33.6	33.6	99.4	99.4	7.1	7.1	6.0	5						
SR1A	Sunny	Moderate	10:57	4.9	Surface	1.0	-	-	21.0	21.0	8.3	8.3	33.1	33.1	112.3	112.3	8.2	8.2	5.5	4	5	819973	812663			
						1.0	-	-	21.0		8.3	8.3	33.1	33.1	112.3	112.3	8.2	8.2	5.5	4						
						2.5	-	-	-		-	-	-	-	-	-	-	-	-	-				-		
					Middle	2.5	-	-	-	21.0	-	-	-	-	-	-	-	-	-	-				-	-	-
						3.9	-	-	21.0		8.3	8.3	33.1	33.1	112.2	112.3	8.3	8.3	5.7	5						
						3.9	-	-	21.0		8.3	8.3	33.1	33.1	112.4	112.4	8.3	8.3	5.7	5						
SR2	Sunny	Rough	10:42	5.7	Surface	1.0	0.2	319	22.2	22.2	8.1	8.1	33.6	33.6	96.5	96.5	6.9	6.9	5.4	6	6	821472	814168			
						1.0	0.2	320	22.2		8.1	8.1	33.6	33.6	96.5	96.5	6.9	6.9	5.5	6						
						-	-	-	-		-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	22.2	-	-	-	-	-	-	-	-	-	-				-	-	-
						4.7	0.2	320	22.2		8.1	8.1	33.7	33.7	96.8	96.9	6.9	7.0	9.1	6						
						4.7	0.2	327	22.2		8.1	8.1	33.7	33.7	97.0	97.0	7.0	7.0	9.1	7						
SR3	Sunny	Moderate	12:06	8.3	Surface	1.0	0.3	103	21.6	21.6	8.2	8.2	33.4	33.4	103.6	103.6	7.5	7.5	5.5	5	6	822157	807589			
						1.0	0.3	104	21.6		8.2	8.2	33.4	33.4	103.6	103.6	7.5	7.5	5.6	6						
						4.2	0.3	103	21.4		8.2	8.2	33.5	33.5	103.0	103.0	7.5	7.5	6.3	6						
					Middle	4.2	0.3	108	21.4	21.4	8.2	8.2	33.5	33.5	103.0	103.0	7.5	7.5	6.3	6						
						7.3	0.4	85	21.2		8.2	8.2	33.7	33.7	102.6	102.7	7.5	7.5	7.6	6						
						7.3	0.4	85	21.2		8.2	8.2	33.7	33.7	102.7	102.7	7.5	7.5	7.7	6						
SR4A	Fine	Moderate	10:25	10.0	Surface	1.0	0.3	97	20.5	20.5	8.2	8.2	32.8	32.8	95.0	95.0	7.1	7.1	1.1	10	10	817197	807799			
						1.0	0.4	98	20.5		8.2	8.2	32.8	32.8	95.0	95.0	7.0	7.0	1.0	10						
						5.0	0.3	98	20.5		8.1	8.1	32.8	32.8	94.4	94.4	7.0	7.0	1.4	10						
					Middle	5.0	0.4	100	20.5	20.5	8.1	8.1	32.8	32.8	94.4	94.4	7.0	7.0	1.5	10						
						9.0	0.3	84	20.5		8.1	8.1	32.8	32.8	94.2	94.2	7.0	7.0	2.7	9						
						9.0	0.3	84	20.5		8.1	8.1	32.8	32.8	94.2	94.2	7.0	7.0	2.6	9						
SR5A	Fine	Moderate	10:07	5.4	Surface	1.0	0.1	287	20.3	20.3	8.1	8.1	32.3	32.3	99.1	99.1	7.4	7.4	3.1	8	9	816607	810673			
						1.0	0.1	288	20.3		8.1	8.1	32.3	32.3	99.1	99.1	7.4	7.4	3.1	8						
						-	-	-	-		-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	20.2	-	-	-	-	-	-	-	-	-	-				-	-	-
						4.4	0.1	200	20.2		8.1	8.1	32.2	32.2	98.8	98.9	7.4	7.4	4.1	10						
						4.4	0.1	202	20.2		8.1	8.1	32.2	32.2	98.9	98.9	7.4	7.4	4.2	10						
SR6A	Fine	Moderate	09:31	5.0	Surface	1.0	0.1	296	20.2	20.2	8.1	8.1	32.2	32.2	98.6	98.6	7.4	7.4	1.9	9	9	817959	814758			
						1.0	0.1	310	20.1		8.1	8.1	32.2	32.2	98.5	98.5	7.4	7.4	1.9	9						
						-	-	-	-		-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	20.1	-	-	-	-	-	-	-	-	-	-				-	-	-
						4.0	0.1	152	20.1		8.1	8.1	32.1	32.1	98.5	98.6	7.4	7.4	2.4	9						
						4.0	0.1	154	20.1		8.1	8.1	32.1	32.1	98.6	98.6	7.4	7.4	2.4	10						
SR7	Sunny	Rough	09:46	17.9	Surface	1.0	0.2	82	22.6	22.6	8.0	8.0	33.8	33.8	92.5	92.5	6.6	6.6	4.7	5	6	823623	823755			
						1.0	0.2	90	22.6		8.0	8.0	33.8	33.8	92.5	92.5	6.6	6.6	4.6	6						
						9.0	0.2	81	22.6		8.0	8.0	33.8	33.8	92.6	92.6	6.6	6.6	5.0	6						
					Middle	9.0	0.2	83	22.6	22.6	8.0	8.0	33.8	33.8	92.6	92.6	6.6	6.6	5.0	6						
						16.9	0.1	57	22.5		8.0	8.0	33.8	33.8	93.5	93.5	6.7	6.7	6.9	7						
						16.9	0.1	61	22.5		8.0	8.0	33.8	33.8	93.5	93.5	6.7	6.7	6.9	6						
SR8	Sunny	Moderate	11:19	4.7	Surface	1.0	-	-	21.7	21.7	8.2	8.2	33.0	33.0	109.4	109.4	7.9	7.9	5.0	6	6	820390	811599			
						1.0	-	-	21.7		8.2	8.2	33.0	33.0	109.4	109.4	7.9	7.9	5.0	7						
						-	-	-	-		-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	21.5	-	-	-	-	-	-	-	-	-	-				-	-	-
						3.7	-	-	21.5		8.2	8.2	33.3	33.3	109.5	109.5	8.0	8.0	5.0	6						
						3.7	-	-	21.5		8.2	8.2	33.3	33.3	109.5	109.5	8.0	8.0	5.0	5						

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: While 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 December 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA
C1	Fine	Moderate	16:22	8.4	Surface	1.0	0.4	37	21.1	21.1	8.2	8.2	33.0	33.0	93.8	93.7	6.9	6.9	1.3	2.5	12	10	815615	804234		
						1.0	0.4	40	21.1		8.2	8.2	33.0	33.0	93.6	93.6	6.9		1.3							
						4.2	0.4	34	21.1		8.2	8.2	33.0	33.0	92.9	92.9	6.8		2.8							
					Middle	4.2	0.4	34	21.1	8.2	8.2	33.0	33.0	92.8	92.8	6.8	2.7									
						7.4	0.4	28	21.1	8.1	8.1	32.9	32.9	79.2	79.2	5.8	3.3									
						7.4	0.5	29	21.1	8.1	8.1	32.9	32.9	73.0	73.0	5.4	3.4									
C2	Sunny	Rough	15:19	8.1	Surface	1.0	0.4	33	22.0	22.1	8.2	8.2	33.2	33.2	109.8	109.7	7.9	7.9	4.6	5.2	4	5	825691	806953		
						1.0	0.4	35	22.1		8.2	8.2	33.2	33.2	109.6	109.6	7.9		4.7							
						4.1	0.4	35	22.2		8.1	8.1	33.3	33.3	102.4	102.4	7.4		5.2							
					Middle	4.1	0.4	36	22.2	8.1	8.1	33.4	33.4	102.3	102.3	7.4	5.3									
						7.1	0.5	38	22.2	8.1	8.1	33.5	33.5	99.9	99.9	7.2	5.8									
						7.1	0.5	40	22.2	8.1	8.1	33.5	33.5	99.9	99.9	7.2	5.8									
C3	Fine	Rough	17:19	12.8	Surface	1.0	0.5	264	22.6	22.6	8.1	8.1	33.8	33.8	94.0	94.0	6.7	6.7	6.1	6.5	8	8	822116	817826		
						1.0	0.5	289	22.6		8.1	8.1	33.8	33.8	94.0	94.0	6.7		6.1							
						6.4	0.5	270	22.6		8.1	8.1	33.8	33.8	93.9	93.9	6.7		8.9							
					Middle	6.4	0.5	292	22.6	8.1	8.1	33.8	33.8	93.9	93.9	6.7	8.9									
						11.8	0.5	274	22.6	8.1	8.1	33.8	33.8	94.0	94.0	6.7	4.4									
						11.8	0.5	274	22.6	8.1	8.1	33.8	33.8	94.0	94.0	6.7	4.4									
IM1	Fine	Moderate	16:01	5.0	Surface	1.0	0.2	311	20.7	20.7	8.2	8.2	32.6	32.6	106.1	106.0	7.9	7.9	3.0	3.9	13	11	817962	807121		
						1.0	0.2	313	20.7		8.2	8.2	32.6	32.6	105.8	105.8	7.8		3.1							
						-	-	-	-		-	-	-	-	-	-	-		-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-									
						4.0	0.1	279	20.7	8.2	8.2	32.6	32.6	105.3	105.4	7.8	4.8									
						4.0	0.1	297	20.7	8.2	8.2	32.6	32.6	105.5	105.5	7.8	4.7									
IM2	Fine	Moderate	15:55	6.4	Surface	1.0	0.3	9	20.9	20.9	8.2	8.2	32.7	32.7	98.0	98.0	7.2	7.2	1.8	2.4	7	9	818160	806166		
						1.0	0.3	9	20.9		8.2	8.2	32.7	32.7	98.0	98.0	7.2		1.8							
						3.2	0.3	18	20.9		8.2	8.2	32.7	32.7	98.1	98.2	7.2		2.1							
					Middle	3.2	0.3	19	20.9	8.2	8.2	32.7	32.7	98.2	98.2	7.2	2.1									
						5.4	0.2	29	20.9	8.1	8.1	32.7	32.7	98.3	98.4	7.3	3.3									
						5.4	0.2	29	20.9	8.1	8.1	32.7	32.7	98.4	98.4	7.3	3.3									
IM3	Fine	Moderate	15:49	7.0	Surface	1.0	0.3	3	20.8	20.8	8.2	8.2	32.8	32.8	96.3	96.2	7.1	7.1	1.1	1.5	11	8	818783	805605		
						1.0	0.3	3	20.8		8.2	8.2	32.8	32.8	96.1	96.1	7.1		1.0							
						3.5	0.4	352	20.9		8.2	8.2	32.9	32.9	95.5	95.5	7.0		1.1							
					Middle	3.5	0.4	355	20.9	8.2	8.2	32.9	32.9	95.5	95.5	7.0	1.2									
						6.0	0.4	349	20.9	8.2	8.1	32.9	32.9	95.5	95.6	7.0	2.4									
						6.0	0.4	354	20.9	8.1	8.1	32.9	32.9	95.6	95.6	7.1	2.3									
IM4	Fine	Moderate	15:40	8.2	Surface	1.0	0.2	308	20.7	20.7	8.2	8.2	32.5	32.5	96.0	96.0	7.1	7.1	3.0	4.3	7	8	819747	804594		
						1.0	0.3	317	20.7		8.2	8.2	32.5	32.5	95.9	95.9	7.1		3.1							
						4.1	0.3	317	20.7		8.2	8.2	32.6	32.6	95.3	95.3	7.1		4.7							
					Middle	4.1	0.3	337	20.7	8.2	8.2	32.6	32.6	95.3	95.3	7.1	4.7									
						7.2	0.2	10	20.7	8.1	8.1	32.6	32.6	95.7	95.9	7.1	5.3									
						7.2	0.2	10	20.7	8.1	8.1	32.6	32.6	96.0	96.0	7.1	5.2									
IM5	Fine	Moderate	15:32	8.0	Surface	1.0	0.3	14	20.6	20.6	8.2	8.2	32.5	32.5	102.7	102.6	7.6	7.6	1.7	2.5	8	6	820753	804869		
						1.0	0.3	14	20.6		8.2	8.2	32.5	32.5	102.5	102.5	7.6		1.6							
						4.0	0.3	13	20.7		8.2	8.2	32.5	32.5	101.8	101.8	7.6		2.2							
					Middle	4.0	0.3	13	20.7	8.2	8.2	32.5	32.5	101.8	101.8	7.6	2.2									
						7.0	0.3	12	20.7	8.1	8.1	32.5	32.5	101.6	101.6	7.5	3.8									
						7.0	0.3	12	20.7	8.1	8.1	32.5	32.5	101.6	101.6	7.5	3.8									
IM6	Fine	Moderate	15:25	6.4	Surface	1.0	0.1	200	20.9	20.9	8.2	8.2	32.2	32.2	101.0	101.0	7.5	7.5	1.5	2.5	11	10	821059	805828		
						1.0	0.1	204	20.9		8.2	8.2	32.2	32.2	100.9	100.9	7.5		1.5							
						3.2	0.0	210	20.8		8.2	8.2	32.3	32.3	99.9	100.0	7.4		2.3							
					Middle	3.2	0.0	213	20.8	8.2	8.2	32.3	32.3	100.0	100.0	7.4	2.4									
						5.4	0.1	282	20.9	8.2	8.2	32.2	32.2	100.5	100.6	7.4	3.6									
						5.4	0.1	306	20.9	8.2	8.2	32.2	32.2	100.6	100.6	7.4	3.6									
IM7	Fine	Moderate	15:19	8.0	Surface	1.0	0.4	255	20.8	20.8	8.2	8.2	32.2	32.2	99.8	99.7	7.4	7.4	1.1	1.5	9	8	821358	806843		
						1.0	0.4	256	20.8		8.2	8.2	32.2	32.2	99.6	99.6	7.4		1.1							
						4.0	0.4	259	20.8		8.2	8.2	32.2	32.2	99.0	99.0	7.3		1.3							
					Middle	4.0	0.4	267	20.8	8.2	8.2	32.2	32.2	98.9	98.9	7.3	1.3									
						7.0	0.3	276	20.8	8.2	8.2	32.2	32.2	99.4	99.5	7.4	2.2									
						7.0	0.3	284	20.8	8.2	8.2	32.2	32.2	99.5	99.5	7.4	2.2									
IM8	Sunny	Moderate	15:41	7.8	Surface	1.0	0.3	242	21.4	21.4	8.2	8.2	33.3	33.3	110.4	110.4	8.0	8.0	4.7	5.5	7	6	821848	808135		
						1.0	0.3	243	21.4		8.2	8.2	33.3	33.3	110.4	110.4	8.0		4.6							
						3.9	0.3	253	21.4		8.2	8.2	33.3	33.3	110.1	110.1	8.0		5.1							
					Middle	3.9	0.3	274	21.4	8.2	8.2	33.3	33.3	110.1	110.1	8.0	5.2									
						6.8	0.2	240	21.4	8.2	8.2	33.3	33.3	110.3	110.3	8.0	6.5									
						6.8	0.2	254	21.4	8.2	8.2	33.3	33.3	110.3	110.3	8.0	6.6									

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 02 December 21 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		
IM9	Sunny	Moderate	15:46	7.3	Surface	1.0	0.4	233	21.3	21.3	8.2	8.2	33.3	33.3	105.5	105.5	7.7	7.7	4.3	6	5	822088	808827	
						1.0	0.4	233	21.3	8.2	8.2	33.3	33.3	105.5	105.5	7.7	7.7	4.3	6					
						3.7	0.4	245	21.3	8.2	8.2	33.3	33.3	105.7	105.8	7.7	7.7	6.0	5					
					Middle	3.7	0.4	266	21.3	21.3	8.2	8.2	33.3	33.3	105.8	105.8	7.7	7.7	6.0	5				
						6.3	0.4	247	21.3	21.3	8.2	8.2	33.3	33.3	106.3	106.3	7.8	7.8	7.4	5				
						6.3	0.4	260	21.3	21.3	8.2	8.2	33.3	33.3	106.3	106.3	7.8	7.8	7.4	4				
IM10	Sunny	Rough	15:54	7.9	Surface	1.0	0.6	273	21.4	21.4	8.2	8.2	33.4	33.4	112.1	112.1	8.2	8.2	4.7	4	4	822402	809808	
						1.0	0.6	280	21.4	21.4	8.2	8.2	33.4	33.4	112.1	112.1	8.2	8.2	4.7	4				
						4.0	0.6	268	21.4	21.4	8.2	8.2	33.4	33.4	110.8	110.8	8.1	8.1	5.9	4				
					Middle	4.0	0.6	286	21.4	21.4	8.2	8.2	33.4	33.4	110.7	110.7	8.1	8.1	6.0	5				
						6.9	0.6	277	21.4	21.4	8.2	8.2	33.4	33.4	110.0	110.1	8.0	8.0	6.3	5				
						6.9	0.6	283	21.4	21.4	8.2	8.2	33.4	33.4	110.1	110.1	8.0	8.0	6.3	4				
IM11	Sunny	Rough	16:06	8.7	Surface	1.0	0.6	306	21.5	21.5	8.2	8.2	33.3	33.3	108.7	108.7	7.9	7.9	5.2	4	4	822062	811480	
						1.0	0.7	307	21.5	21.5	8.2	8.2	33.3	33.3	108.7	108.7	7.9	7.9	5.3	4				
						4.4	0.6	304	21.5	21.5	8.2	8.2	33.4	33.4	107.2	107.2	7.8	7.8	6.1	4				
					Middle	4.4	0.6	320	21.5	21.5	8.2	8.2	33.4	33.4	107.1	107.1	7.8	7.8	6.1	4				
						7.7	0.5	316	21.5	21.5	8.2	8.2	33.4	33.4	107.1	107.1	7.8	7.8	7.6	4				
						7.7	0.5	334	21.5	21.5	8.2	8.2	33.4	33.4	107.1	107.1	7.8	7.8	7.7	4				
IM12	Sunny	Rough	16:13	7.9	Surface	1.0	0.7	296	22.1	22.1	8.2	8.2	33.5	33.5	108.0	108.0	7.8	7.8	4.1	4	5	821451	812022	
						1.0	0.7	325	22.1	22.1	8.2	8.2	33.5	33.5	108.0	108.0	7.8	7.8	4.2	5				
						4.0	0.6	295	22.1	22.1	8.2	8.2	33.5	33.5	107.9	107.9	7.8	7.8	5.8	5				
					Middle	4.0	0.6	317	22.1	22.1	8.2	8.2	33.5	33.5	107.9	107.9	7.8	7.8	5.8	5				
						6.9	0.6	295	22.0	22.0	8.2	8.2	33.5	33.5	108.3	108.3	7.8	7.8	6.8	6				
						6.9	0.6	295	22.0	22.0	8.2	8.2	33.5	33.5	108.3	108.3	7.8	7.8	6.8	5				
SR1A	Sunny	Moderate	16:42	3.5	Surface	1.0	-	-	21.6	21.6	8.3	8.3	33.2	33.2	122.0	122.0	8.9	8.9	5.7	7	7	819975	812655	
						1.0	-	-	21.6	21.6	8.3	8.3	33.2	33.2	121.9	121.9	8.9	8.9	5.7	7				
						1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
					Middle	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						2.5	-	-	21.6	21.6	8.2	8.2	33.2	33.2	121.4	121.4	8.8	8.8	4.8	6				
						2.5	-	-	21.6	21.6	8.2	8.2	33.2	33.2	121.4	121.4	8.8	8.8	4.8	7				
SR2	Fine	Rough	16:56	4.8	Surface	1.0	0.3	329	22.2	22.2	8.2	8.2	33.6	33.6	106.5	106.5	7.6	7.6	5.3	5	5	821472	814144	
						1.0	0.3	332	22.2	22.2	8.2	8.2	33.6	33.6	106.5	106.5	7.6	7.6	5.3	5				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						3.8	0.3	333	22.2	22.2	8.2	8.2	33.6	33.6	106.5	106.5	7.6	7.6	6.2	4				
						3.8	0.3	355	22.2	22.2	8.2	8.2	33.6	33.6	106.5	106.5	7.6	7.6	6.2	4				
SR3	Sunny	Moderate	15:36	7.9	Surface	1.0	0.2	251	21.6	21.6	8.2	8.2	33.2	33.2	110.2	110.2	8.0	8.0	5.0	5	5	822164	807569	
						1.0	0.2	266	21.6	21.6	8.2	8.2	33.2	33.2	110.2	110.2	8.0	8.0	5.1	6				
						4.0	0.2	253	21.6	21.6	8.2	8.2	33.2	33.2	110.3	110.3	8.0	8.0	5.8	5				
					Middle	4.0	0.3	255	21.6	21.6	8.2	8.2	33.2	33.2	110.3	110.3	8.0	8.0	5.8	5				
						6.9	0.3	251	21.5	21.5	8.2	8.2	33.2	33.2	111.1	111.1	8.1	8.1	6.0	4				
						6.9	0.3	270	21.5	21.5	8.2	8.2	33.2	33.2	111.1	111.1	8.1	8.1	6.0	4				
SR4A	Fine	Moderate	16:40	9.8	Surface	1.0	0.2	68	20.7	20.7	8.2	8.2	32.4	32.4	103.6	103.6	7.7	7.7	1.3	10	9	817211	807825	
						1.0	0.2	71	20.7	20.7	8.2	8.2	32.4	32.4	103.5	103.5	7.7	7.7	1.2	10				
						4.9	0.1	47	20.7	20.7	8.2	8.2	32.4	32.4	103.4	103.4	7.7	7.7	2.0	9				
					Middle	4.9	0.1	47	20.7	20.7	8.2	8.2	32.4	32.4	103.4	103.4	7.7	7.7	2.0	8				
						8.8	0.2	59	20.7	20.7	8.2	8.2	32.4	32.4	102.8	102.8	7.6	7.6	3.6	8				
						8.8	0.2	60	20.7	20.7	8.2	8.2	32.4	32.4	102.7	102.7	7.6	7.6	3.6	8				
SR5A	Fine	Moderate	16:56	5.4	Surface	1.0	0.2	313	20.8	20.8	8.2	8.2	32.1	32.1	107.7	107.6	8.0	8.0	3.8	9	9	816603	810687	
						1.0	0.2	337	20.7	20.7	8.2	8.2	32.1	32.1	107.5	107.5	8.0	8.0	3.7	8				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.4	0.1	319	20.7	20.7	8.2	8.2	32.0	32.0	105.6	105.4	7.8	7.8	4.3	10				
						4.4	0.2	323	20.7	20.7	8.2	8.2	32.0	32.0	105.2	105.2	7.8	7.8	4.4	9				
SR6A	Fine	Moderate	17:22	4.2	Surface	1.0	0.0	287	20.8	20.8	8.3	8.2	32.2	32.2	109.4	109.4	8.1	8.1	1.2	14	15	817959	814748	
						1.0	0.0	314	20.8	20.8	8.2	8.2	32.2	32.2	109.3	109.3	8.1	8.1	1.2	15				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						3.2	0.1	5	20.8	20.8	8.2	8.2	32.2	32.2	109.1	109.1	8.1	8.1	2.3	15				
						3.2	0.1	5	20.8	20.8	8.2	8.2	32.2	32.2	109.0	109.0	8.1	8.1	2.2	16				
SR7	Fine	Rough	17:57	15.4	Surface	1.0	0.3	60	22.6	22.6	8.1	8.1	33.8	33.8	93.4	93.4	6.6	6.6	4.4	4	5	823635	823728	
						1.0	0.3	65	22.6	22.6	8.1	8.1	33.8	33.8	93.4	93.4	6.7	6.7	4.4	4				
						7.7	0.2	52	22.6	22.6	8.1	8.1	33.9	33.9	93.7	93.7	6.7	6.7	5.5	4				
					Middle	7.7	0.2	55	22.6	22.6	8.1	8.1	33.9	33.9	93.7	93.7	6.7	6.7	5.5	4				
						14.4	0.3	29	22.5	22.5	8.1	8.1	33.9	33.9	94.7	94.8	6.7	6.7	6.2	6				
						14.4	0.3	30	22.5	22.5	8.1	8.1	33.9	33.9	94.8	94.8	6.7	6.7	6.2	6				
SR8	Sunny	Moderate	16:21	3.7	Surface	1.0	-	-	21.6	21.6	8.2	8.2	33.3	33.3	113.4	113.4	8.2	8.2	5.6	4	5	820409	811608	
						1.0	-	-	21.6	21.6	8.2	8.2	33.3	33.3	113.3	113.3	8.2	8.2	5.6	4				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						2.7	-	-	21.5	21.5	8.2	8.2	33.3	33.3	113.0	113.1	8.2	8.2	6.5	5				
						2.7	-	-	21.5	21.5	8.2	8.2	33.3	33.3	113.1	113.1	8.2	8.2	6.5	5				

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

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

Water Quality Monitoring Results on 04 December 21 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	Calm	12:19	8.8	Surface	1.0	0.0	137	21.0	21.0	8.1	8.1	34.0	34.0	94.4	94.2	6.9	6.9	8.1	9.2	11	12	815600	804249								
						1.0	0.0	139	21.0	8.1	8.1	34.0	34.0	94.0	93.9	6.9	6.9	8.1	9.2	10												
						4.4	0.2	164	21.0	8.1	8.1	34.0	34.0	93.0	92.9	6.8	6.8	9.1	11													
					Middle	4.4	0.2	173	21.0	8.1	8.1	34.0	34.0	92.9	92.9	6.8	6.8	9.1	11													
						7.8	0.1	179	20.9	8.1	8.1	34.0	34.0	90.7	90.5	6.6	6.6	10.3	13													
						7.8	0.1	193	20.9	8.1	8.1	34.0	34.0	90.2	90.2	6.6	6.6	10.4	13													
					C2	Cloudy	Moderate	11:16	11.8	Surface	1.0	1.3	175	20.0	20.0	8.2	8.2	32.8	32.8	98.6	98.5				7.4	7.4	8.7	9.2	9	10	825668	806936
											1.0	1.3	179	20.0	8.2	8.2	32.8	32.8	98.4	98.9	7.4				7.4	8.9	9					
											5.9	1.2	177	19.9	8.1	8.1	32.8	32.8	98.8	99.0	7.4				7.4	9.6	9					
Middle	5.9	1.2	179	19.9						8.1	8.1	32.8	32.8	99.0	99.0	7.4	7.4	9.6	9													
	10.8	1.0	168	19.9						8.1	8.1	32.8	32.8	100.3	100.4	7.5	7.5	9.2	10													
	10.8	1.0	168	19.9						8.1	8.1	32.8	32.8	100.5	100.5	7.5	7.5	9.2	11													
C3	Cloudy	Moderate	13:04	10.8						Surface	1.0	0.6	86	21.5	21.5	8.2	8.2	32.9	32.9	90.7	90.7	6.6	6.6	4.3	5.0	8	7	822101	817811			
											1.0	0.6	92	21.5	8.2	8.2	32.9	32.9	90.7	92.0	6.6	6.7	4.4	6								
											5.4	0.4	102	21.4	8.1	8.1	32.9	32.9	91.8	92.1	6.7	6.7	5.1	6								
					Middle	5.4	0.4	102	21.4	8.1	8.1	32.9	32.9	92.1	92.1	6.7	6.7	5.1	6													
						9.8	0.4	123	21.3	8.1	8.1	32.9	32.9	96.0	96.2	7.0	7.0	5.5	5													
						9.8	0.4	126	21.3	8.1	8.1	32.9	32.9	96.3	96.3	7.0	7.0	5.4	6													
					IM1	Fine	Calm	11:58	5.0	Surface	1.0	0.1	200	20.6	20.6	8.2	8.2	33.9	33.9	98.2	98.1	7.2	7.2	4.4	5.2	11				12	817947	807134
											1.0	0.1	216	20.6	8.2	8.2	33.9	33.9	97.9	97.9	7.2	7.2	4.5	11								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	4.0	0.1	197	20.5						8.2	8.2	33.9	33.9	88.4	88.0	6.5	6.5	5.9	12													
	4.0	0.1	209	20.5						8.2	8.2	33.9	33.9	87.5	87.5	6.5	6.5	5.9	12													
IM2	Fine	Calm	11:51	7.0						Surface	1.0	0.0	14	20.8	20.8	8.1	8.1	33.9	33.9	97.5	97.4	7.2	7.2	8.1	9.5	10	11	818173	806161			
											1.0	0.0	14	20.8	8.1	8.1	33.9	33.9	97.2	97.2	7.1	7.1	8.1	10								
											3.5	0.0	326	20.7	8.1	8.1	33.9	33.9	95.6	95.6	7.0	7.0	9.4	11								
					Middle	3.5	0.0	351	20.7	8.1	8.1	33.9	33.9	95.6	95.6	7.0	7.0	9.5	11													
						6.0	0.1	178	20.8	8.1	8.1	33.8	33.8	89.3	89.1	6.6	6.6	10.9	12													
						6.0	0.1	191	20.9	8.1	8.1	33.8	33.8	88.8	88.8	6.5	6.5	10.8	12													
					IM3	Fine	Calm	11:45	7.2	Surface	1.0	0.0	292	20.8	20.8	8.1	8.1	33.9	33.9	97.6	97.5	7.2	7.2	9.0	9.6	10				11	818786	805574
											1.0	0.0	294	20.8	8.1	8.1	34.0	34.0	97.4	97.4	7.2	7.2	8.9	10								
											3.6	0.1	359	20.7	8.1	8.1	34.0	34.0	96.3	96.2	7.1	7.1	9.9	11								
Middle	3.6	0.1	330	20.7						8.1	8.1	34.0	34.0	96.1	96.1	7.1	7.1	9.9	10													
	6.2	0.0	164	20.7						8.1	8.1	34.0	33.9	91.2	91.1	6.7	6.7	10.0	12													
	6.2	0.0	179	20.7						8.1	8.1	33.9	33.9	91.0	91.0	6.7	6.7	10.1	12													
IM4	Fine	Calm	11:36	9.0						Surface	1.0	0.1	2	20.8	20.8	8.1	8.1	34.0	34.0	95.9	95.8	7.0	7.0	7.9	8.5	11	9	819708	804605			
											1.0	0.1	2	20.8	8.1	8.1	34.0	34.0	95.6	95.6	7.0	6.9	7.9	8								
											4.5	0.1	289	20.7	8.1	8.1	33.9	33.9	93.4	93.2	6.9	6.9	8.2	10								
					Middle	4.5	0.1	299	20.7	8.1	8.1	33.9	33.9	93.0	93.0	6.8	6.8	8.1	9													
						8.0	0.1	302	20.7	8.1	8.1	34.0	34.0	92.0	91.9	6.8	6.8	9.7	8													
						8.0	0.1	303	20.7	8.1	8.1	34.0	34.0	91.7	91.7	6.7	6.7	9.6	8													
					IM5	Fine	Calm	11:26	8.4	Surface	1.0	0.1	346	20.7	20.7	8.1	8.1	34.0	34.0	96.6	96.5	7.1	7.1	8.6	9.3	8				8	820722	804861
											1.0	0.2	318	20.7	8.1	8.1	34.0	34.0	96.3	96.3	7.1	7.1	8.5	8								
											4.2	0.2	351	20.6	8.1	8.1	34.0	34.0	94.9	94.8	7.0	7.0	9.2	8								
Middle	4.2	0.2	323	20.6						8.1	8.1	34.0	34.0	94.6	94.6	7.0	7.0	9.2	8													
	7.4	0.1	338	20.7						8.1	8.1	34.0	34.0	93.1	93.1	6.9	6.9	10.0	8													
	7.4	0.1	311	20.7						8.1	8.1	34.0	34.0	93.0	93.0	6.8	6.8	10.1	9													
IM6	Fine	Calm	11:18	7.6						Surface	1.0	0.2	222	20.7	20.7	8.2	8.2	33.7	33.7	101.7	101.7	7.5	7.5	4.9	5.4	9	8	821051	805836			
											1.0	0.2	237	20.7	8.2	8.2	33.7	33.7	101.7	101.7	7.5	7.3	5.0	9								
											3.8	0.2	211	20.6	8.1	8.1	33.8	33.8	96.8	96.7	7.1	7.1	5.1	8								
					Middle	3.8	0.2	229	20.6	8.1	8.1	33.8	33.8	96.6	96.6	7.1	7.1	5.1	8													
						6.6	0.2	198	20.6	8.1	8.1	33.8	33.7	95.3	95.3	7.0	7.0	6.2	7													
						6.6	0.3	204	20.6	8.1	8.1	33.7	33.7	95.2	95.2	7.0	7.0	6.2	8													
					IM7	Fine	Calm	11:16	9.0	Surface	1.0	0.1	321	20.6	20.6	8.2	8.2	33.8	33.8	100.3	100.2	7.4	7.4	7.0	8.6	7				8	821343	806840
											1.0	0.1	352	20.6	8.2	8.2	33.8	33.8	100.1	100.1	7.4	7.3	7.1	7								
											4.5	0.1	271	20.4	8.2	8.2	33.8	33.8	97.0	96.9	7.2	7.2	8.9	8								
Middle	4.5	0.1	278	20.4						8.2	8.2	33.8	33.8	96.8	96.8	7.2	7.2	8.8	8													
	8.0	0.1	229	20.5						8.2	8.2	33.9	33.9	95.9	95.9	7.1	7.1	9.9	9													
	8.0	0.1	233	20.5						8.2	8.2	33.9	33.9	95.8	95.8	7.1	7.1	9.8	8													
IM8	Cloudy	Moderate	11:38	8.0						Surface	1.0	0.3	185	20.4	20.4	8.2	8.2	32.8	32.8	97.3	97.2	7.2	7.2	7.8	9.0	8	9	821835	808138			
											1.0	0.3	201	20.4	8.2	8.2	32.8	32.9	97.1	97.1	7.2	7.2	7.8	8								
											4.0	0.3	192	20.1	8.2	8.2	32.9	32.9	95.2	95.3	7.1	7.1	9.6	9								
					Middle	4.0	0.4	200	20.1	8.2	8.2	32.9	32.9	95.2	95.3	7.1	7.1	9.6	8													
						7.0	0.2	207	20.1	8.3	8.3	32.9	32.9	95.5	95.5	7.1	7.1	9.9	9													
						7.0	0.3	210	20.1	8.3	8.3	32.9	32.9	95.5	95.5	7.1	7.1	8.9	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 04 December 21 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				
IM9	Cloudy	Moderate	11:43	7.4	Surface	1.0	0.4	150	20.4	20.4	8.2	8.2	32.8	32.8	97.7	97.7	7.3	7.3	9.3	8	9	822116	808817			
						1.0	0.4	152	20.4	8.2	8.2	32.8	32.8	97.6	97.6	7.3	7.3	9.2	8							
					Middle	3.7	0.4	146	20.1	20.1	8.2	8.2	32.9	32.9	95.9	96.1	7.2	7.3	9.6	9						
						3.7	0.4	150	20.1	20.1	8.2	8.2	32.9	32.9	96.2	96.2	7.2	7.3	9.3	9						
					Bottom	6.4	0.3	141	20.1	20.1	8.2	8.2	32.9	32.9	97.4	97.4	7.3	7.3	18.6	10						
						6.4	0.3	144	20.1	20.1	8.2	8.2	32.9	32.9	97.5	97.5	7.3	7.3	19.8	10						
IM10	Cloudy	Moderate	11:50	7.7	Surface	1.0	0.8	102	20.2	20.2	8.2	8.2	32.7	32.7	93.0	92.9	6.9	6.9	6.6	7	8	822363	809797			
						1.0	0.8	109	20.2	20.2	8.2	8.2	32.7	32.7	92.7	92.7	6.9	6.9	6.7	7						
					Middle	3.9	0.7	92	20.1	20.1	8.2	8.2	32.7	32.7	92.2	92.3	6.9	6.9	7.0	8						
						3.9	0.8	100	20.1	20.1	8.2	8.2	32.7	32.7	92.4	92.4	6.9	6.9	7.2	8						
					Bottom	6.7	0.7	91	20.1	20.1	8.2	8.2	32.7	32.7	94.4	94.5	7.1	7.1	7.8	8						
						6.7	0.7	93	20.1	20.1	8.2	8.2	32.7	32.7	94.6	94.6	7.1	7.1	7.8	8						
IM11	Cloudy	Moderate	11:58	8.4	Surface	1.0	0.9	104	20.7	20.7	8.2	8.2	32.8	32.8	98.0	98.0	7.3	7.3	5.5	9	10	822050	811460			
						1.0	1.0	113	20.7	20.7	8.2	8.2	32.8	32.8	98.0	98.0	7.3	7.3	5.6	9						
					Middle	4.2	0.9	102	20.6	20.6	8.2	8.2	32.8	32.8	98.3	98.4	7.3	7.3	5.6	9						
						4.2	1.0	107	20.6	20.6	8.2	8.2	32.8	32.8	98.4	98.4	7.3	7.3	5.6	9						
					Bottom	7.4	0.8	100	20.5	20.5	8.2	8.2	32.8	32.8	99.6	99.7	7.4	7.4	7.1	11						
						7.4	0.8	108	20.5	20.5	8.2	8.2	32.8	32.8	99.8	99.8	7.4	7.4	7.1	11						
IM12	Cloudy	Moderate	12:05	9.2	Surface	1.0	0.8	92	20.9	20.9	8.2	8.2	32.9	32.9	94.8	94.7	7.0	7.0	6.0	9	7	821472	812023			
						1.0	0.8	94	20.9	20.9	8.2	8.2	32.9	32.9	94.6	94.6	7.0	7.0	6.4	8						
					Middle	4.6	0.6	83	20.7	20.7	8.2	8.2	32.9	32.9	94.5	94.6	7.0	7.0	7.7	7						
						4.6	0.6	87	20.7	20.7	8.2	8.2	32.9	32.9	94.7	94.7	7.0	7.0	7.8	7						
					Bottom	8.2	0.4	73	20.7	20.7	8.3	8.3	32.9	32.9	96.1	96.4	7.1	7.1	12.2	6						
						8.2	0.5	74	20.7	20.7	8.3	8.3	32.9	32.9	96.6	96.6	7.1	7.1	11.9	6						
SR1A	Cloudy	Moderate	12:31	5.5	Surface	1.0	-	-	20.5	20.5	8.3	8.3	32.8	32.8	100.5	100.5	7.5	7.5	5.8	9	8	819971	812657			
						1.0	-	-	20.4	20.4	8.3	8.3	32.8	32.8	100.4	100.4	7.5	7.5	5.9	8						
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	4.5	-	-	20.3	20.3	8.3	8.3	32.7	32.7	100.3	100.4	7.5	7.5	6.0	8						
						4.5	-	-	20.3	20.3	8.3	8.3	32.7	32.7	100.4	100.4	7.5	7.5	6.1	8						
SR2	Cloudy	Moderate	12:45	3.7	Surface	1.0	0.7	65	20.5	20.5	8.2	8.2	32.8	32.8	99.8	99.8	7.4	7.4	5.7	8	7	821445	814168			
						1.0	0.7	68	20.4	20.4	8.2	8.2	32.8	32.8	99.8	99.8	7.4	7.4	6.1	8						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	2.7	0.4	67	20.3	20.3	8.2	8.2	32.7	32.7	99.6	99.7	7.4	7.4	6.7	6						
						2.7	0.4	71	20.3	20.3	8.2	8.2	32.7	32.7	99.7	99.7	7.4	7.4	6.8	5						
SR3	Cloudy	Moderate	11:32	9.1	Surface	1.0	0.4	198	20.5	20.5	8.2	8.2	32.7	32.7	97.0	96.9	7.2	7.2	7.4	7	7	822158	807549			
						1.0	0.4	208	20.4	20.4	8.2	8.2	32.7	32.7	96.8	96.8	7.2	7.2	7.5	7						
					Middle	4.6	0.5	203	20.2	20.2	8.2	8.2	32.8	32.8	95.6	95.6	7.1	7.1	8.4	7						
						4.6	0.5	222	20.2	20.2	8.3	8.3	32.8	32.8	95.6	95.6	7.1	7.1	8.3	7						
					Bottom	8.1	0.4	221	20.1	20.1	8.3	8.3	33.0	33.0	96.3	96.4	7.2	7.2	10.3	7						
						8.1	0.4	224	20.1	20.1	8.3	8.3	33.0	33.0	96.5	96.5	7.2	7.2	10.5	6						
SR4A	Fine	Calm	12:41	9.2	Surface	1.0	0.5	87	20.6	20.6	8.2	8.2	33.9	33.9	96.5	96.3	7.1	7.1	7.1	13	13	817210	807789			
						1.0	0.5	94	20.6	20.6	8.2	8.2	33.9	33.9	96.1	96.1	7.1	7.1	7.1	13						
					Middle	4.6	0.4	80	20.6	20.6	8.2	8.2	34.0	34.0	91.9	91.7	6.8	6.9	8.0	13						
						4.6	0.5	80	20.6	20.6	8.2	8.2	34.0	34.0	91.5	91.5	6.7	6.7	8.0	13						
					Bottom	8.2	0.4	83	20.8	20.8	8.2	8.2	33.8	33.8	88.0	87.3	6.5	6.5	9.2	14						
						8.2	0.4	84	20.8	20.8	8.2	8.2	33.8	33.8	86.5	86.5	6.4	6.4	9.3	13						
SR5A	Fine	Calm	12:57	3.4	Surface	1.0	0.0	39	20.7	20.7	8.2	8.2	33.7	33.7	98.6	98.4	7.3	7.3	9.4	10	10	816595	810717			
						1.0	0.0	40	20.7	20.7	8.2	8.2	33.7	33.7	98.1	98.1	7.2	7.3	9.4	10						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	2.4	0.0	71	20.8	20.8	8.2	8.2	33.5	33.5	87.9	87.6	6.5	6.5	10.5	10						
						2.4	0.0	72	20.8	20.8	8.2	8.2	33.5	33.5	87.3	87.3	6.4	6.4	10.5	10						
SR6A	Fine	Calm	13:46	5.0	Surface	1.0	0.0	240	20.8	20.8	8.2	8.2	33.7	33.7	103.5	103.4	7.6	7.6	7.3	13	12	817966	814745			
						1.0	0.0	253	20.8	20.8	8.2	8.2	33.6	33.6	103.2	103.2	7.6	7.6	7.3	12						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	4.0	0.0	186	20.8	20.8	8.2	8.2	33.6	33.6	102.3	102.3	7.5	7.5	8.9	12						
						4.0	0.0	194	20.8	20.8	8.2	8.2	33.6	33.6	102.2	102.2	7.5	7.5	8.9	12						
SR7	Cloudy	Moderate	13:30	16.4	Surface	1.0	0.6	93	21.4	21.4	8.2	8.2	32.9	32.9	87.6	87.6	6.4	6.4	7.0	5	4	823657	823737			
						1.0	0.7	93	21.4	21.4	8.2	8.2	32.9	32.9	87.6	87.6	6.5	6.5	7.4	5						
					Middle	8.2	0.3	68	21.4	21.4	8.2	8.2	32.9	32.9	88.6	88.7	6.5	6.5	8.4	4						
						8.2	0.3	70	21.4	21.4	8.2	8.2	32.9	32.9	88.7	88.7	6.5	6.5	8.3	4						
					Bottom	15.4	0.3	29	21.4	21.4	8.2	8.2	32.9	32.9	91.2	91.3	6.7	6.7	8.2	4						
						15.4	0.3	30	21.4	21.4	8.2	8.2	32.9	32.9	91.4	91.4	6.7	6.7	8.3	4						
SR8	Cloudy	Moderate	12:12	4.2	Surface	1.0	-	-	20.5	20.5	8.3	8.3	32.8	32.8	102.7	102.7	7.6	7.6	5.8	7	7	820377	811608			
						1.0	-	-	20.5	20.5	8.3	8.3	32.8	32.8	102.6	102.6	7.6	7.6	5.8	8						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	3.2	-	-	20.4	20.4	8.3	8.3	32.8	32.8	103.4	103.6	7.7	7.7	6.0	6						
						3.2	-	-	20.4	20.4	8.3	8.3	32.8	32.8	103.7	103.7	7.7	7.7	6.0	6						

DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough: While capped or rougher

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

Water Quality Monitoring Results on 04 December 21 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	Fine	Calm	07:57	8.4	Surface	1.0	0.6	46	20.7	20.7	8.1	8.1	33.9	33.9	99.6	99.6	7.3	7.3	8.6	10	10	815641	804228	
						1.0	0.6	48	20.7	8.1	8.1	33.9	33.9	99.6	99.6	7.3	7.3	8.5	10					
						4.2	0.6	46	20.7	8.1	8.1	33.9	33.9	99.6	99.6	7.3	7.3	9.6	10					
					Middle	4.2	0.6	48	20.7	8.1	8.1	33.9	33.9	99.6	99.6	7.3	7.3	9.6	9					
						7.4	0.6	47	20.7	8.1	8.1	33.9	33.9	99.9	100.0	7.3	7.3	10.1	10					
						7.4	0.7	47	20.7	8.1	8.1	33.9	33.9	100.0	100.0	7.3	7.3	10.1	9					
C2	Cloudy	Moderate	08:58	11.8	Surface	1.0	0.6	198	20.5	20.5	8.2	8.2	32.6	32.6	96.3	96.3	7.2	7.2	9.5	9	9	825698	806960	
						1.0	0.7	217	20.4	8.2	8.2	32.6	32.6	96.3	96.3	7.2	7.2	9.6	8					
						5.9	0.3	192	20.1	8.1	8.1	32.7	32.7	96.3	96.3	7.2	7.2	10.2	9					
					Middle	5.9	0.3	199	20.0	8.1	8.1	32.8	32.8	96.3	96.3	7.2	7.2	10.3	9					
						10.8	0.3	265	19.9	8.1	8.1	32.8	32.8	97.7	97.7	7.3	7.3	10.9	9					
						10.8	0.3	285	19.9	8.1	8.1	32.8	32.8	97.9	97.9	7.4	7.4	10.4	9					
C3	Cloudy	Moderate	06:32	10.4	Surface	1.0	0.6	256	20.9	20.9	8.1	8.1	32.9	32.9	91.6	91.6	6.7	6.7	9.3	16	15	822092	817797	
						1.0	0.6	265	20.9	8.1	8.1	32.9	32.9	91.6	91.6	6.8	6.8	9.7	16					
						5.2	0.7	247	20.9	8.1	8.1	32.9	32.9	92.5	92.5	6.8	6.8	8.5	15					
					Middle	5.2	0.8	258	20.9	8.1	8.1	32.9	32.9	92.6	92.6	6.8	6.8	8.9	15					
						9.4	0.6	249	20.8	8.1	8.1	32.9	32.9	93.4	93.4	6.9	6.9	11.3	12					
						9.4	0.7	250	20.8	8.1	8.1	32.9	32.9	93.5	93.5	6.9	6.9	11.3	13					
IM1	Fine	Calm	08:17	5.2	Surface	1.0	0.1	281	20.4	20.4	8.2	8.2	33.9	33.9	102.5	102.6	7.6	7.6	6.6	11	11	817929	807139	
						1.0	0.1	308	20.4	8.2	8.2	33.9	33.9	102.6	102.6	7.6	7.6	6.6	11					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Middle	4.2	0.1	311	20.3	8.2	8.2	33.8	33.7	102.6	102.6	7.6	7.6	7.5	10					
						4.2	0.1	320	20.4	8.2	8.2	33.7	33.7	102.6	102.6	7.6	7.6	7.5	10					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-					
IM2	Fine	Calm	08:25	6.8	Surface	1.0	0.2	313	20.5	20.5	8.1	8.1	33.9	33.9	100.7	100.7	7.4	7.4	7.6	13	11	818178	806147	
						1.0	0.2	321	20.5	8.1	8.1	33.9	33.9	100.7	100.7	7.4	7.4	7.7	13					
						3.4	0.2	324	20.5	8.1	8.1	33.9	33.9	100.6	100.6	7.4	7.4	8.7	10					
					Middle	3.4	0.2	329	20.5	8.1	8.1	33.9	33.9	100.6	100.6	7.4	7.4	8.6	10					
						5.8	0.2	331	20.5	8.2	8.2	33.9	33.9	101.3	101.4	7.5	7.5	9.1	9					
						5.8	0.2	350	20.5	8.2	8.2	33.9	33.9	101.5	101.5	7.5	7.5	9.1	9					
IM3	Fine	Calm	08:32	7.0	Surface	1.0	0.4	8	20.4	20.4	8.1	8.1	34.0	34.0	100.6	100.6	7.4	7.4	8.2	10	9	818776	805577	
						1.0	0.5	8	20.4	8.1	8.1	34.0	34.0	100.6	100.6	7.4	7.4	8.1	10					
						3.5	0.4	3	20.4	8.2	8.2	34.0	34.0	100.8	100.8	7.5	7.5	9.8	9					
					Middle	3.5	0.4	3	20.4	8.2	8.2	34.0	34.0	100.8	100.8	7.5	7.5	9.9	9					
						6.0	0.3	358	20.4	8.2	8.2	34.0	34.0	101.0	101.1	7.5	7.5	10.1	8					
						6.0	0.4	329	20.4	8.2	8.2	34.0	34.0	101.1	101.1	7.5	7.5	10.2	8					
IM4	Fine	Calm	08:41	8.6	Surface	1.0	0.6	9	20.4	20.4	8.2	8.2	33.7	33.7	101.5	101.4	7.5	7.5	7.2	8	9	819717	804613	
						1.0	0.6	9	20.4	8.2	8.2	33.7	33.7	101.3	101.3	7.5	7.5	7.2	8					
						4.3	0.5	4	20.5	8.2	8.2	33.9	33.9	101.6	101.7	7.5	7.5	8.4	10					
					Middle	4.3	0.5	4	20.5	8.2	8.2	33.9	33.9	101.7	101.7	7.5	7.5	8.5	10					
						7.6	0.5	9	20.5	8.2	8.2	33.8	33.8	102.2	102.3	7.6	7.6	9.8	10					
						7.6	0.5	9	20.5	8.2	8.2	33.8	33.8	102.4	102.4	7.6	7.6	9.7	10					
IM5	Fine	Calm	08:49	8.2	Surface	1.0	0.7	359	20.5	20.5	8.1	8.1	33.9	33.9	100.6	100.6	7.4	7.4	6.9	8	9	820751	804855	
						1.0	0.8	330	20.5	8.1	8.1	33.9	33.9	100.6	100.6	7.4	7.4	6.9	9					
						4.1	0.7	354	20.5	8.2	8.2	33.9	33.9	101.0	101.1	7.5	7.5	7.9	9					
					Middle	4.1	0.8	326	20.5	8.2	8.2	33.9	33.9	101.1	101.1	7.5	7.5	7.8	9					
						7.2	0.6	12	20.5	8.2	8.2	33.9	33.9	101.6	101.7	7.5	7.5	8.6	9					
						7.2	0.6	12	20.5	8.2	8.2	33.9	33.9	101.7	101.7	7.5	7.5	8.6	9					
IM6	Fine	Calm	08:58	7.6	Surface	1.0	0.0	290	20.6	20.6	8.2	8.2	33.7	33.7	101.9	101.9	7.5	7.5	5.2	9	9	821076	805828	
						1.0	0.0	298	20.6	8.2	8.2	33.7	33.7	101.8	101.8	7.5	7.5	5.3	9					
						3.8	0.0	23	20.6	8.2	8.2	33.7	33.7	101.0	101.0	7.5	7.5	6.8	9					
					Middle	3.8	0.0	24	20.6	8.2	8.2	33.7	33.7	101.0	101.0	7.5	7.5	6.9	9					
						6.6	0.1	128	20.5	8.2	8.2	33.7	33.7	101.7	101.8	7.5	7.5	7.8	10					
						6.6	0.1	136	20.5	8.2	8.2	33.7	33.7	101.9	101.9	7.5	7.5	7.9	10					
IM7	Fine	Calm	09:06	8.4	Surface	1.0	0.1	123	20.4	20.4	8.2	8.2	33.8	33.8	100.9	100.9	7.5	7.5	8.3	9	9	821354	806824	
						1.0	0.1	123	20.4	8.2	8.2	33.8	33.8	100.9	100.9	7.5	7.5	8.2	9					
						4.2	0.1	197	20.4	8.2	8.2	33.8	33.8	101.0	101.0	7.5	7.5	9.6	9					
					Middle	4.2	0.1	206	20.4	8.2	8.2	33.8	33.8	101.0	101.0	7.5	7.5	9.5	9					
						7.4	0.1	233	20.3	8.2	8.2	33.8	33.8	101.8	101.9	7.5	7.6	11.6	10					
						7.4	0.1	247	20.4	8.2	8.2	33.8	33.8	102.0	102.0	7.6	7.6	11.7	10					
IM8	Cloudy	Moderate	08:34	8.0	Surface	1.0	0.2	203	20.4	20.4	8.2	8.2	32.6	32.6	97.1	97.1	7.2	7.2	7.5	13	11	821848	808159	
						1.0	0.2	219	20.4	8.2	8.2	32.6	32.6	97.1	97.1	7.2	7.2	7.5	12					
						4.0	0.1	256	20.4	8.2	8.2	32.6	32.6	96.9	97.0	7.2	7.2	7.6	10					
					Middle	4.0	0.1	267	20.3	8.2	8.2	32.7	32.7	97.0	97.0	7.2	7.2	7.7	10					
						7.0	0.2	273	20.2	8.2	8.2	32.7	32.7	98.5	98.6	7.4	7.4	9.2	9					
						7.0	0.2	297	20.2	8.2	8.2	32.7	32.7	98.7	98.7	7.4	7.4	10.5	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 04 December 21 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		
IM9	Cloudy	Moderate	08:28	7.6	Surface	1.0	0.2	287	20.1	20.1	8.2	8.2	32.8	32.8	96.7	96.8	7.2	7.3	6.4	7	9	822106	808789	
						1.0	0.2	295	20.1	8.2	8.2	32.8	32.8	96.8	96.8	7.2	7.3	6.5	7					
						3.8	0.2	292	20.1	8.3	8.3	32.8	32.8	98.6	98.8	7.4	7.3	6.9	9					
					Middle	3.8	0.2	312	20.1	20.1	8.3	8.3	32.8	32.8	98.9	98.9	7.4	7.3	6.9	9				
						6.6	0.2	298	20.0	20.0	8.3	8.3	32.8	32.8	100.3	100.5	7.5	7.5	7.2	11				
						6.6	0.2	325	20.0	20.0	8.3	8.3	32.8	32.8	100.7	100.7	7.5	7.5	7.2	11				
IM10	Cloudy	Moderate	08:21	8.3	Surface	1.0	0.6	313	20.2	20.2	8.3	8.3	32.8	32.8	98.9	99.0	7.4	7.4	11.5	25	21	822387	809797	
						1.0	0.6	330	20.2	8.3	8.3	32.8	32.8	99.0	99.0	7.4	7.4	11.6	24					
						4.2	0.6	312	20.1	20.1	8.3	8.3	32.8	32.8	99.5	99.6	7.4	7.4	13.1	22				
					Middle	4.2	0.7	321	20.1	20.1	8.3	8.3	32.8	32.8	99.6	99.6	7.4	7.4	13.4	23				
						7.3	0.6	312	20.1	20.1	8.3	8.3	32.7	32.7	99.8	99.9	7.5	7.5	14.0	16				
						7.3	0.6	312	20.1	20.1	8.3	8.3	32.7	32.7	99.9	99.9	7.5	7.5	14.2	17				
IM11	Cloudy	Moderate	07:45	8.5	Surface	1.0	0.7	333	20.5	20.5	8.2	8.2	32.9	32.9	94.9	94.9	7.1	7.2	13.8	14	18	822071	811438	
						1.0	0.6	330	20.5	8.2	8.2	32.9	32.9	96.4	96.5	7.2	7.2	13.8	15					
						4.3	0.6	315	20.4	20.4	8.2	8.2	32.9	32.9	96.4	96.5	7.2	7.2	12.5	17				
					Middle	4.3	0.6	327	20.4	20.4	8.2	8.2	32.9	32.9	96.6	96.6	7.2	7.2	12.9	16				
						7.5	0.6	295	20.4	20.4	8.2	8.2	32.8	32.8	97.6	97.8	7.3	7.3	12.5	24				
						7.5	0.6	310	20.4	20.4	8.2	8.2	32.8	32.8	97.9	97.9	7.3	7.3	12.5	24				
IM12	Cloudy	Moderate	07:38	8.9	Surface	1.0	0.6	264	20.3	20.3	8.2	8.2	32.9	32.9	95.4	95.5	7.1	7.2	10.2	11	14	821456	812025	
						1.0	0.6	278	20.3	8.2	8.2	32.9	32.9	95.5	95.5	7.1	7.2	10.3	10					
						4.5	0.5	256	20.3	20.3	8.2	8.2	32.9	32.9	96.4	96.5	7.2	7.2	14.2	15				
					Middle	4.5	0.5	256	20.3	20.3	8.2	8.2	32.9	32.9	96.5	96.5	7.2	7.2	14.3	15				
						7.9	0.4	257	20.3	20.3	8.2	8.2	32.9	32.9	97.0	97.1	7.2	7.2	14.6	15				
						7.9	0.4	262	20.3	20.3	8.2	8.2	32.9	32.9	97.1	97.1	7.2	7.2	14.5	15				
SR1A	Cloudy	Moderate	07:09	5.2	Surface	1.0	-	-	20.2	20.2	8.2	8.2	32.7	32.7	96.7	96.8	7.2	7.2	5.4	13	13	819972	812662	
						1.0	-	-	20.2	20.2	8.2	8.2	32.7	32.7	96.8	96.8	7.2	7.2	5.5	13				
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.2	-	-	20.1	20.1	8.2	8.2	32.7	32.7	98.5	99.3	7.4	7.5	6.2	13				
						4.2	-	-	20.1	20.1	8.2	8.2	32.7	32.7	100.1	100.1	7.5	7.5	7.0	13				
SR2	Cloudy	Moderate	06:54	4.5	Surface	1.0	0.1	169	20.4	20.4	8.1	8.1	32.9	32.9	94.8	94.9	7.1	7.1	11.6	16	15	821474	814146	
						1.0	0.1	181	20.4	20.4	8.1	8.1	32.9	32.9	94.9	94.9	7.1	7.1	11.9	16				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						3.5	0.2	145	20.3	20.3	8.1	8.1	32.9	32.9	96.5	96.8	7.2	7.2	13.1	14				
						3.5	0.2	148	20.3	20.3	8.1	8.1	32.9	32.9	97.0	97.0	7.2	7.2	13.0	14				
SR3	Cloudy	Moderate	08:40	9.0	Surface	1.0	0.4	229	20.0	20.0	8.2	8.2	32.9	32.9	94.3	94.4	7.1	7.2	9.4	9	10	822162	807576	
						1.0	0.4	231	20.0	20.0	8.2	8.2	32.9	32.9	94.4	94.4	7.1	7.2	9.8	9				
						4.5	0.2	249	19.8	19.8	8.2	8.2	33.0	33.0	96.2	96.5	7.2	7.2	10.1	9				
					Middle	4.5	0.2	251	19.8	19.8	8.2	8.2	33.0	33.0	96.7	96.7	7.3	7.3	10.6	10				
						8.0	0.2	262	19.8	19.8	8.2	8.2	33.0	33.0	98.0	98.2	7.4	7.4	10.8	11				
						8.0	0.2	271	19.8	19.8	8.2	8.2	33.0	33.0	98.3	98.3	7.4	7.4	10.6	10				
SR4A	Fine	Calm	07:33	9.6	Surface	1.0	0.5	102	20.4	20.4	8.2	8.2	33.9	33.9	100.9	100.9	7.5	7.5	6.2	10	10	817179	807831	
						1.0	0.6	111	20.4	20.4	8.2	8.2	33.9	33.9	100.8	100.8	7.5	7.5	6.1	11				
						4.8	0.5	99	20.4	20.4	8.2	8.2	33.9	33.9	100.8	100.9	7.5	7.5	7.2	10				
					Middle	4.8	0.5	105	20.4	20.4	8.2	8.2	33.9	33.9	100.9	100.9	7.5	7.5	7.2	10				
						8.6	0.4	89	20.3	20.3	8.2	8.2	33.9	33.9	100.8	100.9	7.5	7.5	8.0	10				
						8.6	0.4	90	20.3	20.3	8.2	8.2	33.9	33.9	100.9	100.9	7.5	7.5	8.0	10				
SR5A	Fine	Calm	07:13	4.6	Surface	1.0	0.1	141	20.4	20.4	8.2	8.2	33.6	33.6	104.9	104.9	7.8	7.8	7.1	12	11	816581	810704	
						1.0	0.1	149	20.4	20.4	8.2	8.2	33.6	33.6	104.8	104.8	7.8	7.8	7.2	12				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						3.6	0.1	146	20.3	20.3	8.2	8.2	33.6	33.6	104.2	104.2	7.7	7.7	8.3	9				
						3.6	0.1	152	20.3	20.3	8.2	8.2	33.6	33.6	104.1	104.1	7.7	7.7	8.2	10				
SR6A	Fine	Calm	06:44	5.0	Surface	1.0	0.0	233	20.9	20.9	8.1	8.1	33.6	33.6	103.7	103.7	7.6	7.6	6.7	12	11	817941	814759	
						1.0	0.0	239	20.9	20.9	8.1	8.1	33.6	33.6	103.7	103.7	7.6	7.6	6.6	11				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.0	0.1	229	20.9	20.9	8.1	8.1	33.5	33.5	103.7	103.8	7.6	7.6	7.8	10				
						4.0	0.1	243	20.9	20.9	8.1	8.1	33.5	33.5	103.8	103.8	7.6	7.6	7.8	9				
SR7	Cloudy	Moderate	06:06	16.4	Surface	1.0	0.1	290	21.1	21.1	8.1	8.1	32.9	32.9	89.9	89.9	6.6	6.6	9.1	14	11	823630	823728	
						1.0	0.1	300	21.1	21.1	8.1	8.1	32.9	32.9	89.9	89.9	6.6	6.6	9.1	13				
						8.2	0.1	92	21.1	21.1	8.1	8.1	32.9	32.9	90.1	90.2	6.6	6.6	11.1	10				
					Middle	8.2	0.2	101	21.1	21.1	8.1	8.1	32.9	32.9	90.2	90.2	6.6	6.6	11.3	10				
						15.4	0.2	103	21.1	21.1	8.1	8.1	32.8	32.8	90.3	90.3	6.6	6.6	12.6	9				
						15.4	0.2	105	21.1	21.1	8.1	8.1	32.8	32.8	90.3	90.3	6.6	6.6	12.6	10				
SR8	Cloudy	Moderate	07:30	4.3	Surface	1.0	-	-	20.1	20.1	8.2	8.2	32.8	32.8	96.9	97.1	7.3	7.3	9.2	10	9	820401	811616	
						1.0	-	-	20.1	20.1	8.2	8.2	32.8	32.8	97.2	97.2	7.3	7.3	9.4	9				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						3.3	-	-	20.1	20.1	8.2	8.2	32.8	32.8	98.9	99.0	7.4	7.4	9.9	9				
						3.3	-	-	20.1	20.1	8.2	8.2	32.8	32.8	99.1	99.1	7.4	7.4	10.1	9				

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

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

Water Quality Monitoring Results on 07 December 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Rough	14:53	8.4	Surface	1.0	0.2	145	20.4	20.4	8.2	8.2	33.1	33.1	95.5	95.5	7.1	7.1	7.9	15	16	815604	804234	
						1.0	0.2	159	20.4	8.2	8.2	33.1	33.1	95.5	95.5	7.1	7.1	8.0	16					
						4.2	0.2	164	20.4	8.3	8.3	33.1	33.1	95.0	95.1	7.1	7.1	9.1	15					
					Middle	4.2	0.2	168	20.4	8.3	8.3	33.1	33.1	95.1	95.1	7.1	7.1	9.1	16					
						7.4	0.1	176	20.3	8.3	8.3	33.1	33.1	96.4	96.5	7.2	7.2	10.4	15					
						7.4	0.1	185	20.3	8.3	8.3	33.1	33.1	96.5	96.5	7.2	7.2	10.5	16					
C2	Fine	Moderate	13:41	12.2	Surface	1.0	0.3	14	20.6	20.6	8.2	8.2	33.3	33.3	117.8	117.7	8.7	8.7	7.0	8	8	825702	806932	
						1.0	0.3	15	20.6	8.2	8.2	33.3	33.3	117.6	117.6	8.7	8.5	7.0	8					
						6.1	0.2	32	20.6	8.2	8.2	33.3	33.3	112.5	112.5	8.3	8.3	7.8	9					
					Middle	6.1	0.3	32	20.6	8.2	8.2	33.3	33.3	112.5	112.5	8.3	8.3	7.8	8					
						11.2	0.3	42	20.6	8.2	8.2	33.4	33.3	112.3	112.3	8.3	8.3	7.9	8					
						11.2	0.3	43	20.6	8.2	8.2	33.3	33.3	112.3	112.3	8.3	8.3	7.8	8					
C3	Fine	Moderate	15:27	11.9	Surface	1.0	0.2	71	21.5	21.5	8.1	8.1	33.8	33.8	98.5	98.5	7.1	7.1	4.5	6	6	822124	817819	
						1.0	0.2	76	21.5	8.1	8.1	33.8	33.8	98.5	98.5	7.1	7.1	4.5	6					
						6.0	0.2	73	21.4	8.1	8.1	33.8	33.8	98.3	98.4	7.1	7.1	4.8	7					
					Middle	6.0	0.2	73	21.4	8.1	8.1	33.8	33.8	98.4	98.4	7.2	7.2	4.7	6					
						10.9	0.1	99	21.4	8.1	8.1	33.8	33.8	99.8	99.9	7.3	7.3	5.0	6					
						10.9	0.1	103	21.4	8.1	8.1	33.8	33.8	100.0	100.0	7.3	7.3	5.1	7					
IM1	Cloudy	Moderate	14:32	5.1	Surface	1.0	0.1	213	20.1	20.1	8.3	8.3	32.9	32.9	103.8	103.8	7.8	7.8	4.9	8	8	817930	807130	
						1.0	0.1	225	20.1	8.3	8.3	32.9	32.9	103.8	103.8	7.8	7.8	4.9	8					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
						4.1	0.1	197	19.8	19.8	8.3	8.3	32.9	32.9	98.5	98.6	7.4	7.4	7.7	9				
						4.1	0.1	215	19.8	19.8	8.3	8.3	32.9	32.9	98.6	98.6	7.4	7.4	7.7	8				
IM2	Cloudy	Moderate	14:25	7.0	Surface	1.0	0.2	85	20.0	20.0	8.3	8.3	32.5	32.5	102.0	101.9	7.7	7.6	6.1	11	11	818148	806150	
						1.0	0.2	90	20.0	8.3	8.3	32.5	32.5	101.8	101.8	7.6	7.6	6.1	11					
						3.5	0.1	96	19.9	19.9	8.3	8.3	32.6	32.6	99.4	99.4	7.5	7.5	6.4	11				
					Middle	3.5	0.1	100	19.9	19.9	8.3	8.3	32.6	32.6	99.3	99.3	7.5	7.5	6.4	11				
						6.0	0.1	172	19.9	19.9	8.3	8.3	32.7	32.7	95.9	95.9	7.2	7.2	8.3	11				
						6.0	0.1	183	19.9	19.9	8.3	8.3	32.7	32.7	95.9	95.9	7.2	7.2	8.3	11				
IM3	Cloudy	Moderate	14:18	7.2	Surface	1.0	0.1	42	20.0	20.0	8.3	8.3	32.5	32.5	101.5	101.4	7.6	7.6	6.6	12	12	818804	805578	
						1.0	0.1	44	20.0	8.3	8.3	32.5	32.5	101.3	101.3	7.6	7.6	6.6	13					
						3.6	0.1	24	19.9	19.9	8.3	8.3	32.6	32.6	98.3	98.3	7.4	7.4	7.7	11				
					Middle	3.6	0.2	25	19.9	19.9	8.3	8.3	32.6	32.6	98.2	98.2	7.4	7.4	7.8	11				
						6.2	0.1	327	19.9	19.9	8.3	8.3	32.7	32.7	97.3	97.3	7.3	7.3	9.5	11				
						6.2	0.1	329	19.9	19.9	8.3	8.3	32.7	32.7	97.3	97.3	7.3	7.3	9.6	11				
IM4	Cloudy	Rough	14:08	8.9	Surface	1.0	0.2	54	19.9	19.9	8.3	8.3	32.5	32.5	100.7	100.7	7.6	7.6	7.2	13	13	819704	804607	
						1.0	0.2	56	19.9	19.9	8.3	8.3	32.5	32.5	100.6	100.6	7.6	7.6	7.2	14				
						4.5	0.1	354	19.8	19.8	8.3	8.3	32.7	32.7	97.5	97.5	7.3	7.3	9.6	13				
					Middle	4.5	0.2	358	19.8	19.8	8.3	8.3	32.7	32.7	97.4	97.4	7.3	7.3	9.6	14				
						7.9	0.1	320	19.9	19.9	8.3	8.3	32.7	32.7	96.7	96.7	7.3	7.3	11.4	13				
						7.9	0.1	326	19.9	19.9	8.3	8.3	32.7	32.7	96.7	96.7	7.3	7.3	11.2	12				
IM5	Cloudy	Moderate	13:58	8.6	Surface	1.0	0.3	6	19.9	19.9	8.3	8.3	32.6	32.6	100.2	100.2	7.5	7.5	7.7	14	14	820721	804874	
						1.0	0.4	6	19.9	19.9	8.3	8.3	32.6	32.6	100.2	100.2	7.5	7.5	7.7	13				
						4.3	0.3	6	19.9	19.9	8.3	8.3	32.6	32.6	98.3	98.3	7.4	7.4	9.6	13				
					Middle	4.3	0.4	6	19.9	19.9	8.3	8.3	32.6	32.6	98.3	98.3	7.4	7.4	9.7	14				
						7.6	0.2	8	19.9	19.9	8.3	8.3	32.6	32.6	97.9	97.9	7.4	7.4	10.4	13				
						7.6	0.3	8	19.9	19.9	8.3	8.3	32.6	32.6	97.9	97.9	7.4	7.4	10.6	14				
IM6	Cloudy	Moderate	13:50	7.8	Surface	1.0	0.0	203	20.0	20.0	8.3	8.3	32.6	32.6	102.6	102.6	7.7	7.7	2.6	9	7	821054	805804	
						1.0	0.0	214	20.0	20.0	8.3	8.3	32.6	32.6	102.5	102.5	7.7	7.7	2.6	8				
						3.9	0.0	81	19.9	19.9	8.3	8.3	32.7	32.7	100.6	100.6	7.6	7.6	2.7	7				
					Middle	3.9	0.0	88	19.9	19.9	8.3	8.3	32.7	32.7	100.5	100.5	7.6	7.6	2.8	6				
						6.8	0.1	113	19.9	19.9	8.3	8.3	32.8	32.8	96.2	96.2	7.2	7.2	2.8	5				
						6.8	0.1	116	19.9	19.9	8.3	8.3	32.8	32.8	96.1	96.1	7.2	7.2	2.8	6				
IM7	Cloudy	Moderate	13:41	9.0	Surface	1.0	0.1	177	19.9	19.9	8.3	8.3	33.0	33.0	98.0	98.0	7.4	7.4	4.6	9	9	821331	806841	
						1.0	0.1	184	19.9	19.9	8.3	8.3	33.0	33.0	98.0	98.0	7.4	7.4	4.6	8				
						4.5	0.1	177	19.9	19.9	8.3	8.3	32.9	32.9	97.7	97.7	7.3	7.3	5.6	9				
					Middle	4.5	0.1	187	19.9	19.9	8.3	8.3	32.9	32.9	97.7	97.7	7.3	7.3	5.7	9				
						8.0	0.0	135	19.9	19.9	8.3	8.3	32.9	32.9	97.7	97.7	7.3	7.3	6.6	9				
						8.0	0.0	135	19.9	19.9	8.3	8.3	32.9	32.9	97.7	97.7	7.3	7.3	6.6	9				
IM8	Fine	Moderate	14:02	7.9	Surface	1.0	0.5	71	20.6	20.6	8.2	8.2	33.6	33.6	107.0	107.0	7.9	7.9	8.2	8	9	821813	808124	
						1.0	0.5	74	20.6	20.6	8.2	8.2	33.6	33.6	106.9	106.9	7.9	7.9	8.2	7				
						3.9	0.4	69	20.5	20.5	8.2	8.2	33.6	33.6	106.1	106.1	7.8	7.8	8.7	9				
					Middle	3.9	0.4	71	20.5	20.5	8.2	8.2	33.6	33.6	106.1	106.1	7.8	7.8	8.7	8				
						6.9	0.3	64	20.5	20.5	8.2	8.2	33.6	33.6	106.1	106.1	7.8	7.8	9.1	10				
						6.9	0.3	66	20.5	20.5	8.2	8.2	33.6	33.6	106.2	106.2	7.8	7.8	9.1	9				

DA: Depth-Averaged

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

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

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

Water Quality Monitoring Results on 07 December 21 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									
IM9	Fine	Moderate	14:08	7.2	Surface	1.0	0.3	88	20.6	20.6	8.2	8.2	33.4	33.4	107.1	107.1	7.9	7.9	6.8	11	10	822072	808814								
						1.0	0.3	89	20.6	8.2	8.2	33.4	33.4	107.0	107.0	7.9	7.9	6.8	10												
						3.6	0.3	85	20.6	8.2	8.2	33.5	33.5	106.0	106.0	7.8	7.8	7.5	10												
					Middle	3.6	0.3	91	20.6	20.6	8.2	8.2	33.5	33.5	106.0	106.0	7.8	7.8	7.5	9											
						6.2	0.3	93	20.6	20.6	8.2	8.2	33.6	33.6	107.0	107.0	7.9	7.9	7.8	9											
						6.2	0.4	100	20.5	20.6	8.2	8.2	33.6	33.6	107.1	107.1	7.9	7.9	7.8	8											
					IM10	Fine	Moderate	14:14	7.7	Surface	1.0	0.4	72	20.8	20.8	8.2	8.2	33.4	33.4	114.9				114.9	8.5	8.5	4.8	8	8	822386	809810
											1.0	0.4	78	20.8	8.2	8.2	33.4	33.4	114.8	114.8				8.5	8.5	4.9	8				
											3.8	0.4	76	20.7	20.7	8.2	8.2	33.5	33.5	108.6				108.6	8.0	8.0	5.0	7			
Middle	3.8	0.4	80	20.7						20.7	8.2	8.2	33.5	33.5	108.6	108.6	8.0	8.0	5.0	8											
	6.7	0.4	74	20.6						20.6	8.2	8.2	33.4	33.4	109.2	109.2	8.1	8.1	5.1	7											
	6.7	0.4	77	20.6						20.6	8.2	8.2	33.4	33.4	109.3	109.3	8.1	8.1	5.2	8											
IM11	Fine	Moderate	14:25	8.4						Surface	1.0	0.0	0	21.0	21.0	8.2	8.2	33.7	33.7	110.7	110.6	8.1	8.1	4.9	5	6	822037	811450			
											1.0	0.0	0	21.0	21.0	8.2	8.2	33.7	33.7	110.5	110.5	8.1	8.1	4.9	5						
											4.2	-	0	20.9	20.9	8.2	8.2	33.6	33.6	107.0	107.0	7.9	7.9	5.3	6						
					Middle	4.2	-	0	20.9	20.9	8.2	8.2	33.6	33.6	106.9	106.9	7.8	7.8	5.3	5											
						7.4	0.0	0	20.9	20.9	8.2	8.2	33.6	33.6	107.7	107.7	7.9	7.9	5.5	6											
						7.4	0.0	0	20.8	20.9	8.2	8.2	33.7	33.7	107.7	107.7	7.9	7.9	5.6	7											
					IM12	Fine	Moderate	14:31	9.8	Surface	1.0	0.4	66	20.9	20.9	8.2	8.2	33.6	33.6	107.9	107.9	7.9	7.9	5.4	9				8	821440	812063
											1.0	0.4	66	20.9	20.9	8.2	8.2	33.7	33.7	107.8	107.8	7.9	7.9	5.4	8						
											4.9	0.4	73	20.8	20.8	8.2	8.2	33.6	33.6	106.3	106.3	7.8	7.8	5.9	8						
Middle	4.9	0.4	78	20.8						20.8	8.2	8.2	33.6	33.6	106.3	106.3	7.8	7.8	6.0	8											
	8.8	0.4	72	20.7						20.7	8.2	8.2	33.7	33.7	107.3	107.3	7.9	7.9	6.8	8											
	8.8	0.4	77	20.7						20.7	8.2	8.2	33.7	33.7	107.4	107.4	7.9	7.9	6.8	7											
SR1A	Fine	Moderate	14:55	5.0						Surface	1.0	-	-	20.9	20.9	8.2	8.2	33.7	33.7	112.0	112.0	8.2	8.2	4.0	6	6	819982	812654			
											1.0	-	-	20.9	20.9	8.2	8.2	33.7	33.7	112.0	112.0	8.2	8.2	4.0	5						
											2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
						4.0	-	-	20.9	20.9	8.2	8.2	33.7	33.7	112.3	112.4	8.2	8.2	4.6	6											
						4.0	-	-	20.9	20.9	8.2	8.2	33.7	33.7	112.5	112.5	8.2	8.2	4.5	7											
					SR2	Fine	Moderate	15:08	4.8	Surface	1.0	0.5	336	21.0	21.0	8.2	8.2	33.7	33.7	108.3	108.3	7.9	7.9	4.8	7				7	821464	814152
											1.0	0.5	309	21.0	21.0	8.2	8.2	33.7	33.7	108.2	108.2	7.9	7.9	4.8	7						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	3.8	0.5	130	20.8						20.8	8.2	8.2	33.7	33.7	107.2	107.2	7.9	7.9	5.0	8											
	3.8	0.5	142	20.8						20.8	8.2	8.2	33.7	33.7	107.2	107.2	7.9	7.9	5.0	7											
SR3	Fine	Moderate	13:57	8.8						Surface	1.0	0.5	88	20.6	20.6	8.2	8.2	33.4	33.4	109.7	109.6	8.1	8.1	10.0	13	11	822143	807559			
											1.0	0.5	95	20.6	20.6	8.2	8.2	33.4	33.4	109.5	109.5	8.1	8.1	10.0	12						
											4.4	0.5	87	20.4	20.4	8.2	8.2	33.4	33.4	107.9	107.9	8.0	8.0	11.3	11						
					Middle	4.4	0.5	93	20.4	20.4	8.2	8.2	33.4	33.4	107.9	107.9	8.0	8.0	11.3	12											
						7.8	0.4	81	20.4	20.4	8.2	8.2	33.4	33.4	108.0	108.0	8.0	8.0	12.0	10											
						7.8	0.5	81	20.4	20.4	8.2	8.2	33.4	33.4	108.0	108.0	8.0	8.0	12.1	10											
					SR4A	Cloudy	Calm	15:14	9.8	Surface	1.0	0.3	67	20.1	20.1	8.3	8.3	32.6	32.6	103.2	103.2	7.7	7.7	6.4	10				9	817190	807812
											1.0	0.4	69	20.1	20.1	8.3	8.3	32.6	32.6	103.1	103.1	7.7	7.7	6.3	10						
											4.9	0.3	65	20.1	20.1	8.3	8.3	32.7	32.7	100.7	100.7	7.5	7.5	7.3	9						
Middle	4.9	0.3	68	20.1						20.1	8.3	8.3	32.7	32.7	100.6	100.6	7.5	7.5	7.4	8											
	8.8	0.3	69	20.1						20.1	8.3	8.3	32.7	32.7	100.3	100.3	7.5	7.5	8.4	8											
	8.8	0.3	74	20.1						20.1	8.3	8.3	32.7	32.7	100.3	100.3	7.5	7.5	8.4	9											
SR5A	Cloudy	Calm	15:29	3.9						Surface	1.0	0.0	339	20.3	20.3	8.3	8.3	32.9	32.9	104.4	104.3	7.8	7.8	5.4	12	11	816597	810687			
											1.0	0.0	357	20.3	20.3	8.3	8.3	32.9	32.9	104.2	104.2	7.8	7.8	5.4	11						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
						2.9	0.0	322	20.2	20.2	8.3	8.3	32.9	32.8	102.4	102.4	7.6	7.6	5.9	10											
						2.9	0.0	344	20.2	20.2	8.3	8.3	32.8	32.8	102.4	102.4	7.6	7.6	5.9	10											
					SR6A	Cloudy	Calm	15:56	4.6	Surface	1.0	0.1	33	20.7	20.7	8.3	8.3	32.8	32.8	109.1	109.0	8.1	8.1	3.5	8				9	817983	814724
											1.0	0.1	36	20.7	20.7	8.3	8.3	32.8	32.8	108.9	108.9	8.1	8.1	3.6	9						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	3.6	0.1	36	20.5						20.5	8.3	8.3	32.9	32.9	106.8	106.8	7.9	7.9	4.5	8											
	3.6	0.1	37	20.5						20.5	8.3	8.3	32.9	32.9	106.8	106.8	7.9	7.9	4.5	9											
SR7	Fine	Moderate	15:52	16.5						Surface	1.0	0.4	38	21.5	21.5	8.1	8.1	33.8	33.8	95.8	95.8	7.0	7.0	5.2	7	7	823647	823722			
											1.0	0.4	40	21.5	21.5	8.1	8.1	33.8	33.8	96.2	96.2	7.0	7.0	5.3	7						
											8.3	0.4	35	21.4	21.4	8.1	8.1	33.8	33.8	96.3	96.3	7.0	7.0	5.3	7						
					Middle	8.3	0.4	35	21.4	21.4	8.1	8.1	33.8	33.8	96.3	96.3	7.0	7.0	5.3	7											
						15.5	0.4	33	21.4	21.4	8.1	8.1	33.9	33.9	98.9	98.9	7.2	7.2	5.6	6											
						15.5	0.4	33	21.4	21.4	8.1	8.1	33.9	33.9	99.2	99.2	7.2	7.2	5.6	6											
					SR8	Fine	Moderate	14:39	5.0	Surface	1.0	-	-	20.7	20.7	8.2	8.2	33.7	33.7	108.4	108.4	8.0	8.0	5.4	8				8	820543	811895
											1.0	-	-	20.7	20.7	8.2	8.2	33.7	33.7	108.4	108.4	8.0	8.0	5.4	7						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	4.0	-	-	20.5						20.5	8.1	8.1	33.8	33.8	108.1	108.1	8.0	8.0	5.6	8											
	4.0	-	-	20.5						20.5	8.1	8.1	33.8	33.8	108.1	108.1	8.0	8.0	5.6	7											

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: While 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 December 21 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	Fine	Rough	10:45	7.7	Surface	1.0	0.4	69	19.7	19.7	8.3	8.3	32.3	32.3	102.0	102.0	7.7	7.6	12.2	14.6	16	14	815634	804263
						1.0	0.4	70	19.7		8.3	8.3	32.3	32.3	102.0	102.0	7.7		12.3		16			
						3.9	0.4	63	19.8		8.3	8.3	32.6	32.6	98.2	98.2	7.4		15.3		13			
					Middle	3.9	0.4	66	19.8	8.3	8.3	32.6	32.6	98.2	98.2	7.4	15.3	14						
						6.7	0.4	56	19.9	8.3	8.3	32.9	32.9	96.3	96.3	7.2	16.3	14						
						6.7	0.5	61	19.9	8.3	8.3	32.9	32.9	96.4	96.4	7.2	16.1	13						
C2	Fine	Moderate	11:04	10.0	Surface	1.0	0.4	359	20.6	20.6	8.2	8.2	33.1	33.1	120.0	119.9	8.9	8.7	6.5	7.4	8	9	825665	806951
						1.0	0.4	330	20.6		8.2	8.2	33.1	33.1	119.8	119.8	8.9		6.9		8			
						5.0	0.4	1	20.6		8.2	8.2	33.1	33.1	113.3	113.2	8.4		7.2		9			
					Middle	5.0	0.4	1	20.5	8.2	8.2	33.1	33.1	113.1	113.1	8.4	7.2	8						
						9.0	0.4	8	20.5	7.9	7.9	33.1	33.1	112.4	112.4	8.3	8.2	9						
						9.0	0.4	8	20.5	7.9	7.9	33.1	33.1	112.4	112.4	8.3	8.2	9						
C3	Fine	Moderate	09:10	10.9	Surface	1.0	0.6	264	20.7	20.7	8.1	8.1	33.6	33.6	103.7	103.7	7.6	7.6	6.3	6.7	11	9	822124	817823
						1.0	0.7	284	20.7		8.1	8.1	33.6	33.6	103.6	103.6	7.6		6.4		10			
						5.5	0.5	262	20.7		8.1	8.1	33.6	33.6	102.6	102.6	7.6		6.8		9			
					Middle	5.5	0.6	262	20.7	8.1	8.1	33.6	33.6	102.6	102.6	7.6	6.8	9						
						9.9	0.4	269	20.7	8.1	8.1	33.7	33.7	102.9	102.9	7.6	7.0	8						
						9.9	0.5	292	20.7	8.1	8.1	33.7	33.7	103.0	103.0	7.6	7.0	8						
IM1	Fine	Moderate	11:05	4.9	Surface	1.0	0.1	317	19.9	19.9	8.3	8.3	32.9	32.9	100.4	100.4	7.5	7.5	7.8	8.8	14	15	817930	807125
						1.0	0.1	318	19.9		8.3	8.3	32.9	32.9	100.4	100.4	7.5		7.9		13			
						-	-	-	-		-	-	-	-	-	-	-		-		-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-						
						3.9	0.1	303	19.8	8.3	8.3	32.9	32.9	100.2	100.3	7.5	9.8	15						
						3.9	0.1	316	19.8	8.3	8.3	32.9	32.9	100.3	100.3	7.5	9.9	16						
IM2	Fine	Moderate	11:13	6.6	Surface	1.0	0.2	352	19.8	19.8	8.3	8.3	32.6	32.6	100.1	100.1	7.5	7.5	9.5	11.9	16	16	818153	806162
						1.0	0.2	324	19.8		8.3	8.3	32.6	32.6	100.1	100.1	7.5		9.6		14			
						3.3	0.2	336	19.7		8.3	8.3	32.6	32.6	99.0	99.0	7.5		12.0		16			
					Middle	3.3	0.3	337	19.7	8.3	8.3	32.6	32.6	99.0	99.0	7.5	12.1	16						
						5.6	0.2	347	19.7	8.3	8.3	32.6	32.6	99.3	99.3	7.5	14.0	17						
						5.6	0.2	319	19.7	8.3	8.3	32.6	32.6	99.4	99.4	7.5	14.0	18						
IM3	Fine	Moderate	11:20	6.8	Surface	1.0	0.3	334	19.8	19.8	8.3	8.3	32.6	32.6	99.8	99.8	7.5	7.5	11.3	13.6	22	21	818761	805588
						1.0	0.3	349	19.8		8.3	8.3	32.6	32.6	99.8	99.8	7.5		11.5		22			
						3.4	0.3	328	19.7		8.3	8.3	32.5	32.5	99.2	99.2	7.5		13.8		21			
					Middle	3.4	0.3	333	19.7	8.3	8.3	32.5	32.5	99.2	99.2	7.5	13.8	22						
						5.8	0.3	323	19.7	8.3	8.3	32.5	32.5	99.4	99.4	7.5	15.8	19						
						5.8	0.3	323	19.7	8.3	8.3	32.5	32.5	99.4	99.4	7.5	15.6	19						
IM4	Fine	Rough	11:30	8.6	Surface	1.0	0.5	338	19.7	19.7	8.3	8.3	32.6	32.6	98.6	98.6	7.4	7.4	10.2	14.8	15	14	819718	804617
						1.0	0.6	311	19.7		8.3	8.3	32.6	32.6	98.6	98.6	7.4		10.3		15			
						4.3	0.5	339	19.7		8.3	8.3	32.6	32.6	97.4	97.4	7.4		15.6		14			
					Middle	4.3	0.5	340	19.7	8.3	8.3	32.6	32.6	97.4	97.4	7.4	15.8	13						
						7.6	0.4	342	19.7	8.3	8.3	32.6	32.6	97.5	97.5	7.4	18.4	14						
						7.6	0.4	344	19.7	8.3	8.3	32.6	32.6	97.5	97.5	7.4	18.3	13						
IM5	Fine	Moderate	11:38	8.2	Surface	1.0	0.6	30	19.8	19.8	8.3	8.3	32.6	32.6	100.2	100.2	7.6	7.6	9.2	10.8	16	15	820713	804859
						1.0	0.6	32	19.8		8.3	8.3	32.6	32.6	100.2	100.2	7.6		9.2		15			
						4.1	0.6	34	19.7		8.3	8.3	32.6	32.6	99.2	99.2	7.5		12.4		15			
					Middle	4.1	0.7	34	19.7	8.3	8.3	32.6	32.6	99.2	99.2	7.5	12.5	14						
						7.2	0.5	38	19.7	8.3	8.3	32.6	32.6	99.6	99.6	7.5	10.7	15						
						7.2	0.6	38	19.7	8.3	8.3	32.6	32.6	99.8	99.8	7.5	10.9	14						
IM6	Fine	Moderate	11:45	7.4	Surface	1.0	0.2	29	19.9	19.9	8.3	8.3	32.8	32.8	99.6	99.5	7.5	7.4	3.9	4.1	6	8	821065	805824
						1.0	0.2	31	19.9		8.3	8.3	32.8	32.8	99.4	99.4	7.5		3.9		7			
						3.7	0.3	44	19.8		8.2	8.2	32.9	32.9	96.8	96.8	7.3		3.8		7			
					Middle	3.7	0.3	47	19.8	8.2	8.2	32.9	32.9	96.8	96.8	7.3	3.8	8						
						6.4	0.3	52	19.8	8.2	8.2	32.9	32.9	96.6	96.6	7.3	4.6	10						
						6.4	0.3	54	19.8	8.3	8.3	32.9	32.9	96.6	96.6	7.3	4.4	9						
IM7	Fine	Moderate	11:54	8.5	Surface	1.0	0.1	183	19.9	19.9	8.2	8.2	32.9	32.9	96.8	96.8	7.3	7.3	7.4	9.6	11	11	821340	806818
						1.0	0.1	196	19.9		8.2	8.2	32.9	32.9	96.8	96.8	7.3		7.4		11			
						4.3	0.1	177	19.8		8.2	8.2	32.9	32.9	96.2	96.2	7.2		9.8		11			
					Middle	4.3	0.1	189	19.8	8.2	8.2	32.9	32.9	96.2	96.2	7.2	9.8	11						
						7.5	0.1	177	19.8	8.3	8.3	32.9	32.9	96.3	96.3	7.2	11.6	10						
						7.5	0.1	180	19.8	8.3	8.3	32.9	32.9	96.3	96.3	7.2	11.5	10						
IM8	Fine	Moderate	10:40	7.3	Surface	1.0	0.1	21	20.5	20.5	8.2	8.2	33.4	33.4	107.5	107.5	8.0	8.0	6.6	6.6	8	9	821850	808153
						1.0	0.1	22	20.5		8.2	8.2	33.4	33.4	107.5	107.5	8.0		6.6		9			
						3.6	0.1	33	20.4		8.2	8.2	33.4	33.4	107.0	107.0	7.9		6.6		8			
					Middle	3.6	0.1	35	20.4	8.2	8.2	33.4	33.4	106.9	106.9	7.9	6.6	9						
						6.3	0.1	56	20.4	8.2	8.1	33.4	33.4	107.0	107.0	7.9	6.7	9						
						6.3	0.1	60	20.4	8.1	8.1	33.4	33.4	107.0	107.0	7.9	6.7	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 December 21 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									
IM9	Fine	Moderate	10:34	7.0	Surface	1.0	0.2	241	20.4	20.4	8.2	8.2	33.4	33.4	105.1	105.1	7.8	7.8	10.3	11	12	822083	808790								
						1.0	0.2	241	20.4	8.2	8.2	33.4	33.4	105.1	105.1	7.8	7.8	10.3	11												
						3.5	0.2	240	20.4	20.4	8.2	8.2	33.5	33.5	105.1	105.1	7.8	7.8	10.7	11											
					Middle	3.5	0.2	256	20.4	20.4	8.2	8.2	33.5	33.5	105.1	105.1	7.8	7.8	10.7	12											
						6.0	0.1	249	20.4	20.4	8.1	8.1	33.5	33.5	105.4	105.4	7.8	7.8	11.2	14											
						6.0	0.1	249	20.4	20.4	8.1	8.1	33.5	33.5	105.5	105.5	7.8	7.8	11.2	15											
					IM10	Fine	Moderate	10:28	8.2	Surface	1.0	0.4	303	20.4	20.4	8.2	8.2	33.5	33.5	106.3				106.3	7.9	7.9	8.2	11	12	822386	809778
											1.0	0.4	315	20.4	20.4	8.2	8.2	33.5	33.5	106.3				106.3	7.9	7.9	8.2	11			
											4.1	0.4	301	20.4	20.4	8.2	8.2	33.5	33.5	105.8				105.8	7.8	7.8	10.2	11			
Middle	4.1	0.5	323	20.4						20.4	8.2	8.2	33.5	33.5	105.8	105.8	7.8	7.8	10.2	11											
	7.2	0.4	300	20.4						20.4	8.1	8.1	33.4	33.4	105.8	105.8	7.8	7.9	12.1	13											
	7.2	0.4	322	20.4						20.4	8.1	8.1	33.4	33.4	105.8	105.8	7.9	7.9	12.1	13											
IM11	Fine	Moderate	10:18	7.1						Surface	1.0	0.6	312	20.4	20.4	8.2	8.2	33.5	33.5	105.6	105.6	7.8	7.8	10.3	20	16	822047	811437			
											1.0	0.6	315	20.4	20.4	8.2	8.2	33.5	33.5	105.6	105.6	7.8	7.8	10.3	19						
											3.5	0.5	305	20.4	20.4	8.2	8.2	33.5	33.5	105.1	105.1	7.8	7.8	11.1	14						
					Middle	3.5	0.5	324	20.4	20.4	8.2	8.2	33.5	33.5	105.1	105.1	7.8	7.8	11.1	15											
						6.1	0.5	310	20.4	20.4	8.1	8.1	33.5	33.5	105.4	105.4	7.8	7.8	12.0	13											
						6.1	0.5	335	20.4	20.4	8.1	8.1	33.5	33.5	105.4	105.4	7.8	7.8	12.0	14											
					IM12	Fine	Moderate	10:11	8.7	Surface	1.0	0.5	288	20.6	20.6	8.2	8.2	33.6	33.6	104.1	104.1	7.7	7.7	11.0	14				13	821458	812041
											1.0	0.5	310	20.6	20.6	8.2	8.2	33.6	33.6	104.1	104.1	7.7	7.7	11.0	13						
											4.4	0.5	291	20.5	20.5	8.1	8.1	33.6	33.6	104.2	104.2	7.7	7.7	11.1	13						
Middle	4.4	0.5	293	20.5						20.5	8.1	8.1	33.6	33.6	104.2	104.2	7.7	7.7	11.1	13											
	7.7	0.5	289	20.5						20.5	8.1	8.1	33.5	33.5	104.6	104.6	7.7	7.7	12.0	12											
	7.7	0.5	297	20.5						20.5	8.1	8.1	33.5	33.5	104.6	104.6	7.7	7.7	12.0	13											
SR1A	Fine	Moderate	09:46	5.0						Surface	1.0	-	-	20.6	20.6	8.1	8.1	33.7	33.7	105.0	105.0	7.7	7.7	6.3	7	7	819974	812658			
											1.0	-	-	20.6	20.6	8.1	8.1	33.7	33.7	105.0	105.0	7.7	7.7	6.4	7						
											2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-											
						4.0	-	-	20.5	20.5	8.1	8.1	33.7	33.7	105.1	105.1	7.8	7.8	6.6	8											
						4.0	-	-	20.5	20.5	8.1	8.1	33.7	33.7	105.1	105.1	7.8	7.8	6.6	7											
					SR2	Fine	Moderate	09:29	4.3	Surface	1.0	0.1	123	20.6	20.6	8.1	8.1	33.6	33.6	104.1	104.1	7.7	7.7	10.2	18				17	821465	814177
											1.0	0.1	132	20.6	20.6	8.1	8.1	33.6	33.6	104.1	104.1	7.7	7.7	10.2	17						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-												
	3.3	0.1	100	20.5						20.5	8.1	8.1	33.6	33.6	104.3	104.3	7.7	7.7	12.3	16											
	3.3	0.1	106	20.5						20.5	8.1	8.1	33.6	33.6	104.4	104.4	7.7	7.7	12.3	15											
SR3	Fine	Moderate	10:46	8.6						Surface	1.0	0.0	68	20.7	20.7	8.2	8.2	33.3	33.3	113.7	113.6	8.4	8.3	6.6	7	7	822137	807554			
											1.0	0.0	72	20.7	20.7	8.2	8.2	33.3	33.3	113.5	113.5	8.4	8.3	6.6	8						
											4.3	0.0	53	20.6	20.6	8.2	8.2	33.3	33.3	111.2	111.2	8.2	8.2	7.5	8						
					Middle	4.3	0.0	56	20.6	20.6	8.2	8.2	33.3	33.3	111.1	111.1	8.2	8.2	7.6	7											
						7.6	0.1	30	20.6	20.6	8.2	8.2	33.3	33.3	111.4	111.5	8.2	8.2	8.0	7											
						7.6	0.1	31	20.6	20.6	8.2	8.2	33.3	33.3	111.5	111.5	8.2	8.2	8.0	6											
					SR4A	Fine	Calm	10:20	9.2	Surface	1.0	0.2	70	19.9	19.9	8.2	8.2	32.9	32.9	97.6	97.6	7.3	7.3	5.0	10				8	817196	807821
											1.0	0.2	73	19.9	19.9	8.2	8.2	32.9	32.9	97.5	97.5	7.3	7.3	5.1	9						
											4.6	0.3	86	19.8	19.8	8.2	8.2	32.9	32.9	96.8	96.8	7.3	7.3	5.2	8						
Middle	4.6	0.3	91	19.8						19.8	8.2	8.2	32.9	32.9	96.8	96.8	7.3	7.3	5.3	8											
	8.2	0.3	82	19.7						19.7	8.2	8.2	32.9	32.9	96.5	96.5	7.3	7.3	7.0	7											
	8.2	0.3	89	19.7						19.7	8.2	8.2	32.9	32.9	96.5	96.5	7.3	7.3	6.8	8											
SR5A	Fine	Calm	10:02	3.8						Surface	1.0	0.1	277	19.9	19.9	8.2	8.2	32.9	32.9	98.8	98.8	7.4	7.4	4.6	8	9	816576	810713			
											1.0	0.1	284	19.9	19.9	8.2	8.2	32.9	32.9	98.8	98.8	7.4	7.4	4.7	9						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
						2.8	0.0	277	19.9	19.9	8.3	8.3	32.9	32.9	99.3	99.3	7.5	7.5	5.1	8											
						2.8	0.0	286	19.9	19.9	8.3	8.3	32.9	32.9	99.5	99.5	7.5	7.5	5.1	9											
					SR6A	Fine	Moderate	09:31	4.1	Surface	1.0	0.1	255	20.2	20.2	8.2	8.2	33.0	33.0	97.6	97.6	7.3	7.3	4.4	10				12	817951	814724
											1.0	0.1	275	20.2	20.2	8.2	8.2	33.0	33.0	97.6	97.6	7.3	7.3	4.4	9						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-												
	3.1	0.1	251	20.2						20.2	8.2	8.2	32.9	32.9	97.5	97.5	7.3	7.3	4.6	14											
	3.1	0.1	273	20.2						20.2	8.2	8.2	32.9	32.9	97.5	97.5	7.3	7.3	4.7	13											
SR7	Fine	Moderate	08:42	16.5						Surface	1.0	0.3	39	20.9	20.9	8.1	8.1	33.7	33.7	100.4	100.4	7.4	7.4	8.5	14	13	823649	823745			
											1.0	0.3	41	20.9	20.9	8.1	8.1	33.7	33.7	100.4	100.4	7.4	7.4	8.4	13						
											8.3	0.2	24	20.9	20.9	8.1	8.1	33.7	33.7	100.5	100.5	7.4	7.4	9.3	14						
					Middle	8.3	0.2	25	20.9	20.9	8.1	8.1	33.7	33.7	100.5	100.5	7.4	7.4	9.3	13											
						15.5	0.2	5	20.9	20.9	8.1	8.1	33.7	33.7	100.8	100.9	7.4	7.4	10.0	11											
						15.5	0.2	5	20.9	20.9	8.1	8.1	33.7	33.7	100.9	100.9	7.4	7.4	10.0	12											
					SR8	Fine	Moderate	10:05	5.0	Surface	1.0	-	-	20.5	20.5	8.2	8.2	33.6	33.6	106.5	106.5	7.9	7.9	7.5	12				11	820375	811610
											1.0	-	-	20.5	20.5	8.2	8.2	33.6	33.6	106.5	106.5	7.9	7.9	7.5	13						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-												
	4.0	-	-	20.5						20.5	8.1	8.1	33.6	33.6	106.6	106.7	7.9	7.9	7.9	9											
	4.0	-	-	20.5						20.5	8.1	8.1	33.6	33.6	106.7	106.7	7.9	7.9	7.9	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 09 December 21 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	Calm	17:45	8.8	Surface	1.0	0.2	158	21.0	21.0	8.2	8.2	33.5	33.5	108.7	106.9	8.0	7.7	7.8	9.1	8	8	815615	804257								
						1.0	0.2	163	21.0		8.2	8.2	33.5	33.5	105.1	103.8	7.7		7.9													
						4.4	0.2	164	21.1		8.2	8.2	33.8	33.8	103.8	103.8	7.6		9.3													
					Middle	4.4	0.2	171	21.1	21.1	8.2	8.2	33.9	33.9	103.8	103.8	7.6	9.6														
						7.8	0.2	155	20.7		8.2	8.2	34.2	34.2	107.4	107.5	7.9	10.0														
						7.8	0.2	168	20.6		8.2	8.2	34.3	34.3	107.6	107.5	7.9	10.1														
					C2	Fine	Moderate	16:46	12.5	Surface	1.0	0.4	155	20.4	20.4	8.3	8.3	31.4	31.4	113.2	113.0				8.5	8.4	1.5	2.7	4	5	825702	806938
											1.0	0.4	161	20.4		8.3	8.3	31.4	31.4	112.8	110.2				8.5		1.6					
											6.3	0.4	158	20.2		8.3	8.3	31.6	31.6	110.2	110.2				8.3		2.1					
Middle	6.3	0.4	173	20.2						20.2	8.3	8.3	31.6	31.6	110.1	110.1	8.3	2.2														
	11.5	0.5	167	20.1							8.3	8.3	31.9	31.9	104.4	104.4	7.9	4.4														
	11.5	0.5	178	20.1							8.3	8.3	31.9	31.9	104.4	104.4	7.8	4.5														
C3	Cloudy	Moderate	18:25	11.7						Surface	1.0	0.3	111	20.3	20.4	8.2	8.2	32.7	32.7	94.4	94.3	7.0	6.9	1.8	2.4	7	7	822086	817793			
											1.0	0.3	112	20.4		8.2	8.2	32.7	32.7	94.1	90.6	7.0		1.8								
											5.9	0.3	123	20.6		8.2	8.2	32.8	32.8	90.5	90.6	6.7		2.3								
					Middle	5.9	0.3	127	20.6	20.6	8.2	8.2	32.8	32.8	90.6	90.6	6.7	2.3														
						10.7	0.4	108	20.5		8.2	8.2	32.9	33.0	91.6	91.8	6.8	3.0														
						10.7	0.4	114	20.4		8.2	8.2	33.0	33.0	91.9	91.9	6.8	3.1														
					IM1	Fine	Calm	17:26	5.2	Surface	1.0	0.2	152	21.0	21.0	8.2	8.2	33.4	33.4	111.7	111.6	8.2	8.2	7.1	7.5	6				6	817931	807120
											1.0	0.2	155	20.9		8.2	8.2	33.4	33.4	111.5	111.5	8.2		7.2								
											-	-	-	-		-	-	-	-	-	-	-		-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	4.2	0.0	116	20.8							8.2	8.2	33.4	33.4	107.3	107.3	7.9	7.9	7.8	6												
	4.2	0.0	125	20.8							8.2	8.2	33.4	33.4	107.2	107.2	7.9	7.9	7.8	6												
IM2	Fine	Calm	17:19	7.0						Surface	1.0	0.2	204	21.0	21.0	8.2	8.2	33.5	33.5	105.5	105.5	7.7	7.7	7.1	8.3	9	8	818147	806181			
											1.0	0.2	208	20.9		8.2	8.2	33.5	33.5	105.4	104.7	7.7		7.0								
											3.5	0.1	200	20.9		8.2	8.2	33.5	33.5	104.7	104.6	7.7		8.6								
					Middle	3.5	0.1	211	20.9	20.9	8.2	8.2	33.5	33.5	104.6	104.7	7.7	8.6														
						6.0	0.1	224	20.9		8.2	8.2	33.5	33.4	104.1	104.1	7.7	9.2														
						6.0	0.1	224	20.9		8.2	8.2	33.4	33.4	104.1	104.1	7.7	9.2														
					IM3	Fine	Calm	17:11	7.2	Surface	1.0	0.2	245	21.0	21.0	8.2	8.2	33.5	33.5	105.7	105.6	7.8	7.7	8.7	9.3	8				8	818778	805582
											1.0	0.2	263	20.9		8.2	8.2	33.5	33.5	105.5	104.8	7.7		8.7								
											3.6	0.1	203	20.9		8.2	8.2	33.5	33.5	104.8	104.8	7.7		9.1								
Middle	3.6	0.1	218	20.9						20.9	8.2	8.2	33.5	33.5	104.8	104.8	7.7	9.2														
	6.2	0.1	344	20.9							8.2	8.2	33.5	33.5	104.7	104.7	7.7	10.0														
	6.2	0.1	348	20.9							8.2	8.2	33.5	33.5	104.7	104.7	7.7	10.1														
IM4	Fine	Calm	17:02	8.8						Surface	1.0	0.3	219	21.1	21.1	8.2	8.2	33.4	33.4	109.6	109.6	8.0	8.0	6.4	7.4	7	8	819707	804592			
											1.0	0.4	235	21.1		8.2	8.2	33.4	33.4	109.5	108.7	8.0		6.5								
											4.4	0.3	219	21.0		8.2	8.2	33.4	33.4	108.7	108.7	8.0		7.2								
					Middle	4.4	0.3	238	21.0	21.0	8.2	8.2	33.4	33.4	108.6	108.6	8.0	7.1														
						7.8	0.3	228	20.7		8.2	8.2	33.6	33.6	108.5	108.6	8.0	8.6														
						7.8	0.3	245	20.7		8.2	8.2	33.6	33.6	108.7	108.6	8.0	8.7														
					IM5	Fine	Calm	16:55	8.4	Surface	1.0	0.4	219	20.7	20.7	8.2	8.2	33.4	33.4	104.4	104.4	7.7	7.7	7.6	8.3	10				11	820722	804884
											1.0	0.4	226	20.7		8.2	8.2	33.4	33.4	104.3	104.4	7.7		7.5								
											4.2	0.3	215	20.7		8.2	8.2	33.4	33.4	104.3	104.4	7.7		8.3								
Middle	4.2	0.4	216	20.7						20.7	8.2	8.2	33.4	33.4	104.5	104.4	7.7	8.3														
	7.4	0.1	226	20.6							8.2	8.2	33.5	33.5	106.0	106.1	7.8	9.1														
	7.4	0.1	232	20.6							8.2	8.2	33.6	33.6	106.2	106.1	7.9	9.0														
IM6	Fine	Calm	16:47	7.6						Surface	1.0	0.1	284	21.0	21.0	8.2	8.2	32.7	32.7	121.9	119.6	9.0	8.6	5.0	5.7	5	5	821054	805804			
											1.0	0.1	284	20.9		8.2	8.2	32.7	32.7	117.2	112.9	8.6		5.2								
											3.8	0.1	272	20.9		8.2	8.2	33.2	33.2	113.0	112.9	8.3		5.8								
					Middle	3.8	0.1	292	20.9	20.9	8.2	8.2	33.2	33.2	112.8	109.9	8.3	5.9														
						6.6	0.1	287	20.7		8.2	8.2	33.5	33.5	109.8	109.9	8.1	6.1														
						6.6	0.1	305	20.6		8.2	8.2	33.5	33.5	109.9	109.9	8.1	6.1														
					IM7	Fine	Calm	16:40	8.6	Surface	1.0	0.2	239	20.8	20.8	8.3	8.2	32.3	32.3	122.7	122.6	9.1	8.8	3.9	5.0	5				4	821358	806823
											1.0	0.2	239	20.8		8.2	8.2	32.3	32.3	122.4	113.2	9.1		3.9								
											4.3	0.1	246	20.8		8.2	8.2	32.8	32.8	113.2	113.2	8.4		4.9								
Middle	4.3	0.1	263	20.8						20.8	8.2	8.2	32.8	32.8	113.1	113.1	8.4	5.0														
	7.6	0.2	257	20.8							8.2	8.2	33.3	33.3	106.6	106.7	7.8	6.1														
	7.6	0.2	281	20.8							8.2	8.2	33.3	33.3	106.7	106.7	7.9	6.2														
IM8	Fine	Moderate	17:10	8.0						Surface	1.0	0.3	135	20.0	20.0	8.3	8.3	31.4	31.4	110.7	110.4	8.4	8.1	2.9	3.6	3	4	821838	808156			
											1.0	0.3	140	20.0		8.3	8.3	31.4	31.4	110.1	104.4	8.3		3.0								
											4.0	0.3	138	20.0		8.3	8.3	31.4	31.4	104.5	104.4	7.9		3.6								
					Middle	4.0	0.3	147	20.0	20.0	8.3	8.3	31.5	31.4	104.3	104.4	7.9	3.6														
						7.0	0.4	128	20.0		8.3	8.3	31.9	31.9	102.7	102.7	7.7	4.1														
						7.0	0.4	130	20.0		8.3	8.3	31.9	31.9	102.7	102.7	7.7	4.1														

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 09 December 21 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	Fine	Calm	12:24	8.0	Surface	1.0	0.5	52	20.8	20.8	8.2	8.2	33.5	33.5	104.9	104.8	7.7	7.7	7	7	815600	804255		
						1.0	0.5	52	20.8		8.2	8.2	33.5	33.5	104.7	104.8	7.7		7.6					
						4.0	0.5	52	20.7		20.7	8.1	8.1	33.6	33.6	104.5	104.6		7.7				8.1	
					Middle	4.0	0.5	52	20.7	20.7	8.1	8.1	33.6	33.6	104.6	104.6	7.7	8.2						
						7.0	0.5	52	20.7	20.7	8.1	8.1	33.6	33.6	105.1	105.2	7.7	9.4						
						7.0	0.5	52	20.7	20.7	8.1	8.1	33.6	33.6	105.3	105.3	7.8	9.5						
C2	Fine	Moderate	13:32	12.6	Surface	1.0	0.4	33	20.2	20.2	8.3	8.3	31.5	31.5	109.3	109.1	8.2	8.2	4	4	825680	806945		
						1.0	0.4	33	20.2		8.3	8.3	31.5	31.5	108.9	108.9	8.2		2.1					
						6.3	0.4	35	20.1		20.1	8.3	8.3	31.7	31.7	106.1	106.0		8.0				4.5	
					Middle	6.3	0.4	35	20.1	20.1	8.3	8.3	31.7	31.7	105.9	105.9	8.0	4.8						
						11.6	0.4	38	20.1	20.1	8.3	8.3	31.8	31.8	105.5	105.5	7.9	5.7						
						11.6	0.4	41	20.1	20.1	8.3	8.3	31.7	31.7	105.5	105.5	7.9	5.6						
C3	Fine	Moderate	11:22	11.4	Surface	1.0	0.3	227	20.0	20.0	8.2	8.2	32.6	32.6	96.7	96.7	7.3	7.3	4	7	822096	817814		
						1.0	0.3	232	20.0		8.2	8.2	32.6	32.6	96.7	96.7	7.3		4.9					
						5.7	0.4	225	20.0		20.0	8.2	8.2	32.7	32.7	96.4	96.4		7.2				5.6	
					Middle	5.7	0.4	242	20.0	20.0	8.2	8.2	32.7	32.7	96.4	96.4	7.2	5.8						
						10.4	0.3	231	20.0	20.0	8.3	8.3	32.7	32.7	96.6	96.6	7.2	8.5						
						10.4	0.3	237	20.0	20.0	8.3	8.3	32.7	32.7	96.7	96.7	7.3	8.2						
IM1	Fine	Calm	12:42	4.8	Surface	1.0	0.5	52	20.8	20.8	8.1	8.1	33.5	33.5	108.8	108.8	8.0	8.0	6	7	817971	807115		
						1.0	0.5	54	20.8		8.1	8.1	33.5	33.5	108.8	108.8	8.0		5.1					
						-	-	-	-		-	-	-	-	-	-	-		-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-						
IM2	Fine	Calm	12:51	6.6	Surface	1.0	0.3	16	20.7	20.7	8.2	8.2	33.5	33.5	105.1	105.1	7.7	7.7	8	8	818156	806161		
						1.0	0.3	16	20.7		8.2	8.2	33.5	33.5	105.0	105.0	7.7		7.8					
						3.3	0.2	10	20.7		20.7	8.2	8.2	33.5	33.5	106.1	106.3		7.8				8.2	
					Middle	3.3	0.2	10	20.6	20.6	8.2	8.2	33.6	33.6	106.4	106.4	7.9	8.1						
						5.6	0.2	10	20.3	20.3	8.2	8.2	33.8	33.9	107.3	107.4	8.0	9.7						
						5.6	0.2	10	20.2	20.2	8.2	8.2	33.9	33.9	107.4	107.4	8.0	9.6						
IM3	Fine	Calm	12:57	7.0	Surface	1.0	0.2	10	20.6	20.6	8.2	8.2	33.4	33.4	105.5	105.5	7.8	7.8	7	7	818777	805590		
						1.0	0.2	10	20.6		8.2	8.2	33.4	33.4	105.5	105.5	7.8		3.4					
						3.5	0.3	355	20.4		20.4	8.1	8.1	33.5	33.5	105.8	105.9		7.8				4.4	
					Middle	3.5	0.3	327	20.4	20.4	8.1	8.1	33.6	33.6	105.9	105.9	7.9	4.5						
						6.0	0.3	347	20.1	20.1	8.1	8.1	33.8	33.8	107.1	107.4	8.0	5.1						
						6.0	0.3	319	20.0	20.0	8.1	8.1	33.9	33.9	107.6	107.6	8.0	5.2						
IM4	Fine	Calm	13:05	7.8	Surface	1.0	0.4	12	20.7	20.7	8.2	8.2	33.2	33.2	107.2	107.1	7.9	7.9	5	7	819741	804621		
						1.0	0.4	12	20.7		8.2	8.2	33.2	33.2	107.0	107.0	7.9		5.0					
						3.9	0.4	1	20.6		20.6	8.2	8.2	33.2	33.2	106.3	106.3		7.9				6.5	
					Middle	3.9	0.4	1	20.6	20.6	8.2	8.2	33.2	33.2	106.3	106.3	7.9	6.5						
						6.8	0.3	359	20.2	20.2	8.1	8.1	33.5	33.6	107.7	107.8	8.0	7.7						
						6.8	0.3	330	20.1	20.1	8.1	8.1	33.6	33.6	107.8	107.8	8.0	7.8						
IM5	Fine	Calm	13:13	8.2	Surface	1.0	0.7	2	20.7	20.7	8.2	8.2	33.2	33.2	106.5	106.4	7.9	7.9	7	7	820738	804847		
						1.0	0.7	2	20.7		8.2	8.2	33.3	33.3	106.3	106.3	7.8		7.2					
						4.1	0.6	359	20.6		20.6	8.2	8.2	33.3	33.3	105.1	105.2		7.8				8.8	
					Middle	4.1	0.6	330	20.6	20.6	8.2	8.2	33.3	33.3	105.2	105.2	7.8	8.9						
						7.2	0.4	1	20.7	20.7	8.2	8.2	33.3	33.3	106.2	106.4	7.8	9.7						
						7.2	0.5	1	20.7	20.7	8.2	8.2	33.3	33.3	106.5	106.5	7.9	9.6						
IM6	Fine	Calm	13:20	7.2	Surface	1.0	0.1	95	20.9	20.9	8.2	8.2	32.9	33.0	114.3	114.1	8.4	8.4	7	6	821068	805809		
						1.0	0.1	100	20.9		8.2	8.2	33.0	33.0	113.8	113.8	8.4		7.1					
						3.6	0.1	80	20.8		20.8	8.2	8.2	33.4	33.4	107.3	107.3		7.9				8.4	
					Middle	3.6	0.1	82	20.8	20.8	8.2	8.2	33.4	33.4	107.3	107.3	7.9	8.4						
						6.2	0.2	77	20.8	20.8	8.2	8.2	33.4	33.4	107.3	107.3	7.9	9.8						
						6.2	0.2	77	20.8	20.8	8.2	8.2	33.4	33.4	107.3	107.3	7.9	9.8						
IM7	Fine	Calm	13:27	8.4	Surface	1.0	0.1	352	20.6	20.6	8.2	8.2	32.3	32.3	117.0	116.9	8.7	8.7	3	4	821362	806842		
						1.0	0.1	324	20.6		8.2	8.2	32.3	32.3	116.8	116.8	8.7		4.7					
						4.2	0.1	34	20.5		20.5	8.2	8.2	32.4	32.4	113.6	111.7		8.4				5.7	
					Middle	4.2	0.1	34	20.5	20.5	8.2	8.2	32.5	32.4	109.7	109.7	8.2	5.7						
						7.4	0.2	40	20.5	20.5	8.2	8.2	32.5	32.5	109.1	109.1	8.1	6.9						
						7.4	0.2	40	20.5	20.5	8.2	8.2	32.5	32.5	109.1	109.1	8.1	7.0						
IM8	Fine	Moderate	13:03	7.6	Surface	1.0	0.3	277	20.2	20.2	8.3	8.3	31.3	31.3	110.6	110.5	8.3	8.3	6	5	821816	808151		
						1.0	0.3	289	20.2		8.3	8.3	31.3	31.3	110.4	110.4	8.3		1.8					
						3.8	0.3	258	20.0		20.0	8.3	8.3	31.5	31.5	107.2	105.6		8.1				3.2	
					Middle	3.8	0.3	276	20.0	20.0	8.3	8.3	31.5	31.5	104.0	104.0	7.9	3.5						
						6.6	0.3	266	19.9	19.9	8.3	8.3	31.5	31.5	103.2	103.2	7.8	4.7						
						6.6	0.3	266	19.9	19.9	8.3	8.3	31.5	31.5	103.1	103.1	7.8	4.8						

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 11 December 21 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	Calm	19:48	8.0	Surface	1.0	0.2	204	20.4	20.4	8.3	8.3	32.2	32.2	99.4	99.3	7.4	7.4	5.4	5	5	815616	804240								
						1.0	0.2	217	20.4	8.3	8.3	32.2	32.2	99.2	99.2	7.4	7.4	5.3	5												
						4.0	0.1	222	20.3	8.3	8.3	32.3	32.3	98.5	98.6	7.4	7.4	6.3	6												
					Middle	4.0	0.1	225	20.3	20.3	8.3	8.3	32.3	32.3	98.6	98.6	7.4	7.4	6.3	5											
						7.0	0.1	242	20.3	20.3	8.3	8.3	32.3	32.3	99.5	99.6	7.4	7.4	7.9	6											
						7.0	0.1	258	20.3	20.3	8.3	8.3	32.3	32.3	99.7	99.7	7.5	7.5	7.8	5											
					C2	Fine	Rough	21:16	9.1	Surface	1.0	0.1	228	20.8	20.8	8.2	8.2	31.8	31.8	115.5				115.5	8.6	8.6	3.1	4	4	825664	806954
											1.0	0.1	236	20.8	8.2	8.2	31.8	31.8	115.5	115.5				8.6	8.6	3.1	3				
											4.6	0.1	217	20.8	8.2	8.2	31.9	31.9	114.3	114.3				8.5	8.5	4.0	4				
Middle	4.6	0.1	226	20.8						20.8	8.2	8.2	31.9	31.9	114.3	114.3	8.5	8.5	3.9	3											
	8.1	0.1	209	20.8						20.8	8.2	8.2	32.4	32.4	109.1	109.1	8.1	8.1	6.6	4											
	8.1	0.1	220	20.8						20.8	8.2	8.2	32.4	32.4	109.1	109.1	8.1	8.1	6.6	4											
C3	Fine	Rough	19:19	12.1						Surface	1.0	0.2	88	20.8	20.8	8.2	8.2	33.0	33.0	105.4	105.4	7.8	7.8	4.1	3	3	822087	817793			
											1.0	0.2	90	20.8	8.2	8.2	33.0	33.0	105.3	105.3	7.8	7.8	4.1	4							
											6.1	0.2	84	20.8	8.2	8.2	33.0	33.0	105.0	105.0	7.8	7.8	4.1	3							
					Middle	6.1	0.2	92	20.8	20.8	8.2	8.2	33.0	33.0	105.0	105.0	7.8	7.8	4.1	2											
						11.1	0.1	61	20.8	20.8	8.1	8.1	33.1	33.1	104.0	104.1	7.7	7.7	6.3	2											
						11.1	0.1	65	20.8	20.8	8.1	8.1	33.1	33.1	104.1	104.1	7.7	7.7	6.3	3											
					IM1	Misty	Calm	19:26	4.6	Surface	1.0	0.1	127	20.6	20.6	8.3	8.3	32.1	32.1	103.5	103.5	7.7	7.7	4.0	4				4	817934	807122
											1.0	0.1	136	20.5	8.3	8.3	32.1	32.1	103.5	103.5	7.7	7.7	4.1	3							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-									
	3.6	0.1	126	20.5						20.5	8.3	8.3	32.1	32.1	103.0	103.0	7.7	7.7	5.8	4											
	3.6	0.1	133	20.5						20.5	8.3	8.3	32.1	32.1	103.0	103.0	7.7	7.7	5.9	5											
IM2	Misty	Calm	19:19	6.4						Surface	1.0	0.4	345	20.3	20.3	8.3	8.3	31.9	31.9	99.1	99.1	7.4	7.4	4.2	5	4	818163	806178			
											1.0	0.4	317	20.3	20.3	8.3	8.3	31.9	31.9	99.0	99.0	7.4	7.4	4.2	4						
											3.2	0.4	344	20.2	20.2	8.3	8.3	32.0	32.0	98.1	98.1	7.4	7.4	5.5	5						
					Middle	3.2	0.4	316	20.2	20.2	8.3	8.3	32.0	32.0	98.1	98.1	7.4	7.4	5.6	4											
						5.4	0.4	352	20.2	20.2	8.3	8.3	32.1	32.1	99.4	99.5	7.5	7.5	7.9	3											
						5.4	0.5	354	20.2	20.2	8.3	8.3	32.1	32.1	99.5	99.5	7.5	7.5	7.9	3											
					IM3	Misty	Calm	19:11	6.8	Surface	1.0	0.2	324	20.2	20.2	8.3	8.3	31.8	31.8	100.1	100.0	7.5	7.5	3.5	2				3	818804	805593
											1.0	0.2	324	20.2	20.2	8.3	8.3	31.8	31.8	100.0	100.0	7.5	7.5	3.7	3						
											3.4	0.2	323	20.3	20.3	8.3	8.3	32.0	32.0	98.3	98.3	7.4	7.4	5.6	3						
Middle	3.4	0.3	354	20.3						20.3	8.3	8.3	32.0	32.0	98.3	98.3	7.4	7.4	5.6	4											
	5.8	0.2	320	20.3						20.3	8.3	8.3	32.1	32.1	99.5	99.5	7.4	7.4	6.3	3											
	5.8	0.2	332	20.3						20.3	8.3	8.3	32.1	32.1	99.5	99.5	7.4	7.4	6.4	4											
IM4	Misty	Calm	19:02	8.6						Surface	1.0	0.2	238	20.3	20.3	8.3	8.3	31.9	31.9	100.8	100.7	7.6	7.6	1.4	<2	2	819707	804624			
											1.0	0.2	249	20.3	20.3	8.3	8.3	31.9	31.9	100.6	100.6	7.5	7.5	1.5	<2						
											4.3	0.1	202	20.2	20.2	8.3	8.3	32.1	32.1	99.0	99.1	7.4	7.4	2.5	3						
					Middle	4.3	0.1	222	20.2	20.2	8.3	8.3	32.1	32.1	99.1	99.1	7.4	7.4	2.5	2											
						7.6	0.2	240	20.2	20.2	8.3	8.3	32.1	32.1	99.8	99.9	7.5	7.5	3.4	3											
						7.6	0.2	240	20.2	20.2	8.3	8.3	32.1	32.1	100.0	100.0	7.5	7.5	3.5	2											
					IM5	Misty	Calm	18:53	7.8	Surface	1.0	0.4	252	20.3	20.3	8.3	8.3	32.0	32.0	98.4	98.4	7.4	7.4	6.1	11				10	820741	804886
											1.0	0.4	263	20.3	20.3	8.3	8.3	32.0	32.0	98.4	98.4	7.4	7.4	6.2	10						
											3.9	0.3	235	20.3	20.3	8.3	8.3	32.0	32.0	98.6	98.7	7.4	7.4	7.9	10						
Middle	3.9	0.4	244	20.3						20.3	8.3	8.3	32.0	32.0	98.7	98.7	7.4	7.4	7.8	9											
	6.8	0.3	250	20.3						20.3	8.3	8.3	32.0	32.0	99.1	99.1	7.4	7.4	8.3	10											
	6.8	0.3	252	20.3						20.3	8.3	8.3	32.0	32.0	99.1	99.1	7.4	7.4	8.1	9											
IM6	Misty	Calm	18:46	7.2						Surface	1.0	0.5	268	20.3	20.3	8.3	8.3	31.3	31.3	107.2	107.0	8.1	8.1	1.2	4	4	821080	805819			
											1.0	0.5	285	20.3	20.3	8.3	8.3	31.4	31.4	106.8	106.8	8.0	8.0	1.2	4						
											3.6	0.5	262	20.2	20.2	8.3	8.3	31.4	31.4	105.6	105.6	7.9	7.9	1.4	4						
					Middle	3.6	0.5	283	20.2	20.2	8.3	8.3	31.4	31.4	105.5	105.5	7.9	7.9	1.3	4											
						6.2	0.4	269	20.2	20.2	8.3	8.3	31.4	31.4	105.4	105.4	7.9	7.9	2.2	3											
						6.2	0.5	281	20.2	20.2	8.3	8.3	31.4	31.4	105.5	105.5	7.9	7.9	2.2	3											
					IM7	Misty	Calm	18:41	8.0	Surface	1.0	0.5	214	20.3	20.3	8.3	8.3	31.3	31.3	108.1	108.1	8.1	8.1	1.1	4				4	821363	806834
											1.0	0.5	231	20.3	20.3	8.3	8.3	31.3	31.3	108.1	108.1	8.1	8.1	1.0	4						
											4.0	0.4	219	20.2	20.2	8.3	8.3	31.4	31.4	106.3	106.3	8.0	8.0	1.2	5						
Middle	4.0	0.4	229	20.2						20.2	8.3	8.3	31.4	31.4	106.3	106.3	8.0	8.0	1.2	4											
	7.0	0.4	226	20.2						20.2	8.3	8.3	31.5	31.5	106.1	106.1	8.0	8.0	1.9	5											
	7.0	0.4	239	20.2						20.2	8.3	8.3	31.4	31.4	106.1	106.1	8.0	8.0	1.9	4											
IM8	Fine	Rough	20:52	8.6						Surface	1.0	0.4	21	20.9	20.9	8.2	8.2	32.2	32.2	113.6	113.5	8.4	8.4	4.6	4	4	821806	808154			
											1.0	0.4	22	20.8	20.8	8.2	8.2	32.2	32.2	113.4	113.4	8.4	8.4	4.7	5						
											4.3	0.3	25	20.8	20.8	8.2	8.2	32.3	32.3	112.5	112.5	8.3	8.3	4.9	3						
					Middle	4.3	0.3	26	20.8	20.8	8.2	8.2	32.3	32.3	112.5	112.5	8.3	8.3	5.0	4											
						7.6	0.3	22	20.8	20.8	8.2	8.2	32.3	32.3	110.8	110.8	8.2	8.2	6.1	3											
						7.6	0.3	22	20.8	20.8	8.2	8.2	32.3	32.3	110.8	110.8	8.2	8.2	6.1	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 11 December 21 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	Calm	13:44	7.8	Surface	1.0	0.3	24	20.2	20.2	8.3	8.3	31.1	31.1	107.8	107.8	8.1	8.1	5.5	9	10	815598	804233	
						1.0	0.3	24	20.2	8.3	8.3	31.1	31.1	107.7	107.7	8.1	8.1	5.5	10					
						3.9	0.3	31	20.2	20.2	8.3	8.3	31.1	31.1	107.0	107.0	8.1	8.1	6.9	10				
					3.9	0.3	33	20.2	8.3	8.3	31.1	31.1	106.9	106.9	8.1	8.1	6.8	11						
					6.8	0.3	28	20.2	20.2	8.3	8.3	31.1	31.1	106.5	106.5	8.0	8.0	7.1	10					
					6.8	0.3	30	20.2	8.3	8.3	31.1	31.1	106.4	106.4	8.0	8.0	7.1	11						
C2	Sunny	Rough	12:46	10.2	Surface	1.0	0.1	68	21.3	21.3	8.3	8.3	31.8	31.8	124.7	124.7	9.2	9.2	3.3	4	4	825676	806925	
						1.0	0.1	69	21.3	8.3	8.3	31.8	31.8	124.6	124.6	9.2	9.2	3.3	3					
						5.1	0.1	31	20.9	20.9	8.2	8.2	32.1	32.1	112.2	112.1	8.3	8.3	3.8	4				
					5.1	0.1	31	20.9	8.2	8.2	32.1	32.1	111.9	111.9	8.3	8.3	3.8	3						
					9.2	0.1	31	20.8	20.8	8.2	8.2	32.3	32.3	109.9	109.9	8.1	8.1	6.7	4					
					9.2	0.1	34	20.8	8.2	8.2	32.3	32.3	109.9	109.9	8.1	8.1	6.8	5						
C3	Sunny	Rough	14:44	11.8	Surface	1.0	0.3	267	21.1	21.1	8.2	8.2	33.2	33.2	108.2	108.1	7.9	7.9	3.3	5	5	822091	817793	
						1.0	0.3	268	21.1	8.2	8.2	33.2	33.2	108.0	108.0	7.9	7.9	3.2	6					
						5.9	0.3	250	20.9	20.9	8.2	8.2	33.4	33.4	100.7	100.7	7.4	7.4	5.5	5				
					5.9	0.3	261	20.9	8.2	8.2	33.4	33.4	100.6	100.6	7.4	7.4	5.5	4						
					10.8	0.3	252	20.9	20.9	8.2	8.2	33.3	33.3	100.7	100.7	7.4	7.4	7.6	5					
					10.8	0.3	258	20.9	8.2	8.2	33.3	33.3	100.8	100.8	7.4	7.4	7.7	4						
IM1	Misty	Calm	14:05	4.2	Surface	1.0	0.1	353	20.2	20.2	8.3	8.3	31.1	31.1	108.5	108.5	8.2	8.2	3.8	6	6	817930	807130	
						1.0	0.1	325	20.2	8.3	8.3	31.1	31.1	108.4	108.4	8.2	8.2	3.8	5					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					3.2	0.1	341	20.2	20.2	8.3	8.3	31.1	31.1	108.2	108.3	8.2	8.2	4.6	5					
					3.2	0.1	342	20.2	8.3	8.3	31.1	31.1	108.3	108.3	8.2	8.2	4.6	6						
					-	-	-	-	-	-	-	-	-	-	-	-	-	-						
IM2	Misty	Calm	14:13	6.2	Surface	1.0	0.2	18	20.2	20.2	8.3	8.3	31.1	31.1	107.7	107.7	8.1	8.1	3.4	6	7	818173	806186	
						1.0	0.2	19	20.2	8.3	8.3	31.1	31.1	107.7	107.7	8.1	8.1	3.5	7					
						3.1	0.3	11	20.2	20.2	8.3	8.3	31.1	31.1	107.6	107.6	8.1	8.1	4.9	6				
					3.1	0.3	11	20.2	8.3	8.3	31.1	31.1	107.6	107.6	8.1	8.1	4.9	7						
					5.2	0.2	358	20.2	20.2	8.3	8.3	31.0	31.0	108.0	108.0	8.2	8.2	5.6	7					
					5.2	0.2	329	20.2	8.3	8.3	31.0	31.0	108.0	108.0	8.2	8.2	5.6	8						
IM3	Misty	Calm	14:20	6.4	Surface	1.0	0.2	343	20.2	20.2	8.3	8.3	31.1	31.1	107.1	107.1	8.1	8.1	4.6	5	5	818801	805579	
						1.0	0.2	349	20.2	8.3	8.3	31.1	31.1	107.0	107.0	8.1	8.1	4.6	6					
						3.2	0.3	340	20.2	20.2	8.3	8.3	31.1	31.1	106.6	106.6	8.1	8.1	5.0	6				
					3.2	0.3	313	20.2	8.3	8.3	31.1	31.1	106.5	106.5	8.0	8.0	5.0	5						
					5.4	0.2	322	20.2	20.2	8.3	8.3	31.1	31.1	106.0	105.9	8.0	8.0	6.3	5					
					5.4	0.2	329	20.2	8.3	8.3	31.1	31.1	105.8	105.8	8.0	8.0	6.3	5						
IM4	Misty	Calm	14:29	8.2	Surface	1.0	0.5	2	20.2	20.2	8.3	8.3	31.1	31.1	107.6	107.6	8.1	8.1	4.8	4	5	819730	804595	
						1.0	0.6	2	20.2	8.3	8.3	31.1	31.1	107.6	107.6	8.1	8.1	5.0	5					
						4.1	0.5	354	20.2	20.2	8.3	8.3	31.1	31.1	107.3	107.3	8.1	8.1	6.3	5				
					4.1	0.5	326	20.2	8.3	8.3	31.1	31.1	107.3	107.3	8.1	8.1	6.3	4						
					7.2	0.3	340	20.2	20.2	8.3	8.3	31.1	31.1	107.1	107.2	8.1	8.1	7.0	6					
					7.2	0.3	313	20.2	8.3	8.3	31.1	31.1	107.2	107.2	8.1	8.1	7.1	5						
IM5	Misty	Calm	14:37	7.4	Surface	1.0	0.4	347	20.2	20.2	8.3	8.3	31.1	31.1	107.9	107.9	8.1	8.1	6.5	7	8	820748	804850	
						1.0	0.4	319	20.2	8.3	8.3	31.1	31.1	107.8	107.8	8.1	8.1	6.4	8					
						3.7	0.4	346	20.2	20.2	8.3	8.3	31.1	31.1	107.3	107.3	8.1	8.1	7.1	8				
					3.7	0.5	350	20.2	8.3	8.3	31.1	31.1	107.2	107.2	8.1	8.1	7.0	8						
					6.4	0.4	355	20.2	20.2	8.3	8.3	31.0	31.0	106.7	106.7	8.1	8.1	8.2	8					
					6.4	0.4	327	20.2	8.3	8.3	31.0	31.0	106.7	106.7	8.1	8.1	8.2	8						
IM6	Misty	Calm	14:45	6.8	Surface	1.0	0.1	262	20.2	20.2	8.3	8.3	31.1	31.1	108.2	108.2	8.2	8.2	2.2	7	8	821065	805807	
						1.0	0.1	270	20.2	8.3	8.3	31.1	31.1	108.2	108.2	8.2	8.2	2.1	8					
						3.4	0.1	268	20.2	20.2	8.3	8.3	31.1	31.1	108.3	108.3	8.2	8.2	3.5	7				
					3.4	0.2	282	20.2	8.3	8.3	31.1	31.1	108.3	108.3	8.2	8.2	3.5	8						
					5.8	0.1	326	20.3	20.3	8.3	8.3	31.1	31.1	108.8	108.9	8.2	8.2	4.4	8					
					5.8	0.1	354	20.3	8.3	8.3	31.1	31.1	108.9	108.9	8.2	8.2	4.5	8						
IM7	Misty	Calm	14:54	7.6	Surface	1.0	0.2	162	20.2	20.2	8.3	8.3	31.1	31.1	108.3	108.3	8.2	8.2	1.3	7	6	821347	806829	
						1.0	0.2	163	20.2	8.3	8.3	31.1	31.1	108.2	108.2	8.2	8.2	1.4	6					
						3.8	0.1	195	20.2	20.2	8.3	8.3	31.1	31.1	108.5	108.6	8.2	8.2	2.2	6				
					3.8	0.1	207	20.2	8.3	8.3	31.1	31.1	108.6	108.6	8.2	8.2	2.2	5						
					6.6	0.1	268	20.2	20.2	8.3	8.3	31.1	31.1	108.9	108.9	8.2	8.2	3.6	5					
					6.6	0.1	281	20.2	8.3	8.3	31.1	31.1	108.9	108.9	8.2	8.2	3.6	6						
IM8	Sunny	Rough	13:10	8.6	Surface	1.0	0.2	267	21.3	21.3	8.3	8.3	32.0	32.0	125.0	124.9	9.2	9.2	3.1	6	6	821815	808133	
						1.0	0.2	287	21.3	8.3	8.3	32.0	32.0	124.8	124.8	9.2	9.2	3.1	6					
						4.3	0.3	255	21.0	21.0	8.2	8.2	32.3	32.3	116.2	116.2	8.6	8.6	3.6	6				
					4.3	0.3	267	21.0	8.2	8.2	32.3	32.3	116.2	116.2	8.6	8.6	3.7	6						
					7.6	0.3	256	20.9	21.0	8.2	8.2	32.3	32.3	110.4	110.4	8.2	8.2	3.9	5					
					7.6	0.3	274	21.0	8.2	8.2	32.3	32.3	110.4	110.4	8.1	8.1	4.0	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 14 December 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
																									Value
C1	Cloudy	Moderate	15:53	8.2	Surface	1.0	0.5	82	21.4	21.4	8.1	8.1	31.6	31.6	105.1	105.1	7.8	7.8	10.1	7.8	11.4	5	815626	804259	
						1.0	0.5	88	21.4		8.1	8.1	31.6	31.6	105.1	105.1	7.8	7.8	10.2						
					Middle	4.1	0.5	72	21.4		8.2	8.2	31.6	31.6	104.6	104.7	7.7	7.7	11.3						
						4.1	0.5	77	21.4		8.2	8.2	31.6	31.6	104.7	104.7	7.7	7.7	11.3						
					Bottom	7.2	0.5	63	21.3		8.2	8.2	31.6	31.6	106.0	106.1	7.9	7.9	12.6						
						7.2	0.5	67	21.3		8.2	8.2	31.6	31.6	106.1	106.1	7.9	7.9	12.7						
C2	Fine	Calm	14:26	12.8	Surface	1.0	0.2	335	21.2	21.2	8.2	8.2	32.9	32.9	120.8	120.6	8.9	8.9	2.8	8.5	4.2	6	825681	806930	
						1.0	0.2	342	21.1		8.2	8.2	32.9	32.9	120.3	120.3	8.8	8.8	2.8						
					Middle	6.4	0.2	335	21.1		8.2	8.2	32.9	32.9	111.8	111.8	8.2	8.2	3.1						
						6.4	0.2	339	21.1		8.2	8.2	32.9	32.9	111.7	111.7	8.2	8.2	3.4						
					Bottom	11.8	0.3	346	21.1		8.2	8.2	33.1	33.1	105.0	105.4	7.7	7.7	6.4						
						11.8	0.3	318	21.1		8.2	8.2	33.1	33.1	105.7	105.7	7.7	7.7	6.7						
C3	Fine	Calm	16:20	12.6	Surface	1.0	0.4	299	21.3	21.3	8.1	8.1	33.7	33.7	101.0	100.9	7.4	7.4	2.1	7.4	3.4	6	822092	817788	
						1.0	0.4	314	21.3		8.1	8.1	33.7	33.7	100.7	100.7	7.3	7.3	2.1						
					Middle	6.3	0.4	300	21.1		8.1	8.1	33.9	33.9	101.3	101.7	7.4	7.4	3.3						
						6.3	0.5	316	21.1		8.1	8.1	33.9	33.9	102.0	101.7	7.5	7.5	3.3						
					Bottom	11.6	0.4	299	20.9		8.1	8.1	34.0	34.0	106.2	106.4	7.8	7.8	4.7						
						11.6	0.4	310	20.9		8.1	8.1	34.1	34.1	106.5	106.4	7.8	7.8	4.7						
IM1	Cloudy	Moderate	15:32	5.4	Surface	1.0	0.1	113	21.1	21.1	8.2	8.2	31.4	31.4	113.4	113.4	8.5	8.5	7.1	8.5	8.5	3	817959	807153	
						1.0	0.1	117	21.1		8.2	8.2	31.4	31.4	113.4	113.4	8.4	8.4	7.1						
					Middle	-	-	-	-		-	-	-	-	-	-	-	-	-						-
						-	-	-	-		-	-	-	-	-	-	-	-	-						-
					Bottom	4.4	0.1	14	20.8		8.2	8.2	31.4	31.4	108.1	108.2	8.1	8.1	9.9						
						4.4	0.1	14	20.8		8.2	8.2	31.4	31.4	108.2	108.2	8.1	8.1	9.9						
IM2	Cloudy	Moderate	15:25	7.3	Surface	1.0	0.2	8	21.0	21.0	8.2	8.2	31.0	31.0	111.6	111.5	8.4	8.4	8.3	8.3	9.1	3	818166	806182	
						1.0	0.2	8	21.0		8.2	8.2	31.0	31.0	111.4	111.4	8.3	8.3	8.3						
					Middle	3.7	0.2	348	20.9		8.2	8.2	31.1	31.1	109.0	109.0	8.2	8.2	8.6						
						3.7	0.2	320	20.9		8.2	8.2	31.1	31.1	108.9	109.0	8.2	8.2	8.6						
					Bottom	6.3	0.2	323	20.9		8.2	8.2	31.2	31.2	105.5	105.5	7.9	7.9	10.5						
						6.3	0.2	325	20.9		8.2	8.2	31.2	31.2	105.5	105.5	7.9	7.9	10.5						
IM3	Cloudy	Moderate	15:18	7.1	Surface	1.0	0.5	5	21.0	21.0	8.2	8.2	31.0	31.0	111.1	111.0	8.3	8.3	8.8	8.2	10.2	4	818770	805581	
						1.0	0.5	5	21.0		8.2	8.2	31.0	31.0	110.9	110.9	8.3	8.3	8.8						
					Middle	3.6	0.3	2	20.9		8.2	8.2	31.1	31.1	107.9	107.9	8.1	8.1	9.9						
						3.6	0.3	2	20.9		8.2	8.2	31.1	31.1	107.8	107.8	8.1	8.1	10.0						
					Bottom	6.1	0.2	354	20.9		8.2	8.2	31.2	31.2	106.9	106.9	8.0	8.0	11.7						
						6.1	0.3	326	20.9		8.2	8.2	31.2	31.2	106.9	106.9	8.0	8.0	11.8						
IM4	Cloudy	Moderate	15:08	8.5	Surface	1.0	0.5	358	20.9	20.9	8.2	8.2	31.0	31.0	110.3	110.3	8.3	8.3	9.4	8.2	11.6	6	819738	804596	
						1.0	0.5	329	20.9		8.2	8.2	31.0	31.0	110.2	110.2	8.3	8.3	9.4						
					Middle	4.3	0.5	1	20.8		8.2	8.2	31.2	31.2	107.1	107.1	8.0	8.0	11.8						
						4.3	0.5	1	20.8		8.2	8.2	31.2	31.2	107.0	107.0	8.0	8.0	11.8						
					Bottom	7.5	0.5	2	20.9		8.2	8.2	31.2	31.2	106.3	106.3	8.0	8.0	13.6						
						7.5	0.5	2	20.9		8.2	8.2	31.2	31.2	106.3	106.3	8.0	8.0	13.4						
IM5	Cloudy	Moderate	14:58	8.4	Surface	1.0	0.6	8	20.9	20.9	8.2	8.2	31.1	31.1	109.8	109.8	8.2	8.2	9.9	8.2	11.5	4	820755	804848	
						1.0	0.6	8	20.9		8.2	8.2	31.1	31.1	109.8	109.8	8.2	8.2	9.9						
					Middle	4.2	0.7	356	20.9		8.2	8.2	31.1	31.1	107.9	107.9	8.1	8.1	11.8						
						4.2	0.7	328	20.9		8.2	8.2	31.1	31.1	107.9	107.9	8.1	8.1	11.9						
					Bottom	7.4	0.5	12	20.9		8.2	8.2	31.1	31.1	107.5	107.5	8.1	8.1	12.6						
						7.4	0.5	12	20.9		8.2	8.2	31.1	31.1	107.5	107.5	8.1	8.1	12.8						
IM6	Cloudy	Moderate	14:50	7.6	Surface	1.0	0.0	72	21.0	21.0	8.2	8.2	31.1	31.1	112.2	112.2	8.4	8.4	4.8	8.3	4.9	4	821054	805806	
						1.0	0.0	76	21.0		8.2	8.2	31.1	31.1	112.1	112.1	8.4	8.4	4.8						
					Middle	3.8	0.2	103	20.9		8.2	8.2	31.2	31.2	110.2	110.2	8.2	8.2	4.9						
						3.8	0.2	107	20.9		8.2	8.2	31.2	31.2	110.1	110.1	8.2	8.2	5.0						
					Bottom	6.6	0.2	79	20.9		8.2	8.2	31.3	31.3	105.8	105.8	7.9	7.9	5.0						
						6.6	0.2	81	20.9		8.2	8.2	31.3	31.3	105.7	105.7	7.9	7.9	5.0						
IM7	Cloudy	Moderate	14:41	8.4	Surface	1.0	0.1	167	20.9	20.9	8.2	8.2	31.5	31.5	107.6	107.6	8.0	8.0	6.8	8.0	7.8	4	821346	806830	
						1.0	0.1	169	20.9		8.2	8.2	31.5	31.5	107.6	107.6	8.0	8.0	6.8						
					Middle	4.2	0.2	161	20.9		8.2	8.2	31.4	31.4	107.3	107.3	8.0	8.0	7.8						
						4.2	0.2	169	20.9		8.2	8.2	31.4	31.4	107.3	107.3	8.0	8.0	7.9						
					Bottom	7.4	0.2	95	20.9		8.2	8.2	31.4	31.4	107.3	107.3	8.0	8.0	8.8						
						7.4	0.2	98	20.9		8.2	8.2	31.4	31.4	107.3	107.3	8.0	8.0	8.8						
IM8	Fine	Calm	14:49	7.8	Surface	1.0	0.2	237	21.0	21.0	8.2	8.2	32.7	32.7	111.8	111.8	8.2	8.2	2.1	8.2	3.4	5	821835	808137	
						1.0	0.2	251	21.0		8.2	8.2	32.7	32.7	111.7	111.7	8.2	8.2	2.1						
					Middle	3.9	0.2	229	21.0		8.2	8.2	32.7	32.7	110.7	110.7	8.2	8.2	3.4						
						3.9	0.2	248	21.0		8.2	8.2	32.7	32.7	110.6	110.6	8.1	8.1	3.8						
					Bottom	6.8	0.2	239	21.0		8.2	8.2	32.7	32.7	110.3	110.3	8.1	8.1	4.5						
						6.8	0.2	252	21.0		8.2	8.2	32.7	32.7	110.2	110.2	8.1	8.1	4.5						

DA: Depth-Averaged

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

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

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

Water Quality Monitoring Results on 16 December 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value		Average		Value		Average		Value		Average		Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	16:28	8.1	Surface	1.0	0.4	29	21.9	21.9	8.2	8.2	33.1	33.1	109.1	109.1	7.9	7.9	9.2	10.5	4	4	815598	804266				
						1.0	0.4	30	21.9		8.2	8.2	33.1	33.1	109.1	109.1	7.9		9.3		4							
						4.1	0.3	30	21.9		8.2	8.2	33.1	33.1	108.6	108.7	7.9		10.4		4							
					Middle	4.1	0.3	32	21.9	8.2	8.2	33.1	33.1	108.7	108.7	7.9	10.5	4										
						7.1	0.2	37	21.8	8.2	8.2	33.1	33.1	110.0	110.1	8.0	11.8	4										
						7.1	0.2	39	21.8	8.2	8.2	33.1	33.1	110.1	110.1	8.0	11.8	4										
					Bottom	1.0	0.2	215	21.6	21.6	8.3	8.3	32.0	32.0	133.1	132.7	9.7	9.0	3.8	5.0	5	4			825663	806951		
						1.0	0.3	224	21.6		8.3	8.1	32.9	32.9	132.3	132.7	9.7		3.9		4							
						5.8	0.1	240	21.3		8.1	8.1	32.9	32.9	113.8	113.8	8.3		4.5		4							
Middle	5.8	0.1	262	21.3	8.1	8.1	32.9	32.9	113.7	113.7	8.3	4.7	4															
	10.6	0.2	359	21.3	8.1	8.1	33.2	33.2	108.4	108.4	7.9	6.5	4															
	10.6	0.2	330	21.3	8.1	8.1	33.2	33.2	108.4	108.4	7.9	6.5	4															
C3	Cloudy	Moderate	17:23	12.1	Surface	1.0	0.6	246	21.5	21.5	8.1	8.1	33.6	33.6	109.1	108.0	7.8	7.6	3.7	4.7	7	6	822097	817802				
						1.0	0.6	262	21.5		8.1	8.1	33.6	33.6	107.9	107.9	7.8		3.8		7							
						6.1	0.5	249	21.5		8.1	8.1	33.6	33.6	100.0	100.1	7.3		5.1		6							
					Middle	6.1	0.5	263	21.5	8.1	8.1	33.6	33.6	100.1	100.1	7.3	5.1	6										
						11.1	0.4	245	21.5	8.0	8.0	33.6	33.6	102.2	102.4	7.4	5.3	5										
						11.1	0.4	267	21.5	8.0	8.0	33.6	33.6	102.6	102.6	7.4	5.3	5										
					Bottom	1.0	0.2	12	21.6	21.6	8.2	8.2	32.9	32.9	117.4	117.4	8.6	8.6	6.2	7.6	6	7			817933	807152		
						1.0	0.3	13	21.6		8.2	8.2	32.9	32.9	117.4	117.4	8.6		6.3		6							
						-	-	-	-		-	-	-	-	-	-	-		-		-						-	-
Middle	4.4	0.2	1	21.3	21.3	8.2	8.2	32.9	32.9	112.1	112.2	8.3	8.3	9.0	7.6	7	7	817933	807152									
	4.4	0.2	1	21.3		8.2	8.2	32.9	32.9	112.2	112.2	8.3		9.0		7												
	-	-	-	-		-	-	-	-	-	-	-		-		-				-	-	-	-	-			-	-
IM2	Cloudy	Moderate	16:00	7.9	Surface	1.0	0.2	338	21.5	21.5	8.2	8.2	32.5	32.5	115.6	115.5	8.5			8.4	7.4	8.3	6	6			818159	806162
						1.0	0.2	311	21.5		8.2	8.2	32.5	32.5	115.4	115.4	8.5				7.4		6					
						4.0	0.3	9	21.4		8.2	8.2	32.6	32.6	113.0	113.0	8.3				7.7		6					
					Middle	4.0	0.3	9	21.4	8.2	8.2	32.6	32.6	112.9	112.9	8.3	7.8			6								
						6.9	0.2	356	21.4	8.2	8.2	32.7	32.7	109.5	109.5	8.1	9.7			4								
						6.9	0.2	328	21.4	8.2	8.2	32.7	32.7	109.5	109.5	8.1	9.6			5								
					Bottom	1.0	0.4	348	21.5	21.5	8.2	8.2	32.5	32.5	115.1	115.0	8.5	8.4	7.9	9.3	6	6	818787	805574				
						1.0	0.4	355	21.5		8.2	8.2	32.5	32.5	114.9	114.9	8.5		7.9		6							
						4.1	0.3	341	21.4		8.2	8.2	32.6	32.6	111.9	111.9	8.3		9.0		6							
Middle	4.1	0.4	314	21.4	8.2	8.2	32.6	32.6	111.8	111.8	8.2	9.2	6															
	7.2	0.3	325	21.4	8.2	8.2	32.7	32.7	110.9	110.9	8.2	10.9	6															
	7.2	0.3	343	21.4	8.2	8.2	32.7	32.7	110.9	110.9	8.2	11.0	6															
IM4	Cloudy	Moderate	15:43	8.5	Surface	1.0	0.6	350	21.4	21.4	8.2	8.2	32.5	32.5	114.3	114.3	8.4	8.3	8.5	10.7	5	7			819707	804605		
						1.0	0.7	356	21.4		8.2	8.2	32.5	32.5	114.2	114.2	8.4		8.6		6							
						4.3	0.6	336	21.3		8.2	8.2	32.7	32.7	111.1	111.1	8.2		11.0		7							
					Middle	4.3	0.6	309	21.3	8.2	8.2	32.7	32.7	111.0	111.0	8.2	10.9	7										
						7.5	0.4	2	21.4	8.2	8.2	32.7	32.7	110.3	110.3	8.1	12.7	7										
						7.5	0.4	2	21.4	8.2	8.2	32.7	32.7	110.3	110.3	8.1	12.5	7										
					Bottom	1.0	0.8	0	21.4	21.4	8.2	8.2	32.6	32.6	113.8	113.8	8.4	8.4	9.0	10.6	7	7	820748	804849				
						1.0	0.9	0	21.4		8.2	8.2	32.6	32.6	113.8	113.8	8.4		9.0		7							
						4.2	0.6	10	21.4		8.2	8.2	32.6	32.6	111.9	111.9	8.3		10.9		7							
Middle	4.2	0.6	10	21.4	8.2	8.2	32.6	32.6	111.9	111.9	8.3	11.0	7															
	7.4	0.5	25	21.4	8.2	8.2	32.6	32.6	111.5	111.5	8.2	11.7	7															
	7.4	0.5	27	21.4	8.2	8.2	32.6	32.6	111.5	111.5	8.2	11.9	6															
IM6	Cloudy	Moderate	15:25	7.6	Surface	1.0	0.1	161	21.5	21.5	8.2	8.2	32.6	32.6	116.2	116.2	8.6	8.5	3.9	4.0	5	6			821078	805832		
						1.0	0.1	161	21.5		8.2	8.2	32.6	32.6	116.1	116.1	8.6		3.9		4							
						3.8	0.2	82	21.4		8.2	8.2	32.7	32.7	114.2	114.2	8.4		4.1		6							
					Middle	3.8	0.2	88	21.4	8.2	8.2	32.7	32.7	114.1	114.1	8.4	4.1	6										
						6.6	0.2	104	21.4	8.2	8.2	32.8	32.8	109.8	109.8	8.1	4.1	8										
						6.6	0.2	108	21.4	8.2	8.2	32.8	32.8	109.7	109.7	8.1	4.2	8										
					Bottom	1.0	0.1	289	21.4	21.4	8.2	8.2	33.0	33.0	111.6	111.6	8.2	8.2	5.9	6.9	7	6	821341	806857				
						1.0	0.1	305	21.4		8.2	8.2	33.0	33.0	111.6	111.6	8.2		5.9		7							
						4.1	0.2	87	21.4		8.2	8.2	32.9	32.9	111.3	111.3	8.2		6.9		6							
Middle	4.1	0.2	90	21.4	8.2	8.2	32.9	32.9	111.3	111.3	8.2	7.0	6															
	7.1	0.3	99	21.4	8.2	8.2	32.9	32.9	111.3	111.3	8.2	7.9	6															
	7.1	0.3	99	21.4	8.2	8.2	32.9	32.9	111.3	111.3	8.2	7.9	5															
IM8	Cloudy	Moderate	15:42	7.5	Surface	1.0	0.3	282	21.7	21.7	8.3	8.3	32.4	32.4	131.4	131.4	9.6	9.3	3.9	6.2	7	6			821844	808147		
						1.0	0.3	285	21.7		8.3	8.3	32.4	32.4	131.3	131.3	9.6		4.0		8							
						3.8	0.3	265	21.5		8.2	8.2	32.7	32.7	122.1	122.2	8.9		5.2		6							
					Middle	3.8	0.3	283	21.5	8.2	8.2	32.7	32.7	122.2	122.2	8.9	5.5	6										
						6.5	0.2	264	21.3	8.2	8.2	33.2	33.2	110.8	111.0	8.1	9.3	5										
						6.5	0.2	275	21.3	8.2	8.2	33.2	33.2	111.1	111.1	8.1	9.4	4										

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 18 December 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA									
C1	Cloudy	Moderate	12:03	8.4	Surface	1.0	0.4	214	21.1	21.1	8.1	8.1	32.0	32.0	101.7	101.7	7.6	7.6	12.4	13.7	11	815639	804254								
						1.0	0.4	217	21.1		8.1	8.1	32.0	32.0	101.7	101.7	7.6		12.5												
						4.2	0.4	231	21.1		8.1	8.1	32.0	32.0	101.2	101.3	7.5		13.6												
						4.2	0.4	247	21.1		8.1	8.1	32.0	32.0	101.3	101.3	7.5		13.6												
						7.4	0.4	232	21.0		8.1	8.1	32.0	32.0	102.6	102.7	7.6		14.9												
						7.4	0.4	245	21.0		8.1	8.1	32.0	32.0	102.7	102.7	7.7		15.0												
					Middle	1.0	0.4	31	20.9	20.9	8.2	8.2	32.9	32.9	105.2	105.2	7.8	7.7	9.5	11.8	9			825692	806939						
						1.0	0.4	31	20.9		8.2	8.2	32.9	32.9	105.2	105.2	7.7		9.8												
						6.0	0.4	21	20.9		8.2	8.2	33.0	33.0	105.0	105.0	7.7		12.3												
						6.0	0.4	22	20.9		8.2	8.2	33.0	33.0	104.9	104.9	7.7		12.5												
						11.0	0.4	8	20.9		8.2	8.2	33.1	33.1	104.9	104.9	7.7		13.5												
						11.0	0.5	8	20.9		8.2	8.2	33.1	33.1	104.9	104.9	7.7		13.0												
C3	Cloudy	Moderate	12:45	11.7	Surface	1.0	0.5	247	21.3	21.3	8.1	8.1	33.6	33.6	102.7	102.7	7.5	7.6	3.6	4.1	13	822119	817779								
						1.0	0.5	251	21.3		8.1	8.1	33.6	33.6	102.6	102.6	7.5		3.6												
						5.9	0.5	249	21.2		8.1	8.1	33.7	33.7	104.1	104.3	7.6		4.2												
						5.9	0.5	267	21.2		8.1	8.1	33.7	33.7	104.5	104.5	7.6		4.2												
						10.7	0.4	250	21.2		8.1	8.1	33.7	33.7	105.8	106.1	7.7		4.4												
						10.7	0.4	261	21.2		8.1	8.1	33.7	33.7	106.3	106.3	7.8		4.5												
					Middle	1.0	0.1	287	20.8	20.8	8.1	8.1	31.8	31.8	110.0	110.0	8.2	8.2	9.4		10.8			15	817958	807150					
						1.0	0.1	295	20.8		8.1	8.1	31.8	31.8	110.0	110.0	8.2		9.4												
						-	-	-	-		-	-	-	-	-	-	-		-					-							
						-	-	-	-		-	-	-	-	-	-	-		-					-							
						4.2	0.1	253	20.5		8.1	8.1	31.8	31.8	104.7	104.8	7.9		12.2												
						4.2	0.1	255	20.5		8.1	8.1	31.8	31.8	104.8	104.8	7.9		12.2												
IM2	Cloudy	Moderate	11:35	8.1	Surface	1.0	0.1	200	20.7	20.7	8.1	8.1	31.4	31.4	108.2	108.1	8.1	8.0	10.5	11.4		16	818157	806175							
						1.0	0.1	202	20.7		8.1	8.1	31.4	31.4	108.0	108.0	8.1		10.6												
						4.1	0.1	156	20.6		8.1	8.1	31.5	31.5	105.6	105.6	8.0		10.9												
						4.1	0.2	167	20.6		8.1	8.1	31.5	31.5	105.5	105.5	7.9		10.9												
						7.1	0.2	136	20.6		8.1	8.1	31.6	31.6	102.1	102.1	7.7		12.8												
						7.1	0.2	141	20.6		8.1	8.1	31.6	31.6	102.1	102.1	7.7		12.8												
					IM3	Cloudy	Moderate	11:28	7.4	Surface	1.0	0.0	208	20.7	20.7	8.1	8.1	31.4	31.4		107.7	107.6			8.1	8.0	11.1	12.5	15	818764	805608
											1.0	0.0	219	20.7		8.1	8.1	31.4	31.4		107.5	107.5			8.1		11.1				
											3.7	0.2	163	20.6		8.1	8.1	31.5	31.5		104.5	104.5			7.9		12.2				
											3.7	0.3	172	20.6		8.1	8.1	31.5	31.5		104.4	104.4			7.9		12.3				
											6.4	0.2	156	20.6		8.1	8.1	31.6	31.6		103.5	103.5			7.8		14.0				
											6.4	0.3	156	20.6		8.1	8.1	31.6	31.6		103.5	103.5			7.8		14.1				
IM4	Cloudy	Moderate	11:18	8.4						Surface	1.0	0.7	220	20.6	20.6	8.1	8.1	31.4	31.4	106.9	106.9	8.1	8.0	11.7	13.9	15	819703		804589		
											1.0	0.7	237	20.6		8.1	8.1	31.4	31.4	106.8	106.8	8.1		11.7							
											4.2	0.6	206	20.5		8.1	8.1	31.5	31.5	103.7	103.7	7.8		14.1							
											4.2	0.6	211	20.5		8.1	8.1	31.5	31.5	103.6	103.6	7.8		14.1							
											7.4	0.5	205	20.6		8.1	8.1	31.6	31.6	102.9	102.9	7.8		15.9							
											7.4	0.5	216	20.6		8.1	8.1	31.6	31.6	102.9	102.9	7.8		15.7							
					IM5	Cloudy	Moderate	11:08	8.0	Surface	1.0	0.4	236	20.6	20.6	8.1	8.1	31.4	31.4	106.4	106.4	8.0	8.0	12.2		13.8		15		820733	804860
											1.0	0.4	242	20.6		8.1	8.1	31.4	31.4	106.4	106.4	8.0		12.2							
											4.0	0.3	225	20.6		8.1	8.1	31.5	31.5	104.5	104.5	7.9		14.1							
											4.0	0.3	245	20.6		8.1	8.1	31.5	31.5	104.5	104.5	7.9		14.2							
											7.0	0.3	229	20.6		8.1	8.1	31.5	31.5	104.1	104.1	7.8		14.9							
											7.0	0.3	242	20.6		8.1	8.1	31.5	31.5	104.1	104.1	7.8		15.0							
IM6	Cloudy	Moderate	11:00	7.6						Surface	1.0	0.4	216	20.7	20.7	8.1	8.1	31.5	31.5	108.8	108.8	8.2	8.1	7.1	7.2		18	821040	805815		
											1.0	0.4	217	20.7		8.1	8.1	31.5	31.5	108.7	108.7	8.2		7.1							
											3.8	0.4	223	20.6		8.1	8.1	31.6	31.6	106.8	106.8	8.0		7.2							
											3.8	0.4	228	20.6		8.1	8.1	31.6	31.6	106.7	106.7	8.0		7.3							
											6.6	0.3	209	20.6		8.1	8.1	31.6	31.6	102.4	102.4	7.7		7.3							
											6.6	0.3	214	20.6		8.1	8.1	31.7	31.7	102.3	102.3	7.7		7.3							
					IM7	Cloudy	Moderate	10:51	8.4	Surface	1.0	0.1	225	20.6	20.6	8.1	8.1	31.8	31.8	104.2	104.2	7.8	7.8	9.1		10.1	13			821355	806825
											1.0	0.1	241	20.6		8.1	8.1	31.8	31.8	104.2	104.2	7.8		9.1							
											4.2	0.1	177	20.6		8.1	8.1	31.8	31.8	103.9	103.9	7.8		10.0							
											4.2	0.1	187	20.6		8.1	8.1	31.8	31.8	103.9	103.9	7.8		10.1							
											7.4	0.1	152	20.6		8.1	8.1	31.8	31.8	103.9	103.9	7.8		11.1							
											7.4	0.1	153	20.6		8.1	8.1	31.8	31.8	103.9	103.9	7.8		11.1							
IM8	Cloudy	Moderate	11:14	8.8						Surface	1.0	0.3	56	20.8	20.8	8.2	8.2	33.1	33.1	106.3	106.3	7.8	7.8	6.6	7.9		11	821822	808136		
											1.0	0.3	56	20.8		8.2	8.2	33.1	33.1	106.3	106.3	7.8		6.7							
											4.4	0.3	67	20.8		8.2	8.2	33.1	33.1	105.9	105.9	7.8		7.5							
											4.4	0.3	67	20.8		8.2	8.2	33.1	33.1	105.9	105.9	7.8		7.5							
											7.8	0.3	79	20.8		8.2	8.2	33.1	33.1	107.3	107.3	7.9		9.8							
											7.8	0.3	84	20.8		8.2	8.2	33.1	33.1	107.4	107.4	7.9		9.1							

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 December 21 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	Rainy	Rough	09:42	7.8	Surface	1.0	0.6	64	18.9	19.0	8.2	8.2	33.0	33.1	92.7	92.7	7.1	7.1	7.8	8.5	13	12	815632	804252
						1.0	0.6	65	19.0		8.2	8.2	33.1	33.1	92.7	92.7	7.1		7.9					
						3.9	0.3	19	19.0		8.2	8.2	33.1	33.1	93.1	93.2	7.1		8.7					
					Middle	3.9	0.3	19	19.0	8.2	8.2	33.1	33.1	93.2	93.2	7.1	8.6							
						6.8	0.8	31	19.0	8.2	8.2	33.1	33.1	94.6	94.6	7.2	9.0							
						6.8	0.9	32	19.0	8.2	8.2	33.1	33.1	94.8	94.8	7.2	9.0							
C2	Rainy	Rough	10:17	11.9	Surface	1.0	0.4	10	19.9	19.9	8.1	8.1	33.0	33.0	98.8	98.8	7.4	7.4	4.5	7.3	6	9	825663	806922
						1.0	0.4	10	19.9		8.1	8.1	33.0	33.0	98.8	98.8	7.4		4.5					
						6.0	0.3	8	20.0		8.1	8.1	33.1	33.1	98.1	98.1	7.3		5.4					
					Middle	6.0	0.3	8	20.0	8.1	8.1	33.1	33.1	98.0	98.0	7.3	5.5							
						10.9	0.4	15	20.2	8.1	8.1	33.2	33.2	97.7	97.7	7.3	11.7							
						10.9	0.4	15	20.2	8.1	8.1	33.2	33.2	97.7	97.7	7.3	11.8							
C3	Rainy	Rough	08:14	11.7	Surface	1.0	0.5	224	20.2	20.2	8.1	8.1	33.6	33.6	97.4	97.4	7.2	7.2	4.7	5.5	5	7	822123	817816
						1.0	0.5	228	20.2		8.1	8.1	33.6	33.6	97.4	97.4	7.2		4.7					
						5.9	0.4	234	20.2		8.1	8.1	33.6	33.6	97.2	97.2	7.2		4.9					
					Middle	5.9	0.5	250	20.2	8.1	8.1	33.6	33.6	97.2	97.2	7.2	4.9							
						10.7	0.3	239	20.2	8.1	8.1	33.6	33.6	96.9	96.9	7.2	6.9							
						10.7	0.4	245	20.2	8.1	8.1	33.6	33.6	96.9	96.9	7.2	6.7							
IM1	Rainy	Moderate	09:57	4.2	Surface	1.0	0.1	35	19.0	19.0	8.2	8.2	33.0	33.0	92.3	92.3	7.0	7.0	7.1	7.7	15	14	817927	807118
						1.0	0.1	37	19.0		8.2	8.2	33.0	33.0	92.3	92.3	7.0		7.1					
						-	-	-	-		-	-	-	-	-	-	-		-		-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-						
						3.2	0.1	58	18.9	8.2	8.2	33.1	33.1	92.4	92.4	7.0	8.3							
						3.2	0.1	62	18.9	8.2	8.2	33.1	33.1	92.4	92.4	7.0	8.3							
IM2	Rainy	Moderate	10:05	6.2	Surface	1.0	0.3	23	19.0	19.0	8.2	8.2	32.9	32.9	93.0	93.1	7.1	7.1	5.3	6.3	15	13	818143	806170
						1.0	0.3	24	19.0		8.2	8.2	32.9	32.9	93.1	93.1	7.1		5.4					
						3.1	0.2	12	19.0		8.2	8.2	32.9	32.9	93.4	93.5	7.1		6.6					
					Middle	3.1	0.2	12	19.0	8.2	8.2	32.9	32.9	93.4	93.5	7.1	6.6							
						5.2	0.2	6	19.0	8.2	8.2	32.9	32.9	96.0	96.0	7.3	7.0							
						5.2	0.2	6	19.0	8.2	8.2	32.9	32.9	96.2	96.2	7.3	7.0							
IM3	Rainy	Moderate	10:12	6.4	Surface	1.0	0.3	326	19.0	19.0	8.2	8.2	32.9	32.9	92.8	92.8	7.1	7.1	8.5	9.2	9	10	818801	805613
						1.0	0.3	355	19.0		8.2	8.2	32.9	32.9	92.8	92.8	7.1		8.5					
						3.2	0.3	341	19.0		8.2	8.2	32.9	32.9	92.7	92.8	7.1		9.1					
					Middle	3.2	0.3	314	19.0	8.2	8.2	32.9	32.9	92.8	92.8	7.1	9.2							
						5.4	0.3	353	19.0	8.2	8.2	32.9	32.9	93.6	93.7	7.1	10.0							
						5.4	0.4	325	19.0	8.2	8.2	32.9	32.9	93.7	93.7	7.2	10.0							
IM4	Rainy	Moderate	10:25	8.2	Surface	1.0	0.3	93	19.0	19.0	8.2	8.2	32.7	32.7	93.7	93.9	7.1	7.1	4.2	5.5	8	9	819740	804607
						1.0	0.3	99	19.0		8.2	8.2	32.7	32.7	94.1	94.1	7.2		4.2					
						4.1	0.2	112	19.2		8.2	8.2	32.7	32.7	95.5	95.7	7.3		5.3					
					Middle	4.1	0.2	118	19.2	8.2	8.2	32.7	32.7	95.8	95.8	7.3	5.3							
						7.2	0.3	91	19.2	8.2	8.2	32.6	32.6	97.6	97.9	7.4	6.9							
						7.2	0.3	91	19.2	8.2	8.2	32.6	32.6	98.2	98.2	7.5	7.0							
IM5	Rainy	Moderate	10:30	7.4	Surface	1.0	0.2	243	19.2	19.2	8.2	8.2	32.7	32.7	91.4	91.4	7.0	7.0	5.3	6.2	7	9	820756	804885
						1.0	0.2	258	19.2		8.2	8.2	32.7	32.7	91.4	91.4	7.0		5.3					
						3.7	0.0	278	19.2		8.2	8.2	32.7	32.7	91.5	91.6	7.0		6.0					
					Middle	3.7	0.0	285	19.2	8.2	8.2	32.7	32.7	91.6	91.6	7.0	6.0							
						6.4	0.2	190	19.2	8.2	8.2	32.6	32.6	92.1	92.2	7.0	7.2							
						6.4	0.2	206	19.2	8.2	8.2	32.6	32.6	92.2	92.2	7.0	7.1							
IM6	Rainy	Moderate	10:35	6.8	Surface	1.0	0.2	73	19.0	19.0	8.2	8.2	32.6	32.6	91.4	91.4	7.0	7.0	4.8	5.7	10	9	821050	805827
						1.0	0.2	79	19.0		8.2	8.2	32.6	32.6	91.4	91.4	7.0		4.9					
						3.4	0.2	16	19.0		8.2	8.2	32.6	32.6	91.4	91.4	7.0		5.6					
					Middle	3.4	0.2	17	19.2	8.2	8.2	32.6	32.6	91.4	91.4	7.0	5.6							
						5.8	0.1	89	19.2	8.2	8.2	32.6	32.6	91.4	91.5	7.0	6.6							
						5.8	0.1	90	19.2	8.2	8.2	32.6	32.6	91.5	91.5	7.0	6.5							
IM7	Rainy	Moderate	10:41	8.2	Surface	1.0	0.2	70	19.2	19.2	8.2	8.2	32.5	32.5	92.2	92.3	7.0	7.0	3.4	4.3	9	10	821335	806840
						1.0	0.2	71	19.1		8.2	8.2	32.5	32.5	92.3	92.3	7.0		3.4					
						4.1	0.1	325	19.2		8.2	8.2	32.5	32.5	92.5	92.6	7.0		4.4					
					Middle	4.1	0.1	342	19.2	8.2	8.2	32.5	32.5	92.6	92.6	7.1	4.4							
						7.2	0.2	353	19.2	8.2	8.2	32.4	32.4	93.2	93.3	7.1	5.1							
						7.2	0.2	353	19.0	8.2	8.2	32.4	32.4	93.3	93.3	7.1	5.1							
IM8	Rainy	Rough	09:50	7.4	Surface	1.0	0.1	351	19.8	19.8	8.2	8.2	33.5	33.5	97.9	97.9	7.3	7.3	7.0	7.7	16	13	821851	808142
						1.0	0.1	323	19.8		8.2	8.2	33.5	33.5	97.9	97.9	7.3		7.0					
						3.7	0.1	136	19.8		8.2	8.2	33.5	33.5	97.8	97.8	7.3		7.4					
					Middle	3.7	0.1	142	19.8	8.2	8.2	33.5	33.5	97.8	97.8	7.3	7.4							
						6.4	0.1	20	19.7	8.2	8.2	33.5	33.5	97.5	97.5	7.3	8.6							
						6.4	0.1	21	19.7	8.2	8.2	33.5	33.5	97.5	97.5	7.3	8.7							

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 December 21 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		
IM9	Rainy	Rough	09:44	7.1	Surface	1.0	0.2	269	19.7	19.7	8.2	8.2	33.5	33.5	96.9	96.9	7.3	7.3	7.7	16				
						1.0	0.3	288	19.7	8.2	33.5	96.9	7.3	7.8										
					Middle	3.6	0.2	265	19.7	19.7	8.2	8.2	33.5	33.5	96.8	96.8	7.3	7.3	8.5	14				
						3.6	0.2	268	19.7	8.2	33.5	96.8	7.3	8.5										
					Bottom	6.1	0.2	256	19.7	19.7	8.2	8.2	33.5	33.5	96.9	96.9	7.3	7.3	12.8	12				
						6.1	0.2	271	19.7	8.2	33.5	96.9	7.3	12.8										
IM10	Rainy	Rough	09:37	8.4	Surface	1.0	0.5	300	19.8	19.8	8.2	8.2	33.5	33.5	97.9	97.9	7.3	7.3	8.9	16				
						1.0	0.6	303	19.8	8.2	33.5	97.9	7.3	9.0										
					Middle	4.2	0.5	298	19.8	19.8	8.2	8.2	33.5	33.5	97.7	97.7	7.3	7.3	9.6	14				
						4.2	0.5	322	19.8	8.2	33.5	97.7	7.3	9.4										
					Bottom	7.4	0.5	298	19.8	19.8	8.2	8.2	33.5	33.5	97.2	97.2	7.3	7.3	11.2	12				
						7.4	0.5	306	19.8	8.2	33.5	97.2	7.3	11.1										
IM11	Rainy	Rough	09:26	8.5	Surface	1.0	0.5	272	19.9	19.9	8.2	8.2	33.6	33.6	97.7	97.7	7.3	7.3	12.3	23				
						1.0	0.5	291	19.9	8.2	33.6	97.7	7.3	12.6										
					Middle	4.3	0.4	273	19.9	19.9	8.2	8.2	33.6	33.6	97.6	97.6	7.3	7.3	8.7	22				
						4.3	0.5	300	19.9	8.2	33.6	97.6	7.3	8.7										
					Bottom	7.5	0.4	278	19.9	19.9	8.2	8.2	33.6	33.6	97.4	97.4	7.3	7.3	13.6	16				
						7.5	0.4	295	19.9	8.2	33.6	97.4	7.3	13.6										
IM12	Rainy	Rough	09:20	9.0	Surface	1.0	0.6	280	19.9	19.9	8.2	8.2	33.6	33.6	98.2	98.2	7.3	7.3	10.7	16				
						1.0	0.6	293	19.9	8.2	33.6	98.2	7.3	10.7										
					Middle	4.5	0.6	276	19.9	19.9	8.2	8.2	33.6	33.6	97.9	97.9	7.3	7.3	9.7	23				
						4.5	0.6	301	19.9	8.2	33.6	97.9	7.3	10.1										
					Bottom	8.0	0.5	283	19.9	19.9	8.2	8.2	33.6	33.6	97.7	97.7	7.3	7.3	14.5	25				
						8.0	0.5	309	19.9	8.2	33.6	97.7	7.3	14.4										
SR1A	Rainy	Moderate	08:48	4.9	Surface	1.0	-	-	19.7	19.7	8.1	8.1	33.3	33.3	96.3	96.3	7.2	7.2	4.1	11				
						1.0	-	-	19.7	8.1	33.4	96.3	7.2	4.1										
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	3.9	-	-	19.7	19.7	8.1	8.1	33.4	33.4	96.1	96.2	7.2	7.2	5.2	8				
						3.9	-	-	19.7	8.1	33.4	96.2	7.2	5.2										
SR2	Rainy	Rough	08:34	4.1	Surface	1.0	0.1	213	19.9	19.9	8.2	8.2	33.6	33.6	98.0	98.0	7.3	7.3	15.6	25				
						1.0	0.1	228	19.9	8.2	33.6	98.0	7.3	15.6										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	3.1	0.1	205	19.9	19.9	8.2	8.2	33.6	33.6	97.8	97.8	7.3	7.3	17.0	22				
						3.1	0.1	207	19.9	8.2	33.6	97.8	7.3	16.7										
SR3	Rainy	Rough	09:57	8.8	Surface	1.0	0.2	68	19.9	19.9	8.1	8.1	33.1	33.1	98.2	98.2	7.4	7.4	5.8	12				
						1.0	0.2	74	19.9	8.1	33.1	98.2	7.4	5.8										
					Middle	4.4	0.1	91	19.9	19.9	8.1	8.1	33.1	33.0	97.9	97.9	7.3	7.3	6.0	11				
						4.4	0.1	99	19.9	8.1	33.0	97.9	7.3	6.0										
					Bottom	7.8	0.2	346	19.9	19.9	8.1	8.1	33.2	33.2	97.0	97.0	7.3	7.3	9.9	10				
						7.8	0.2	352	19.9	8.1	33.2	97.0	7.3	9.9										
SR4A	Rainy	Moderate	09:15	8.8	Surface	1.0	0.1	218	19.0	19.0	8.2	8.2	32.7	32.7	90.2	90.2	6.9	6.9	6.1	11				
						1.0	0.1	227	19.0	8.2	32.7	90.2	6.9	6.1										
					Middle	4.4	0.1	209	18.9	18.9	8.2	8.2	32.7	32.7	90.4	90.5	6.9	6.9	7.9	13				
						4.4	0.1	228	18.9	8.2	32.7	90.5	6.9	8.0										
					Bottom	7.8	0.4	210	18.9	18.9	8.2	8.2	32.7	32.7	92.4	92.6	7.1	7.1	8.6	13				
						7.8	0.5	210	18.9	8.2	32.7	92.8	7.1	8.6										
SR5A	Rainy	Moderate	08:58	3.2	Surface	1.0	0.1	288	18.9	18.9	8.2	8.2	32.6	32.6	94.7	94.8	7.2	7.3	8.4	7				
						1.0	0.1	307	18.9	8.2	32.6	94.8	7.3	8.4										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	2.2	0.1	298	18.9	18.9	8.2	8.2	32.6	32.6	97.7	98.2	7.5	7.5	9.0	8				
						2.2	0.1	311	18.9	8.2	32.6	98.6	7.5	9.0										
SR6A	Rainy	Moderate	08:31	3.4	Surface	1.0	0.0	295	19.4	19.4	8.1	8.1	32.5	32.5	89.3	89.4	6.8	6.8	5.0	8				
						1.0	0.0	315	19.4	8.1	32.6	89.5	6.8	5.0										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	2.4	0.0	258	19.4	19.4	8.1	8.1	32.6	32.6	92.4	92.6	7.0	7.0	6.6	9				
						2.4	0.0	272	19.4	8.1	32.5	92.7	7.0	6.5										
SR7	Rainy	Rough	07:47	15.3	Surface	1.0	0.3	37	20.4	20.4	8.1	8.1	33.7	33.7	96.3	96.3	7.1	7.1	4.7	8				
						1.0	0.3	40	20.4	8.1	33.7	96.3	7.1	4.7										
					Middle	7.7	0.2	9	20.4	20.4	8.1	8.1	33.7	33.7	96.5	96.5	7.1	7.1	5.1	7				
						7.7	0.2	9	20.4	8.1	33.7	96.5	7.1	5.0										
					Bottom	14.3	0.2	17	20.4	20.4	8.0	8.0	33.7	33.7	96.9	97.0	7.2	7.2	5.3	6				
						14.3	0.2	17	20.4	8.0	33.7	97.0	7.2	5.1										
SR8	Rainy	Moderate	09:12	4.8	Surface	1.0	-	-	19.8	19.8	8.1	8.1	33.5	33.5	97.7	97.7	7.3	7.3	6.9	9				
						1.0	-	-	19.8	8.1	33.5	97.7	7.3	7.1										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	3.8	-	-	19.8	19.8	8.1	8.1	33.5	33.5	97.5	97.5	7.3	7.3	8.0	11				
						3.8	-	-	19.8	8.1	33.5	97.5	7.3	7.9										

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

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

Water Quality Monitoring Results on 23 December 21 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	Rough	11:08	7.9	Surface	1.0	0.4	26	20.0	20.0	8.1	8.1	33.7	33.7	98.6	98.6	7.4	7.4	4.5	4.5	23	23		
						1.0	0.4	26	20.0		8.1	8.1	33.7	33.7	98.6	98.6	7.4	7.4	4.5	4.5	22	22		
						4.0	0.4	18	20.0	20.0	8.1	8.1	33.8	33.8	98.0	98.0	7.3	7.3	4.0	4.0	21	21		
					Middle	4.0	0.4	19	20.0		8.1	8.1	33.8	33.8	98.0	98.0	7.3	7.3	4.4	4.4	22	22		
						6.9	0.3	17	20.0	20.0	8.1	8.1	33.9	33.9	97.7	97.7	7.3	7.3	5.2	5.2	16	16		
						6.9	0.3	17	20.0		8.1	8.1	33.9	33.9	97.7	97.7	7.3	7.3	5.2	5.2	17	17		
					Bottom	1.0	0.4	33	19.7	19.7	8.2	8.2	32.1	32.1	90.9	90.9	6.9	6.9	2.8	2.8	4	4		
						1.0	0.4	34	19.6		8.2	8.2	32.1	32.1	90.8	90.8	6.9	6.9	2.8	2.8	4	4		
						6.0	0.4	35	19.5	19.5	8.2	8.2	32.1	32.1	90.4	90.4	6.9	6.9	3.7	3.7	4	4		
Middle	6.0	0.4	38	19.5		8.2	8.2	32.1	32.1	90.4	90.4	6.9	6.9	3.7	3.7	4	4							
	11.0	0.3	41	19.4	19.4	8.2	8.2	32.4	32.4	91.8	91.8	7.0	7.0	11.6	11.6	4	4							
	11.0	0.3	43	19.4		8.2	8.2	32.4	32.4	91.9	91.9	7.0	7.0	11.5	11.5	4	4							
C2	Cloudy	Moderate	12:10	12.0	Surface	1.0	0.3	222	19.5	19.5	8.2	8.2	32.9	32.9	89.4	89.4	6.8	6.8	3.0	3.0	6	6		
						1.0	0.3	238	19.5		8.2	8.2	32.9	32.9	89.4	89.4	6.8	6.8	3.1	3.1	6	6		
						5.6	0.3	199	19.5	19.5	8.2	8.2	32.9	32.9	89.9	89.9	6.7	6.7	4.4	4.4	6	6		
					Middle	5.6	0.3	217	19.5		8.2	8.2	32.9	32.9	89.0	89.0	6.7	6.7	4.5	4.5	6	6		
						10.1	0.3	231	19.5	19.5	8.2	8.2	32.9	32.9	91.1	91.1	6.9	6.9	6.5	6.5	5	5		
						10.1	0.3	242	19.5		8.2	8.2	32.9	32.9	91.3	91.3	6.9	6.9	6.5	6.5	5	5		
					Bottom	1.0	0.2	6	20.0	20.0	8.1	8.1	33.9	33.9	98.5	98.5	7.3	7.3	9.1	9.1	11	11		
						1.0	0.2	6	20.0		8.1	8.1	33.9	33.9	98.5	98.5	7.3	7.3	9.1	9.1	12	12		
						4.7	0.1	341	19.9	19.9	8.1	8.1	34.0	34.0	97.2	97.2	7.2	7.2	10.1	10.1	16	16		
Middle	4.7	0.1	357	19.9		8.1	8.1	34.0	34.0	97.2	97.2	7.2	7.2	10.5	10.5	15	15							
	1.0	0.2	358	20.0	20.0	8.1	8.1	33.9	33.9	98.4	98.4	7.3	7.3	14.9	14.9	17	17							
	1.0	0.2	329	20.0		8.1	8.1	33.9	33.9	98.4	98.4	7.3	7.3	15.7	15.7	16	16							
Bottom	3.4	0.2	346	19.9	20.0	8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	16.3	16.3	24	24							
	3.4	0.2	352	20.0		8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	15.9	15.9	24	24							
	5.7	0.2	354	19.9	19.9	8.1	8.1	33.9	33.9	97.7	97.7	7.3	7.3	13.9	13.9	25	25							
Middle	5.7	0.2	355	19.9		8.1	8.1	33.9	33.9	97.7	97.7	7.3	7.3	12.6	12.6	24	24							
	1.0	0.3	20	20.1	20.1	8.1	8.1	33.8	33.8	98.7	98.7	7.3	7.3	11.9	11.9	19	19							
	1.0	0.3	20	20.1		8.1	8.1	33.8	33.8	98.7	98.7	7.3	7.3	11.9	11.9	18	18							
Bottom	3.7	0.3	28	19.9	19.9	8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	16.0	16.0	30	30							
	3.7	0.3	28	19.9		8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	15.8	15.8	29	29							
	6.3	0.4	44	19.9	19.9	8.1	8.1	33.8	33.8	97.6	97.6	7.3	7.3	25.5	25.5	30	30							
Middle	6.3	0.4	47	19.9		8.1	8.1	33.8	33.8	97.6	97.6	7.3	7.3	25.3	25.3	29	29							
	1.0	0.5	15	20.0	20.0	8.1	8.1	33.6	33.6	99.6	99.7	7.4	7.4	10.1	10.1	10	10							
	1.0	0.5	15	20.0		8.1	8.1	33.6	33.6	99.7	99.7	7.4	7.4	10.0	10.0	11	11							
Bottom	4.0	0.5	12	19.9	19.9	8.1	8.1	33.8	33.8	98.4	98.4	7.4	7.4	13.6	13.6	11	11							
	4.0	0.5	12	19.9		8.1	8.1	33.8	33.8	98.4	98.4	7.3	7.3	13.7	13.7	11	11							
	6.9	0.5	5	19.9	19.9	8.1	8.1	33.8	33.8	98.2	98.2	7.3	7.3	15.3	15.3	12	12							
Middle	6.9	0.5	5	19.9		8.1	8.1	33.8	33.8	98.2	98.2	7.3	7.3	15.3	15.3	11	11							
	1.0	0.7	25	20.0	20.0	8.1	8.1	33.8	33.8	98.2	98.2	7.3	7.3	14.9	14.9	24	24							
	1.0	0.8	27	20.0		8.1	8.1	33.8	33.8	98.1	98.2	7.3	7.3	14.9	14.9	25	25							
Bottom	3.6	0.7	32	20.0	20.0	8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	15.2	15.2	21	21							
	3.6	0.7	34	20.0		8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	15.3	15.3	22	22							
	6.1	0.7	42	20.0	20.0	8.1	8.1	33.8	33.8	97.8	97.9	7.3	7.3	15.5	15.5	21	21							
Middle	6.1	0.8	42	20.0		8.1	8.1	33.8	33.8	97.9	97.9	7.3	7.3	15.0	15.0	22	22							
	1.0	0.1	103	20.1	20.1	8.1	8.1	33.1	33.2	97.9	97.9	7.3	7.3	7.4	7.4	20	20							
	1.0	0.1	103	20.1		8.1	8.1	33.2	33.2	97.9	97.9	7.3	7.3	7.6	7.6	19	19							
Bottom	3.7	0.2	104	20.0	20.0	8.1	8.1	33.6	33.6	97.6	97.6	7.3	7.3	9.7	9.7	13	13							
	3.7	0.2	110	20.0		8.1	8.1	33.6	33.6	97.6	97.6	7.3	7.3	9.6	9.6	13	13							
	6.4	0.3	98	20.0	20.0	8.1	8.1	33.7	33.7	97.3	97.4	7.3	7.3	12.0	12.0	11	11							
Middle	6.4	0.3	104	20.0		8.1	8.1	33.7	33.7	97.4	97.4	7.3	7.3	12.0	12.0	11	11							
	1.0	0.0	185	20.0	20.0	8.1	8.1	33.3	33.3	96.7	96.7	7.2	7.2	7.2	7.2	7	7							
	1.0	0.0	186	20.0		8.1	8.1	33.3	33.3	96.7	96.7	7.2	7.2	7.2	7.2	6	6							
Bottom	4.4	0.1	124	19.9	19.9	8.1	8.1	33.6	33.6	95.6	95.6	7.1	7.1	8.8	8.8	7	7							
	4.4	0.1	131	19.9		8.1	8.1	33.6	33.6	95.6	95.6	7.1	7.1	8.8	8.8	8	8							
	7.7	0.1	141	19.9	19.9	8.1	8.1	33.7	33.7	95.6	95.6	7.1	7.1	9.1	9.1	10	10							
Middle	7.7	0.1	146	19.9		8.1	8.1	33.7	33.7	95.6	95.6	7.1	7.1	9.0	9.0	11	11							
	1.0	0.2	333	19.5	19.5	8.2	8.2	32.1	32.1	90.3	90.3	6.9	6.9	3.8	3.8	9	9							
	1.0	0.2	306	19.5		8.2	8.2	32.1	32.1	90.2	90.3	6.9	6.9	3.8	3.8	8	8							
Bottom	3.8	0.2	351	19.4	19.4	8.2	8.2	32.1	32.1	89.9	90.0	6.8	6.8	4.7	4.7	9	9							
	3.8	0.2	323	19.4		8.2	8.2	32.1	32.1	90.0	90.0	6.8	6.8	4.8	4.8	8	8							
	6.5	0.2	346	19.4	19.4	8.2	8.2	32.1	32.1	91.3	91.4	7.0	7.0	5.5	5.5	6	6							
Middle	6.5	0.2	350	19.4		8.2	8.2	32.1	32.1	91.4	91.4	7.0	7.0	5.4	5.4	7	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 28 December 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)								
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA												
C1	Misty	Calm	07:39	7.8	Surface	1.0	0.3	206	18.5	18.5	8.2	8.2	33.2	33.2	92.9	92.9	7.1	7.2	7.4	8.2	8	9	815628	804249								
						1.0	0.3	222	18.5		8.2	8.2	33.2	33.2	92.9	92.9	7.2		7.5													
						3.9	0.3	215	18.4		8.2	8.2	33.2	33.2	93.8	93.9	7.2		8.0													
					Middle	3.9	0.3	231	18.4	8.2	8.2	33.2	33.2	94.0	94.0	7.2	8.1															
						6.8	0.3	199	18.4	8.2	8.2	33.2	33.2	96.0	96.1	7.4	9.0															
						6.8	0.3	208	18.4	8.2	8.2	33.2	33.2	96.1	96.1	7.4	9.1															
					C2	Cloudy	Moderate	08:29	11.6	Surface	1.0	0.5	147	19.0	19.0	8.1	8.1	33.1	33.1	95.5	95.5				7.3	7.3	4.3	6.5	6	5	825703	806926
											1.0	0.6	158	19.0		8.1	8.1	33.1	33.1	95.5	95.5				7.3		4.3					
											5.8	0.5	142	19.1		8.1	8.1	33.4	33.4	95.3	95.3				7.2		6.1					
Middle	5.8	0.6	145	19.1						8.1	8.1	33.4	33.4	95.3	95.3	7.2	6.2															
	10.6	0.5	135	19.2						8.1	8.1	33.4	33.4	95.5	95.5	7.2	9.0															
	10.6	0.5	147	19.2						8.1	8.1	33.5	33.5	95.5	95.5	7.2	8.9															
C3	Rainy	Rough	06:06	12.4						Surface	1.0	0.3	64	19.7	19.7	8.1	8.1	33.8	33.8	91.0	91.0	6.8	6.8	3.7	5	6	5	822095	817809			
											1.0	0.6	66	19.7		8.1	8.1	33.8	33.8	91.0	91.0	6.8		3.7								
											6.2	0.3	62	19.6		8.1	8.1	33.8	33.8	91.2	91.2	6.8		3.6								
					Middle	6.2	0.3	68	19.6	8.1	8.1	33.8	33.8	91.2	91.2	6.8	3.6															
						11.4	0.3	50	19.6	8.1	8.1	33.9	33.9	91.5	91.5	6.9	3.8															
						11.4	0.3	54	19.6	8.1	8.1	33.9	33.9	91.5	91.5	6.9	3.8															
					IM1	Misty	Calm	07:58	4.6	Surface	1.0	0.1	242	17.9	17.9	8.2	8.2	32.8	32.8	94.4	94.6	7.4	7.4	5.7	7	6				7	817960	807149
											1.0	0.1	259	17.9		8.2	8.2	32.8	32.8	94.8	94.8	7.4		5.7								
											-	-	-	-		-	-	-	-	-	-	-		-		-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-														
	3.6	0.1	266	18.0						8.1	8.1	32.8	32.7	98.0	98.2	7.6	6.6															
	3.6	0.1	279	18.0						8.1	8.1	32.7	32.7	98.4	98.4	7.7	6.7															
IM2	Misty	Calm	08:05	6.2						Surface	1.0	0.1	279	18.0	18.0	8.2	8.2	32.8	32.8	93.4	93.5	7.3	7.4	2.2	8	8	8	818141	806149			
											1.0	0.1	306	18.0		8.2	8.2	32.8	32.8	93.5	93.5	7.3		2.2								
											3.1	0.0	3	18.0		8.2	8.2	32.8	32.8	94.8	95.0	7.4		3.5								
					Middle	3.1	0.0	3	18.0	8.2	8.2	32.8	32.8	95.2	95.2	7.4	3.5															
						5.2	0.1	118	18.0	8.2	8.2	32.8	32.8	96.6	96.8	7.5	4.9															
						5.2	0.1	119	18.0	8.2	8.2	32.8	32.8	96.9	96.9	7.5	4.8															
					IM3	Misty	Calm	08:11	6.4	Surface	1.0	0.3	113	18.0	18.0	8.2	8.2	32.9	32.9	92.7	92.8	7.2	7.3	7.4	8.2	8				8	818788	805576
											1.0	0.4	123	18.0		8.2	8.2	32.9	32.9	92.8	92.8	7.2		7.5								
											3.2	0.3	108	18.0		8.2	8.2	32.9	32.9	94.0	94.2	7.3		8.1								
Middle	3.2	0.3	108	18.0						8.2	8.2	32.9	32.9	94.3	94.3	7.3	8.2															
	5.4	0.3	108	18.0						8.2	8.2	32.8	32.8	95.7	95.8	7.4	9.1															
	5.4	0.3	109	18.0						8.2	8.2	32.8	32.8	95.9	95.9	7.5	9.1															
IM4	Misty	Calm	08:21	8.0						Surface	1.0	0.7	174	18.0	18.0	8.2	8.2	33.0	33.0	92.7	92.7	7.2	7.2	7.3	8.4	7	8	819741	804591			
											1.0	0.7	189	18.0		8.2	8.2	33.0	33.0	92.7	92.7	7.2		7.3								
											4.0	0.6	181	18.0		8.2	8.2	33.0	33.0	93.3	93.4	7.2		8.9								
					Middle	4.0	0.7	188	18.0	8.2	8.2	33.0	33.0	93.4	93.4	7.3	8.8															
						7.0	1.0	131	18.0	8.2	8.2	33.0	33.0	95.4	95.5	7.4	9.0															
						7.0	1.1	141	18.0	8.2	8.2	33.0	33.0	95.6	95.6	7.4	9.1															
					IM5	Misty	Calm	08:30	7.6	Surface	1.0	0.6	219	17.9	17.9	8.2	8.2	33.0	33.0	95.1	95.2	7.4	7.5	6.2	7.2	6				7	820745	804855
											1.0	0.6	238	17.9		8.2	8.2	33.0	33.0	95.3	95.3	7.4		6.2								
											3.8	0.6	220	17.9		8.2	8.2	32.9	32.9	96.2	96.3	7.5		7.3								
Middle	3.8	0.6	241	17.9						8.2	8.2	32.9	32.9	96.4	96.4	7.5	7.3															
	6.6	0.4	213	17.9						8.2	8.1	32.9	32.9	98.3	98.6	7.7	8.1															
	6.6	0.4	218	17.9						8.1	8.1	32.9	32.9	98.9	98.9	7.7	8.0															
IM6	Misty	Calm	08:38	6.8						Surface	1.0	0.4	241	17.9	17.9	8.2	8.2	32.8	32.8	93.0	93.1	7.3	7.4	7.4	8.3	7	7	821039	805809			
											1.0	0.4	262	17.9		8.2	8.2	32.8	32.8	93.1	93.1	7.3		7.3								
											3.4	0.4	242	17.9		8.2	8.2	32.8	32.8	95.2	95.3	7.4		8.4								
					Middle	3.4	0.5	249	17.9	8.2	8.2	32.8	32.8	95.4	95.4	7.4	8.5															
						5.8	0.4	236	17.9	8.2	8.2	32.8	32.8	96.7	96.9	7.5	9.1															
						5.8	0.4	258	17.9	8.2	8.2	32.8	32.8	97.1	97.1	7.6	9.0															
					IM7	Misty	Calm	08:46	8.0	Surface	1.0	0.5	238	17.9	17.9	8.2	8.2	32.6	32.6	92.9	93.0	7.3	7.3	5.0	6.4	7				7	821358	806845
											1.0	0.5	246	17.9		8.2	8.2	32.6	32.6	93.0	93.0	7.3		5.0								
											4.0	0.4	244	17.9		8.2	8.2	32.6	32.6	93.8	93.9	7.3		6.7								
Middle	4.0	0.4	248	17.9						8.2	8.2	32.6	32.6	94.0	94.0	7.3	6.8															
	7.0	0.2	244	17.9						8.2	8.2	32.6	32.6	95.5	95.6	7.5	7.6															
	7.0	0.3	261	17.9						8.2	8.2	32.6	32.6	95.7	95.7	7.5	7.5															
IM8	Cloudy	Moderate	08:00	7.5						Surface	1.0	0.1	165	18.5	18.5	8.2	8.2	33.6	33.6	99.6	99.6	7.6	7.6	5.9	6.5	5	6	821846	808150			
											1.0	0.1	179	18.5		8.2	8.2	33.6	33.6	99.6	99.6	7.6		5.9								
											3.8	0.1	101	18.5		8.2	8.2	33.6	33.6	99.3	99.3	7.6		6.5								
					Middle	3.8	0.1	101	18.5	8.2	8.2	33.6	33.6	99.3	99.3	7.6	6.5															
						6.5	0.1	148	18.5	8.2	8.2	33.7	33.7	99.3	99.3	7.6	7.3															
						6.5	0.1	161	18.5	8.2	8.2	33.7	33.7	99.3	99.3	7.6	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 28 December 21 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		
IM9	Cloudy	Moderate	07:53	7.1	Surface	1.0	0.3	89	18.5	18.5	8.2	8.2	33.5	33.5	99.6	99.6	7.6	7.6	5.8	5.8	6	822080	808789	
						1.0	0.3	92	18.5	8.2	8.2	33.5	33.5	99.6	99.6	7.6	7.6	5.8	5.8					
						3.6	0.3	70	18.5	8.2	8.2	33.6	33.6	99.3	99.3	7.6	7.6	6.9	6.9					
					Middle	3.6	0.3	71	18.5	8.2	8.2	33.6	33.6	99.3	99.3	7.6	7.6	6.9	6.9					
						6.1	0.3	76	18.5	8.2	8.2	33.6	33.6	99.5	99.5	7.6	7.6	7.1	7.1					
						6.1	0.3	78	18.5	8.2	8.2	33.6	33.6	99.5	99.5	7.6	7.6	7.1	7.1					
					Bottom	6.1	0.3	78	18.5	8.2	8.2	33.6	33.6	99.5	99.5	7.6	7.6	7.1	7.1					
						6.1	0.3	78	18.5	8.2	8.2	33.6	33.6	99.5	99.5	7.6	7.6	7.1	7.1					
						6.1	0.3	78	18.5	8.2	8.2	33.6	33.6	99.5	99.5	7.6	7.6	7.1	7.1					
IM10	Cloudy	Moderate	07:44	7.3	Surface	1.0	0.4	80	18.5	18.5	8.2	8.2	33.4	33.4	98.9	98.9	7.6	7.6	5.7	5.7	6	822395	809783	
						1.0	0.4	83	18.5	8.2	8.2	33.4	33.4	98.9	98.9	7.6	7.6	5.7	5.7					
						3.7	0.4	78	18.5	8.2	8.2	33.5	33.5	98.6	98.6	7.6	7.6	6.7	6.7					
					Middle	3.7	0.4	78	18.5	8.2	8.2	33.5	33.5	98.6	98.6	7.6	7.6	6.7	6.7					
						6.3	0.4	76	18.5	8.2	8.2	33.5	33.5	98.5	98.5	7.6	7.6	8.9	8.9					
						6.3	0.4	82	18.5	8.2	8.2	33.5	33.5	98.5	98.5	7.6	7.6	8.9	8.9					
					Bottom	6.3	0.4	76	18.5	8.2	8.2	33.5	33.5	98.5	98.5	7.6	7.6	8.9	8.9					
						6.3	0.4	76	18.5	8.2	8.2	33.5	33.5	98.5	98.5	7.6	7.6	8.9	8.9					
						6.3	0.4	82	18.5	8.2	8.2	33.5	33.5	98.5	98.5	7.6	7.6	8.9	8.9					
IM11	Cloudy	Rough	07:31	8.8	Surface	1.0	0.2	153	18.7	18.7	8.1	8.1	33.3	33.3	96.3	96.3	7.4	7.4	6.6	6.6	6	822060	811475	
						1.0	0.3	165	18.7	8.1	8.1	33.3	33.3	96.3	96.3	7.4	7.4	6.6	6.6					
						4.4	0.3	138	18.7	8.1	8.1	33.3	33.3	96.1	96.1	7.4	7.4	7.4	7.4					
					Middle	4.4	0.3	138	18.7	8.1	8.1	33.3	33.3	96.1	96.1	7.4	7.4	7.3	7.3					
						7.8	0.2	154	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.7	7.7					
						7.8	0.3	164	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.7	7.7					
					Bottom	7.8	0.2	154	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.7	7.7					
						7.8	0.3	164	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.7	7.7					
						7.8	0.3	164	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.7	7.7					
IM12	Cloudy	Rough	07:23	9.2	Surface	1.0	0.3	105	18.7	18.7	8.1	8.1	33.3	33.3	96.4	96.4	7.4	7.4	5.8	5.8	6	821437	812028	
						1.0	0.3	114	18.7	8.1	8.1	33.3	33.3	96.4	96.4	7.4	7.4	5.8	5.8					
						4.6	0.4	77	18.7	8.1	8.1	33.3	33.3	96.3	96.3	7.4	7.4	6.6	6.6					
					Middle	4.6	0.4	79	18.7	8.1	8.1	33.3	33.3	96.3	96.3	7.4	7.4	6.7	6.7					
						8.2	0.3	82	18.7	8.1	8.1	33.3	33.3	96.4	96.4	7.4	7.4	7.8	7.8					
						8.2	0.3	87	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.9	7.9					
					Bottom	8.2	0.3	82	18.7	8.1	8.1	33.3	33.3	96.4	96.4	7.4	7.4	7.8	7.8					
						8.2	0.3	87	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.9	7.9					
						8.2	0.3	87	18.7	8.1	8.1	33.3	33.3	96.5	96.5	7.4	7.4	7.9	7.9					
SR1A	Cloudy	Calm	06:49	4.9	Surface	1.0	-	-	18.5	18.5	8.1	8.1	33.1	33.1	93.6	93.6	7.2	7.2	3.8	3.8	4	819981	812657	
						1.0	-	-	18.5	8.1	8.1	33.1	33.1	93.6	93.6	7.2	7.2	3.8	3.8					
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-						
						3.9	-	-	18.9	18.9	8.1	8.1	33.4	33.4	95.2	95.2	7.3	7.3	4.5	4.5				
						3.9	-	-	18.9	18.9	8.1	8.1	33.4	33.4	95.5	95.5	7.3	7.3	4.5	4.5				
					Bottom	3.9	-	-	18.9	18.9	8.1	8.1	33.4	33.4	95.2	95.2	7.3	7.3	4.5	4.5				
						3.9	-	-	18.9	18.9	8.1	8.1	33.4	33.4	95.5	95.5	7.3	7.3	4.5	4.5				
						3.9	-	-	18.9	18.9	8.1	8.1	33.4	33.4	95.5	95.5	7.3	7.3	4.5	4.5				
SR2	Cloudy	Rough	06:32	4.5	Surface	1.0	0.3	73	19.2	19.2	8.1	8.1	33.6	33.6	93.4	93.4	7.1	7.1	5.7	5.7	4	821469	814177	
						1.0	0.3	76	19.2	8.1	8.1	33.6	33.6	93.4	93.4	7.1	7.1	5.9	5.9					
						-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-						
						3.5	0.3	78	19.2	8.1	8.1	33.6	33.6	94.2	94.2	7.1	7.1	6.8	6.8					
						3.5	0.3	79	19.2	8.1	8.1	33.6	33.6	94.3	94.3	7.1	7.1	6.7	6.7					
					Bottom	3.5	0.3	78	19.2	8.1	8.1	33.6	33.6	94.2	94.2	7.1	7.1	6.8	6.8					
						3.5	0.3	79	19.2	8.1	8.1	33.6	33.6	94.3	94.3	7.1	7.1	6.7	6.7					
						3.5	0.3	79	19.2	8.1	8.1	33.6	33.6	94.3	94.3	7.1	7.1	6.7	6.7					
SR3	Cloudy	Moderate	08:06	8.4	Surface	1.0	0.3	190	18.5	18.5	8.1	8.1	33.3	33.3	99.0	99.0	7.6	7.6	4.9	4.9	5	822131	807565	
						1.0	0.3	193	18.5	8.1	8.1	33.3	33.3	99.0	99.0	7.6	7.6	4.9	4.9					
						4.2	0.3	186	18.4	8.2	8.2	33.4	33.4	99.3	99.3	7.6	7.6	6.0	6.0					
					Middle	4.2	0.3	203	18.5	8.2	8.2	33.4	33.4	99.3	99.3	7.6	7.6	6.1	6.1					
						7.4	0.2	195	18.6	8.2	8.2	33.6	33.6	99.7	99.7	7.6	7.6	8.9	8.9					
						7.4	0.2	208	18.6	8.2	8.2	33.6	33.6	99.7	99.7	7.6	7.6	8.9	8.9					
					Bottom	7.4	0.2	195	18.6	8.2	8.2	33.6	33.6	99.7	99.7	7.6	7.6	8.9	8.9					
						7.4	0.2	208	18.6	8.2	8.2	33.6	33.6	99.7	99.7	7.6	7.6	8.9	8.9					
						7.4	0.2	208	18.6	8.2	8.2	33.6	33.6	99.7	99.7	7.6	7.6	8.9	8.9					
SR4A	Misty	Calm	07:19	8.8	Surface	1.0	0.1	127	17.9	17.9	8.2	8.2	32.9	32.9	92.9	92.9	7.2	7.2	3.3	3.3	8	817180	807809	
						1.0	0.1	128	17.9	8.2	8.2	32.9	32.9	92.9	92.9	7.2	7.2	3.3	3.3					
						4.4	0.1	168	17.9	8.2	8.2	32.9	32.9	93.6	93.6	7.3	7.3	4.1	4.1					
					Middle	4.4	0.1	181	17.9	8.2	8.2	32.9	32.9	93.8	93.8	7.3	7.3	4.1	4.1					
						7.8	0.1	128	17.9	8.1	8.1	32.9	32.9	95.0	95.0	7.4	7.4	5.1	5.1					
						7.8	0.1	137	17.9	8.1	8.1	32.9	32.9	95.2	95.2	7.4	7.4	5.1	5.1					
					Bottom	7.8	0.1	128	17.9	8.1	8.1	32.9	32.9	95.0	95.0	7.4	7.4	5.1	5.1					
						7.8	0.1	137	17.9	8.1	8.1	32.9	32.9	95.2	95.2	7.4	7.4	5.1	5.1					
						7.8	0.1	137	17.9	8.1	8.1	32.9	32.9	95.2	95.2	7.4	7.4	5.1	5.1					
SR5A	Misty	Calm	07:03	5.0	Surface	1.0	0.0	309	17.8	17.8	8.1	8.1	32.4	32.4	90.5	90.5	7.1	7.1	3.2	3.2	8	816608	810710	
						1.0	0.0	324	17.8	8.1	8.1	32.4	32.4	90.7	90.7	7.1	7.1	3.2	3.2					
						-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-						
						4.0	0.1	121	17.7	8.1	8.1	32.6	32.6	94.7	94.7	7.4	7.4	4.6	4.6					
						4.0	0.1	129	17.7	8.1	8.1	32.6	32.6	95.1	95.1	7.5	7.5	4.6	4.6					
					Bottom	4.0	0.1	121	17.7	8.1	8.1	32.6	32.6	94.7	94.7	7.4	7.4</							

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

Water Quality Monitoring Results on 28 December 21 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	13:40	7.8	Surface	1.0	0.3	64	18.4	18.4	8.2	8.2	33.3	33.3	94.3	94.3	7.3	7.4	6.0	7.3	7	815608	804235	
						1.0	0.3	64	18.4	8.2	8.2	33.3	33.3	94.3	94.3	7.3	7.4	6.1	7.3	8				
						3.9	0.4	48	18.4	8.2	8.2	33.3	33.3	96.0	96.1	7.4	7.4	7.6	7.4	6				
					Middle	3.9	0.4	50	18.4	8.2	8.2	33.3	33.3	96.1	96.1	7.4	7.4	7.5	7.4	6				
						6.8	0.4	66	18.4	8.2	8.2	33.2	33.2	97.8	97.8	7.5	7.6	8.3	7.6	6				
						6.8	0.4	66	18.4	8.2	8.2	33.2	33.2	98.3	98.3	7.6	7.6	8.4	7.6	6				
C2	Cloudy	Moderate	12:36	11.6	Surface	1.0	0.0	222	19.1	19.1	8.1	8.1	33.0	33.0	96.1	96.1	7.3	7.3	4.7	7.3	7	825687	806948	
						1.0	0.0	233	19.0	8.1	8.1	33.0	33.0	96.0	96.0	7.3	7.3	4.8	7.3	7				
						5.8	0.0	235	18.9	8.1	8.1	33.1	33.1	95.6	95.6	7.3	7.3	5.9	7.3	4				
					Middle	5.8	0.0	236	18.9	8.1	8.1	33.1	33.1	95.6	95.6	7.3	7.3	5.9	7.3	4				
						10.6	0.1	270	18.8	8.1	8.1	33.0	33.0	96.1	96.1	7.4	7.4	6.8	7.4	3				
						10.6	0.1	294	18.8	8.1	8.1	33.0	33.0	96.1	96.1	7.4	7.4	6.7	7.4	3				
C3	Cloudy	Moderate	14:42	12.2	Surface	1.0	0.3	270	19.8	19.8	8.1	8.1	33.9	33.9	92.4	92.4	6.9	6.9	4.1	7.3	7	822115	817782	
						1.0	0.4	289	19.8	8.1	8.1	33.9	33.9	92.4	92.4	6.9	6.9	4.1	7.3	7				
						6.1	0.4	268	19.8	8.1	8.1	33.9	33.9	92.5	92.5	6.9	6.9	4.5	7.3	8				
					Middle	6.1	0.4	280	19.8	8.1	8.1	33.9	33.9	92.5	92.5	6.9	6.9	4.4	7.3	8				
						11.2	0.3	271	19.8	8.1	8.1	33.9	33.9	94.3	94.3	7.1	7.1	5.0	7.1	9				
						11.2	0.4	296	19.8	8.1	8.1	33.9	33.9	94.4	94.4	7.1	7.1	5.0	7.1	9				
IM1	Misty	Moderate	13:20	4.6	Surface	1.0	0.1	353	18.1	18.1	8.2	8.2	32.9	32.9	95.8	95.9	7.4	7.5	4.2	7.5	9	817961	807146	
						1.0	0.1	325	18.1	8.2	8.2	32.9	32.9	96.0	96.0	7.5	7.5	4.3	7.5	9				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.6	0.2	5	18.0	18.0	8.2	8.2	32.9	32.9	97.5	97.8	7.6	7.6	5.8	7.6	10			
						3.6	0.2	5	18.0	18.0	8.2	8.2	32.9	32.9	98.0	98.0	7.6	7.6	5.7	7.6	10			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IM2	Misty	Moderate	13:14	6.6	Surface	1.0	0.2	21	18.0	18.0	8.2	8.2	32.8	32.8	92.9	93.0	7.2	7.3	7.1	7.3	10	818159	806147	
						1.0	0.2	22	18.0	8.2	8.2	32.8	32.8	93.0	93.0	7.2	7.3	7.0	7.3	10				
						3.3	0.3	39	18.1	8.2	8.2	32.9	32.9	94.0	94.2	7.3	7.3	8.1	7.3	9				
					Middle	3.3	0.3	39	18.1	8.2	8.2	32.9	32.9	94.3	94.3	7.3	7.3	8.2	7.3	9				
						5.6	0.2	342	18.1	8.2	8.2	32.9	32.9	95.6	95.7	7.4	7.4	9.0	7.4	8				
						5.6	0.2	315	18.1	8.2	8.2	32.9	32.9	95.8	95.8	7.4	7.4	9.1	7.4	7				
IM3	Misty	Moderate	13:08	6.8	Surface	1.0	0.2	35	18.1	18.1	8.2	8.2	33.0	33.0	93.7	93.8	7.3	7.4	4.0	7.4	8	818798	805589	
						1.0	0.2	37	18.1	8.2	8.2	33.0	33.0	93.8	93.8	7.3	7.4	4.1	7.4	8				
						3.4	0.2	12	18.1	8.2	8.2	33.0	33.0	95.4	95.5	7.4	7.4	5.4	7.4	9				
					Middle	3.4	0.2	12	18.1	8.2	8.2	33.0	33.0	95.6	95.6	7.4	7.4	5.5	7.4	10				
						5.8	0.2	29	18.1	8.2	8.2	33.0	33.0	96.5	96.7	7.5	7.5	6.6	7.5	10				
						5.8	0.2	30	18.1	8.2	8.2	33.0	33.0	96.8	96.8	7.5	7.5	6.5	7.5	10				
IM4	Misty	Moderate	12:59	8.4	Surface	1.0	0.4	346	18.1	18.1	8.2	8.2	32.9	32.9	92.6	92.6	7.2	7.3	7.1	7.3	8	819741	804589	
						1.0	0.4	318	18.1	8.2	8.2	32.9	32.9	92.6	92.6	7.2	7.3	7.0	7.3	9				
						4.2	0.1	16	18.1	8.2	8.2	32.9	32.9	93.9	94.1	7.3	7.3	8.4	7.3	9				
					Middle	4.2	0.1	17	18.1	8.2	8.2	32.9	32.9	94.2	94.2	7.3	7.3	8.5	7.3	9				
						7.4	0.2	42	18.1	8.2	8.2	32.8	32.8	95.8	95.9	7.4	7.4	9.0	7.4	10				
						7.4	0.2	43	18.1	8.2	8.2	32.8	32.8	96.0	96.0	7.5	7.5	9.1	7.5	9				
IM5	Misty	Moderate	12:52	8.0	Surface	1.0	0.5	22	18.2	18.2	8.2	8.2	32.9	32.9	93.7	93.8	7.3	7.4	7.0	7.4	10	820750	804872	
						1.0	0.5	23	18.2	8.2	8.2	32.9	32.9	93.8	93.8	7.3	7.4	7.1	7.4	10				
						4.0	0.4	20	18.2	8.2	8.2	32.9	32.9	95.4	95.5	7.4	7.4	8.4	7.4	9				
					Middle	4.0	0.5	21	18.2	8.2	8.2	32.9	32.9	95.5	95.5	7.4	7.4	8.5	7.4	9				
						7.0	0.4	25	18.1	8.2	8.2	32.8	32.8	97.2	97.3	7.5	7.6	9.1	7.5	9				
						7.0	0.4	26	18.1	8.2	8.2	32.8	32.8	97.4	97.4	7.6	7.6	9.1	7.6	9				
IM6	Misty	Moderate	12:45	7.0	Surface	1.0	0.1	339	18.1	18.1	8.2	8.2	32.7	32.7	93.1	93.1	7.2	7.3	2.4	7.3	10	821062	805811	
						1.0	0.1	351	18.1	8.2	8.2	32.7	32.7	93.1	93.1	7.2	7.3	2.4	7.3	11				
						3.5	0.1	334	18.0	8.2	8.2	32.7	32.7	93.6	93.7	7.3	7.3	3.3	7.3	9				
					Middle	3.5	0.1	307	18.0	8.2	8.2	32.7	32.7	93.7	93.7	7.3	7.3	3.4	7.3	9				
						6.0	0.1	4	18.0	8.2	8.2	32.6	32.6	96.0	96.2	7.5	7.5	4.5	7.5	9				
						6.0	0.1	4	18.0	8.2	8.2	32.6	32.6	96.3	96.3	7.5	7.5	4.5	7.5	9				
IM7	Misty	Moderate	12:38	8.2	Surface	1.0	0.2	244	18.2	18.2	8.2	8.2	32.6	32.6	92.5	92.5	7.2	7.2	4.9	7.2	11	821357	806822	
						1.0	0.2	250	18.2	8.2	8.2	32.6	32.6	92.5	92.5	7.2	7.2	5.0	7.2	10				
						4.1	0.1	261	18.0	8.2	8.2	32.7	32.7	92.5	92.6	7.2	7.2	5.4	7.2	9				
					Middle	4.1	0.2	272	18.0	8.2	8.2	32.7	32.7	92.6	92.6	7.2	7.2	5.4	7.2	8				
						7.2	0.1	315	18.0	8.2	8.2	32.7	32.7	92.8	92.8	7.2	7.2	6.1	7.2	8				
						7.2	0.1	323	18.0	8.2	8.2	32.7	32.7	92.8	92.8	7.2	7.2	6.3	7.2	8				
IM8	Cloudy	Moderate	12:59	7.5	Surface	1.0	0.1	289	18.8	18.8	8.2	8.2	33.4	33.4	100.0	100.0	7.6	7.6	5.3	7.6	8	821827	808162	
						1.0	0.1	297	18.8	8.2	8.2	33.4	33.4	100.0	100.0	7.6	7.6	5.3	7.6	8				
						3.8	0.2	268	18.7	8.2	8.2	33.4	33.4	99.5	99.5	7.6	7.6	5.8	7.6	8				
					Middle	3.8	0.2	292	18.7	8.2	8.2	33.4	33.4	99.5	99.5	7.6	7.6	5.8	7.6	8				
						6.5	0.2	301	18.6	8.2	8.2	33.5	33.5	100.2	100.2	7.7	7.7	6.6	7.7	7				
						6.5	0.2	314	18.6	8.2	8.2	33.5	33.5	100.2	100.2	7.7	7.7	6.6	7.7	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 28 December 21 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									
IM9	Cloudy	Moderate	13:06	7.2	Surface	1.0	0.2	263	18.7	18.7	8.2	8.2	33.5	33.5	98.9	98.9	7.6	7.6	7.2	13	11	822105	808815								
						1.0	0.2	267	18.7	8.2	8.2	33.5	33.5	98.9	98.9	7.6	7.6	7.3	13												
						3.6	0.3	266	18.7	8.2	8.2	33.5	33.5	99.0	99.0	7.6	7.6	7.5	12												
					Middle	3.6	0.3	282	18.7	18.7	8.2	8.2	33.5	33.5	99.0	99.0	7.6	7.6	7.5	12											
						6.2	0.2	269	18.7	18.7	8.2	8.2	33.5	33.5	99.7	99.7	7.6	7.6	8.3	9											
						6.2	0.3	282	18.7	18.7	8.2	8.2	33.5	33.5	99.9	99.9	7.7	7.7	8.3	9											
					Bottom	1.0	0.3	291	18.6	18.6	8.2	8.2	33.4	33.4	100.4	100.4	7.7	7.7	5.4	9											
						1.0	0.3	310	18.6	18.6	8.2	8.2	33.4	33.4	100.4	100.4	7.7	7.7	5.4	9											
						3.7	0.3	273	18.6	18.6	8.2	8.2	33.5	33.5	99.4	99.4	7.6	7.6	7.2	7											
IM10	Cloudy	Moderate	13:13	7.3	Surface	3.7	0.3	289	18.6	18.6	8.2	8.2	33.5	33.5	99.4	99.4	7.6	7.6	7.2	8	8	822404	809782								
						3.7	0.3	289	18.6	18.6	8.2	8.2	33.5	33.5	99.4	99.4	7.6	7.6	7.2	8											
						6.3	0.3	289	18.6	18.6	8.2	8.2	33.5	33.5	100.0	100.0	7.7	7.7	7.9	8											
					Middle	6.3	0.3	289	18.6	18.6	8.2	8.2	33.5	33.5	100.0	100.0	7.7	7.7	7.9	8											
						6.3	0.3	314	18.6	18.6	8.2	8.2	33.5	33.5	100.1	100.1	7.7	7.7	7.8	8											
						1.0	0.4	279	18.9	18.9	8.1	8.1	33.3	33.3	98.0	98.0	7.5	7.5	5.2	8											
					IM11	Cloudy	Moderate	13:26	8.1	Surface	1.0	0.5	282	18.9	18.9	8.1	8.1	33.3	33.3	98.0				98.0	7.5	7.5	5.2	8	9	822034	811478
											4.1	0.5	289	18.8	18.8	8.1	8.1	33.3	33.3	97.6				97.6	7.5	7.5	7.0	9			
											4.1	0.5	295	18.8	18.8	8.1	8.1	33.3	33.3	97.7				97.7	7.5	7.5	7.0	9			
Middle	7.1	0.3	303	18.7						18.7	8.2	8.2	33.3	33.3	98.4	98.4	7.5	7.5	7.7	10											
	7.1	0.3	322	18.7						18.7	8.2	8.2	33.3	33.3	98.5	98.5	7.5	7.5	7.8	11											
	1.0	0.4	316	18.8						18.8	8.1	8.1	33.3	33.3	97.0	97.0	7.4	7.4	5.3	7											
IM12	Cloudy	Moderate	13:33	8.2						Surface	1.0	0.5	317	18.8	18.8	8.1	8.1	33.3	33.3	96.9	96.9	7.4	7.4	5.3	7	9	821465	812066			
											4.1	0.4	311	18.9	18.9	8.1	8.1	33.4	33.4	95.7	95.7	7.3	7.3	6.0	9						
											4.1	0.4	341	18.9	18.9	8.1	8.1	33.4	33.4	95.7	95.7	7.3	7.3	6.0	9						
					Middle	7.2	0.5	298	18.9	18.9	8.1	8.1	33.4	33.4	95.9	95.9	7.3	7.3	12.1	12											
						7.2	0.5	302	18.9	18.9	8.1	8.1	33.4	33.4	96.0	96.0	7.3	7.3	12.5	12											
						1.0	-	-	18.7	18.7	8.1	8.1	33.2	33.2	95.0	95.0	7.3	7.3	6.4	10											
					SR1A	Cloudy	Calm	14:04	5.2	Surface	1.0	-	-	18.7	18.7	8.1	8.1	33.2	33.2	95.0	95.0	7.3	7.3	6.4	10				10	819978	812655
											1.0	-	-	18.7	18.7	8.1	8.1	33.2	33.2	95.0	95.0	7.3	7.3	6.4	10						
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	2.6	-	-	-						-	-	-	-	-	-	-	-	-	-	-											
	4.2	-	-	18.7						18.7	8.1	8.1	33.2	33.2	95.9	95.9	7.4	7.4	6.8	10											
	4.2	-	-	18.7						18.7	8.1	8.1	33.2	33.2	96.0	96.0	7.4	7.4	6.8	10											
SR2	Cloudy	Moderate	14:20	4.5						Surface	1.0	0.2	76	19.5	19.5	8.1	8.1	33.7	33.7	93.8	93.8	7.1	7.1	6.1	10	11	821457	814174			
											1.0	0.2	76	19.5	19.5	8.1	8.1	33.7	33.7	93.8	93.8	7.1	7.1	6.1	10						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-											
						3.5	0.2	60	19.5	19.5	8.1	8.1	33.7	33.7	93.9	93.9	7.1	7.1	6.8	11											
						3.5	0.2	60	19.5	19.5	8.1	8.1	33.7	33.7	94.0	94.0	7.1	7.1	6.7	11											
					SR3	Cloudy	Moderate	12:54	8.7	Surface	1.0	0.1	206	19.2	19.2	8.1	8.1	33.5	33.5	96.4	96.4	7.3	7.3	5.7	9				8	822126	807588
											1.0	0.1	220	19.2	19.2	8.1	8.1	33.5	33.5	96.4	96.4	7.3	7.3	5.7	9						
											4.4	0.1	211	19.1	19.1	8.1	8.1	33.5	33.5	97.2	97.2	7.4	7.4	6.2	8						
Middle	4.4	0.1	229	19.1						19.1	8.1	8.1	33.5	33.5	97.3	97.3	7.4	7.4	6.3	8											
	7.7	0.1	212	18.8						18.8	8.2	8.2	33.4	33.4	98.1	98.1	7.5	7.5	8.5	7											
	7.7	0.1	213	18.8						18.8	8.2	8.2	33.4	33.4	98.2	98.2	7.5	7.5	8.6	7											
SR4A	Misty	Moderate	13:58	9.6						Surface	1.0	0.0	346	17.9	17.9	8.2	8.2	32.5	32.5	90.9	90.9	7.1	7.1	6.2	6	8	817191	807806			
											1.0	0.0	318	17.9	17.9	8.2	8.2	32.5	32.5	90.9	90.9	7.1	7.1	6.4	6						
											4.8	0.1	125	17.9	17.9	8.2	8.2	32.5	32.5	91.2	91.2	7.1	7.1	7.2	9						
					Middle	4.8	0.1	135	17.8	17.8	8.2	8.2	32.5	32.5	91.3	91.3	7.1	7.1	7.3	9											
						8.6	0.1	110	17.8	17.8	8.2	8.2	32.5	32.5	93.5	93.5	7.3	7.3	9.0	9											
						8.6	0.1	119	17.8	17.8	8.2	8.2	32.5	32.5	93.7	93.7	7.3	7.3	8.9	10											
					SR5A	Misty	Moderate	14:13	4.6	Surface	1.0	0.1	301	18.0	18.0	8.2	8.2	32.5	32.5	92.7	92.7	7.2	7.2	6.1	8				9	816578	810689
											1.0	0.1	326	18.0	18.0	8.2	8.2	32.5	32.5	93.1	93.1	7.3	7.3	6.1	8						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-											
	3.6	0.1	311	18.0						18.0	8.2	8.2	32.5	32.5	94.4	94.4	7.4	7.4	7.7	9											
	3.6	0.1	322	18.0						18.0	8.2	8.2	32.5	32.5	94.6	94.6	7.4	7.4	7.8	9											
SR6A	Misty	Moderate	14:42	4.0						Surface	1.0	0.0	229	18.0	18.0	8.2	8.2	32.5	32.5	90.7	90.7	7.1	7.1	4.1	10	10	817978	814737			
											1.0	0.0	247	18.0	18.0	8.2	8.2	32.5	32.5	90.8	90.8	7.1	7.1	4.1	10						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-											
						3.0	0.1	213	18.0	18.0	8.2	8.2	32.5	32.5	91.4	91.4	7.1	7.1	5.6	9											
						3.0	0.1	229	18.0	18.0	8.2	8.2	32.5	32.5	91.5	91.5	7.1	7.1	5.5	10											
					SR7	Cloudy	Moderate	15:15	16.0	Surface	1.0	0.3	46	19.9	19.9	8.1	8.1	34.0	34.0	93.2	93.2	7.0	7.0	3.9	7				8	823649	823746
											1.0	0.3	50	19.9	19.9	8.1	8.1	34.0	34.0	93.2	93.2	7.0	7.0	3.9	7						
											8.0	0.2	79	19.9	19.9	8.1	8.1	34.0	34.0	93.3	93.3	7.0	7.0	4.3	9						
Middle	8.0	0.2	80	19.9						19.9	8.1	8.1	34.0	34.0	93.3	93.3	7.0	7.0	4.3	9											
	15.0	0.2	59	19.9						19.9	8.1	8.1	34.0	34.0	94.6	94.6	7.1	7.1	4.2	9											
	15.0	0.2	61	19.9						19.9	8.1	8.1	34.0	34.0	94.7	94.7	7.1	7.1	4.2	9											
SR8	Cloudy	Moderate	13:41	5.1						Surface	1.0	-	-	19.0	19.0	8.1	8.1	33.3	33.3	98.0	98.0	7.5	7.5	6.1	7	6	820382	811614			
											1.0	-	-	19.0	19.0	8.1	8.1	33.3	33.3	98.0	98.0	7.5	7.5	6.3	6						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-											
						4.1	-	-	18.8	18.8	8.2	8.2	33.4	33.4	98.0	98.0	7.5	7.5	9.3	6											
						4.1	-	-	18.8																						

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 December 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)								
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA										
C1	Cloudy	Rough	09:46	7.9	Surface	1.0	0.1	240	18.2	18.2	8.2	8.2	33.4	33.4	93.5	93.5	7.2	7.2	9.5	11.0	10	12	815614	804226								
						1.0	0.1	257	18.2	8.2	8.2	33.4	33.4	93.5	93.5	7.2	7.2	9.6	11													
						4.0	0.1	236	18.2	8.2	8.2	33.4	33.4	93.3	93.3	7.2	7.2	10.6	11													
					Middle	4.0	0.1	249	18.2	8.2	8.2	33.4	33.4	93.3	93.3	7.2	7.2	10.6	12													
						6.9	0.1	266	18.3	8.2	8.2	33.4	33.4	93.4	93.5	7.2	7.2	12.8	14													
						6.9	0.1	276	18.3	8.2	8.2	33.4	33.4	93.5	93.5	7.2	7.2	12.8	15													
					C2	Misty	Moderate	10:50	11.8	Surface	1.0	0.3	165	18.8	18.8	8.1	8.1	33.2	33.2	99.5	99.5				7.6	7.6	5.8	9.4	7	7	825678	806966
											1.0	0.3	165	18.8	8.1	8.1	33.2	33.3	99.5	99.6	7.6				7.6	6.1	8					
											5.9	0.2	172	18.7	8.1	8.1	33.3	33.3	99.6	99.6	7.6				7.6	9.3	7					
Middle	5.9	0.3	180	18.6						8.1	8.1	33.3	33.3	99.6	99.6	7.6	7.6	9.6	6													
	10.8	0.1	149	18.6						8.1	8.1	33.3	33.3	100.0	100.1	7.7	7.7	12.8	6													
	10.8	0.1	151	18.6						8.1	8.1	33.3	33.3	100.1	100.1	7.7	7.7	13.2	7													
C3	Misty	Moderate	08:40	11.0						Surface	1.0	0.1	242	19.9	19.9	8.1	8.1	34.1	34.1	94.8	94.8	7.1	7.1	4.1	4.7	7	7	822092	817825			
											1.0	0.1	244	19.9	8.1	8.1	34.1	34.1	94.8	94.8	7.1	7.1	4.1	6								
											5.5	0.1	240	19.9	8.1	8.1	34.1	34.1	95.2	95.3	7.1	7.1	4.4	7								
					Middle	5.5	0.1	254	19.9	8.1	8.1	34.1	34.1	95.3	95.3	7.1	7.1	4.4	6													
						10.0	0.1	231	19.9	8.1	8.1	34.1	34.1	96.0	96.2	7.2	7.2	5.4	7													
						10.0	0.1	244	19.9	8.1	8.1	34.1	34.1	96.3	96.2	7.2	7.2	5.7	7													
					IM1	Cloudy	Moderate	10:05	5.1	Surface	1.0	0.0	207	18.1	18.1	8.2	8.2	33.1	33.1	93.3	93.4	7.2	7.2	3.5	4.6	12				11	817925	807145
											1.0	0.0	212	18.1	8.2	8.2	33.1	33.1	93.4	93.4	7.2	7.2	3.6	11								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-									
	4.1	0.0	268	18.0						18.0	8.2	8.2	33.2	33.2	94.3	94.3	7.3	7.3	5.7	10												
	4.1	0.0	281	18.0						18.0	8.2	8.2	33.2	33.2	94.3	94.3	7.3	7.3	5.7	11												
IM2	Cloudy	Moderate	10:13	6.1						Surface	1.0	0.1	176	18.0	18.0	8.2	8.2	33.2	33.2	93.3	93.3	7.2	7.2	4.7	6.5	13	12	818141	806179			
											1.0	0.1	177	18.0	8.2	8.2	33.2	33.2	93.3	93.3	7.2	7.2	4.8	12								
											3.1	0.1	212	18.0	8.2	8.2	33.2	33.2	92.1	92.1	7.2	7.2	5.6	11								
					Middle	3.1	0.1	216	18.0	8.2	8.2	33.2	33.2	92.1	92.1	7.2	7.2	5.7	12													
						5.1	0.0	215	18.0	8.2	8.2	33.2	33.2	92.0	92.0	7.1	7.1	8.9	11													
						5.1	0.0	219	18.0	8.2	8.2	33.2	33.2	92.0	92.0	7.1	7.1	9.0	12													
					IM3	Cloudy	Rough	10:19	6.6	Surface	1.0	0.1	209	18.1	18.1	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	4.9	6.6	8				10	818762	805610
											1.0	0.2	219	18.1	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	5.0	9								
											3.3	0.1	212	18.0	8.2	8.2	33.2	33.2	93.4	93.4	7.3	7.3	6.1	10								
Middle	3.3	0.1	228	18.0						8.2	8.2	33.2	33.2	93.4	93.4	7.3	7.3	6.0	11													
	5.6	0.1	200	18.0						8.2	8.2	33.3	33.3	92.9	92.9	7.2	7.2	8.9	12													
	5.6	0.1	208	18.0						8.2	8.2	33.3	33.3	92.9	92.9	7.2	7.2	8.9	11													
IM4	Cloudy	Rough	10:28	8.6						Surface	1.0	0.2	174	18.1	18.1	8.2	8.2	33.3	33.3	93.7	93.7	7.3	7.3	7.4	10.2	11	10	819711	804596			
											1.0	0.2	185	18.1	8.2	8.2	33.3	33.3	93.6	93.6	7.3	7.3	7.5	10								
											4.3	0.2	148	18.0	8.2	8.2	33.3	33.3	93.2	93.2	7.2	7.2	9.3	11								
					Middle	4.3	0.2	159	18.0	8.2	8.2	33.3	33.3	93.2	93.2	7.2	7.2	9.3	10													
						7.6	0.1	174	18.0	8.2	8.2	33.3	33.3	92.7	92.8	7.2	7.2	13.8	9													
						7.6	0.1	187	18.0	8.2	8.2	33.3	33.3	92.8	92.8	7.2	7.2	13.8	8													
					IM5	Cloudy	Rough	10:37	8.5	Surface	1.0	0.3	185	18.0	18.0	8.2	8.2	33.2	33.2	93.7	93.7	7.3	7.3	11.4	11.9	10				11	820728	804860
											1.0	0.3	193	18.0	8.2	8.2	33.2	33.2	93.7	93.7	7.3	7.3	11.4	9								
											4.3	0.2	195	18.0	8.2	8.2	33.2	33.2	93.4	93.4	7.3	7.3	12.0	9								
Middle	4.3	0.2	214	18.0						8.2	8.2	33.2	33.2	93.4	93.4	7.3	7.3	11.9	10													
	7.5	0.2	214	18.0						8.2	8.2	33.2	33.2	93.1	93.1	7.2	7.2	12.3	12													
	7.5	0.2	231	18.0						8.2	8.2	33.2	33.2	93.1	93.1	7.2	7.2	12.2	13													
IM6	Cloudy	Rough	10:47	7.4						Surface	1.0	0.2	228	18.1	18.1	8.2	8.2	32.9	32.9	93.9	93.9	7.3	7.3	3.9	5.4	10	9	821056	805839			
											1.0	0.2	249	18.1	8.2	8.2	32.9	32.9	93.9	93.9	7.3	7.3	3.9	11								
											3.7	0.2	230	18.0	8.2	8.2	32.9	32.9	93.6	93.6	7.3	7.3	4.2	8								
					Middle	3.7	0.2	239	18.0	8.2	8.2	32.9	32.9	93.6	93.6	7.3	7.3	4.2	9													
						6.4	0.1	185	18.0	8.2	8.2	33.1	33.1	93.9	93.9	7.3	7.3	8.1	8													
						6.4	0.1	196	18.0	8.2	8.2	33.1	33.1	93.9	93.9	7.3	7.3	8.1	9													
					IM7	Cloudy	Rough	10:55	8.5	Surface	1.0	0.1	85	18.1	18.1	8.2	8.2	33.0	33.0	94.2	94.2	7.3	7.3	3.9	4.7	9				11	821370	806849
											1.0	0.1	91	18.1	8.2	8.2	33.0	33.0	94.2	94.2	7.3	7.3	3.9	10								
											4.3	0.1	80	18.1	8.2	8.2	33.0	33.0	94.0	94.0	7.3	7.3	4.3	10								
Middle	4.3	0.1	82	18.1						8.2	8.2	33.0	33.0	94.0	94.0	7.3	7.3	4.2	11													
	7.5	0.1	116	18.1						8.2	8.2	33.1	33.1	94.1	94.2	7.3	7.3	6.0	11													
	7.5	0.1	121	18.1						8.2	8.2	33.1	33.1	94.2	94.2	7.3	7.3	5.9	12													
IM8	Misty	Moderate	10:22	7.2						Surface	1.0	0.2	98	18.7	18.7	8.1	8.1	33.5	33.5	101.1	101.1	7.7	7.7	5.7	7.4	9	10	821839	808131			
											1.0	0.2	103	18.7	8.1	8.1	33.5	33.5	101.1	101.1	7.7	7.7	5.7	10								
											3.6	0.1	76	18.6	8.1	8.1	33.7	33.7	100.2	100.2	7.7	7.7	7.3	10								
					Middle	3.6	0.1	79	18.6	8.1	8.1	33.7	33.7	100.2	100.2	7.7	7.7	7.4	10													
						6.2	0.2	65	18.6	8.1	8.1	33.9	33.9	100.6	100.6	7.7	7.7	9.1	10													
						6.2	0.2	69	18.6	8.1	8.1	33.9	33.9	100.6	100.6	7.7	7.7	9.1	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 30 December 21 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									
IM9	Misty	Moderate	10:15	7.0	Surface	1.0	0.2	49	18.7	18.7	8.1	8.1	33.5	33.5	100.5	100.5	7.7	7.7	6.8	10	9	822070	808799								
						1.0	0.2	52	18.7	8.1	8.1	33.5	33.5	100.5	100.5	7.7	7.7	6.9	9												
						3.5	0.3	52	18.6	8.1	8.1	33.7	33.7	100.1	100.1	7.7	7.7	8.2	10												
					Middle	3.5	0.3	55	18.6	8.1	8.1	33.7	33.7	100.1	100.1	7.7	7.7	8.4	9												
						6.0	0.3	66	18.6	8.1	8.1	33.9	33.9	100.1	100.1	7.7	7.7	11.3	8												
						6.0	0.3	69	18.6	8.1	8.1	33.9	33.9	100.3	100.3	7.7	7.7	11.2	9												
					IM10	Misty	Moderate	10:07	7.5	Surface	1.0	0.3	94	18.8	18.8	8.1	8.1	33.4	33.4	100.3				100.3	7.7	7.7	5.1	8	7	822365	809796
											1.0	0.3	98	18.7	8.1	8.1	33.4	33.4	100.2	100.2				7.7	7.7	5.2	7				
											3.8	0.3	92	18.7	8.1	8.1	33.5	33.5	99.2	99.2				7.6	7.6	6.8	6				
Middle	3.8	0.3	93	18.7						8.1	8.1	33.5	33.5	99.1	99.1	7.6	7.6	7.0	7												
	6.5	0.1	76	18.6						8.1	8.1	33.5	33.5	99.4	99.5	7.6	7.6	9.7	6												
	6.5	0.2	78	18.6						8.1	8.1	33.5	33.5	99.5	99.5	7.6	7.6	9.8	7												
IM11	Misty	Moderate	09:56	7.4						Surface	1.0	0.1	43	19.3	19.3	8.1	8.1	33.8	33.8	96.1	96.1	7.3	7.3	6.2	8	7	822054	811479			
											1.0	0.1	44	19.3	8.1	8.1	33.8	33.8	96.1	96.1	7.3	7.3	6.3	9							
											3.7	0.2	53	19.3	8.1	8.1	33.8	33.8	96.0	96.0	7.3	7.3	6.8	6							
					Middle	3.7	0.2	56	19.3	8.1	8.1	33.8	33.8	96.0	96.0	7.3	7.3	7.0	5												
						6.4	0.1	59	19.2	8.1	8.1	33.8	33.8	96.9	97.0	7.3	7.3	7.7	5												
						6.4	0.1	64	19.2	8.1	8.1	33.8	33.8	97.1	97.1	7.3	7.3	7.8	6												
					IM12	Misty	Moderate	09:49	8.5	Surface	1.0	0.0	145	19.4	19.4	8.1	8.1	33.9	33.9	95.2	95.2	7.2	7.2	4.9	9				9	821454	812032
											1.0	0.0	158	19.4	8.1	8.1	33.9	33.9	95.2	95.2	7.2	7.2	5.0	10							
											4.3	0.1	134	19.4	8.1	8.1	33.9	33.9	95.2	95.2	7.2	7.2	5.3	9							
Middle	4.3	0.1	134	19.4						8.1	8.1	33.9	33.9	95.2	95.2	7.2	7.2	5.5	9												
	7.5	0.1	146	19.3						8.1	8.1	33.8	33.8	95.6	95.7	7.2	7.2	6.5	9												
	7.5	0.1	160	19.3						8.1	8.1	33.8	33.8	95.8	95.8	7.2	7.2	6.7	8												
SR1A	Misty	Moderate	09:19	5.2						Surface	1.0	-	-	18.7	18.7	8.1	8.1	33.4	33.4	97.2	97.4	7.4	7.4	4.7	8	7	819980	812655			
											1.0	-	-	18.7	8.1	8.1	33.4	33.4	97.5	97.4	7.5	7.5	4.7	7							
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
						4.2	-	-	18.3	18.3	8.1	8.1	33.7	33.7	98.7	98.8	7.6	7.6	4.9	6											
						4.2	-	-	18.2	8.1	8.1	33.7	33.7	98.9	98.9	7.6	7.6	5.0	7												
					SR2	Misty	Moderate	09:02	4.0	Surface	1.0	0.1	15	19.3	19.3	8.1	8.1	33.8	33.8	98.1	98.3	7.4	7.4	5.5	7				7	821476	814176
											1.0	0.2	16	19.3	8.1	8.1	33.8	33.8	98.5	98.3	7.4	7.4	5.6	8							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	3.0	0.2	36	19.3						8.1	8.1	33.8	33.8	100.9	101.1	7.6	7.7	6.1	7												
3.0	0.2	36	19.3	8.1						8.1	33.8	33.8	101.3	101.3	7.7	7.7	6.1	6													
SR3	Misty	Moderate	10:29	8.4						Surface	1.0	0.2	154	18.8	18.8	8.1	8.1	33.3	33.3	101.1	101.1	7.7	7.7	5.0	7	6	822125	807567			
											1.0	0.2	163	18.8	8.1	8.1	33.3	33.3	101.1	101.1	7.7	7.7	5.2	7							
					4.2	0.1	125	18.6	8.1		8.1	33.8	33.8	100.7	100.7	7.7	7.7	10.2	5												
					Middle	4.2	0.1	133	18.6	8.1	8.1	33.8	33.8	100.7	100.7	7.7	7.7	10.5	6												
						7.4	0.1	51	18.5	8.1	8.1	33.9	33.9	101.0	101.1	7.7	7.7	11.8	5												
						7.4	0.1	53	18.5	8.1	8.1	33.9	33.9	101.1	101.1	7.7	7.7	11.8	6												
					SR4A	Cloudy	Moderate	09:26	9.4	Surface	1.0	0.1	72	18.0	18.0	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	9.5	12				12	817170	807793
											1.0	0.1	78	18.0	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	9.5	13							
											4.7	0.2	65	18.0	8.2	8.2	33.3	33.3	93.8	93.8	7.3	7.3	11.7	12							
Middle	4.7	0.2	66	18.0						8.2	8.2	33.3	33.3	93.8	93.8	7.3	7.3	11.7	13												
	8.4	0.2	56	18.0						8.2	8.2	33.3	33.3	93.8	93.8	7.3	7.3	10.4	11												
	8.4	0.2	60	18.0						8.2	8.2	33.3	33.3	93.8	93.8	7.3	7.3	10.5	12												
SR5A	Cloudy	Moderate	09:09	4.6						Surface	1.0	0.1	123	18.1	18.1	8.2	8.2	33.0	33.0	91.5	91.5	7.1	7.1	5.0	10	12	816582	810719			
											1.0	0.1	131	18.1	8.2	8.2	33.0	33.0	91.5	91.5	7.1	7.1	5.0	11							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
						3.6	0.0	128	18.1	8.2	8.2	33.0	33.0	91.8	91.9	7.1	7.1	5.7	13												
						3.6	0.0	130	18.1	8.2	8.2	33.0	33.0	91.9	91.9	7.1	7.1	5.7	13												
					SR6A	Cloudy	Moderate	08:44	4.8	Surface	1.0	0.1	37	18.3	18.3	8.1	8.1	32.8	32.8	89.3	89.3	6.9	6.9	3.7	14				14	817967	814736
											1.0	0.1	40	18.3	8.1	8.1	32.8	32.8	89.2	89.3	6.9	6.9	3.7	15							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	3.8	0.1	79	18.3						8.1	8.1	32.8	32.8	89.1	89.1	6.9	6.9	6.3	13												
	3.8	0.1	82	18.3						8.1	8.1	32.8	32.8	89.1	89.1	6.9	6.9	6.4	12												
SR7	Misty	Moderate	08:08	16.8						Surface	1.0	0.1	69	19.9	19.9	8.1	8.1	34.1	34.1	95.6	95.6	7.1	7.1	4.0	6	6	823619	823729			
											1.0	0.1	69	19.9	8.1	8.1	34.1	34.1	95.6	95.6	7.1	7.1	4.0	6							
											8.4	0.1	73	19.9	8.0	8.0	34.1	34.1	95.4	95.4	7.1	7.1	5.0	6							
					Middle	8.4	0.1	73	19.9	8.0	8.0	34.1	34.1	95.4	95.4	7.1	7.1	5.1	7												
						15.8	0.1	38	19.9	8.0	8.0	34.1	34.1	95.1	95.1	7.1	7.1	7.8	6												
						15.8	0.1	40	19.9	8.0	8.0	34.1	34.1	95.1	95.1	7.1	7.1	7.4	6												
					SR8	Misty	Moderate	09:42	4.2	Surface	1.0	-	-	19.2	19.2	8.2	8.2	33.6	33.6	98.6	98.6	7.5	7.5	6.0	7				8	820376	811627
											1.0	-	-	19.2	8.2	8.2	33.6	33.6	98.5	98.6	7.5	7.5	6.1	8							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
	3.2	-	-	19.0						19.0	8.1	8.1	33.7	33.7	98.0	98.1	7.4	7.5	8.8	8											
	3.2	-	-	19.0						8.1	8.1	33.7	33.7	98.1	98.1	7.5	7.5	9.2	7												

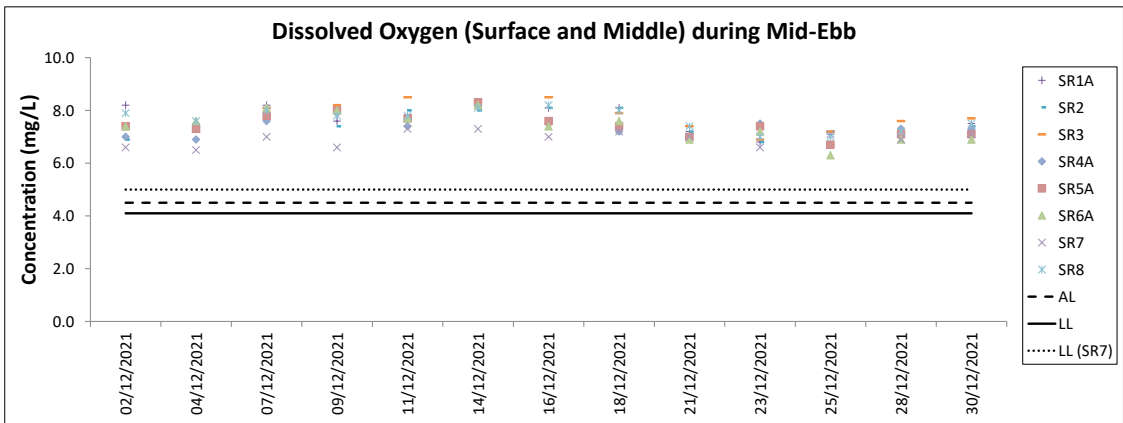
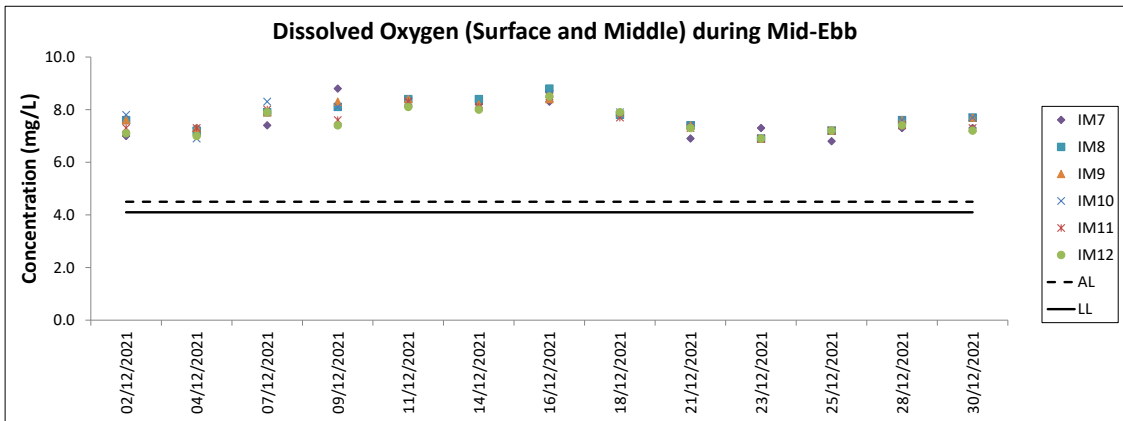
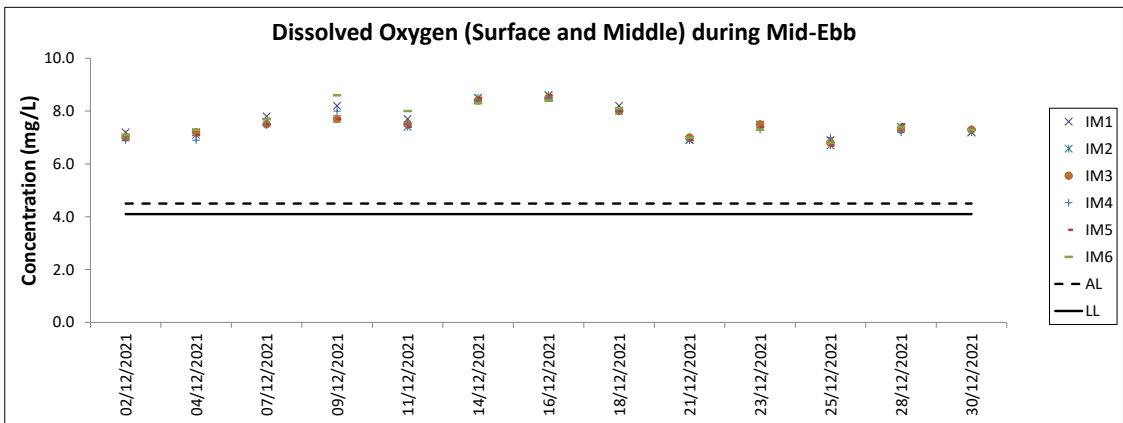
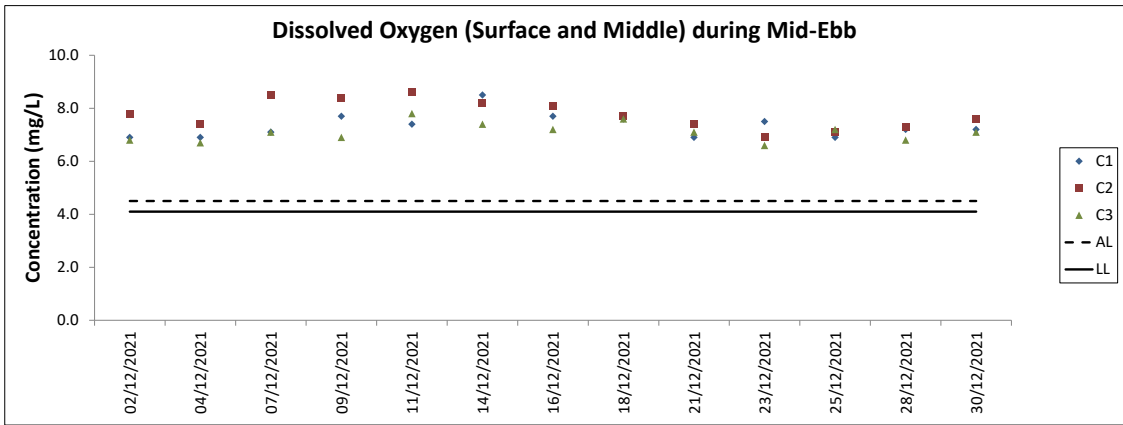
DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough: While capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

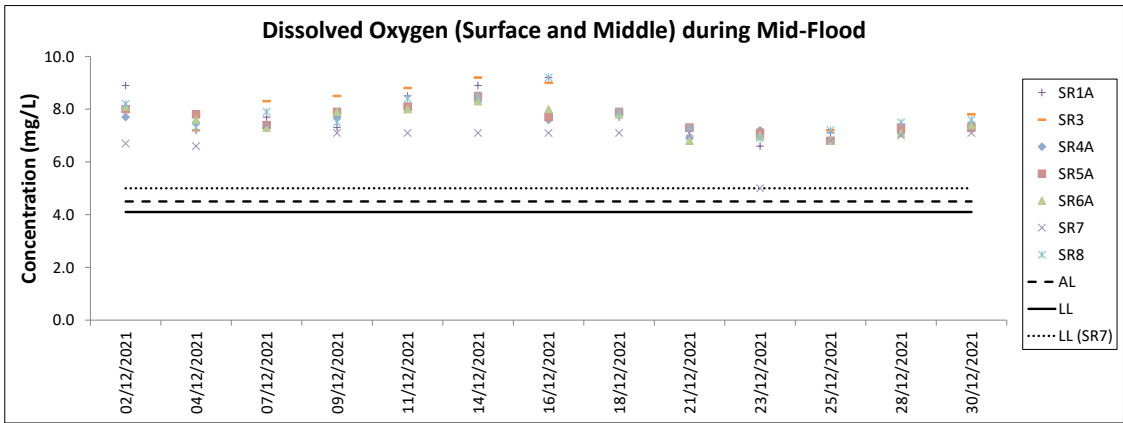
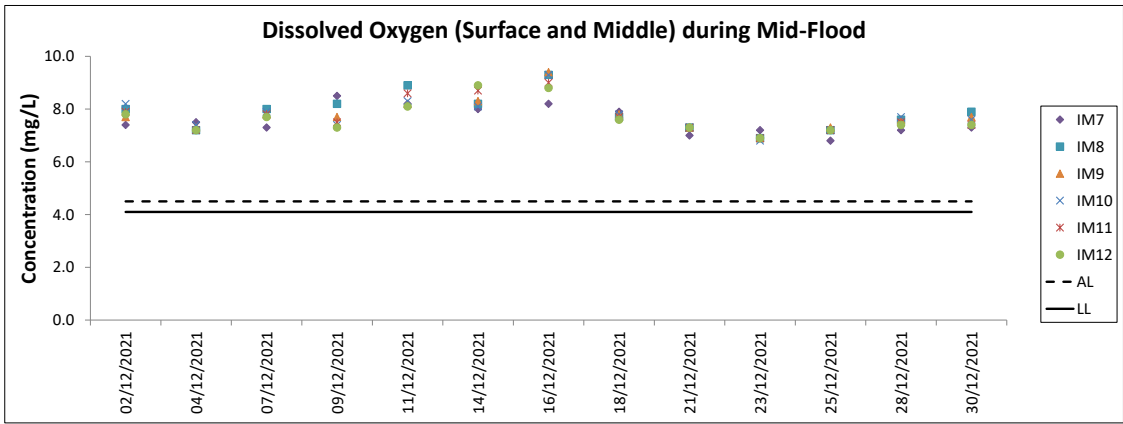
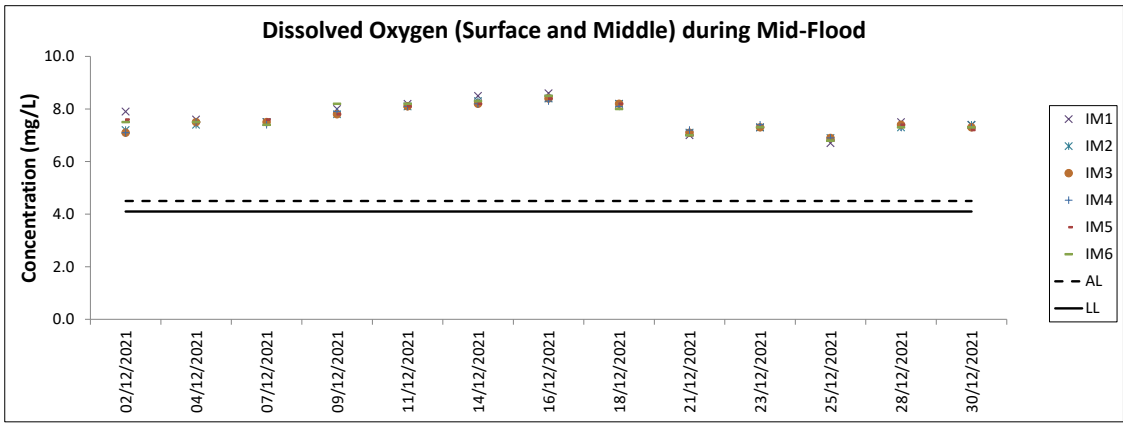
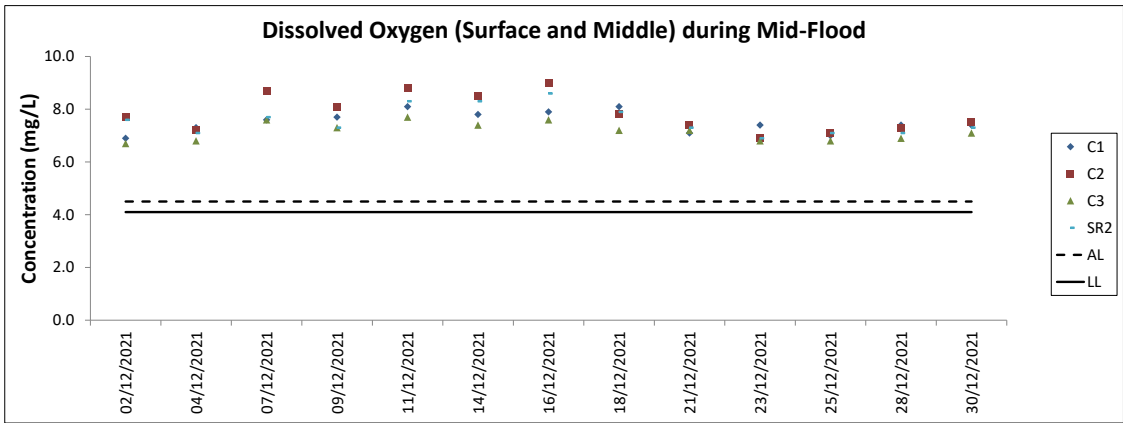
Expansion of Hong Kong International Airport into a Three-Runway System
 Water Quality Monitoring

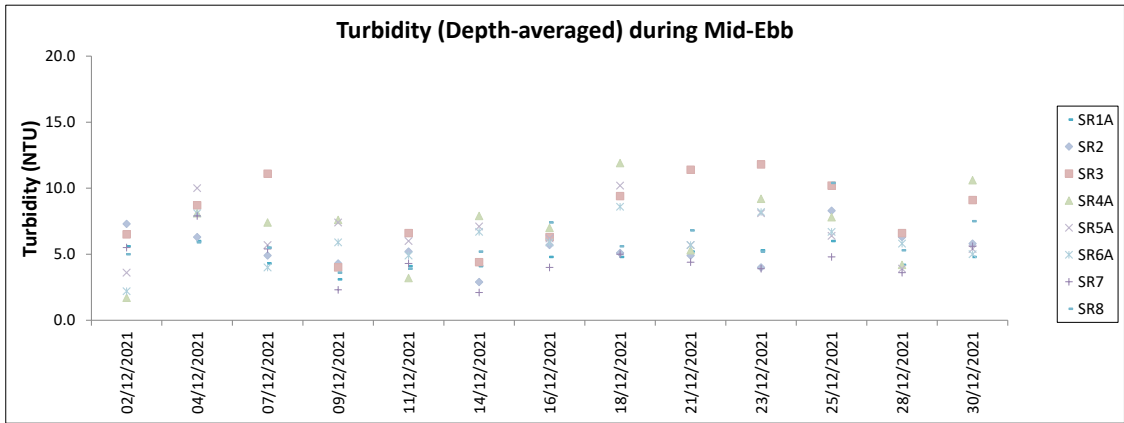
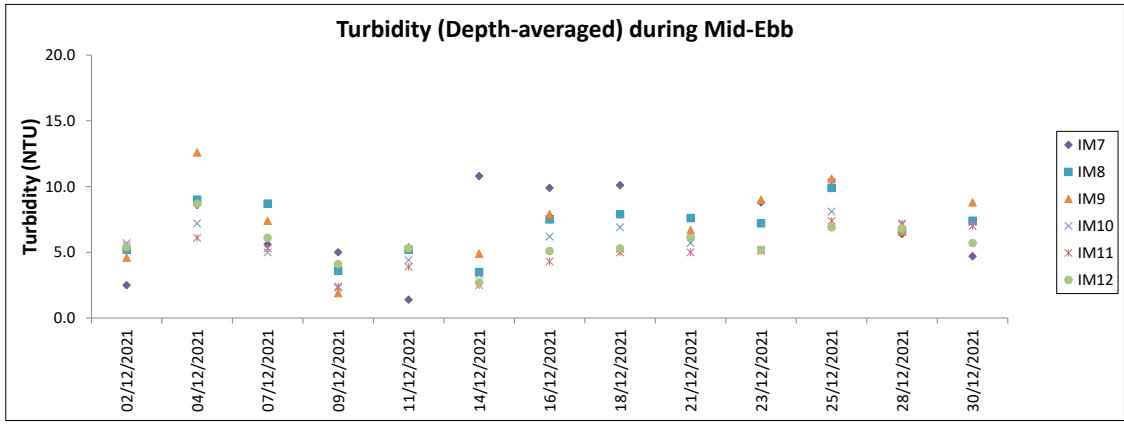
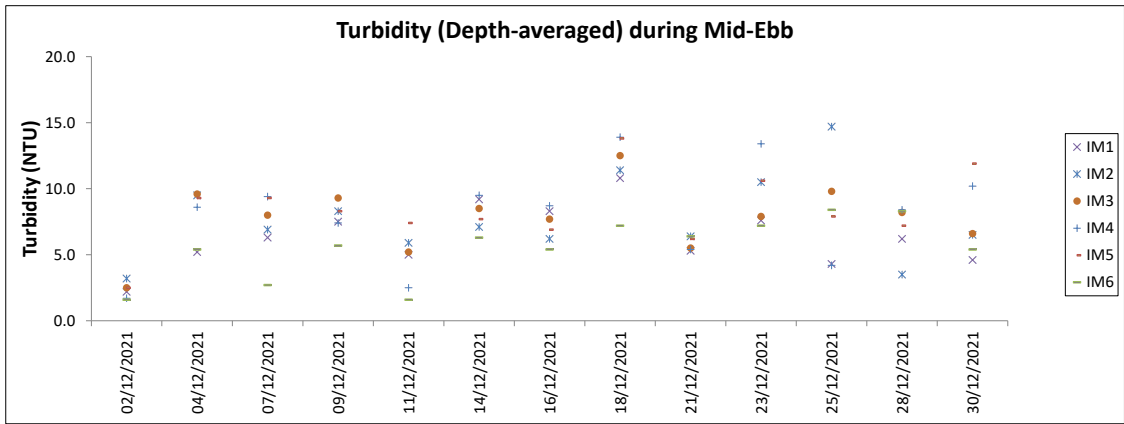
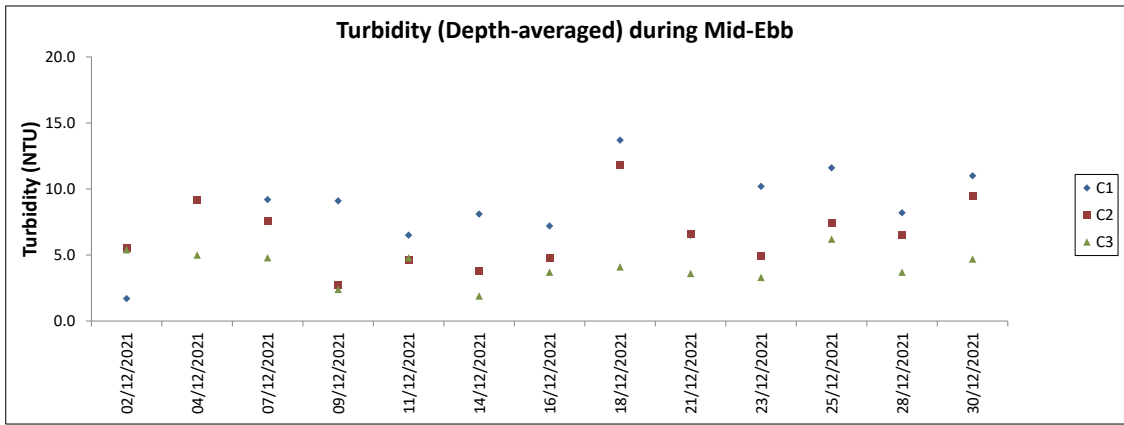
Water Quality Monitoring Results on 30 December 21 during Mid-Flood Tide

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	Fine	Rough	14:54	7.9	Surface	1.0	0.4	21	18.7	18.7	8.2	8.2	33.2	33.2	96.4	96.4	7.4	7.4	5.0	11	9	815620	804246								
						1.0	0.4	21	18.7	8.2	8.2	33.2	33.2	96.4	96.4	7.4	7.4	5.0	10												
						4.0	0.3	21	18.5	18.5	8.2	8.2	33.3	33.3	94.5	94.5	7.3	7.3	7.6	8											
					Middle	4.0	0.4	21	18.5	18.5	8.2	8.2	33.3	33.3	94.5	94.5	7.3	7.3	7.6	7											
						6.9	0.3	12	18.4	18.4	8.2	8.2	33.3	33.3	94.5	94.5	7.3	7.3	6.0	7											
						6.9	0.4	12	18.4	18.4	8.2	8.2	33.3	33.3	94.5	94.5	7.3	7.3	6.0	8											
					C2	Misty	Moderate	14:00	11.2	Surface	1.0	0.1	302	19.2	19.2	8.1	8.1	33.5	33.5	99.3				99.2	7.5	7.5	5.3	6	6	825663	806957
											1.0	0.1	312	19.2	19.2	8.1	8.1	33.5	33.5	99.1				99.1	7.5	7.5	5.4	5			
											5.6	0.2	304	18.9	18.9	8.1	8.1	33.6	33.6	98.3				98.3	7.5	7.5	6.6	6			
Middle	5.6	0.2	317	18.9						18.9	8.1	8.1	33.6	33.6	98.2	98.2	7.5	7.5	6.7	7											
	10.2	0.3	318	18.7						18.7	8.1	8.1	33.6	33.6	97.7	97.7	7.5	7.5	14.1	7											
	10.2	0.3	348	18.7						18.7	8.1	8.1	33.6	33.6	97.7	97.7	7.5	7.5	14.1	7											
C3	Misty	Moderate	15:57	12.1						Surface	1.0	0.4	286	20.0	20.0	8.1	8.1	34.1	34.1	95.0	95.0	7.1	7.1	7.0	9	9	822090	817789			
											1.0	0.4	307	20.0	20.0	8.1	8.1	34.1	34.1	95.0	95.0	7.1	7.1	7.1	8						
											6.1	0.4	278	20.0	20.0	8.1	8.1	34.1	34.1	95.3	95.4	7.1	7.1	7.5	9						
					Middle	6.1	0.5	302	20.0	20.0	8.1	8.1	34.1	34.1	95.3	95.4	7.1	7.1	7.5	10											
						11.1	0.4	280	19.9	19.9	8.1	8.1	34.1	34.1	97.8	98.0	7.3	7.3	11.1	9											
						11.1	0.4	302	19.8	19.8	8.1	8.1	34.2	34.2	98.1	98.1	7.3	7.3	11.6	10											
					IM1	Fine	Moderate	14:39	4.8	Surface	1.0	0.1	44	18.6	18.6	8.2	8.2	33.1	33.1	96.8	96.8	7.4	7.4	5.5	7				8	817942	807148
											1.0	0.1	46	18.6	18.6	8.2	8.2	33.1	33.1	96.7	96.7	7.4	7.4	5.6	8						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-									
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-									
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
Bottom	3.8	0.1	46	18.1						18.1	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	8.5	8											
	3.8	0.1	46	18.1						18.1	8.2	8.2	33.2	33.2	94.0	94.0	7.3	7.3	8.6	9											
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-										
IM2	Fine	Rough	14:32	7.8	Surface	1.0	0.2	7	18.5	18.5	8.2	8.2	33.1	33.1	97.1	97.1	7.5	7.5	3.6	8	8	818167	806187								
						1.0	0.2	7	18.5	18.5	8.2	8.2	33.1	33.1	97.0	97.1	7.5	7.5	3.6	9											
						3.9	0.1	6	18.1	18.1	8.2	8.2	33.2	33.2	92.6	92.7	7.2	7.2	9.9	8											
					Middle	3.9	0.2	6	18.1	18.1	8.2	8.2	33.2	33.2	92.7	92.7	7.2	7.2	9.9	9											
						6.8	0.3	327	18.1	18.1	8.2	8.2	33.2	33.2	92.9	92.9	7.2	7.2	8.5	8											
						6.8	0.3	346	18.1	18.1	8.2	8.2	33.3	33.3	92.9	92.9	7.2	7.2	8.6	8											
					IM3	Fine	Rough	14:25	7.3	Surface	1.0	0.1	9	18.4	18.4	8.2	8.2	33.1	33.1	95.3				95.3	7.3	7.3	4.7	9	9	818770	805610
											1.0	0.1	9	18.4	18.4	8.2	8.2	33.1	33.1	95.3				95.3	7.3	7.3	4.7	8			
											3.7	0.1	279	18.3	18.3	8.2	8.2	33.1	33.1	94.3				94.3	7.3	7.3	5.3	9			
Middle	3.7	0.1	287	18.3						18.3	8.2	8.2	33.1	33.1	94.3	94.3	7.3	7.3	5.3	10											
	6.3	0.1	278	18.2						18.2	8.2	8.2	33.2	33.2	93.4	93.4	7.2	7.2	8.7	9											
	6.3	0.1	303	18.2						18.2	8.2	8.2	33.2	33.2	93.4	93.4	7.2	7.2	8.7	10											
IM4	Fine	Rough	14:17	8.2						Surface	1.0	0.1	10	18.2	18.2	8.2	8.2	33.0	33.0	94.3	94.3	7.3	7.3	5.2	8	8	819744	804611			
											1.0	0.2	10	18.2	18.2	8.2	8.2	33.0	33.0	94.3	94.3	7.3	7.3	5.2	7						
											4.1	0.1	356	18.1	18.1	8.2	8.2	33.1	33.1	93.1	93.1	7.2	7.2	7.7	7						
					Middle	4.1	0.1	328	18.1	18.1	8.2	8.2	33.1	33.1	93.1	93.1	7.2	7.2	7.7	8											
						7.2	0.2	15	18.1	18.1	8.2	8.2	33.1	33.1	93.5	93.5	7.2	7.2	9.7	10											
						7.2	0.2	16	18.1	18.1	8.2	8.2	33.1	33.1	93.5	93.5	7.3	7.3	9.7	9											
					IM5	Fine	Rough	14:10	7.3	Surface	1.0	0.4	24	18.2	18.2	8.2	8.2	33.2	33.2	93.3	93.3	7.2	7.2	8.2	10				9	820731	804872
											1.0	0.5	24	18.2	18.2	8.2	8.2	33.2	33.2	93.3	93.3	7.2	7.2	8.2	9						
											3.7	0.3	28	18.2	18.2	8.2	8.2	33.2	33.2	93.3	93.4	7.2	7.2	8.2	9						
Middle	3.7	0.4	29	18.2						18.2	8.2	8.2	33.2	33.2	93.4	93.4	7.2	7.2	8.2	9											
	6.3	0.3	25	18.2						18.2	8.2	8.2	33.2	33.2	93.8	93.9	7.3	7.3	8.5	8											
	6.3	0.3	25	18.2						18.2	8.2	8.2	33.2	33.2	93.9	93.9	7.3	7.3	8.4	9											
IM6	Fine	Rough	14:03	8.4						Surface	1.0	0.0	286	18.2	18.2	8.2	8.2	33.0	33.0	94.9	94.9	7.3	7.3	5.5	9	9	821055	805847			
											1.0	0.0	305	18.2	18.2	8.2	8.2	33.0	33.0	94.8	94.8	7.3	7.3	5.4	8						
											4.2	0.2	333	18.2	18.2	8.2	8.2	33.0	33.0	94.5	94.5	7.3	7.3	5.2	9						
					Middle	4.2	0.2	353	18.2	18.2	8.2	8.2	33.0	33.0	94.5	94.5	7.3	7.3	5.2	8											
						7.4	0.1	318	18.1	18.1	8.2	8.2	33.1	33.1	93.0	93.0	7.2	7.2	6.1	10											
						7.4	0.1	342	18.1	18.1	8.2	8.2	33.1	33.1	93.0	93.0	7.2	7.2	6.2	10											
					IM7	Fine	Rough	13:56	8.9	Surface	1.0	0.1	295	18.3	18.3	8.2	8.2	32.8	32.8	94.6	94.6	7.3	7.3	4.0	9				8	821333	806816
											1.0	0.1	299	18.3	18.3	8.2	8.2	32.8	32.8	94.6	94.6	7.3	7.3	4.0	8						
											4.5	0.1	278	18.2	18.2	8.2	8.2	32.8	32.8	94.5	94.5	7.3	7.3	4.3	9						
Middle	4.5	0.1	283	18.2						18.2	8.2	8.2	32.8	32.8	94.5	94.5	7.3	7.3	4.3	8											
	7.9	0.1	324	18.1						18.1	8.3	8.3	33.0	33.0	94.5	94.6	7.3	7.3	4.5	7											
	7.9	0.1	352	18.1						18.1	8.3	8.3	33.0	33.0	94.6	94.6	7.3	7.3	4.5	8											
IM8	Misty	Moderate	14:24	7.2						Surface	1.0	0.2	265	19.1	19.1	8.1	8.1	33.5	33.5	103.6	103.6	7.9	7.9	5.1	7	6	821833	808134			
											1.0	0.2	272	19.1	19.1	8.1	8.1	33.5	33.5	103.6	103.6	7.9	7.9	5.1	8						
											3.6	0.2	242	18.9	18.9	8.1	8.1	33.5	33.5	102.1	102.1	7.8	7.8	5.2	5						
					Middle	3.6	0.2	253	18.9	18.9	8.1	8.1	33.5	33.5	102.0	102.0	7.8	7.8	5.3	6											
						6.2	0.1	277	18.8	18.8	8.1	8.1	33.6	33.6	102.8	102.8	7.8	7.8	7.6	5											
						6.2	0.1	294	18.7	18.7	8.1	8.1	33.7	33.7	103.1	103.1	7.9	7.9	7.1	5											

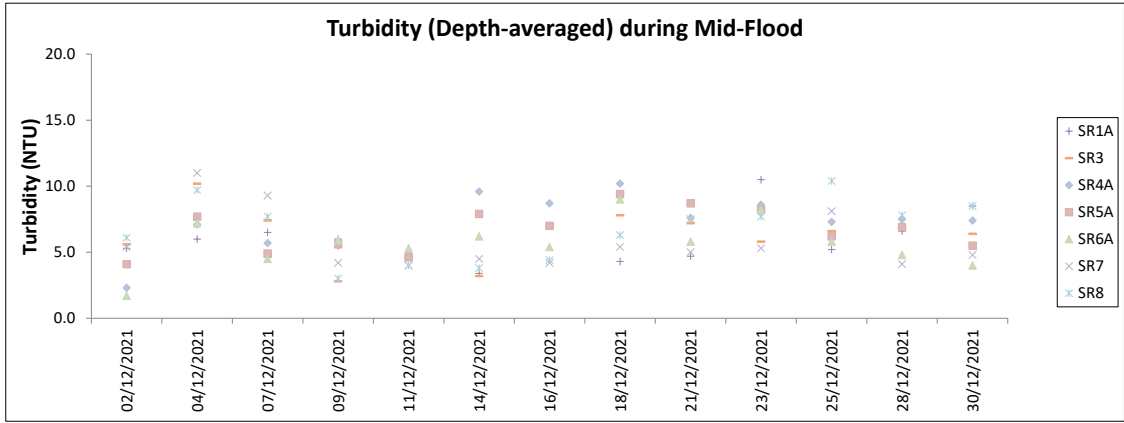
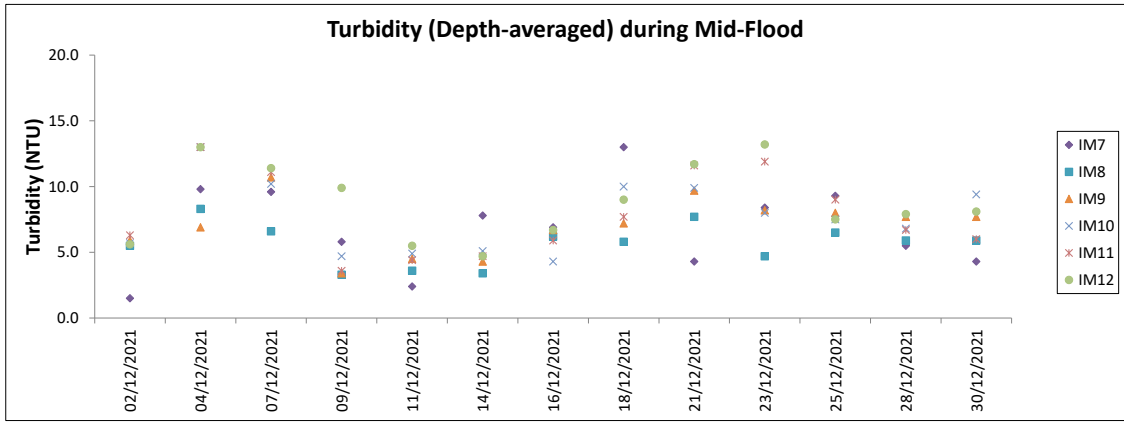
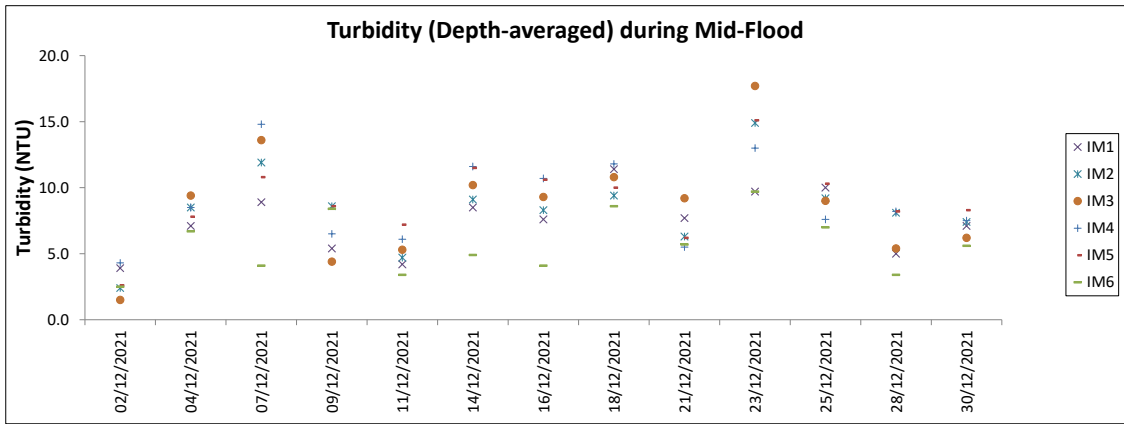
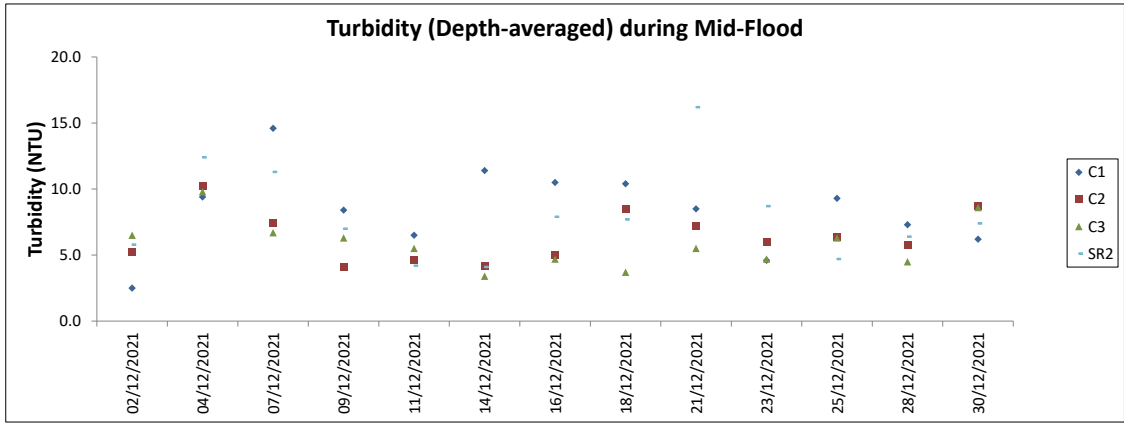
DA: Depth-Averaged
 Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
 Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined



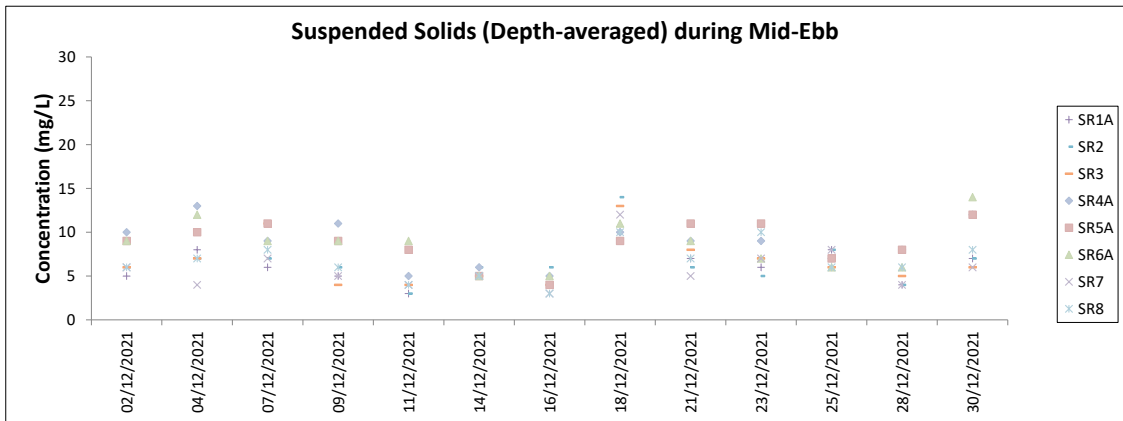
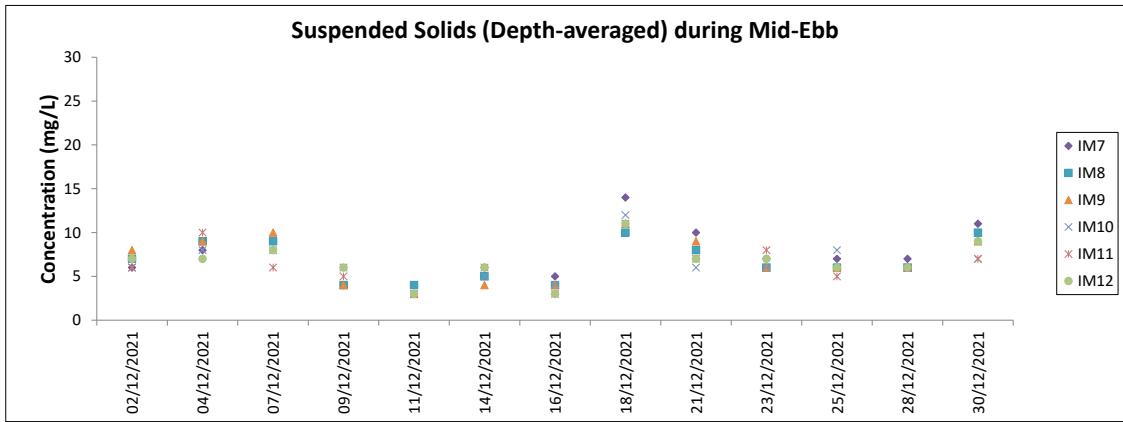
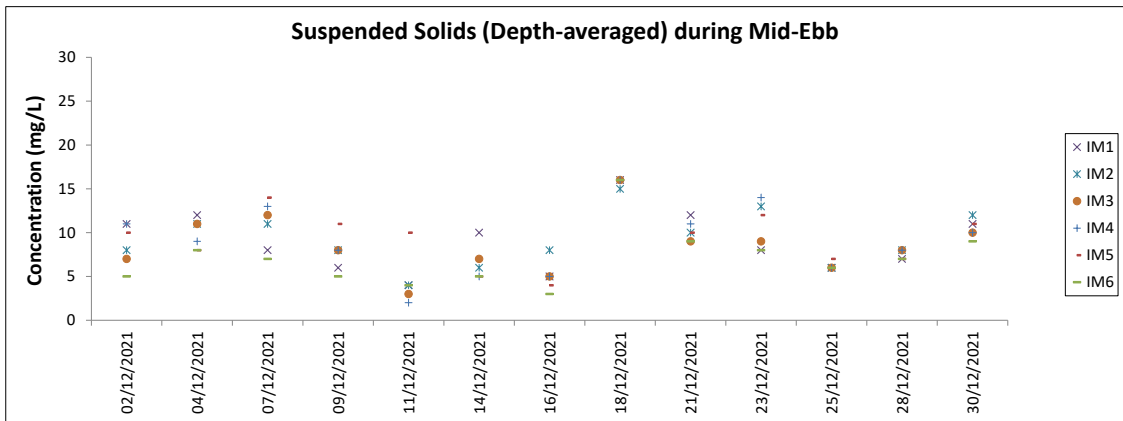
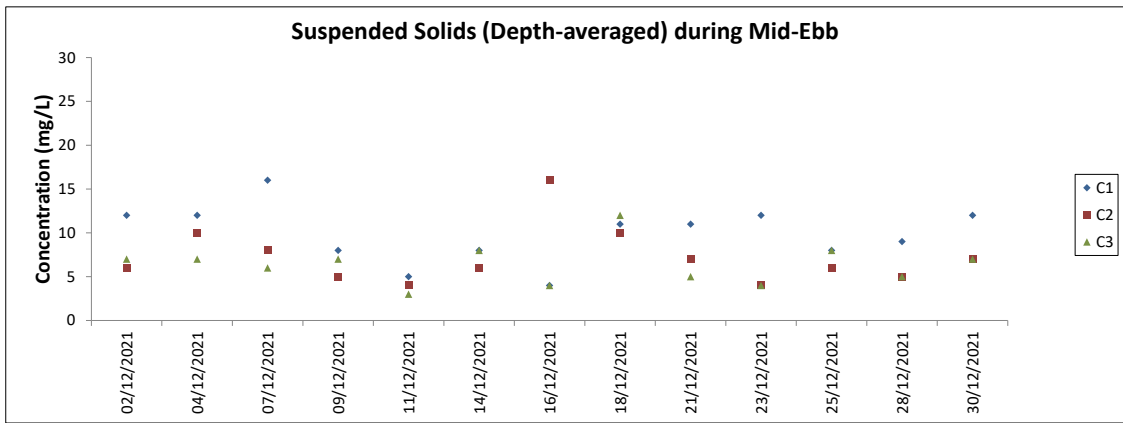




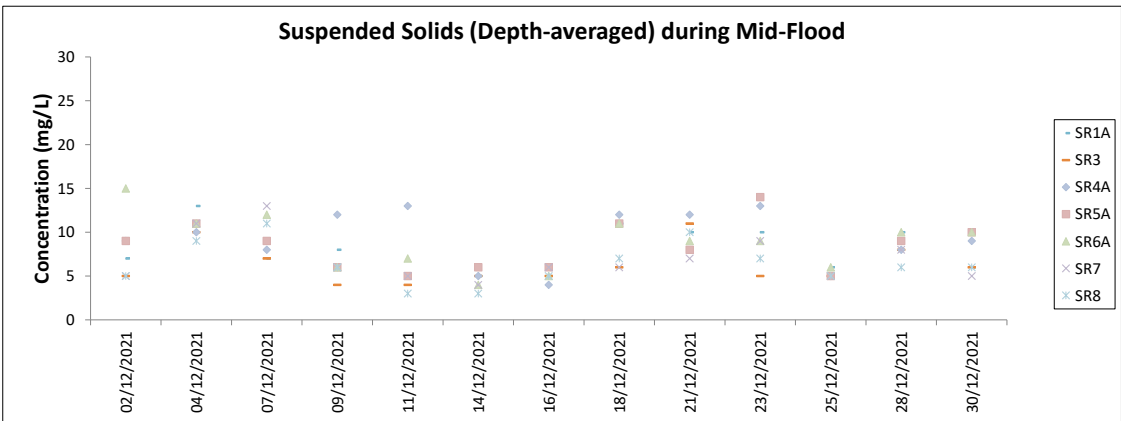
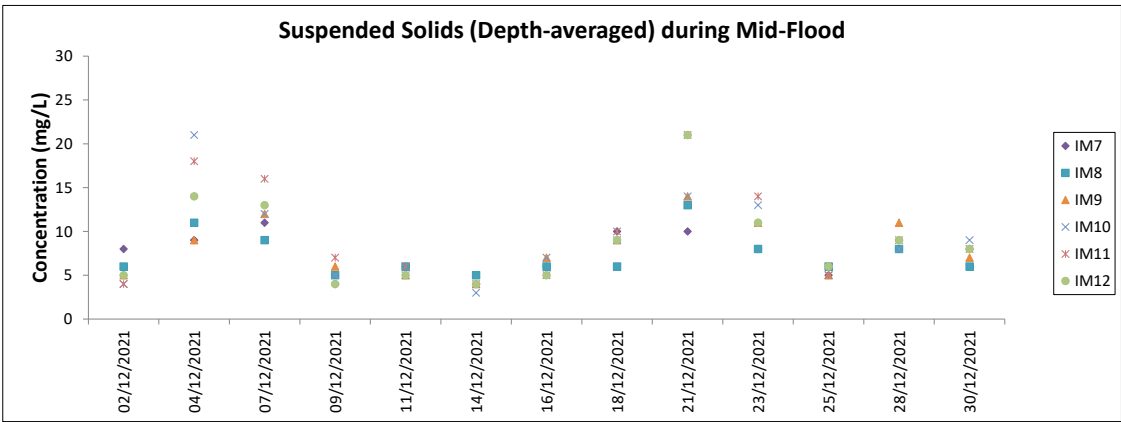
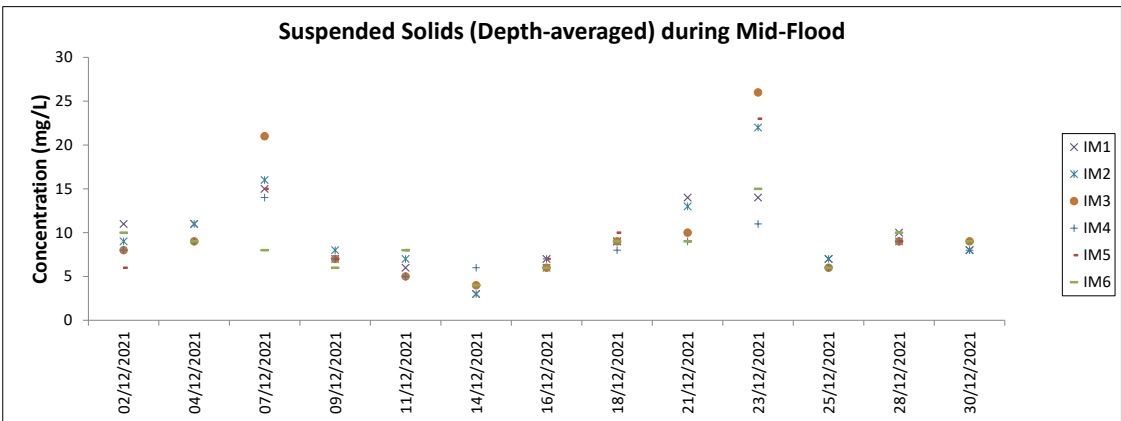
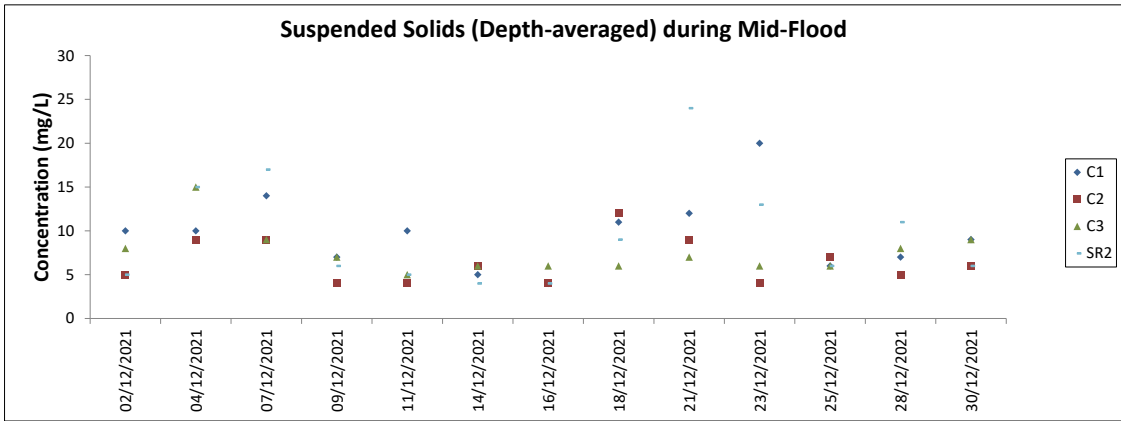
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



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.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey

Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
6-Oct-21	AW	3	1.940	AUTUMN	32166	3RS ET	P
6-Oct-21	AW	4	3.010	AUTUMN	32166	3RS ET	P
6-Oct-21	WL	3	9.820	AUTUMN	32166	3RS ET	P
6-Oct-21	WL	4	7.360	AUTUMN	32166	3RS ET	P
6-Oct-21	WL	3	7.509	AUTUMN	32166	3RS ET	S
6-Oct-21	WL	4	2.190	AUTUMN	32166	3RS ET	S
7-Oct-21	NWL	3	39.660	AUTUMN	32166	3RS ET	P
7-Oct-21	NWL	4	24.540	AUTUMN	32166	3RS ET	P
7-Oct-21	NWL	3	6.400	AUTUMN	32166	3RS ET	S
7-Oct-21	NWL	4	4.900	AUTUMN	32166	3RS ET	S
11-Oct-21	NWL	3	52.100	AUTUMN	32166	3RS ET	P
11-Oct-21	NWL	4	12.000	AUTUMN	32166	3RS ET	P
11-Oct-21	NWL	3	8.300	AUTUMN	32166	3RS ET	S
11-Oct-21	NWL	4	3.000	AUTUMN	32166	3RS ET	S
15-Oct-21	NEL	2	32.840	AUTUMN	32166	3RS ET	P
15-Oct-21	NEL	3	3.730	AUTUMN	32166	3RS ET	P
15-Oct-21	NEL	2	8.100	AUTUMN	32166	3RS ET	S
15-Oct-21	NEL	3	1.930	AUTUMN	32166	3RS ET	S
18-Oct-21	NEL	2	26.460	AUTUMN	32166	3RS ET	P
18-Oct-21	NEL	3	10.780	AUTUMN	32166	3RS ET	P
18-Oct-21	NEL	2	6.840	AUTUMN	32166	3RS ET	S
18-Oct-21	NEL	3	3.220	AUTUMN	32166	3RS ET	S
19-Oct-21	AW	2	1.870	AUTUMN	32166	3RS ET	P
19-Oct-21	AW	3	2.940	AUTUMN	32166	3RS ET	P
19-Oct-21	WL	2	12.638	AUTUMN	32166	3RS ET	P
19-Oct-21	WL	3	5.821	AUTUMN	32166	3RS ET	P
19-Oct-21	WL	2	5.544	AUTUMN	32166	3RS ET	S
19-Oct-21	WL	3	3.723	AUTUMN	32166	3RS ET	S
20-Oct-21	SWL	3	19.450	AUTUMN	32166	3RS ET	P
20-Oct-21	SWL	4	33.040	AUTUMN	32166	3RS ET	P
20-Oct-21	SWL	5	3.800	AUTUMN	32166	3RS ET	P
20-Oct-21	SWL	3	8.320	AUTUMN	32166	3RS ET	S
20-Oct-21	SWL	4	4.890	AUTUMN	32166	3RS ET	S
20-Oct-21	SWL	5	0.900	AUTUMN	32166	3RS ET	S
27-Oct-21	SWL	2	13.470	AUTUMN	32166	3RS ET	P
27-Oct-21	SWL	3	39.770	AUTUMN	32166	3RS ET	P
27-Oct-21	SWL	2	5.020	AUTUMN	32166	3RS ET	S
27-Oct-21	SWL	3	12.150	AUTUMN	32166	3RS ET	S
2-Nov-21	NEL	2	3.500	AUTUMN	32166	3RS ET	P
2-Nov-21	NEL	3	25.180	AUTUMN	32166	3RS ET	P
2-Nov-21	NEL	4	8.390	AUTUMN	32166	3RS ET	P
2-Nov-21	NEL	2	2.700	AUTUMN	32166	3RS ET	S
2-Nov-21	NEL	3	6.030	AUTUMN	32166	3RS ET	S
2-Nov-21	NEL	4	0.900	AUTUMN	32166	3RS ET	S
3-Nov-21	AW	2	2.830	AUTUMN	32166	3RS ET	P
3-Nov-21	AW	3	1.910	AUTUMN	32166	3RS ET	P
3-Nov-21	WL	2	13.015	AUTUMN	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
3-Nov-21	WL	3	4.635	AUTUMN	32166	3RS ET	P
3-Nov-21	WL	4	2.430	AUTUMN	32166	3RS ET	P
3-Nov-21	WL	2	5.150	AUTUMN	32166	3RS ET	S
3-Nov-21	WL	3	3.530	AUTUMN	32166	3RS ET	S
3-Nov-21	WL	4	2.100	AUTUMN	32166	3RS ET	S
4-Nov-21	AW	2	4.780	AUTUMN	32166	3RS ET	P
4-Nov-21	WL	2	15.006	AUTUMN	32166	3RS ET	P
4-Nov-21	WL	4	4.543	AUTUMN	32166	3RS ET	P
4-Nov-21	WL	2	6.324	AUTUMN	32166	3RS ET	S
4-Nov-21	WL	4	2.097	AUTUMN	32166	3RS ET	S
5-Nov-21	SWL	3	48.320	AUTUMN	32166	3RS ET	P
5-Nov-21	SWL	4	6.250	AUTUMN	32166	3RS ET	P
5-Nov-21	SWL	3	15.130	AUTUMN	32166	3RS ET	S
5-Nov-21	SWL	4	1.000	AUTUMN	32166	3RS ET	S
8-Nov-21	NEL	3	15.680	AUTUMN	32166	3RS ET	P
8-Nov-21	NEL	4	21.020	AUTUMN	32166	3RS ET	P
8-Nov-21	NEL	3	5.800	AUTUMN	32166	3RS ET	S
8-Nov-21	NEL	4	4.300	AUTUMN	32166	3RS ET	S
10-Nov-21	NWL	3	47.000	AUTUMN	32166	3RS ET	P
10-Nov-21	NWL	4	16.600	AUTUMN	32166	3RS ET	P
10-Nov-21	NWL	3	11.200	AUTUMN	32166	3RS ET	S
10-Nov-21	NWL	4	1.200	AUTUMN	32166	3RS ET	S
11-Nov-21	SWL	2	45.610	AUTUMN	32166	3RS ET	P
11-Nov-21	SWL	3	8.300	AUTUMN	32166	3RS ET	P
11-Nov-21	SWL	2	15.490	AUTUMN	32166	3RS ET	S
11-Nov-21	SWL	3	0.500	AUTUMN	32166	3RS ET	S
12-Nov-21	NWL	3	53.300	AUTUMN	32166	3RS ET	P
12-Nov-21	NWL	4	10.400	AUTUMN	32166	3RS ET	P
12-Nov-21	NWL	3	9.700	AUTUMN	32166	3RS ET	S
12-Nov-21	NWL	4	1.900	AUTUMN	32166	3RS ET	S
1-Dec-21	NEL	3	6.110	WINTER	32166	3RS ET	P
1-Dec-21	NEL	4	30.730	WINTER	32166	3RS ET	P
1-Dec-21	NEL	3	2.210	WINTER	32166	3RS ET	P
1-Dec-21	NEL	4	7.450	WINTER	32166	3RS ET	S
3-Dec-21	NWL	3	49.900	WINTER	32166	3RS ET	P
3-Dec-21	NWL	4	14.000	WINTER	32166	3RS ET	P
3-Dec-21	NWL	3	8.400	WINTER	32166	3RS ET	S
3-Dec-21	NWL	4	3.100	WINTER	32166	3RS ET	S
6-Dec-21	SWL	2	3.350	WINTER	32166	3RS ET	P
6-Dec-21	SWL	3	50.190	WINTER	32166	3RS ET	P
6-Dec-21	SWL	2	0.900	WINTER	32166	3RS ET	S
6-Dec-21	SWL	3	14.960	WINTER	32166	3RS ET	S
7-Dec-21	NWL	2	7.900	WINTER	32166	3RS ET	P
7-Dec-21	NWL	3	53.100	WINTER	32166	3RS ET	P
7-Dec-21	NWL	4	2.000	WINTER	32166	3RS ET	S
7-Dec-21	NWL	3	12.300	WINTER	32166	3RS ET	P
13-Dec-21	NEL	2	1.290	WINTER	32166	3RS ET	P
13-Dec-21	NEL	3	29.980	WINTER	32166	3RS ET	P
13-Dec-21	NEL	4	5.880	WINTER	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
13-Dec-21	NEL	2	0.440	WINTER	32166	3RS ET	S
13-Dec-21	NEL	3	8.270	WINTER	32166	3RS ET	S
13-Dec-21	NEL	4	1.040	WINTER	32166	3RS ET	S
15-Dec-21	AW	2	4.940	WINTER	32166	3RS ET	P
15-Dec-21	WL	2	19.188	WINTER	32166	3RS ET	P
15-Dec-21	WL	2	10.482	WINTER	32166	3RS ET	S
16-Dec-21	SWL	2	28.760	WINTER	32166	3RS ET	P
16-Dec-21	SWL	3	26.150	WINTER	32166	3RS ET	P
16-Dec-21	SWL	2	6.185	WINTER	32166	3RS ET	S
16-Dec-21	SWL	3	8.280	WINTER	32166	3RS ET	S
17-Dec-21	AW	3	4.970	WINTER	32166	3RS ET	P
17-Dec-21	WL	3	11.890	WINTER	32166	3RS ET	P
17-Dec-21	WL	4	8.700	WINTER	32166	3RS ET	P
17-Dec-21	WL	3	6.710	WINTER	32166	3RS ET	S
17-Dec-21	WL	4	4.000	WINTER	32166	3RS ET	S

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

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
6-Oct-21	1	1049	CWD	1	WL	3	47	ON	3RS ET	22.2604	113.8535	AUTUMN	NONE	S
6-Oct-21	2	1107	CWD	3	WL	3	32	ON	3RS ET	22.2607	113.8427	AUTUMN	NONE	P
6-Oct-21	3	1137	CWD	1	WL	3	94	ON	3RS ET	22.2413	113.8391	AUTUMN	NONE	P
6-Oct-21	4	1153	CWD	13	WL	3	162	ON	3RS ET	22.2318	113.8280	AUTUMN	NONE	P
6-Oct-21	5	1220	CWD	1	WL	3	15	ON	3RS ET	22.2317	113.8341	AUTUMN	NONE	P
6-Oct-21	6	1246	CWD	8	WL	3	100	ON	3RS ET	22.2140	113.8308	AUTUMN	NONE	P
19-Oct-21	1	1023	CWD	4	WL	2	192	ON	3RS ET	22.2706	113.8447	AUTUMN	NONE	P
19-Oct-21	2	1037	CWD	2	WL	2	201	ON	3RS ET	22.2689	113.8501	AUTUMN	NONE	P
19-Oct-21	3	1054	CWD	1	WL	2	355	ON	3RS ET	22.2651	113.8587	AUTUMN	NONE	S
19-Oct-21	4	1134	CWD	3	WL	3	93	ON	3RS ET	22.2342	113.8244	AUTUMN	NONE	S
19-Oct-21	5	1159	CWD	1	WL	2	282	ON	3RS ET	22.2242	113.8232	AUTUMN	NONE	P
19-Oct-21	6	1204	CWD	1	WL	3	54	ON	3RS ET	22.2225	113.8214	AUTUMN	SHRIMP TRAWLER	P
27-Oct-21	1	1100	FP	4	SWL	3	47	ON	3RS ET	22.1431	113.9276	AUTUMN	NONE	S
27-Oct-21	2	1111	FP	3	SWL	3	398	ON	3RS ET	22.1629	113.9275	AUTUMN	NONE	P
27-Oct-21	3	1240	CWD	1	SWL	2	218	ON	3RS ET	22.2046	113.9073	AUTUMN	NONE	P
3-Nov-21	1	1102	CWD	1	WL	2	63	ON	3RS ET	22.2610	113.8531	AUTUMN	NONE	S
3-Nov-21	2	1140	CWD	2	WL	2	229	ON	3RS ET	22.2414	113.8311	AUTUMN	NONE	P
3-Nov-21	3	1248	CWD	1	WL	4	75	ON	3RS ET	22.1869	113.8395	AUTUMN	NONE	P
4-Nov-21	1	1038	CWD	3	WL	2	87	ON	3RS ET	22.2664	113.8593	AUTUMN	NONE	S
4-Nov-21	2	1101	CWD	7	WL	2	296	ON	3RS ET	22.2603	113.8428	AUTUMN	NONE	P
4-Nov-21	3	1154	CWD	6	WL	2	286	ON	3RS ET	22.2244	113.8372	AUTUMN	NONE	S
4-Nov-21	4	1224	CWD	1	WL	2	171	ON	3RS ET	22.2240	113.8236	AUTUMN	NONE	P
4-Nov-21	5	1242	CWD	5	WL	2	32	ON	3RS ET	22.2142	113.8315	AUTUMN	NONE	P
5-Nov-21	1	1306	FP	2	SWL	3	95	ON	3RS ET	22.1643	113.8970	AUTUMN	NONE	P
11-Nov-21	1	1456	CWD	7	SWL	3	375	ON	3RS ET	22.1853	113.8486	AUTUMN	NONE	P
6-Dec-21	1	1119	FP	1	SWL	3	11	ON	3RS ET	22.1765	113.9280	WINTER	NONE	P
6-Dec-21	2	1504	CWD	3	SWL	3	22	ON	3RS ET	22.1878	113.8497	WINTER	NONE	P
7-Dec-21	1	0945	CWD	1	NWL	2	N/A	OFF	3RS ET	22.3983	113.8873	WINTER	NONE	N/A
15-Dec-21	1	1043	CWD	4	WL	2	471	ON	3RS ET	22.2500	113.8357	WINTER	NONE	P
15-Dec-21	2	1112	CWD	1	WL	2	113	ON	3RS ET	22.2415	113.8315	WINTER	NONE	P
16-Dec-21	1	1333	CWD	5	SWL	2	134	ON	3RS ET	22.1885	113.8880	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
16-Dec-21	2	1448	CWD	1	SWL	2	16	ON	3RS ET	22.1989	113.8685	WINTER	NONE	P
16-Dec-21	3	1507	CWD	3	SWL	2	63	ON	3RS ET	22.1998	113.8622	WINTER	GILLNETTER	S

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

Notes:

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

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

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

A total of 376.855 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 6 on-effort sightings and total number of 17 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in December 2021 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in December 2021

$$STG = \frac{6}{376.855} \times 100 = 1.59$$

Encounter Rate by Number of Dolphins (ANI) in December 2021

$$ANI = \frac{17}{376.855} \times 100 = 4.51$$

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

A total of 1097.820 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 27 on-effort sightings and total number of 89 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)









$$STG = \frac{27}{1097.820} \times 100 = 2.46$$

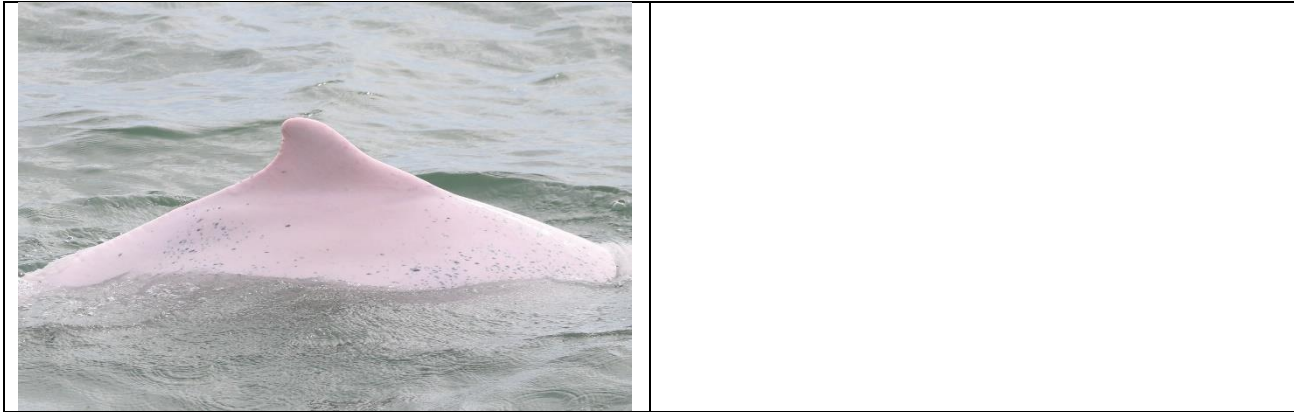
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{89}{1097.820} \times 100 = 8.11$$

CWD Small Vessel Line-transect Survey

Photo Identification

	
SLMM003_20211206_2_1	SLMM037_20211206_2_5
	
WLMM040_20211206_2_17	NLMM016_20211207_1_4
	
WLMM043_20211215_1_21	WLMM068_20211215_1_1
	
SLMM012_20211216_1_5	SLMM014_20211216_1_2



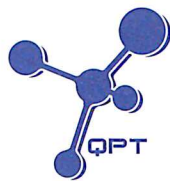
SLMM025_20211216_1_6

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
16/Dec/21	Lung Kwu Chau	08:50	14:50	6:00	2	4	3	1-7
20/Dec/21	Sha Chau	10:50	16:50	6:00	2	3-4	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-BA120147
Date of Issue : 30 December 2021
Page No. : 1 of 2

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 : 17E100747
Date of Received : 24 December 2021
Date of Calibration : 24 December 2021
Date of Next Calibration : 23 March 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
Turbidity	APHA 21e 2130B
Conductivity	APHA 21e 2510B
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

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.10	--	Satisfactory
10	9.88	-1.2	Satisfactory
20	19.79	-1.1	Satisfactory
100	100.26	0.3	Satisfactory
800	808.37	1.0	Satisfactory

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

(2) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING (MS/CM AT 25°C)	TOLERANCE (%)	RESULT
146.9	151.2	2.92	Satisfactory
1412	1348	-4.53	Satisfactory
12890	12591	-2.32	Satisfactory
58670	57734	-1.60	Satisfactory
111900	111592	-0.28	Satisfactory

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

--- 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-BA120147

Date of Issue : 30 December 2021

Page No. : 2 of 2

(3) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
7.65	7.76	0.11	Satisfactory
6.09	6.17	0.08	Satisfactory
3.20	3.28	0.08	Satisfactory
0.78	0.56	-0.22	Satisfactory

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

(4) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.04	0.04	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.13	0.12	Satisfactory

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

(5) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.93	-0.70	Satisfactory
20	19.89	-0.55	Satisfactory
30	30.20	0.67	Satisfactory

Tolerance of Salinity should be less than ± 0.0 (%)

(6) Temperature

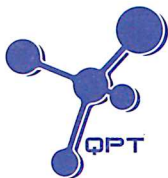
READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	9.9	-0.1	Satisfactory
20	20.0	0.0	Satisfactory
40	40.0	0.0	Satisfactory

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

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 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-BA120148
Date of Issue : 30 December 2021
Page No. : 1 of 2

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 : 21G105356
Date of Received : 24 December 2021
Date of Calibration : 24 December 2021
Date of Next Calibration : 23 March 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Test Parameter</u>	<u>Reference Method</u>
Turbidity	APHA 21e 2130B
Conductivity	APHA 21e 2510B
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

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.10	--	Satisfactory
10	9.81	-1.9	Satisfactory
20	19.82	-0.9	Satisfactory
100	100.22	0.2	Satisfactory
800	810.23	1.3	Satisfactory

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

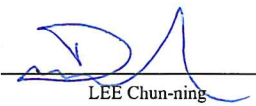
(2) Conductivity

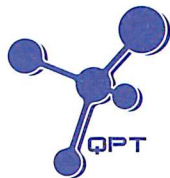
EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING (MS/CM AT 25°C)	TOLERANCE (%)	RESULT
146.9	150.3	2.31	Satisfactory
1412	1369	-3.05	Satisfactory
12890	12488	-3.12	Satisfactory
58670	57746	-1.57	Satisfactory
111900	111426	-0.42	Satisfactory

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

--- 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-BA120148
Date of Issue : 30 December 2021
Page No. : 2 of 2

(3) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
7.65	7.80	0.15	Satisfactory
6.09	6.20	0.11	Satisfactory
3.20	3.33	0.13	Satisfactory
0.78	0.56	-0.22	Satisfactory

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

(4) pH value

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)

(5) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.93	-0.70	Satisfactory
20	19.88	-0.60	Satisfactory
30	30.19	0.63	Satisfactory

Tolerance of Salinity should be less than ± 0.0 (%)

(6) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	9.9	-0.1	Satisfactory
20	20.0	0.0	Satisfactory
40	40.0	0.0	Satisfactory

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

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 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-RS0757-21	Valid from 6 Oct 2021 to 2 Apr 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
	Construction Noise Permit (General Works)	Works area of 3301 Works area of 3301 (Cable ducting works) (Special Case)	GW-RS0631-21 GW-RS0744-21	Valid from 22 Aug 2021 to 21 Feb 2022 Valid from 2 Oct 2021 to 29 Mar 2022
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
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541-2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0842-21	Valid from 10 Nov 2021 to 8 May 2022
			GW-RS0501-21	Valid from 7 July 2021 to 6 Jan 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-RS0803-21	Valid from 29 Oct 2021 to 26 Apr 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-RS0562-21	Valid from 6 Aug 2021 to 5 Feb 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
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-RS0655-21	Valid from 2 Sep 2021 to 28 Feb 2022
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
	Bill Account for disposal	Works area of 3310	A/C 7040969 RW02317	Approval granted from EPD on 8 Jul 2021 Re-application submitted on 10 Dec 2021
	Construction Noise Permit (General Works)	Works area of 3310	GW-RS0902-21 GW-RS1038-21	Superseded by GW-RS1038-21 Valid from 28 Dec 2021 to 27 Jun 2022
3402	Notification of Construction Work under APCO	Works area of 3402	464622	Receipt acknowledged by EPD on 18 Feb 2021
	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-RS0653-21	Valid from 4 Sep 2021 to 28 Feb 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
	Construction Noise Permit (General Works)	Works area of 3405 Works area of 3405	GW-RS0807-21 GW-RS0966-21	Superseded by GW-RS0966-21 Valid from 13 Dec 2021 to 12 Jun 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
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-RS0818-21	Valid from 29 Oct 2021 to 31 Mar 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-RS0886-21	Superseded by GW-RS0979-21 on 19 Dec 2021
			GW-RS0979-21	Valid from 19 Dec 2021 to 31 May 2022
		Works area of 3508	GW-RS0778-21	Valid from 15 Oct 2021 to 12 Apr 2022
		Works area of 3508 (Area 10)	GW-RS0493-21	Valid from 27 Jun 2021 to 24 Dec 2021
Works area of 3508 (Special Case)		GW-RS0963-21	Valid from 17 Dec 2021 to 27 May 2022	
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		

Contract No.	Description	Location	Permit/ Reference No.	Status
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-RS0650-21	Valid from 1 Oct 2021 to 1 Mar 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-RS0748-21	Valid from 6 Oct 2021 to 6 Mar 2022
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
		3723A	WPN 5218-951-T3920-01	Completion of Registration on 9 Feb 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	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-RS0697-21	Valid from 16 Sep 2021 to 13 Mar 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	430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
			451991	Receipt acknowledged by EPD on 18 Dec 2019
		Stockpiling area of 3801	450940	Receipt acknowledged by EPD on 13 Nov 2019
	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-RS0634-21	Valid from 27 Aug 2021 to 26 Feb 2022
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
		Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3802 (Existing Airport)	WPN 5218-951-G2945-01	Completion of Registration on 29 Sep 2020
	Discharge License under WPCO	Works area of 3802	WT00037032-2020	Valid from 25 May 2021 to 31 May 2026
		Works area of 3802	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-RS0808-21	Superseded by GW-RS0959-21
			GW-RS0959-21	Valid from 13 Dec 2021 to 12 Jun 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
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024 Varied on 29 Nov 2021
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Landfill disposal of waste concrete from batching plant	Works area of 3901A	EP195/01/18	Valid from 5 May 2021 to 2 Feb 2022
	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-RS0597-21	Valid from 7 Aug 2021 to 4 Feb 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 Alteration) Regulations	Works area of 3901B	EP/RS/0000438 488	Approval granted on 26 Jun 2020
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024 Final VSP License issued by EPD on 30 Nov 2021
	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-RS0702-21	Valid from 16 Sep 2021 to 13 Mar 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	0
	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	2	0	0
From 28 December 2015 to end of the reporting period	47	2	2